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Summary Report

3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years

S.no	Academic Year	No of journals
1	2018-19	69
2	2017-18	55
3	2016-17	45
4	2015-16	13
5	2014-15	08
Total		190

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3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years (8)

S.No	Title of paper	Name of the author/s	Dept. of the teacher	Name of journal	ISBN/ISSN number	Link of the recognition in UGC enlistment of the Journal
1	Identifier Model for Ranking Fraud Recognition System	Mr.Pampati Nagaraju Mr.Samudrala Venu Gopal	CSE	IJERCSE	2394-2320	https://www.technoarete.org/common_abstract/pdf/IJERCSE/v5/i1/Ext_14756.pdf
2	Identifier Model for Ranking Fraud Recognition System	Mr.Pampati Nagaraju Mr.Samudrala Venu Gopal	CSE	IJERCSE	2394-2320	https://www.technoarete.org/common_abstract/pdf/IJERCSE/v5/i1/Ext_14756.pdf
3	Administration of Agricultural Devices Using IoT: A Review	Ms.K.Jaya Shree Mr.N.Devender	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06049.pdf
4	Authentication Mechanism for Relational Data	Mr.Ashish Ladda	CSE	JETIR	2348-6848	https://journals.pen2print.org/index.php/ijr/article/view/3565
5	Mining With Big Data	Mr.Fasi Ahmed Parvez	CSE	IJTRE	2347 - 4718	http://www.ijtre.com/images/scripts/2016040209.pdf
6	Energy Senesitive Cluster level Security Selection Scheme for MANET	Dr.R.Mohan Das	ECE	IJWPS	0929-6261	https://link.springer.com/article/10.1007/s11277-019-06131-5
7	Status of Women in Manjukapur's Home	Mr.D.Rayappa	H&S	JETIR	2349-5162	http://www.jetir.org/view.php?paper=JETIR1901324
8	Mission FDI for the Indian retail sector in 21st century-A analysis of SWOC	Dr.Naresh Guduru	MBA	PSIMP	978-81-939248-9-1	http://jreas.com/papers/paper-1.pdf
9	A Review on Efficient Approaches to Detect	Mr.T.Somashekar Dr.A.Arun Kumar	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06056.pdf

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	and Eliminate Data Redundancy in Large Volume of Data using Anomaly detection					
10	A Review on Emerging Virtualized Environment DOCKER	Dr.Kande Srinivas Mr.P.Nagaraju	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06037.pdf
11	A Review: Map Reduce Frame Work for Cloud Computing	Mr.Ashish Ladda	CSE	IJET	2227-524X	https://www.sciencepubco.com/index.php/ijet/article/view/20224
12	A Secured Cryptographic Technique for Protecting Online data in the Cloud	Mr.Ashish Ladda	CSE	IJERCSE	394-2320	https://www.technoarete.org/common_abstract/pdf/IJERCSE/v5/i2/Ext_29657.pdf
13	Anonymous and Traceable Group Data Sharing in Cloud Computing	Mr.Boga Jayaram Mr.Mysa Kalyana chakarvarthy	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06048.pdf
14	Avoidance of Fire Accidents on Running Buses by using IoT Smart System	Mrs.Dayyala Aparna Mr.Amaganti Niharika reddy Mrs.Sadineni Swarna kumari	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06020.pdf
15	Correlated Matrix Factorization for Recommendation with Implicit Feedback	Mr.Durgunala Ranjith Mrs.Bonagiri Laxmiprasanna	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06032.pdf
16	Framework design on Bridge Monitor system with IOT Sensor	Mrs.A.Leela Sravanthi Mrs.M.Sushma, Mr.Ansa qurratual ain	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06024.pdf
17	Impulse Noise Removal in Digital Images by using	Dr. Chandra Naik	CSE	Scopus Indexed	1943-023X	http://jardcs.org/backissues/abstract.php?archiveid=3552

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	Image Fusion Technique					
18	Secure Data Sharing and Searching at the Edge of Cloud -Assisted Using Least Processing Cost First Technique in Internet of Things	Mrs.Balne Sridevi Mr.Seshabattar Phaneendra Mr.Shobanaboina Manasv	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06044.pdf
19	Secure Mining of Association Rules In Equally Distributed Databases	Mr.Rajesh.Perugu Mr.RamaKanth.Komati	CSE	JETIR	2349-5162	http://www.jetir.org/papers/JETIRAR06053.pdf
20	Local mesh patterns for medical image segmentation	Dr.N.Venu Mrs Asiya sulthana	ECE	APJHS	2349-0659	https://www.researchgate.net/publication/330283623_Local_mesh_patterns_for_medical_image_segmentation
21	Local Maximum Edge Binary Patterns for Medical Image Segmentation	Dr.N.Venu,Mrs Asiya sulthana	ECE	IJEAT	2395-1303	http://oaji.net/articles/2017/1992-1522324126.pdf
22	Design of Bi-directional power flow controller for vehicle to grid applications	Dr.N.Veda kumar	EEE	Design of Bi-directional power flow controller for vehicle to grid applications	2457-0362	http://www.ijarst.in/downloads.php?vol=Volume-8&issue=ISSUE-6
23	Analysis of Aspect Ratio Effects of Left Heated 2D Cavity Using Energy Streamlines and Field Synergy Principle	Dr.V.Narayana	H&S	IIETA	2285-5750	http://www.iieta.org/journals/mmep/paper/10.18280/mmep.060316
24	Analysis of Fielf Synergy in Bottom Heated Lid Driven Cubical Cavity	Dr.V.Narayana	H&S	ICCHMT		https://doi.org/10.1051/e3sconf/201912807007
25	Analysis of vortical structures in a differentially heated lid	Dr.V.Narayana	H&S	IIETA	2285-5750	https://www.researchgate.net/publication/326183252_

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	driven cubical cavity					
26	Patriarchy In Manju Kapur's 'Difficult Daughters	D.Rayappa	H&S	IJELLH	2321-7065	https://ijellh.com/OJS/index.php/OJS/article/view/5645
27	The Essential of English Language learning context for Engineering graduates	D.Rayappa	H&S	IJESM	2456 -1304	http://ijsem.org/abstract.php?id=12149&issue=Issue2
28	Role of accounting in Business enterprises-A Study of SME	Dr.Naresh Guduru	MBA	IJR	2277-5684	http://jems.net.in/wp-content/uploads/2019/01/Role-of-Accounting-in-Business-Enterprises-a-study-of-SMEs-Small-and-Medium-Enterprises-1.pdf
29	Essential And Proposal of Foreign Direct Investment In Developing Country - Study On India	Dr.Naresh Guduru	MBA	ICTEST	2349-5138	https://www.academia.edu/38446268/ESSENTIAL_AND_PROPOSAL_OF_FOREIGN_DIRECT_INVESTMENT_IN_DEVELOPING_COUNTRY.pdf
30	Design and analysis of axial flow compressor blade using different aspect ratios with different materials.	Dr.V.S.Hariharan	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_49683.pdf
31	Efficient automation of enhanced process of nitrogen generation plant using psa principle by using plc & scada	Dr.V.S.Hariharan	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_52890.pdf
32	Optimization of Electrical Discharge Machining Of Titanium Alloy (Ti-6AI-4V) Using Taguchi Dear method.	Dr.V.Vikram Reddy	ME	SAE INTERNATIONAL	2018-28-0032	https://www.sae.org/publications/technical-papers/content/2018-28-0032/
33	Application of TOPSIS	Dr.V.Vikram	ME	SAE	2018-28-0033	https://www.sae.org/publications/techn

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	with Taguchi Method with Multi-Attribute Optimization of Machining Parameters in EDM	Reddy		INTERNATIONAL		ical-papers/content/2018-28-0033/
34	Fabrication and Experimental Analysis of Epoxy-Glass Fibre Composite Leaf Spring	Dr.V.Vikram Reddy	ME	SAE INTERNATIONAL	2017-28-1985	https://www.sae.org/publications/technical-papers/content/2017-28-1985/
35	Apply of Hydro Forming For Futuristic Manufacturing	Mr.S.Phaneendra	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_05683.pdf
36	Foreign Direct Investment: It‟s Impact on Developing Countries Economy - A Study of India	Mr.S.Phaneendra	ME	IJERECE	2394-6849	http://ijerece.com/abstract.php?id=12088
37	Efficient automation of enhanced process of nitrogen generation plant using psa principle by using plc & scada	Mr.T.SitaRam Babu	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_52890.pdf
38	Mechanical Characterization of Fibre Reinforced Glass Epoxy Hybrid Composite	Mr.Naveen.A	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_81426.pdf
39	Design and analysis of axial flow compressor blade using different aspect ratios with different materials.	Dr.V.S.Hariharan	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_49683.pdf

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40	Efficient automation of enhanced process of nitrogen generation plant using psa principle by using plc & scada	Dr.V.S.Hariharan	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_52890.pdf
41	Optimization of Electrical Discharge Machining of Titanium Alloy (Ti-6AI-4V) Using Taguchi Dear method.	Dr.V.Vikram Reddy	ME	SAE INTERNATIONAL	2018-28-0032	https://www.sae.org/publications/technical-papers/content/2018-28-0032/
42	Application of TOPSIS with Taguchi Method with Multi-Attribute Optimization of Machining Parameters in EDM	Dr.V.Vikram Reddy	ME	SAE INTERNATIONAL	2018-28-0033	https://www.sae.org/publications/technical-papers/content/2018-28-0033/
43	Fabrication and Experimental Analysis of Epoxy-Glass Fibre Composite Leaf Spring	Dr.V.Vikram Reddy	ME	SAE INTERNATIONAL	2017-28-1985	https://www.sae.org/publications/technical-papers/content/2017-28-1985/
44	Apply of Hydro Forming For Futuristic Manufacturing	Mr.S.Phaneendra	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_05683.pdf
45	Foreign Direct Investment: It‟s Impact on Developing Countries Economy - A Study of India	Mr.S.Phaneendra	ME	IJERECE	2394-6849	http://ijerece.com/abstract.php?id=12088
46	Efficient automation of enhanced process of	Mr.T.SitaRam Babu	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_52890.

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	nitrogen generation plant using psa principle by using plc & scada					pdf
47	Mechanical Characterization of Fibre Reinforced Glass Epoxy Hybrid Composite	Mr.Naveen.A	ME	IJERMCE	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_81426.pdf
48	Choice based credit system a option in education system	Dr.Naresh Guduru	MBA	CBCS	978-93-85132-22-3	https://www.academia.edu/36328642/FDI_IMPACT_IFERP_Ext_14273
49	Matrix converter based multi-phase power conversion	Mr.S.Sridhar	EEE	IJARST	2457-0362	http://www.ijarst.in/downloads.php?vol=Volume-8&issue=ISSUE-6
50	Simulation of switched capacitor inverter topology with boost facility	Dr.Sarvanan	EEE	IJRTE	2277-3878	https://www.ijrte.org/wp-content/uploads/papers/v8i3/B2363078219.pdf
51	An Efficient Kalman Noise Canceller for Cardiac Signal Analysis in Modern Telecardiology Systems"	Ms.Asiya Sulthana ,Md Zia Ur Rahman,	ECE	IEEE	2169-3536	https://ieeexplore.ieee.org/document/8386745
52	Adaptive Artifact Elimination in Telecardiology Systems using Leaky LMS Variants	Ms.Asiya Sulthana ,Md Zia Ur Rahman,	ECE	IJITEE	2278-3075	https://www.ijitee.org/wp-content/uploads/papers/v8i8/H6629068819.pdf
53	Adaptive Artifact cancellation from cardiac signals in health care systems using a zoned adaptive algorithm'	Ms.Asiya Sulthana ,Md Zia Ur Rahman,	ECE	IJEAT	2249-8958	https://www.ijeat.org/wp-content/uploads/papers/v8i5/E7064068519.pdf
54	Design of power and delay efficient multiplier using 15-4 comparators	Mr. P.Kiran Kumar	ECE	IJR	2236-6124	https://internationaljournalofresearch.com/?s=Design+of+power+and+delay+efficient+multiplier+using+15-

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						4+comparators
55	Design and analysis of inexact floating point adders	Mr. P.Kiran Kumar	ECE	IJR	2236-6124	http://ijrpublisher.com/VOLUME-8-ISSUE-4-APRIL-2019-1/
56	Design of reversible 32 bit BCD add subtract unit using parellel pipelined method	E.Padmaja	ECE	IJR	2236-6124	http://ijrpublisher.com/VOLUME-8-ISSUE-4-APRIL-2019-1/
57	Evaluation Of Ultimate Tensile Strength For Sisal Glass Fibre Reinforced Polymer Composite	Dr. Naresh Kumar Doneti	ME	IJARST	2457-0362	http://www.ijarst.com/Vol 08_Issue06_published.html
58	Performance And Emission Characteristics Of Different Bio Fuels In A Hcci Engine	Dr.S. Mohanamurugan	ME	IJARST	2457-0362	http://www.ijarst.com/Vol 08_Issue06_published.html
59	Super Capacitor Energy Storage System Wind Turbines DFIG withConstant PowerControl	Mr.M Karthik	EEE	International Journal of Management, Technology And Engineering	2249-7455	https://app.box.com/s/41jmku7q6tio4xy22onfstvnvb2b2l3b
60	Multiterminal HVDC Power Transmission Systemsusing VSC	Mr.R.Ranadheer Reddy	EEE	International Journal of Management, Technology And Engineering	2249-7455	https://app.box.com/s/n8srcve9o6n26d7j47q6l74dg9ixx72w
61	Data Encoding Techniques for Reducing Energy Consumption in Network-On-Chip Consumption in Network-On-Chip	Ms.G.Manasa,. A.Mounika	ECE	IJERECE	2394-6849	https://www.technoarete.org/common_abstract/pdf/IJERECE/v5/i2/Ext_04853.pdf
62	Energy Efficient Handling Of Big Data In	Mr.M.Devsingh,Mr V.karthik Kumar	ECE	IJERECE	2394-6849	https://www.technoarete.org/common_abstract/pdf/IJERECE/v5/i2/Ext_85914.p

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	Embedded, Wireless Sensor NetworksConsumption in Network-On-Chip					df
63	Foreign direct investment governance in developing countries Economy –A Study of India	Dr.Naresh Guduru	MBA	IJERECE	2394-6849	https://www.academia.edu/36328642/FDI_IMPACT_IFERP_Ext_14273
64	Study On The Seismic Response Of A Steel Building With Viscose Fluid Dampers- Chevron Configuration	Dr. Palanisamy M	CE	IRJET	2395-0072	https://www.irjet.net/archives/V5/i5/IRJET-V5I5568.pdf
65	Earthquake Resistant Low-Rise Open Ground Storey Framed Building By Pushover Analysis	Mr.Satish M	CE	IFERP	2456-1290	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_24718.pdf
66	Scaling Of Wall Shear Stresses In Emergent, Sparse And Rigid Vegetative Open Channel Flows With Rough Bed Interior Of The Vegetation Patch	Mr.A.Ashok	CE	IFERP	2348-6848	https://www.technoarete.org/common_abstract/pdf/IJERMCE/v5/i2/Ext_68302.pdf
67	Experiment Study of Partial Replacement With Fly Ash And Fine Aggregate With Waste Foundry Sand Foe M25 Grade Concrete	Mr.Nandeesh.M	CE	IRJET	2395-0056	https://www.irjet.net/archives/V5/i8/IRJET-V5I8109.pdf
68	Experiment Study Of Partial Replacement With Fly Ash And Fine	Mr.Nandeesh.M	CE	IRJET	2395-0056	https://www.irjet.net/archives/V5/i8/IRJET-V5I8187.pdf

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	Aggregate With Waste Foundry Sand Foe M20 Grade Concrete					
69	Experimental Study On The Behavior Of Steel Fiber Reinforced Concrete	Mr.E.Balakrishna	CE	IRJET	2395-0056	https://www.irjet.net/archives/V4/i10/IRJET-V4I10298.pdf
70	Enabling Cloud Storage Auditing With Verifiable Outsourcing of Key Updates	Mrs.D.Aparna, Ms.K.Jaya Shree	CSE	IJRACSE	2454-423X	http://www.ijracse.com/olvolume2issue11/DAparna-KJayaShree-3.pdf
71	Effective adaptive noise cancellation techniques in an IOT Enabled Telecardiology System	Mrs.Asiya Sulthana	ECE	IJET	7 (2.17) (2018) 74-78	https://www.sciencepubco.com/index.php/ijet/article/view/11562
72	Artificat Elimination from Cardiac Signal using Improved Normalized Adaptiv Algorithams	Mrs.Asiya Sulthana	ECE	Proceedings of Intelligent Sensor Systems	34616-34630	https://www.ijitee.org/wp-content/uploads/papers/v8i8/H6629068819.pdf
73	Mitigation, Complexity Reduction Ofdm Based Time Varying Channels	Mr.A.Sanyasi Rao	ECE	IJR	978-93-5281-523	http://ijrpublisher.com/gallery/80-october-555.pdf
74	Wireless Data Monitoring In Critical Healthcare System	Mr. V.Karthik - Kumar	ECE	IJTIR	978-93-5281-523	http://www.jetir.org/view?paper=JETIR1809463
75	Safety Helmete For Pre Information Transmission System For Unexpected Events	Mr.V.Karthik - Kumar	ECE	JETIR	2349-5162	http://www.jetir.org/view?paper=JETIR1809676
76	Multiple Motion Control System Of Robotic Car Based On Iot To Production Cloud Service	Mr.V.Karthik - Kumar	ECE	IJMTE	2349-5162	http://ijamtes.org/gallery/230.%20sept%20ijmte%20-%20kr.pdf
77	Arm7 Based Smart Car	Mr.K. Radha	ECE	IJMTE	2249-7455	http://ijamtes.org/gallery/65.%20oct%2

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	Security System	Krishna				0ijmte%20-%20kr.pdf
78	A Novel Approach Of 4*4 Vedic Multiplier Using Reversible Logic Gates	Mrs. P.Mounika Ms.Md.Rubeena	ECE	IJIEMR	2456-5083	http://www.ijiemr.org/admin-panel/papers/467_approvedpaper.pdf
79	New advancement and developments in non-convectional energy sources	Dr.C.Rajselvan	EEE	IJRCT	0975-5664	http://ijrct.org/documents/New-advancement-and-developments-in-non-convectional-energy-sources-April-2018.PDF
80	English Language Teaching for Culturally Diverse Students in Indian Schools and Colleges	S.Venugopal	H&S	IJARSE	23198346	http://www.ijarse.com/images/fullpdf/1506401933_IF366ijarse.pdf
81	Teaching English Language in a Multicultural Society	D.Rayappa	H&S	AGUIJRSSH	978 – 93 – 86171 – 72 – 6	http://data.conferenceworld.in/ICRTESM11/P662-665.pdf
82	Optimization of Multiple Performance Characteristics in Electrical Discharge Machining of Titanium Alloy Using Grey Relational Analysis	Dr.V.Vikram Reddy	ME	IJRDT	2349-3585	http://www.ijrdt.org/full_paper/23241/18/Optimization-of-Multiple-Performance-Characteristics-in-Electrical-Discharge-Machining-of-Titanium-Alloy-Using-Grey-Relational-Analysis
83	Experimental Investigation on EDM of Titanium Alloy using Taguchi Method	Dr.V.Vikram Reddy	ME	IJSRD	2321-0613	http://ijsrd.com/Article.php?manuscript=IJSRDV5I50116
84	Design and Analysis of Centrifugal Pump by using CFD	Mr.S.Phaneendra	ME	IJSRD	2321-0613	https://www.academia.edu/35593603/Design_and_Analysis_of_Centrifugal_Pump_by_using_CFD
85	Modulation Of A Conventional Diesel Engine Into A Low Compression Ratio	Dr.S. Mohanamurugan	ME	IJARST	2457-0362	http://www.ijarst.com/Vol08_Issue06_published.html

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	Diesel Engine					
86	A Fault-Tolerant Memory System for Nano Memory Applications	Mr K. Pradeep	ECE	IJERECE	2394-6849	https://www.technoarete.org/common_abstract/pdf/IJERECE/v5/i2/Ext_84652.pdf
87	Design And Implementation Of Robo Arm Control Based on Matlab With Arduino Interface	Mr.T.Rajesh	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_78096.pdf
88	Home Automation with MATLAB and ARDUINO Interface	Mr.Singam Sridhar	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_42965.pdf
89	Real-time Arduino Controller Inexpensive Active Dual Axis Solar Tracker	Mr.Singireddy Mallikarjun	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_04263.pdf
90	Remote control of home appliances via Bluetooth and Android smart phones	Ms.S.Roda Vishal	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_13796.pdf
91	Design and Control of a Two-Wheel Self Balancing Robot using the Arduino Microcontroller	Dr.S.Manikandan	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_98357.pdf
92	Ethernet Based Control Of Electrical Appliances with Arduino Uno Interface	Mr.M.Karthik Reddy	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_29375.pdf
93	Electronic Scrolling Display Using Arduino Board	Mr.R.Ranadheer Reddy	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_34752.pdf
94	Implementation of Arduino Based AC	Ms.R.Swathi	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_68234.p

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	Voltage Controller Using Single Phase Controller Techniques					df
95	Line Follower Alphabot Using Arduino Micro Controller	Mrs.M. Sreelekha	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_36407.pdf
96	Vibration Analysis Of DC Motor With ADXL335 And MATLAB	Ms.G.Divyasree	EEE	IJEREEE	2395-2717	https://www.technoarete.org/common_abstract/pdf/IJEREEE/v5/i2/Ext_89061.pdf
97	A Dual Security and Protection Mechanism in Cloud Storage	Mr.Ashish Ladda	CSE	IJETT	2231- 5381	http://www.ijettjournal.org/Special%20issue/NCEITCS-2017/NCEITCS-116.pdf
98	A Novel Keyword Search Using K-NNE Algorthim	Mr.Fasi Ahmed Parvez	CSE	IJTRE	2347 - 4718	http://www.ijtre.com/images/scripts/2016040204.pdf
99	Analysis of Words on Emotions	Mrs.A.Leela Sravanthi, Ms.K.Jaya Shree	CSE	IJRACSE	2454-423X	http://www.ijracse.com/olvolume2issue11/ALeelaSravanthi-KJayaShree-2.pdf
100	Implementation of Distributed Approach For Outlier Detection Using Nearest Neighbour	Mr.Ashish Ladda	CSE	IJTRE	2347 - 4718	http://ijtre.com/images/scripts/2016031222.pdf
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Identifier Model for Ranking Fraud Recognition System

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***Abstract* - Inside the literature works since there are some related studies, like web ranking junk e-mail recognition, recognition of internet review junk e-mail additionally to mobile application recommendation, the impracticality of recognition of ranking fraud for mobile programs remains under-investigated. For achieving the crucial void, we advise to build up a ranking fraud recognition system intended for mobile programs. We submit an all-natural vision of ranking fraud while increasing your ranking fraud recognition system intended for mobile programs. It's extended by means of other domain created particulars for ranking fraud recognition. Inside the recommended system of a ranking fraud recognition system for mobile programs, it's worth watching the whole evidence are acquired by means of modelling of programs ranking, rating and review behaviours completely through record ideas tests.**

Keywords— Ranking fraud detection, Mobile applications, Spam detection, Applications ranking, Review behaviours.

1. INTRODUCTION

Application designers has investigated various ways like marketing initiatives for promotion in the programs to get their programs rated for that possible finest level application leader boards. Within the recent occasions, instead of according to solutions of traditional marketing, shady application designers use a few in the fraud approach to boost their programs and lastly influence chart search positions across the application store. This is often typically implemented by way of usage of so-known to as human water military to boost application downloads, ratings furthermore to reviews in an exceedingly short time. Our careful observation describes that mobile programs aren't constantly rated high within leader board, however only inside a few in the leading occasions, which form various leading sessions and ranking fraud typically happens with such leading sessions. Thus, recognition of ranking fraud of mobile programs is actually to note ranking fraud within the leading sessions of mobile programs. Particularly, we advise a simple yet efficient formula to know leading sessions of every single application based on its historic ranking records. Using the research into programs ranking conduct, we uncover that fraudulent programs regularly contain various ranking designs in most the key session when in comparison on track programs hence we distinguish a few in the fraud evidences from programs historic ranking records, creating works to obtain these ranking basis evidences of fraud. However, ranking based evidences are influenced by way of application developer status plus a handful of in the approved marketing campaigns thus, it is not enough to utilize ranking based evidences. Within our work we advise an exciting-natural vision of ranking fraud while growing your ranking fraud recognition system meant for mobile programs. Particularly we first suggest to exactly locating ranking fraud by way of mining active periods, particularly leading sessions, of mobile programs which leading sessions are leveraged for recognition of local anomaly instead of global anomaly of application search positions.

2. SYSTEM ARCHITECTURE

While requirement for preventing ranking fraud was extensively recognized, there's restricted understanding and concentrate in this area. Inside the recommended system of ranking fraud recognition system for mobile programs, it's worth watching the whole evidences are acquired by means of modelling of programs ranking, rating and review behaviours completely through record ideas tests. Recommended method is efficient and extended by means of other domain created particulars for ranking fraud recognition. Ranking fraud exists in leading sessions plus a method was ship to mining leading

Administration of Agricultural Devices Using IoT: A Review

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Abstract:
IOT technology plays a vital role in the field of development of agricultural. In India about 70% of the people depend on agricultural. The issues concerning agriculture have been always hindering the development of the country. To bring out solution to this problem is that smart agriculture by modernizing the current traditional methods of agriculture. So hence here we are applying the automation on IOT technology to smart agricultural.

Keyword: IoT technology, agricultural, ZigBee modules.

1. INTRODUCTION:

The traditional agriculture mainly relies on natural resources and low labor costs. As there enormous growth in technologies, farming has become more popular and significant in today's world, so we use different tools and techniques that are available for development of farming. According to the United Nation Food and Agriculture Organization (UNFAO), world will need to produce 70% more food in 2050 than it did in 2006[3]. To achieve this, the farmers and agricultural companies are turning to the Internet of Things for analytics and greater production capabilities. Internet of Things (IoT) can play versatile role in increasing of productivity, and obtaining huge global market, idea about recent trends of crops. IoT is a network of interconnected devices which can transfer the data efficiently and decreasing human contribution.

Fig1: using IoT in various field

2. LITERATURE SURVEY:

The more recent situation of decreasing water tables, drying up of rivers and tanks, unpredictable environment present an pressing want of proper utilization of water. To manage up with this use of temperature and moisture sensor at appropriate places for tracking of plants is applied in. [1] after the studies in the agricultural area, researchers determined that the yield of agriculture is decreasing daily. But, use of technology in the discipline of agriculture performs crucial position in growing the manufacturing in addition to in decreasing the more man energy efforts. Some of the studies attempts are finished for betterment of farmers which gives the structures that use technology useful for growing the agricultural yield. [2]In our country many villages suffer from power shortage and they are given power supply at odd times of the day. This is a major problem for the farmers to go the farm and to provide water to the crop at the unfavorable times which is also dangerous to the farmer. Thus, there is a necessity for the automatic functioning of motor and protecting it from natural calamities. [3]

- Lack of proper land reform measures.
- Lack of credit facilities.
- Lack of fertilizer.
- Soil erosion.
- Very high dependency on monsoons.
- Inadequate irrigation facilities.

3. The Concept of using IoT:

Our modest attempt is to provide flexible working environment on digitalizing to the farming community which was exposed to a lot of natural calamities and digital deprive. This one stock solution provides.

- Protection to electrical appliances against storms and thunders.

International Journal of Research

An Identity Based Encryption (IBE) Technique for Secured Patient Healthcare Mobile Monitoring in Cloud Computing

Devender Nayini, Ashish Iadda

Abstract

Cloud Computing has appeared as one of the trends in the latest epoch of computing and storage. This hoist has led the developers and programmers to embrace this technology in their products. Ample spread usage of mobile devices like mobile phones, tablets etc has given this growth a heavy boost. The cloud server respects the privacy of a patient and keeps it secured by protecting the medical history of the patient. This paper addresses the design of a cloud assisted privacy preserving mobile health monitoring system to protect the privacy of the involved parties and their data. The main objective of the proposed system is preserving the privacy of the information ensuring that this information cannot be misused. The patient's report will reach the doctor in encrypted format, while a master key helps to deliver the report to the doctor in decrypted format. Then the doctor's prescription will reach the patient in encrypted format by using the Outsourcing Decryption Technique while a master key helps to deliver the prescription to the patient in decrypted format. Finally, our security and performance analysis demonstrates the effectiveness of our proposed design.

Keywords: Patient Healthcare Monitoring; Decryption; Cloud Computing; m Health

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MINING WITH BIG DATA

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Abstract: Big knowledge issues large-volume, complex, growing knowledge sets with multiple, autonomous sources. With the quick development of networking, knowledge storage, and therefore the knowledge assortment capability, massive knowledge is currently speedily increasing altogether science and engineering domains, as well as physical, biological and medical specialty sciences. This text presents a HACE theorem that characterizes the options of the large knowledge revolution, and proposes an enormous processing model, from the information mining perspective. This data-driven model involves demand-driven aggregation of data sources, mining and analysis, user interest modeling, and security and privacy concerns. we tend to analyze the difficult problems within the data-driven model and additionally within the massive knowledge revolution.

Keywords: Big data, Data mining, Hace theorem, 3V's, Privacy

I. INTRODUCTION

The term 'Big knowledge' appeared for initial time in 1998 during a semiconducting material Graphics (SGI) slide deck by John Mashey with the title of "Big Data and therefore the Next Wave of InfraStress". massive data processing was terribly relevant from the start, because the initial book mentioning 'Big Data' may be a data processing book that appeared conjointly in 1998 by Weiss and Indrukya . However, the primary tutorial paper with the words 'Big Data' within the title appeared a small amount later in 2000 during a paper by Diebold .The origin of the term 'Big Data' is thanks to the actual fact that we have a tendency to square measure making an enormous quantity of knowledge a day. Usama Fayyad in his invited speak at the KDD Big Mine‟ 12Workshop conferred superb knowledge numbers regarding web usage, among them the following: every day Google has quite one billion queries per day, Twitter has quite 250 million tweets per day, Facebook has quite 800 million updates per day, and YouTube has quite four billion views per day. the information made these days is calculable within the order of zettabytes, and it's growing around four-hundredth each year. a brand new giant supply of knowledge goes to be generated from mobile devices and massive firms as Google, Apple, Facebook, Yahoo square measure getting down to look fastidiously to the current knowledge to seek out helpful patterns to boost user expertise. "Big data" is pervasive, and nonetheless still the notion engenders confusion. massive knowledge has been wont to convey all varieties of ideas, including: immense quantities of knowledge, social media analytics, next generation knowledge management capabilities, period of time knowledge, and far a lot of. regardless of the label, organizations square measure getting down to perceive and explore the way to method and analyze a massive array of data in new ways that. In doing therefore, a small, however growing cluster of pioneers is achieving breakthrough business outcomes. In industries throughout the globe, executives acknowledge the requirement to find out a lot of regarding the way to exploit massive knowledge. however despite what looks like unrelenting media attention, it will be arduous to seek out in-depth info on what organizations square measure very doing. So, we have a tendency to sought-after to higher perceive however organizations read massive knowledge – and to what extent they're presently mistreatment it to profit their businesses.

II. DATA MINING WITH BIG DATA

The Big knowledge is nothing however information, obtainable at heterogeneous, autonomous sources, in extreme great deal, that get updated in fractions of seconds. parenthetically, the info hold on at the server of Facebook, as most folks, daily use the Facebook; we have a tendency to transfer varied forms of info, transfer photos. All the info get hold on at the info warehouses at the server of Facebook. This knowledge is nothing however the massive knowledge, that is thus known as thanks to its quality. conjointly another example is storage of photos at Flicker. This square measure the nice time period samples of the massive knowledge. Another best example of massive knowledge would be, the readings taken from Associate in nursing electronic magnifier of the universe. Currently the term data processing, Finding for the precise helpful info or data from the collected knowledge, for future actions, is nothing however the info mining. So, conjointly, the term massive data processing could be a stop working read, with several detail info of an enormous knowledge with several info. As shown in fig 1 below

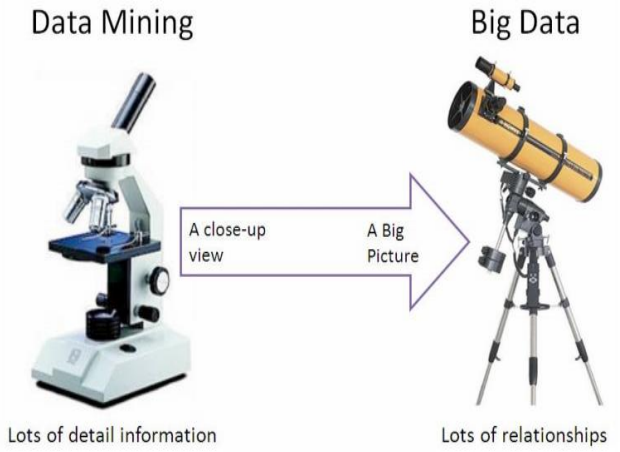

Fig1 Data mining with big data

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Energy Sensitive Cluster Level Security Selection Scheme for MANET

R. Mohandas, K. Krishnamoorthi & V. Sudha

Wireless Personal Communications **105**, 973–991(2019) | Cite this article

Abstract

Most of the current Mobile Ad hoc Network (MANET) nodes are battery powered devices with different processing and data handling capacities. The ratio of sensitive data is increasing rapidly day-by-day. Providing Security with moderate power utilization is one of the vital tasks in MANET architecture. In this paper an energy sensitive security selection

STATUS OF WOMEN IN MANJU KAPUR'S 'HOME'

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Abstract

Home, Manju Kapur's third novel is an engrossing story of family life amid the bustle and commerce of the Banwari Lal Cloth Shop. When their traditional Delhi business - selling saris - being threatened by advent of jeans and pre-stitched salwar kameezes, the whole family knows it's time for change. So begins a series of struggles - to have children, to find education, to find peace.

Key Words: education, family, empowerment, gender relationships, identity, life, marriage

In her third novel, Manju Kapur takes us through a brisk and strangely captivating account of three generations. Anupama Chowdhury says,"Home reveals a disturbing home truth that joint families can both destroy and preserve our maturity, individuality and mental progress".(Chowdhury,33) In an interview with Jai Arjun Manju Kapur says:

"Literature by women, about families, always has these larger considerations, with years of studying texts, it becomes almost second nature to look beneath the surface at social and economic forces, gender relationships and how they are played out in an arena that, in my writing happens to be the home. But then, all sort of things happening outside do affect what is happening inside the home." (Singh)

Home is about the home of Lala Banwari Lal, a patriarch who has faith in living in a joint family. He is the head of the family and runs a sari shop in Karol Bagh. He has two children Yashpal and Pyarelal, and a daughter Sunita, who is married. The novel spotlights on three female characters-Sona, (daughter- in-law of Banwari Lal), Rupa, (Sona's sister) and Nisha (Sona's little girl)- who claim their identity in their own ways. The story starts with two sisters: one is attractive and the other only plain. The beautiful elder Sona is married to the elder son of Banwari Lal while the younger one, Rupa is attached to a junior Government officer of less esteem. At the starting stage the story spins around the life of Sona and Rupa before it focuses on the whole family.

Every sister believes that the other is more fortunate and everyone has more difficulties than the other. Rupa has just a spouse and a father-in-law in the family while Sona's is a joint family. The main strain of Rupa's life is a wicked tenant who lives upstairs in their home. He declines to pay his rent on time. They have officially spent a considerable measure of cash looking into the issue to expel him. Rupa and her husband, Prem Nath stay childless couple all through the story. In any case, she is sufficiently fortunate in light of the fact that she is not subjected to bear taunts of in-laws for having no child. Like Sona, after passing two years, Sona is still not pregnant. Her mother-in-law comments her occasionally, "What can you know of a mother's feelings? All you do is enjoying life, no sorrow, only a husband to dance around you". (18) Sona performs each duty as a daughter-in-law as she is prepared from an early age to love, serving and comply with her in-laws. In the mean time, Yashpal's younger brother, Pyarelal gets married to Sushila. Their marriage is welcomed by all the family in light of the fact that it is arranged by the parents. Sushila brings a huge dowry with her including a scooter, fridge, cooler, double bed and sofa. Sona realizes what she has not understood in three years of her marriage. She feels herself inferior to Sushila, as Sona's parents did not give her dowry at the time of her marriage.

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Mission Fdi For The Indian Retail Sector In 21st Century - A Analysis Of Swot/C

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ABSTRACT

Foreign direct investment (FDI) has playing an important role in the process of LPG Liberalization. Privatization & Globalization during the past two decades. The rapid growth in FDI by multinational enterprises since the mid-eighties may be attributed to significant changes in technologies, greater liberalization of trade and investment regimes, and deregulation and privatization of markets in many countries including developing countries like India. Capital formation is an important determinant of economic growth. While domestic investments add to the capital stock in an economy, FDI plays a complementary role in overall capital formation and in filling the gap between domestic savings and investment. At present FDI investment in India as a subject of discussion holds a great relevance in current situation. Although it invites lot of arguments resisting its introduction into Indian market. In spite of many sustain. Presently we have 51 Foreign Direct Investment (FDI) within the retail trade of single whole product and to the extent of 100 per cent in cash and Carry wholesale formats. However, many shops suffer from FDI and that they are losing their customers and sales growth from FDI. "Traditional retailers are giving a strong competition to organized retailers and the decision to permit foreign retailers to open stores in the country will not affect small players in India", the government of India said. According to The Foreign Direct Investment (FDI) into India's services sector grew by 15 per cent during the April-October period of the current fiscal owing to various reforms by the government, according to the Economic Survey 2017-18 However, this paper aims to study the impact of FDI on the Indian retail sector. The paper reviews the literature related to FDI to put the light on the level of FDI allowed by Government of India to single and multi brand retailers of other countries and explores the advantages, disadvantages, opportunities and threats of allowing FDI into Indian retail business.

Keywords*: Retail Segment, Fdi in Single Brand, Foreign Policies.Fdi, Retail, SWOT Analys.*

I.INTRODUCTION TO FDI

Foreign investment was introduced in 1991 under Foreign Exchange Management Act (FEMA), driven by then finance minister Manmohan Singh. As Singh subsequently became the prime minister, this has been one of his top political problems, even in the current times. India disallowed overseas corporate bodies (OCB) to invest in India. India imposes cap on equity holding by foreign investors in various sectors, current FDI in aviation and insurance sectors is limited to a maximum of 49% an 26% respectively. Starting from a baseline of less than $1 billion in 1990, a 2012 UNCTAD survey projected India as the second most important FDI destination (after China) for transnational corporations during 2010–2012. As per the data, the sectors that attracted higher inflows were services, telecommunication, construction activities and computer software and hardware. Mauritius, Singapore, US and UK were among the leading sources of FDI. Based on UNCTAD data FDI flows were $10.4 billion, a drop of 43% from the first half of the last year.

FDI provides a win – win condition to both the countries: Host country and the home country. Both countries are directly interested in inviting FDI, because „Home" countries want to get the benefit of the huge markets opened by business expansion. „Host" countries want to take advantage by acquire technical and managerial skills and additional domestic savings and foreign exchange.

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Earthquake Resistant Low-Rise Open Ground Storey Framed Building By Pushover Analysis

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Abstract: **-- Presence of infill walls in the frames alters the behaviour of the building under lateral loads. However, it is common industry practice to ignore the stiffness of infill wall for analysis of the framed building. Engineers believe that analysis without considering infill stiffness leads to a conservative design. But this may not be always true, especially for vertically irregular buildings with discontinuous infill walls. Hence, the modeling of infill walls in the seismic analysis of framed buildings is imperative. Indian Standard IS 1893: 2002 allows analysis of open ground storey buildings without considering infill stiffness but with a multiplication factor 2.5 in compensation for the stiffness discontinuity. As per the code, the columns and beams of the open ground storey are to be designed for 2.5 times the storey shears and moments calculated under seismic loads of bare frames (i.e., without considering the infill stiffness). However, as experienced by the engineers at design offices, the multiplication factor of 2.5 is not realistic for low rise buildings. This calls for an assessment and review of the code recommended multiplication factor for low rise open ground storey buildings.**

Index Terms - Infill walls, Open ground storey, Equivalent static analysis, response spectrum analysis, pushover analysis, low rise building.

1. INTRODUCTION

Due to increasing population since the past few years car parking space for residential apartments in populated cities is a matter of major concern. Hence the trend has been to utilize the ground storey of the building itself for parking. These types of buildings having no infill masonry walls in ground storey, but infilled in all upper storeys, are called Open Ground Storey (OGS) buildings. They are also known as 'open first storey building'. The OGS framed building behaves differently as compared to a bare framed building (without any infill) or a fully infilled framed building under lateral load. A bare frame is much less stiff than a fully infilled frame; it resists the applied lateral load through frame action and shows well-distributed plastic hinges at failure.

1.1 NEED FOR THE PRESENT STUDY

As experienced by the engineers at design offices the multiplication factor of 2.5 given by IS 1893:2002, for ground storey beams and columns, is not realistic for low rise buildings. This calls for a critical assessment and review of the code recommended multiplication factor. Assessment of the multiplication factor (MF) requires accurate analysis of OGS buildings considering infill stiffness and strength. The presence of infill walls in upper storey's of OGS buildings accounts for the following issues:
Increases the lateral stiffness of the building frame. Decreases the natural period of vibration. Increases the base shear. Increases the shear forces and bending moments in the ground storey columns.

1.2 SCOPE OF THE STUDY

Open ground storey (OGS) buildings are commonly constructed in populated countries like India since they provide much needed parking space in an urban environment. Failures observed in past earthquakes show that the collapse of such buildings is predominantly due to the formation of soft-storey mechanism in the ground storey columns.

1.3 REVIEW OF LITERATURE

A state of the art literature review is carried out as part of the present study. This chapter presents a brief summary of the literature review. The literature review is divided into two parts. The first part deals with the seismic behaviour of the open ground storey buildings whereas the second part of this chapter discusses about the previous work carried out on the linear and nonlinear modelling of infill walls.

Karisiddappa (1986) and ***Rahman (1988***) examined the effect of openings and their location on the behaviour of single storey RC frames with brick infill walls.
Choubey and Sinha (1994) investigated the effect of various parameters such as separation of infill wall from frame, plastic deformation, stiffness and energy dissipation of infilled frames under cyclic loading.
Deodhar and Patel (1998) pointed out that even though the brick masonry in infilled frame are intended to be non-structural, they can have considerable influence on the lateral response of the building.
Davis and Menon (2004) concluded that the presence of masonry infill panels modifies the structural force distribution significantly in an OGS building.

A Review on Efficient Approaches to Detect and Eliminate Data Redundancy in Large Volume of Data using Anomaly detection

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Abstract : In order to finding an un-matching pattern in any dataset that does not satisfy the expected nature of the customer then Anomaly detection will these kinds of issues and Anomaly detection also finds the inconsistent data pattern, and this process is called as novelty detection, noise mining, and anomaly mining. Modern IT companies enable enterprises to detect strange events automatically in streaming data. Un-matching pattern refers error in the dataset, different pattern, duplicate data and misbehavior data. Identifying anomalies is more important in a wide range of disciplines like economic data, medical analysis, share market, insurance data and identity fraud, network malicious and programming defects. There are various types of anomalies available such as point or content anomalies, context anomalies, and collective anomalies. Some of the data are abnormal than the other entire dataset regarding meta-information is called as context anomalies. The collected data points are considered as anomalies when compared to other data in the data sheet.

Keywords: Data Mining, data preprocessing, Big data, MOMGODB, QAmodel

I. INTRODUCTION:

In general, anomaly detection can be obtained by three types of algorithms such as unsupervised, supervised and semi-supervised algorithms. These algorithms utilize labeling the trained data and compare with the test data. To separate normal and abnormal data, labeling and comparing are used. This classification of training data leads to analyze the new entry test data while streaming. Various issues to be challenged with standard anomaly detection methods due to the fields like spatial, sequential or temporal data associated with the sources from where the data are generated. In recent days anomaly detection is used mainly for prevalent Big data especially sensor data. Sensor data are recorded remotely using various sources such as electrical outlets, weblogs, water pipes, telecommunications and many other areas.

Compared with a template of large amounts of data which is input very frequently. Anomaly detection is also a kind of intrusion detection method. Digital media and its contents are increasing tremendously that creates a challenging problem for data administrators. Shaping and organizing data from various resources to the data repositories are based on the schema and structure of the data. This arrangement can be made by some set of software agents installed in the digital libraries. If the size of the data increases then it is hard to manage the entire dataset and problems occur regarding response time, availability, security and quality assurance. To improve the peculiarity mining, the dirty data (i.e. replicas, errors and unique patterns) from the repositories should be removed.

Data Mining

Data mining has become one of the most promising and progressive fields for the manipulation and extraction of data to produce useful information. Every day most of the businesses are using data mining applications to extract, manipulate, and identify valuable information from the records stored in their databases, data warehouses, and data repositories. Process optimization, human factors, shop scheduling, and quality management are some of the areas in which data mining tools are used such as decision trees, genetic algorithms, data visualization, and neural networks can be implemented with great results.

Anomaly

Identifying abnormal data points, data items, events which cannot imitate to the predictable design of a given data group. These are some of the anomalies which are created not frequently, but it is a significant threat like fraud or cyber intrusions. Anomaly detection is applied in behavioral analysis and another format of examination to aid in learning about location, detection, identification and predicting of anomalies in the large set of data. It is also called as anomaly detection or outlier detection.

1.1 Anomaly Detection

One of the most important processes used as the main process in data mining is anomaly detection. It is used to determine the kind of anomalies exists in a given dataset with the details of their creation. Fraud detection, fault detection, intrusion detection, event detection, health care monitoring kinds of domains needs anomaly detection. Mostly in sensor networks, nomaly detection is used widely. Anomalies are unexpected abnormal activities occur whereas it is detected by fetching the abnormalities of the data, data behavior, and other rare abnormal activities. Anomaly detection is most important since it destroys the quality of data and data mining process. Anomaly detection is a problem of finding errors, different patterns, duplication, and misbehavior. One of the major research problem based on applications is anomaly detection. Various non-conforming patterns, aberrations, peculiarities or exceptions in various application domains are often referred to as anomalies. From these, the duplicate records, error, misbehavior based data are treated as anomalies. Anomaly detection is mostly used in online applications such as banking, credit card fraud, insurance, and healthcare.

A Review on Emerging Virtualized Environment DOCKER

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Abstract **–** Now a days in software developing environment, virtualization is the technology is playing a vital role in virtualization of hardware infrastructure through a layer know as hypervisor which is actually deals the within the same machine, virtualization is done by isolating host operating system and other guest operating systems. To solve this problem container based technology is introduced known as Docker, which helps the developers and sys-admins to build and run distributed applications. Docker is an open platform. Docker virtualizes host operating system through Docker engine allows container to be created by the images stored in Docker hub. Docker container provides an environment for executing the application. Applications running in Docker container are isolated from the application running in other container. Docker technology that virtualizes host operating system, provided by Docker engine, a portable, light weight runtime allows containers running in a isolated manner on same machine. The application running in container has been allowed to push back to Docker hub as Docker Image. Docker hub which is a cloud based service that enables sharing of application and automating workflows. Eventually, Docker removes all dependency issues, enables applications to be quickly assembled from Docker components and eliminates the friction between development, quality assurance and production environment.

Index terms: Container, Cloud, Docker, Docker Daemon, Docker Images, Virtual Machine

I. INTRODUCTION

Docker is a cloud based open platform for building, shipping and running distributed applications. It is used run software packages called containers. Containers are isolated from each other and bundle their own applications, tools, libraries and configuration files they can communicate each other by well-defined channels all these are run through a single operating systems and or thus more low weight than virtual machines. It gives programmers, development teams and operation engineers the common tool box they need to use of the distributed and networked nature of real world applications. Docker containers wrap up a piece of software in a complete file-system which contains everything; it needs to run code, run- time, system tools and system libraries – anything you can install on the server. This guarantee that it will always run the same, regardless of the environment it is running in [1].

Docker Containers are:

i) **Low weight:** Dockers Containers running on a single machine all share the same operating system i.e. kernel. So, Dockers start instantly and make more efficient use of RAM. Images or files are constructed from layered file-systems. So, they can share common files, making disk usage and image downloads are more efficient.

ii) **Open:** Docker containers are based on open standards allowing containers to run on all major Linux and Microsoft operating systems with support of every infrastructure.

iii) **Secure:** Containers isolate and unique applications from each other and the underlying infrastructure, and also it provide an added layer of protection for the application.

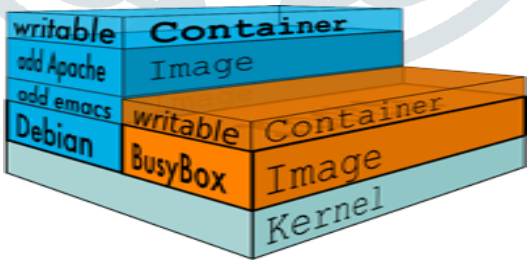

Figure. 1: Docker Container

II. LITERATURE SURVEY

Each and every virtual machine [6] includes the application, the necessary binaries, libraries and entire guest Operating systems - all of which may be 10GBs in size. Containers contain an application and all of its dependencies, but share the kernel (Operating System) with other containers. They run as an isolated or unique process in user space on the client Operating System. They are not tied to any specific infrastructure. Docker containers [1] run on any computer, on any infrastructure and in any cloud [5].

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Research paper

A Review: Map Reduce Framework for Cloud Computing

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Abstract:

In this generation of Internet, information and data are growing continuously. Even though various Internet services and applications. The amount of information is increasing rapidly. Hundred billions even trillions of web indexes exist. Such large data brings people a mass of information and more difficulty discovering useful knowledge in these huge amounts of data at the same time. Cloud computing can provide infrastructure for large data. Cloud computing has two significant characteristics of distributed computing i.e. scalability, high availability. The scalability can seamlessly extend to large-scale clusters. Availability says that cloud computing can bear node errors. Node failures will not affect the program to run correctly. Cloud computing with data mining does significant data processing through high-performance machine. Mass data storage and distributed computing provide a new method for mass data mining and become an effective solution to the distributed storage and efficient computing in data mining.

Keywords: *Data Mining, Cloud, Map Reduce Framework, HDFS (Hadoop Distributed File System), Parallel Programming, Distributed Databases*

1 Introduction:

Data Mining is the approach of accessing the exact data i.e. required data from large amount of database. Where the user can get

this information with in very short time. So many Data mining software's came into the market which can be performed on complex calculations and can be analyzed on set of data in very short time. Data mining aims at knowledge analysis, discovering frequent patterns, and sequential patterns, unknown & hidden patterns from multiple data streams. Data mining utilizes tools, procedures, algorithms and methodologies to taking out from large data. Data mining tools are used for predictive modeling, presenting information in required format such as graph or table and efficient handling of complex and relational data. Data mining allows finding information hidden in the data that is not always apparent, given that, given the gigantic volume of existing data; a large part of that volume will never be analyzed.

Cloud computing is an area or place where you can store large amount of data. In today's generation cloud computing is most merging technology where user can access the data from anywhere, any place, at any time. It also provides a most important feature to the user i.e. "As You Pay as You Get" i.e. how much the user is using the storage that much only they need to pay for it. Cloud computing deals with the resources of infrastructure for massive and complex data, software distribution for users to subscribe the software and platform for users are able to use prebuilt environment to run a new application. The main objective of cloud computing is to access resources & services needed to perform tasks efficiently. Essentially, cloud computing is a multi-user, multi-tasking, concurrently supported system. Efficient, simple and fast is its core philosophy.

Map Reduce model delegates the data-intensive computations to a cluster of remote servers, through a distributed file system, will distribute the workload, optimizing time and resources. It facilitates a parallel development pattern to simplify the implementation of applications in distributed environments. The original intention of the distributed parallel programming model was to make more efficient use of hardware and software resources to enable users to use applications or services faster and easier. In distributed parallel programming mode, complex background tasks and resource scheduling are transparent to the user.

Hadoop Distributed File System (HDFS) In the current field of cloud computing, the open source system HDFS developed by Google's GFS and Hadoop are the two popular cloud computing distributed storage systems. Most ICT vendors, including Yahoo, Intel's "cloud" plan are used HDFS data storage technology. Future developments will focus on very large data storage, data encryption and security guarantees, and continued improvements in I / O rates.

GFS (Google File System) Technology: GFS meet the needs of a large number of users, in parallel to provide services for a large number of users. Making cloud computing data storage technology with high throughput and high transmission rate characteristics.

Parallel Computing is a mechanism where two or more process can be executed concurrently on different processors at the same time. In order to handle this overall control/coordination mechanism is employed. The parallel computing will increase the performance of

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A Secured Cryptographic Technique for Protecting Online data in the Cloud

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***Abstract* - Cloud computing may be an in style space of analysis for inventors. And it's important in information sharing applications. On cloud the info being shared should be secure. The pliability and therefore the potency of the info is rely upon the protection parameter. To attain purpose we tend to outline new algorithms that is rely upon public key cryptography and outline constant size cipher text by exploitation these key we are able to decode cipher text. The opposite encrypted files except this cipher stay personal. The survey depicts some encoding schemes introduced during this information privacy for firmly and economical sharing of confidential information over a secure channel. Recently analysis concentrate on aggregation of keys of the keys in signal aggregation key that is assistance on load of network information sharing being vital practicality in cloud storage implement show to firmly, expeditiously, and flexibly share information with others.**

Keywords: Cloud storage, data sharing, key-aggregate encryption, patient-controlled encryption.

INTRODUCTION

Cloud storage is turning to be an important feature today. [1]In enterprise settings, we tend to see the increase in demand for information outsourcing that edges within the field of company information and its management. It's conjointly helpful as a core technology for various on-line technologies for individual applications. Cloud computing is thought as another to [2] ancient technology because of its higher resource-sharing and low maintenance capabilities. the most aim of cloud computing is to produce high performance energy of computing for varied field like military and analysis organization for playacting billions of computations at every second. it's conjointly utilized in client bound areas like portfolios to transfer guidance. [3]In cloud computing, the cloud service suppliers, like Amazon, area unit ready to offer varied services to users with the assistance of powerful information servers. Moving the native information management systems into cloud servers, users will make the most of high-quality services and store vital investments on their native infrastructures. However, whereas sharing information through cloud storage, users area unit at the same time privy to the info leakages within the cloud. One amongst the foremost basic services delivered by cloud service suppliers is information storage. Take into account a knowledge application. There's a corporation which allows its staffs within the same cluster or department to store and share documents or files within the cloud. Exploitation the cloud, the staffs will be absolutely discharged from the native information storage and maintenance. However, it conjointly creates a major risk to the confidentiality of these hold on documents. Specifically, the cloud servers controlled by cloud suppliers aren't absolutely believed by users whereas the documents hold on within the cloud is also s confidential, like business ideas. Identification of privacy is most significant drawback for wide development of cloud computing. While not the proof of identity privacy users aren't able to utilize the cloud services as a result of they don't need to show their real identity. To take care of information privacy, a basic plan is to encode files, so transfer the encrypted information into the cloud. During this paper, we tend to demonstrate crypto logical situations for the matter of looking out on encrypted information and supply results of security for the ensuing crypto systems. The storage within the cloud has materialized as a capable account appropriate and on-demand accesses to large amounts of data shared over the net. Business user's area unit being attentive by cloud storage because of its many edges, together with lower value, higher gracefulness, and improved resource utilization. Everyday users are sharing personal information, like photos and videos, with their friends through social network applications supported cloud. On the opposite hand, whereas profiting from the advantage of sharing information through cloud storage, users are bit by bit troubled concerning accidental information reveal

Anonymous and Traceable Group Data Sharing in Cloud Computing

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Abstract:

A new CP-ABE methodology for an information sharing system by exploit the attribute of the system preparation. The projected methodology options the subsequent achievements: 1) the key written agreement drawback may well be solve by escrow-free key supplying protocol, that is construct victimization the secure two-party computation between the key creating centre and therefore the data-storing centre, and 2) fine-grained user revocation per every attribute may well be done by proxy coding that takes advantage of the fastidious quality cluster key sharing on high of the ABE. The presentation and security analyses purpose to it the projected theme is capable to firmly manage info unfold within the data allocation system. During this paper, we tend to propose a secure multi owner knowledge sharing theme, named Mona, for dynamic teams within the cloud. By investment cluster signature and dynamic broadcast coding techniques, any cloud user will anonymously share knowledge with others. Meanwhile, the storage overhead and coding totaling price of our theme square measure autonomous with the quantity of revoked users. Additionally, we tend to analyze the security of our theme with rigorous proofs, and show the potency of our theme in experiment

Index Terms – Cloud computing, Encryption, Cipher text

I. INTRODUCTION

Cloud computing is primarily based development and use of technology ("computing"). It's a method of computing during which dynamically scalable and sometimes virtualization resources square measure provided as a service over the net. One amongst the foremost basic services offered by cloud suppliers is knowledge storage. Allow us to contemplate a sensible knowledge application. a company permits its staffs within the same cluster or department to store and share files within the cloud. However, it additionally poses a major risk to the confidentiality of these keep files. Specifically, the cloud servers managed by cloud suppliers don't seem to be absolutely trusty by users whereas the information files keep within the cloud is also sensitive and confidential, like business plans. To preserve knowledge privacy, a basic answer is to encode knowledge files, then transfer the encrypted knowledge into the cloud. First, identity privacy is one amongst the foremost important obstacles for the wide readying of cloud computing. While not the guarantee of identity privacy, users is also unwilling to affix in cloud computing systems as a result of their real identities might be simply disclosed to cloud suppliers and attackers. On the opposite hand, unqualified identity privacy could incur the abuse of privacy. For instance, a misbehaved workers will deceive others within the company by sharing false files while not being traceable. Therefore, traceability, that permits the cluster manager (e.g., a corporation manager) to reveal the $64000 identity of a user, is additionally extremely fascinating. Second, it's extremely counseled that any member in an exceedingly cluster ought to be ready to absolutely get pleasure from the information storing and sharing services provided by the cloud, that is outlined because the multiple-owner manner. Compared with the single-owner manner [1], wherever solely the cluster manager will store and modify knowledge within the cloud, the multiple-owner manner is a lot of versatile in sensible applications. a lot of concretely, Last however not least, teams square measure unremarkably dynamic in apply, e.g., new employees participation and current worker revocation in an exceedingly company. The modifications of association create secure knowledge sharing extraordinarily troublesome. On one hand, the anonymous system challenges new granted users to find out the content of information files keep before their participation, as a result of its not possible for brand new granted users to contact with anonymous knowledge house owners, and acquire the corresponding decoding keys. On the opposite hand, AN economical membership revocation mechanism while not change the key keys of the remaining users is additionally desired to attenuate the quality of key management. Many security schemes for knowledge sharing AN untrusted server are planned. In these approaches, knowledge house owners store the encrypted knowledge files in untrusted storage and distribute the corresponding decoding keys solely to licensed users. Thus, unauthorized users additionally as storage servers cannot learn the content of the information files as a result of them need no information of the decoding keys. To unravel the challenges conferred higher than, we tend to propose a secure multi-owner knowledge sharing theme for dynamic cluster within the cloud. the most contribution of this paper include: to produce security for dynamic cluster we tend to integrates Image based authentication and just one occasion countersign to attain high level of security the most Objective of Image based authentication is providing a 3 levels of security. it's a novel and an cabalistic study of victimization pictures as countersign and implementation of an especially secured system, using three levels of security. Level one Level one security provides a straightforward text primarily based countersign. Level two during this security level the user must choose a picture from the grid of pictures. It will eliminate the shoulder attack and also the tempest attack. Level three when the victorious entry of the higher than 2 levels, the extent three Security System can then generate a one-time numeric countersign that might be valid only for that login session. The authentic user are wise of this just one occasion countersign on his e-mail.

II. LITERATURE SURVEY

Literature survey is that the most significant step in computer code development method. Following is that the literature survey of some existing technique for cloud. A. Plutus: scalable Secure File Sharing on Untrusted Storage. M. Kallahalla et al. [2] projected cryptanalytic storage system that is thought as Plutus. Plutus permits secure file sharing on untrusted server by victimization shopper primarily based key distribution. Plutus enable shopper to handle all the key management and distribution operations. As compare to shopper, Server incurs little or no cryptanalytic overhead as a result of Plutus doesn't place abundant trust on server, it eliminates the majority demand of server trust. Plutus divide files into file teams and modify knowledge owner to share the file teams with others by encrypting every file cluster with distinctive file-block key which will shield knowledge. There ar some limitation known within the Plutus like a) a significant key distribution

Avoidance of Fire Accidents on Running Buses by using IoT Smart System

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Abstract:
At present days the accidents that occurring with fire has became most problematic in transport vehicles. Which is leading to large disaster to human life's so in order to reduce these fire accidents a new methodology must be emerged which must be sensed by a device which is connected to proper gps system with internet. The main objective of our system is to find the fire accidents and inform to nearby fire authorities that is been linked with transport, the process which we proposed in this is that a sensor that detect the fire crash and accidents while we are moving in the buses or any other transport …etc, A module that has been connected to a module through longitude and latitude with sensor alarms. At last the data has been has discharged through the sensor to the available nearby fire departments or stations which follows a archetype.

Keywords: fire accidents, internet of things (IoT), node MCC, Gps, Buzzer

1. INTRODUCTION:

Our country places second position in population emerging it's been increasing further .so the main mode of transportation here is by buses or some other vehicles are used for transportation. As government and private sectors are been included in transportation but the secure to the life of people is been provided in the government sectors that may be concern to the accidents or fire accidents that may occur while traveling, in concern to the fire accidents so the fire extinguishers are placed in vehicles to rescue the human lives.

Every people read the news daily, and the news is about fire accidents. Recently in Warangal lorry and Fuel tank hit with each other two people burnt alive in 2019 January. Such kind of accidents happens it is huge loss to the family and government also. Like India in many other countries also fire accidents are happens frequently. Occurs in AC Buses because it is closed completely, and passengers require more time to rescue their lives. So our intention is to prevention is better than cure. to avoid fire attracts in buses we advise and design a system Using IOT.

Figure 1: Buses caught in fire

Figure: School bus catches fire

In our days news forwarded easily by the internet. Where we can able to find the solutions by using internet.

IOT uses absolutely connected devices and the systems to control the information collected by a embedded sensors. When fire attacks occurs the machines will mechanically communicates with help of network, so we can avoid the human lives loss and government property loss. So, prevention can be done for the loss of humans and as well as property. In our paper we are going to propose a device which mechanically observes to avoid human misfortune too property misfortune**.**

The system consists of Node MCU module, which bond GPS module, fore sensors and water sprinklers and alarm module. The information from these sensors force to set in motion the node MCU which thus actuates the, alert framework, water sprinkler framework, and GPS[3] module it will consequently shares area to cloud.

Correlated Matrix Factorization for Recommendation with Implicit Feedback

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Abstract: ***The implicit feedback primarily recommendation problem once solely the user history is offered however there aren't any ratings—is a far tougher task than the express feedback based recommendation problem, thanks to the inherent uncertainty of the interpretation of such user feedbacks. Recently, implicit feedback drawback is being received additional attention, as application oriented analysis gets additional engaging at intervals the sphere. This paper focuses on a typical matrix factorisation methodology for the implicit drawback and investigates if recommendation performance is improved by applicable data format of the feature vectors before coaching. we tend to gift a general data format framework that preserves the similarity between entities (users/items) once making the initial feature vectors, wherever similarity is outlined mistreatment e.g. context or data. We tend to demonstrate however the planned data format framework is in addition to radio frequency algorithms. We tend to experiment with numerous similarity functions, totally different context and data primarily based similarity ideas. The analysis is performed on 2 implicit variants of the MovieLens 10M dataset and 4 world implicit databases. We tend to show that the data format considerably improves the performance of the radio frequency algorithms by most ranking measures.***

Key Words: Recommender systems, implicit feedback, Initialization, Similarity, Contextual information.

I. INTRODUCTION

Recommender systems became an essential technique for filtering and recommending info or things to modify to users' preferences or desires, like product recommendation at Amazon and motion picture recommendation at Netflix or music recommendation at mythical being or perhaps illness prediction systems. Numerous approaches supported matrix factoring (MF) are planned to unravel the matter of ratings prediction and build recommendations by solely mistreatment user-item ratings info. To enhance the advice performance, recent works use the discernible express social relationships (e.g., trust links among on-line users) to boost radio frequency framework and build social recommender systems. Besides, implicit correlations info (e.g., top-k similar neighbours) iatrogenic by similarity mensuration based mostly approaches is used to enhance radio frequency and build the supposed implicit social recommender systems. Social recommender systems build usage of the trustable social relationships among users to deal with the scantiness issue of ratings knowledge, and so improve the user preference prediction by considering not solely a users' rating behaviour, however additionally the tastes of a user's trustable social neighbours. As an example, in [12], a user social regularization term is integrated into the target operate of radio frequency to assist form the users' latent area. However, the use of the specific user-user social connections suffers from 2 main weaknesses: (a) there's no obtainable indication concerning reliable social relationship in most real-life systems like Netflix or Ebay or (even there is) the specific relationship indication is typically terribly thin (e.g., the trust density in Epinions is zero.03%), so most of the social recommendation algorithms cannot be applied to real systems; (b) an energetic user may be connected with others WHO have totally different taste/preference [18] so social relationship fails to write in code the great correlation between the varied tastes of 2 users toward different varieties of things. As for the implicit social recommender systems, they infer and incorporate implicit correlations info into radio frequency supported the specific rating feedbacks. for example, in [18], Associate in Nursing implicit network embedding technique CUNE is planned to reckon similarities among users and generate top-k similar neighbours of every user and any incorporate them into radio frequency. though enhancing radio frequency with inferred correlations, current implicit social recommendation approaches have 2 main limitations: (a) the rating-based similarity measurements (e.g., Pearson correlation coefficient) area unit straightforward to search out direct neighbours nonetheless give no correlation info for non-neighbouring nodes on user-item ratings bipartite network; (b) the ways (e.g., CUNE) generating top-k implicit neighbours ignore correlations between a user and their non-top-k neighbours which can still contain some potential helpful info, so they fail to explore implicit info comprehensively. To resolve the higher than problems relating to each express and implicit social recommender systems, we have a tendency to propose to extract multiple implicit and reliable correlations among users and things by solely mistreatment ratings info. Specifically, we have a tendency to manage users' positive feedbacks (relatively giant ratings) on things as a user-item implicit bipartite network (U-I-Net) and utilize stochastic process sampling on U-I-Net to get aset of node sequences. every stochastic process sequence implies multiple direct/indirect correlations among users and things among the walk. Next, we have a tendency to style a joint model ImWalkMF of radio frequency and implicit walk integrative learning (IWIL) supported the collected stochastic process set. The radio frequency element of ImWalkMF formalizes users' direct rating feedbacks on things by mistreatment commonplace sq. loss. Besides, the IWIL element of ImWalkMF formalizes multiple direct/indirect correlations among users and things from each user and item levels by introducing a user-user (item-item) pull loss operate and a user-item (item-user) push loss operate. soImWalkMF comprehensively models each direct rating feedbacks and helpful implicit info. so as to unravel the challenge of coaching ImWalkMF product of 2 freelance elements mistreatment totally different knowledge samples, we have a tendency to propose a combined strategy supported sampling to coach the joint model and optimize the latent factors of users and things. any evaluated experiments verify the effectiveness of ImWalkMF in recommendation. In summary, our main contributions area unit as follows:

- we have a tendency to innovatively introduce stochastic process sampling to gather a collection of node sequences supported user-item implicit bipartite network that means multiple implicit and reliable correlations. not like previous work that specialise in computing similarities and inferring restricted implicit relationship among users (items), it captures comprehensive info to enrich user-item ratings knowledge.
- supported the set of stochastic process sequences, we have a tendency to propose a joint recommendation model ImWalkMF for modelling each rating feedbacks and multiple implicit correlations among users and things, and any style a combined strategy for coaching ImWalkMF supported sampling.
- We have a tendency to conduct in depth experiments to judge the performance of ImWalkMF. The results show that ImWalkMF mostly improves the normal regularized/probabilistic matrix factoring models, and outperforms the competitive baselines that utilize explicit/implicit social info.

Framework design on Bridge Monitor system with IOT Sensor

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Abstract:-

Now-a-days most of the bridges cross the world build rivers and oceans, which are subjected to maintain it for the life time but at a certain time it is going to expired. Though it is dangerous but they are still in use. Due to rapid occurrence of cyclonic conditions or heavy vehicle loads these bridges may collapsed where the water level is increased and leads to destruction. This may harm the users. So, these bridges required a special care without manual network. So these bridges require a weight sensor, water level point sensor and WIFI module. This system protects from heavy loads ,water level and pressure. If any issue takes place then it generates the signals (alarm) through buzzer with IOT device and auto barriers which is connected to the serve. The achievements have brought a real time monitors systems by using IOT.

Index terms: *Wi-Fi Module, IOT, Monitoring Centre*

I. INTRODUCTION

Now a day it is very essential to monitor, the bridges [1] in our country or state as there were incidences happen earlier. The reason behind the these incidents as there is no such type of system, which will give information to the peoples if the bridge is not in good condition when sudden situations may occurs like flood, earthquake [2]. It means that the bridge is not in safe condition. When such situation arises, bridge [3] may be collapse, which causes much kind of losses like accidents, human deaths, etc. This happens because there is no efficient system in existence, which will provide notification about conditions about current condition of bridge [4] when bridge is not in safe mode. In the existing systems, Zig-Bee technology [5] was used which is cost consuming and quite time consuming, but this system used the TCP/IP protocol which is suited for all types of bridges.

Therefore in this study, the IOT wireless sensor network [6] and smart building technologies are adopted to solve the various problems of bridge safety information transmission and management by developing an IOT based bridge [7] safety monitoring system capable of monitoring the environmental data of a bridge and transmitting [8] the data to the mobile devices of bridge safety management staff through the router based IOT connection for reference and documentation.

The water level sensor [9] is used through which system has to check manually the level of water. So for this the system is being developed with an real time application[10] in which everything is automated so less human work are required and this application is very much useful For future generations suited for all types of bridges in the emergency condition like prevent from flood, earthquakes. The system developed in this study can help to promote the advancements of bridge safety management [11]. This system aims at developing an application that is useful for the people working at the bridge department or for bridge engineers [12]. The main objectives of the Bridge Monitoring System are:

- To provide safety for bridges.
- To avoid accidents in case of heavy rainfall.
- To improve the bridge efficiency.
- To overcome the technical and cost obstacles.

II.SYSTEM ARCHITECTURE:

This system consists of following parts:

1. **Wi-Fi Module -** Through Wi-Fi module the status of the overall bridge will be sent to the monitoring system.
2. **Vibration sensor –** Vibration sensor senses the condition of bridge, whether it is in better condition or not.
3. **Water level Transmitter sensor –** It is used to sense the water level status.
4. **Barriers with servo motor –** If water level increased or the bridge becomes vibrate then barriers with servo motor will close.
5. **Management Centre –** All the necessary information related to status of the bridge is send to and monitor by Management centre.

As shown in the Figure 1 the communication between bridge and monitoring Centre is takes place via WI-FI module. The WI-FI module itself act as sever through which status of condition of bridge is transmitted to the monitoring Centre. The Monitoring devices like water level transmitter and vibration sensor are continuously monitoring the structural health of bridge. If water level increased and if bridge is being vibrated then barriers with servomotor will close and at the same time, status of bridge condition is directed to the monitoring Centre.

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Impulse Noise Removal in Digital Images by using Image Fusion Technique

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Abstract:

This technique is implemented in reducing impulse noise from the digital images and to acquire noise free image. Image fusion technique means that fusing or combination of two or more images with different or similar constraints to form a single image with all the information in each image not being strayed. Normally to reduce noise from an image we use different filtering algorithms and the outputs of those algorithms are fused together to form a perfect image without noise. In this paper we intend to use five different filtering algorithms individually to and image captured by a sensor. The outputs of those five algorithms are fused to form an image free of noise. The image obtained by using this process is of high in quality compared to the images procured by individually de noising them. The filters such as Median filter, Vector Median filter, Basic Vector Differential filter, Spatial Median filter and Modified Spatial Median filter. The above mentioned five filters are utilized to get five individual outputs which are further fused to get an image with reduced noise securing the information contained by the image. This image is further optimized to get an image with high fidelity, Edge Detection technique using canny filter is applied to the fused image to preserve the details around the edges without losing them. It is proven that using this technique has well appraised the behavior of cancellation of noise in the technique from a peculiar view point of a human.

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Secure Data Sharing and Searching at the Edge of Cloud -Assisted Using Least Processing Cost First Technique in Internet of Things

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ABSTRACT:
The Internet of Things (IoT) is considered as a future web that broadens the association of the web to a wide range of certifiable physical shrewd gadgets. A report by Cisco gauges that by 2020 around 50 billion of such brilliant gadgets will be associated with the Internet. By interfacing these billions of shrewd gadgets to the Internet, the IoT will give created keen and independent digital physical situations in the zone of brilliant lattices, savvy urban areas, savvy homes, keen therapeutic and social insurance frameworks, wearable advances, transportation frameworks, and so forth. In any case, the lion's share of these gadgets are a piece of an extensive stage, consequently, an enormous measure of information are created that requires high computational capacities for capacity, preparing, and examining purposes in a safe and efficient way. By and large, the savvy gadgets have constrained assets. Then again, cloud assets have for all intents and purposes boundless capacity and preparing abilities with adaptability and on-request openness anyplace. Therefore with the assistance of the cloud, the IoT shrewd gadgets can assuage the weight of constrained assets. For IoT applications, shrewd gadgets require low inactivity, high information rate, quick information access, and continuous information investigation/preparing with basic leadership and portability bolster. Because of a few downsides, the cloud can't fulfill the previously mentioned necessities.

Keywords: Edge-Fog Cloud, ISP Domain, Shrewd Gadgets, Savvy Gadgets, Cyber Physical Cloud Computing Systems (CPCCS), Least Processing Cost First (LPCF)

I. INTRODUCTION

The Internet of Things (IoT) is considered as a future web that broadens the association of the web to a wide range of certifiable physical shrewd gadgets. A report by Cisco gauges that by 2020 around 50 billion of such brilliant gadgets will be associated with the Internet. By interfacing these billions of shrewd gadgets to the Internet, the IoT will give created keen and independent digital physical situations in the zone of brilliant lattices, savvy urban areas, savvy homes, keen therapeutic and social insurance frameworks, wearable advances, transportation frameworks, and so forth. In any case, the lion's share of these gadgets are a piece of an extensive stage, consequently, an enormous measure of information are created that requires high computational capacities for capacity, preparing, and examining purposes in a safe and efficient way. By and large, the savvy gadgets have constrained assets. Then again, cloud assets have for all intents and purposes boundless capacity and preparing abilities with adaptability and on-request openness anyplace. Therefore with the assistance of the cloud, the IoT shrewd gadgets can assuage the weight of constrained assets. For IoT applications, shrewd gadgets require low inactivity, high information rate, quick information access, and continuous information investigation/preparing with basic leadership and portability bolster. Because of a few downsides, the cloud can't fulfill the previously mentioned necessities. In any case, edge registering adds numerous advantages to cloud-helped IoT and backings previously mentioned prerequisites by keeping information handling, interchanges, and capacity task anxious servers that are near the gadgets at the edge of the systems. Additionally, because of savvy gadgets' restricted scope of network, the edge servers can fill in as middle people for correspondences over long separations. These edge servers are any close to home gadget or cell phone, remain solitary servers, or system gadgets that are facilitated inside one jump a long way from the end gadgets. Furthermore, the edge servers likewise coordinate and associate emphatically with cloud servers. With the expanding number and accessibility of shrewd gadgets, information sharing is offered inside cloud assisted IoT applications. The information are of little utilize if the shrewd gadgets don't impart information to different gadgets. Information sharing at the edge enables keen gadgets to impart information to bring down dormancy and have quick information get to and higher data transmission. The cutting edge remote interchanges innovation (5G) will enormously rely upon such arrangements where gigantic IoT savvy gadgets are interconnected with high information rates at ultralow inertness. Yi et al. assess an execution examination of the cloud and edge/mist server regarding inertness and bandwidth. The results demonstrate that when utilizing haze and cloud server, the latencies are 1.416 and 17.989 ms, individually, and the uplink/downlink transmission capacity for mist and cloud are 83.723/101.918 and 1.785/1.746 Mbps, separately. At the point when the IoT keen gadgets share information with different gadgets, potential security issues emerge, for example, information spillage, modification, respectability, and unapproved get to. Thus, it is fundamental that such shared information be guaranteed Confidentiality, uprightness, and access control while sharing at the edge. Moreover, a safe information seeking system is expected to look and recover the mutual information by approved gadgets. At display, there is couple of answers for address the difficulties of secure information sharing and looking in mists. Regularly, to guarantee confidentiality of shared information, symmetric key, public key, and homomorphism encryption-based system are as of now utilized. Access control strategies in light of access control rundown and dynamic trait are utilized for get to control purposes. Accessible encryptions in light of symmetric and open keys are utilized for looking through the coveted information. In every one of these plans, for information security, significant security-arranged preparing, for example, encryption, unscrambling, and get to control instruments are taken care of by the client's gadget itself. In IoT, the asset constrained brilliant gadgets can't deal with this calculation concentrated tasks in light of the fact that the security-situated activities will expand the substantial computational weight.

In this paper, by considering the previously mentioned confinements of current answers for resource limited brilliant gadgets, we propose a lightweight cryptographic plan so IoT keen gadgets can impart information to others at the edge of cloud-helped IoT wherein all security-situated tasks are offloaded to close-by edge servers. Besides, albeit at first we center around information sharing security, we additionally propose an information looking plan to seek wanted information/shared information by approved clients on capacity where all information are in scrambled shape. At long last, security and execution investigation demonstrates that our proposed plot is efficient and diminishes the calculation and correspondence overhead of all substances that are utilized in our plan.

Secure Mining of Association Rules In Equally Distributed Databases

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Abstract - Data processing is that the most quickly developing vary these days that is employed to separate imperative learning from data accumulations but oftentimes these accumulations are isolated among a number of gatherings. Affiliation govern mining is one amongst the ways in data processing. Here, we tend to propose a convention for mining of affiliation principles in on grade plane condemned databases associated convention depends on the quick Distributed Mining (FDM) calculation that is an unsecured sent variant of the Apriori calculation. the first fixings in convention ar 2 novel secure multi-party calculations — one that processes the union of personal subsets that every of the associating players hold, and another that tests the thought of a element control by one player in a very set control by another. Our convention offers upgraded protection regarding the convention. Also, it's less complicated and is essentially additional productive as way as correspondence rounds, correspondence value and process value.

IndexTerms -Apriori Algorithm, Association Rule, Distributed Database, FDM, secure multi-party algorithms

I. Introduction:

Data mining will extract necessary data from giant information collections however generally these collections are split among varied parties. Data processing is outlined because the methodology for extracting hidden prophetic data from giant distributed databases. it's new technology that has emerged as a way of characteristic patterns and trends from giant quantities of knowledge. The ultimate product of this method being the data, which means the many data provided by the unknown parts. Here we tend to study the matter of mining of association rules in horizontally partitioned off databases. There are many sites that hold uniform databases, i.e., databases that share constant schema however hold data on completely different entities [1]. With given stripped-down support and confidence levels that hold within the unified info the goal is to search out all association rules, whereas minimizing the knowledge disclosed concerning the non- public databases control by those players. That goal defines a tangle of secure multi-party computation. the knowledge that will wish to defend during this planned work, not solely people group action however additionally additional world data like association rules that ar supported domestically in every of those info .In such issues, there ar M players that hold non-public inputs, x1, . . . , xM, and that they want to firmly calculate y = f(x1, . . . , xM) for a few public operate f. If there existed a sure third party, the players might surrender to him their inputs and he would perform the operate analysis and send to them the ensuing output. it's required to plot a protocol that within the absence of such a sure third party the players will run on their own so as to gain the desired output y [1]. Then such a devised protocol is taken into account if no player will learn from his read of the protocol quite what he would have learnt within the perfect setting wherever the computation is distributed by a sure third party.

In planned system is, the inputs are the partial databases, and also the needed output is that the list of association rules with given support and confidence. Because the on top of mentioned generic solutions rely on an outline of the operate f as a Boolean circuit, they'll be applied solely to little inputs and functions that are realizable by straightforward circuits. in additional complicated settings, alternative strategies ar needed for winding up this computation. In such cases, some relaxations of the notion of good security can be inevitable once trying to find sensible protocols, as long as the surplus data is deemed benign.

Kantarcioglu and Clifton studied that drawback wherever additional appropriate security definitions that permit parties to settle on their desired level of security are required, to permit effective solutions that maintain the required security and devised a protocol for its solution [2]. The most a part of the protocol could be a sub-protocol for the secure computation of the union of personal subsets that are control by the various players. That's the foremost pricey a part of the protocol and its implementation depends upon crypto-graphic primitives like independent coding, oblivious transfer, and hash functions. This can be additionally the sole half within the protocol within which the players might extract from their read of the protocol data on alternative databases, on the far side what's understood by the ultimate output and their own input. Whereas such outpouring of knowledge renders the protocol not utterly secure, the perimeter of the surplus data is expressly finite in and it's argued that such data outpouring is innocuous, wherefrom acceptable from sensible purpose of read.

In this we tend to propose an alternate protocol for the secure computation of the union of personal subsets. The planned protocol improves upon that in terms of simplicity and potency still as privacy. Specifically, protocol doesn't rely upon science primitive i.e. independent coding and oblivious transfer. Whereas the answer continues to be not utterly secure, it leaks excess data solely to atiny low variety of coalitions (three), not like the protocol of that discloses data additionally to some single players.

REVIEW ARTICLE

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Local mesh patterns for medical image segmentation

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ABSTRACT

In this paper, local mesh patterns (LMeP) feature extractor is proposed for medical image segmentation. The local region of image is represented by LMeP, which are evaluated by taking into consideration the magnitude of the local difference between the center pixel and its neighbors. First, image split into subblocks and LMeP features are extracted from each subblock. Once the image has been split into blocks of roughly homogeneous texture, we apply an agglomerative procedure to merge similar adjacent regions until one of the two stopping criteria is satis1ed. At each stage, we merge the pair of adjacent regions which have the largest merger importance (MI) value. Based on MI the regions are merged and then form the segmented regions for medical image segmentation application. Experimental results are tested on benchmark magnetic resonance image database for medical image segmentation application. Results after being investigated, proposed method shows a significant improvement for segmentation of images.

Key words: Local binary patterns, medical image segmentation, texture

INTRODUCTION

Motivation

Nowadays, a lot of medical images are available, and this data need to be stored for a particular time period to maintain the medical data about the patient. But with data medical hospitals are not getting any benefit from the storage. The retrieving system adopts feature database for matching so as to reduce the search space which is especially useful in a larger image database. Retrieval images are selected according to the closest similar measures computed by distance. In medical image segmentation, we will segment the certain regions for analysis purpose.

Initially, cluster-based medical segmentation like k-mean, fuzzy c-mans algorithms are proposed for medical image segmentation. In recent years, researchers using the feature based algorithms for medical image segmentation. Based on the literature, we motivated to work in the direction of medical image segmentation using feature descriptors.

Now, a concise review of the related literature available, targeted for development of our algorithms is given here. Local binary pattern (LBP) features have emerged as a silver lining in the field of texture retrieval. Ojala *et al.* proposed LBP[1] which are converted to rotational invariant for texture classification in based on Kullback discrimination of sample and prototype distributions is used. The classification results for single features with one-dimensional feature value distributions and for pairs of complementary features with two-dimensional distributions are presented.[2] Rotational invariant texture classification using feature distributions is proposed in study by Pietikainen *et al*.[3] The combination of Gabor filter and LBP for texture segmentation[4] and rotational invariant texture classification using LBP variance with global matching[5] has also been reported. Liao *et al*. proposed the dominant LBP for texture classification.[6] Guo *et al*. developed the completed LBP scheme for texture classification.[7] LBP operator on facial expression analysis and recognition is successfully reported in Ahonen *et al*., and Zhao *et al*.[8,9] Li *et al*. proposed multiscale heat kernel based face representation, for heat kernels that perform well in characterizing the topological structural information of face appearance. Further, the LBP descriptor is incorporated into the multiscale heat kernel face representation for capturing texture information of face appearance.[10] Face recognition under different lighting conditions by the use of local ternary patterns (LTP) is discussed in Tan and Triggs[11] where emphasis lays on the issue of robustness of the local patterns. The background modeling and detection using LBP extended LBP for shape localization and LBP for interest region description have been reported in Heikkil *et al*., Huang *et al*., and Heikkila *et al*.,[12-14] respectively. Zhao *et al*. proposed the local spatiotemporal descriptors using LBP to represent and recognize spoken isolated phrases based solely on visual input.[15] Spatiotemporal LBPs extracted from mouth regions are used for describing isolated phrase sequences. Unay *et al*. proposed the local structure-based region of interest retrieval in brain magnetic resonance images (MRIs).[16] Yao and Chen proposed the local edge patterns (LEP) for texture retrieval[17] where LEP value is computed using an edge obtained by applying the Sobel edge detector to intensity gray level and then LEP feature is extracted to describe the spatial structure of the local texture according to the organization of the edge pixels in a neighborhood.

Main Contributions

The authors have bestowed the thrust for carrying out the experiments on the following:

1. The local mesh patterns (LMeP) operator is used for medical image segmentation.

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RESEARCH ARTICLE OPEN ACCESS

Local Maximum Edge Binary Patterns for Medical Image Segmentation

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Abstract:

In this paper, local maximum edge binary patterns (LMEBP) feature extractor is proposed for medical image segmentation. The local region of image is represented by LMEBP, which are evaluated by taking into consideration the magnitude of local difference between the center pixel and its neighbors. First, image split in to sub blocks and LMEBP features are extracted from each sub block. Once the image has been split into blocks of roughly homogeneous texture, we apply an agglomerative procedure to merge similar adjacent regions until one of the two stopping criteria is satis1ed. At each stage we merge the pair of adjacent regions which have the largest merger importance (MI) value. Based on MI the regions are merged and then form the segmented regions for medical image segmentation application. Experimental results are tested on benchmark MRI database for medical image segmentation application. Results after being investigated, proposed method shows a significant improvement for segmentation of images.

Keywords — **Medical Image Segmentation; Local Binary Patterns (LBP); Texture.**

I. INTRODUCTION

A. Motivation

Nowadays lot of medical images are available and this data need to be stored for particular time period to maintain the medical data about the patient. But with data medical hospitals are not getting any benefit from the storage. From this an idea of using this data for automatic medical applications like medical image segmentation, medical image retrieval etc. In medical image segmentation, we will segment the certain regions for analysis purpose.

Initially, cluster based medical segmentation like k-mean, fuzzy c-mans algorithms are proposed for medical image segmentation. In recent years, researchers using the feature based algorithms for medical image segmentation. Based on the literature, we motivated to work in the direction of medical image segmentation using feature descriptors.

Now, a concise review of the related literature available, targeted for development of our algorithms is given here. Local binary pattern (LBP) features have emerged as a silver lining in the field of texture retrieval. Ojala et al. proposed LBP [1] which are converted to rotational invariant for texture classification in [2]. Rotational invariant texture classification using feature distributions is proposed in [3]. The combination of Gabor filter and LBP for texture segmentation [4] and rotational invariant texture classification using LBP variance with global matching [5] has also been reported. Liao et al. proposed the dominant local binary patterns (DLBP) for texture classification [6]. Guo et al. developed the completed LBP (CLBP) scheme for texture classification [7]. LBP operator on facial expression analysis and recognition is successfully reported in [8] and [9]. Xi Li et al. proposed multi-scale heat kernel based face representation, for heat kernels that performs well in characterizing the topological structural information of face appearance. Further, the local binary pattern (LBP) descriptor is incorporated into the multiscale heat kernel face representation for capturing texture information of face appearance [10]. Face recognition under different lighting conditions by the use of local ternary patterns is discussed in [11] where emphasis lays on the issue of robustness of the local patterns. The background modeling and detection using LBP, extended LBP for shape localization and LBP for interest region description has been reported in [12], [13] and [14] respectively. Zhao et al. proposed the local spatiotemporal descriptors using LBP to represent and recognize spoken isolated phrases based solely on visual input [15].

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DESIGN OF BI-DIRECTIONAL POWER FLOW CONTROLLER FOR VEHICLE TO GRID APPLICATIONS

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Abstract:
Electric Vehicle (EV) technology is expected to take a major share in the light-vehicle market in the coming decades. Charging of EVs will put an extra burden on the distribution grid and in some cases adjustments will need to be made. On the other hand, EVs have the potential to support the grid under various conditions. This paper studies possible potential and applications of Vehicle to Grid (V2G) services, including active power services, which discharge the EV batteries, and power quality services, which do not engage the battery or require only small amounts of battery charge. The advantages and disadvantages of each service and the likelihood that a given service will be effective and beneficial for the grid in the future are discussed. Further, the infrastructure cost, duration, and value of V2G services are compared qualitatively.
Keywords: electric vehicle; plug-in hybrid vehicle; power quality; reactive power

1. Introduction

According to the 2011 energy outlook, with the current trend the transportation sector's share in total oil consumption will raise from 40% in 2008 up to 54% by 2035 [1]. Forecasts by the Energy Information Agency (EIA) anticipate rising oil prices over the next two decades, which in a high price scenario may surpass $5.5 per US gallon. Therefore, technologies related to reducing the oilconsumption of the transportation section such as Plug-in Hybrid Electric Vehicles (PHEVs) or all Electric Vehicles (EVs) are starting to take their share in the vehicle market and will potentially replace combustion engine vehicles in the future [2]. Some economic studies anticipate that depending on the future oil price and the relative purchase price of internal combustion engine vehicles, EVs may take up to 86% of new light-vehicle sales by 2030 [3]. EVs have higher production cost compared to combustion engine vehicles, which makes them not the first choice for a large percentage of consumers at the moment. Further, with the relatively slow improvement of battery technology comparing to other technologies, the total production cost of the EVs will not decrease substantially in the near future [4]. Some industrial reports claim that the total cost of ownership of Li-ion powered EVs, which includes initial price and also fuel,

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Analysis of Aspect Ratio Effects of Left Heated 2D Cavity Using Energy Streamlines and Field Synergy Principle

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Keywords:
Rayliegh number, aspect ratio, energy streamlines, field synergy, Nusselt number

ABSTRACT

In the present study natural convective flow of air in a two dimensional cavity with three different aspect ratios (*AR*) are analyzed using direct numerical simulation. Established open source CFD package OpenFOAM, has been utilized to run the simulation. In this problem, the vertical walls are assumed to be maintained at an isothermal temperature with left vertical wall has high temperature than the right wall and the other walls are assumed to be thermally insulated. The governing equations of this problem are expressed in dimensionless form and are solved by using the finite volume method. For spatial derivatives, the second order upwind linearization technique was used. The CGS method was employed as an effective acceleration means. The divergent and Laplacian terms in the governing equations are discretized by the QUICK and Gauss linear schemes, respectively. The computations are conducted for Rayleigh number until 10^6. An attempt has been made to gather the visualization techniques such as streamlines, isotherms, energy streamlines and field synergy principle to analyse the flow behavior. When *Ra* is small, vertical energy streamlines appeared, as *Ra* further increases, free energy streamlines at the boundary are observed whereas trapped energy streamlines at the centre appeared in the horizontal direction. For a fixed *Ra*, as *AR* increases, average synergy angle (β_m) increases. This result implies that synergy between temperature field and velocity gets worse, which leads to the mild growth rate of $\overline{Nu}$. The field synergy principle shows that the improving synergy between the temperature gradient and velocity vector, the heat transfer can be enhanced with less increased flow resistance.

1. INTRODUCTION

Laminar natural convection in closed enclosures was broadly studied both experimentally and numerically on account of special interest in large number of engineering applications: nuclear reactors, solar collectors, refrigeration in electronic components. In the past few decades, many experimental and theoretical studies on laminar natural convection in closed enclosures are studied. Because of this, the heat and fluid flow caused by laminar natural convection has received substantial awareness from numerous researchers. Recent work of Altac and Ugurlubilek [1] shows that research is continuing on these issues, with regard to three-dimensional effect and various turbulence models. In this line another recent study carried out by Obyn and Van Moeseke [2] with the focus on the impact of convective heat transfer coefficient. They used their computations to calculate the heating and cooling loads of buildings.

Fluids, such as air, in the absence of external forces like fans or exterior wind, move due to density variations in their bulk. These density variations are caused by temperature gradients and buoyancy forces that appear in the presence of gravity. Consequently, the rising of low-density particles occurs along with the falling of high-density particles; this phenomenon is known as natural or free convection. Inside buildings where free and forced convection coexist, the common practice is to evaluate the importance of each convection type separately, to determine whether either is dominant with respect to the other or if they must be considered simultaneously [3].

In thermal simulation programs, such as ESP-r, Energy Plus , DOE-2, and TRNSYS [4-7], the CHTC is fixed as a constant value; or, at most, the programs make the coefficients depend on the velocity and temperature difference between the surfaces. In such cases, a flat-plate correlation is used, or another empirical correlation is applied as obtained from Awbi and Hatton [8], or Novoselac et al. [9]. On the other hand in several cases, the flow pattern, which is one of the salient factors in calculating such heat transfer coefficients, is not taken into account. This flow pattern directly relies on the problem and its geometry, such as the enclosure aspect ratio (*AR*).

From the literature survey [10-12], it is found that plotting of velocity vectors, streamlines and isotherms are the general visualization tools. The other visualization technique using the theory of heatfunction and heatlines was proposed by Kimura and Bejan [13]. In the given domain for the visualization of energy flow, Heatline concept was used. Later Costa [14, 15] presented an approach to visualize the physical aspects of the flow with the aid of the heatfunction and heatlines. Similar to heatlines Mahmud and Fraser [16] found new visualization technique related to the convective heat transfer, called, energy streamlines. Hooman [17] introduced and developed

Analysis Of Field Synergy In Bottom Heated Lid Driven Cubical Cavity

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Abstract. This study presents an innovative visualization tool for the analysis of the mixed convection in a lid-driven air filled cubical cavity heated from below. The total energy of the flow in the cavity is visualized based on the energy stream functions or energy streamlines. Also the heat transfer enhancement in the cavity is presented with an analogy between conduction and convection, namely, the field synergy principle. Flow is assumed to be driven by the vertical temperature gradient and by the top lid of the cavity, which is assumed to slide on its own plane at a uniform speed. The top and bottom walls are assumed to be isothermal and all other walls are thermally insulated. Non dimensional governing equations of this problem are solved by using the finite volume method. Established open source CFD package OpenFOAM is utilized to investigate the flow with respect to the control parameters arising in the system. The nonlinear terms arising in the governing equations are discretized with the NVD schemes. The convection differencing schemes namely, UPWIND, QUICK, SUPERBEE and SFCD discussed and are used to simulate the flow using MPI code. It is observed that the computational cost for all the differencing schemes get reduced tremendously when the MPI code is implemented. Also SFCD scheme gave the Nuseelt number values close to those available in the literature. Extensive numerical flow visualization is conducted for the Reynolds number (Re = 100, 400, 1000) and the Richardson number (Ri = 0.001, 1, 10), which categorize the free and forced convective flow, respectively. It is observed that for a fixed value of Re, as Ri increases, the average Nusselt number ($\overline{Nu}$), decreases. This shows that the natural convection starts to prevail with an increasing of Ri. But, for a fixed Ri, as Re increases ($\overline{Nu}$) increases and the forced convection mode becomes dominant, leading to a chaotic flow. Plots demonstrating the influences of Re and Ri in terms of the contours of the fluid streamlines, isotherms, vortex corelines, and field synergy principle. The synergy angle of buoyant-aiding flow is high while the buoyant-opposing flow is significantly less than that of forced convection flow.

1 INTRODUCTION

Mixed convective flows in the cubical cavity have been paid attention extensively in the past few decades both experimentally and numerically due to their applications in solar power collector, food processing, crystal growth, electronic device cooling, high performance building insulation, metal casting, glass production, are to name a few. Some of these solutions are known as the benchmark results and are used as the baseline to investigate the quality of emerging new numerical techniques. Quite a number of numerical experiments on heat transfer flows with free and/or forced convection have been paid attention for the past few decades, such type of two-dimensional (2D) cavity flows examined by numerical modelers [5-8] due its simplicity in obtaining the solutions of the governing equations.

Moallemi and Jang [7] studied the buoyancy effect in a 2D cavity with respect to Pr ($0.01 \leq$ Pr ≤ 50), Re ($102 \leq$ Re ≤ 2000) and constant Grashof number (Gr). They observed that contribution of free convection assists the forced convection with the presence of top moving wall. Similar cavity problem analyzed by Prasad et al. [10] numerically for different aspect ratios (AR) in which the top wall is maintained at a higher temperature in comparison with the bottom wall and vice versa. They noticed that when AR = 0.5 and 1.0 and for negatively increasing values of Gr, convection is strong inside the cavity. When AR increased to 2 and for Gr = −105, Hopf bifurcation showed its presence. When AR value is further increased to 10, Sharif [11] showed that along the heated sliding wall of the cavity the Nu shoots up and it decreases rapidly towards the right side of the wall. However, on the other side Nu shows the oscillatory behavior due to the occurrence of a separation bubble at the cold wall.

Kosef and Street [5, 6] described the flow inside a closed cavity exhibits 3D characteristics due to the presence no-slip boundary conditions. Similar numerical problem studied by Iwatsu and Hyun [4], in which the top moving wall is maintained at higher temperature than that the bottom wall. They analyzed the temperature distribution

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Analysis of vortical structures in a differentially heated lid driven cubical cavity

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Keywords:
mixed convection, Reynolds number, Richardson number, vortex coreline

ABSTRACT

Analysis of the vortical structures arising in the system with respect to their control parameters is an important fundamental study. Studies in this regard have mostly been paid attention on a free convective cavity flow. Relatively few studies have been devoted on the characteristics of the vortical structures arising in the mixed convection cavity flows. Thus, it is aimed to analyse the vortical structures arising in a free and forced convective flow of air in a cubical cavity using the direct numerical simulations. Governing equations of this problem, expressed in dimensionless form are solved by using the finite volume method. The simulated results are corroborated with benchmark solutions. Numerical solutions are obtained for wide range of Reynolds number (*Re*) and Richardson number (*Ri*) (the mixed convection parameter). The flow and thermal characteristics are analysed using isotherms, velocity magnitude, vortex corelines and average Nusselt number. The simulated results show that the large values of *Ri* decrease the total heat transfer rate thus the conductive heat transfer prevails. While when *Ri* takes the small values and for amplified values of *Re* the complex 3D features are clearly seen and the vigorous forced convection enhances the global heat in the system.

1. INTRODUCTION

The laminar incompressible mixed convection lid driven cubical cavity flow has wide number of applications in engineering and science such as crystal growth, electronic device cooling, food processing, metal casting and phase change as freezing of water for latent thermal storage systems, solar power collector, glass production etc. Among these numerical experiments some of the benchmark solutions aided to investigate the performance of numerical methodologies and solving the incompressible Navier–Stokes equations for problems with complex geometries. In the literature for the past few decades attention has been focused on mixed convective flow in a cavity in different types of cavity geometries, fluids and imposed temperature gradients.

Moallemi and Jang [1] studied the 2D flow and their thermal features in the laminar flow regime for $100 \leq Re \leq 2000$ with $0.01 \leq$ Prandtl number $(Pr) \leq 50$ and also varying the *Ri* values. The influence of buoyancy on the flow and thermal features is seen to be more aggravated for large values of *Pr*. It is shown that the free convection assists the forced convection magnitude. A numerical investigation in two dimensional shallow cavities of aspect ratio (AR) 10 was performed by Sharif [2] with heated moving plate. He noticed along the heated moving top wall, the local Nusselt number (*Nu*) starts with a high value at the left wall and decreases rapidly to a small value towards the right wall. The *Nu* in the vicinity of right cold wall shows an oscillatory behaviour because of the existence of a vortex at the cold surface. The average Nusselt number ($\overline{Nu}$) augments slowly and quickly with the inclination of the cavity for *Ri* = 0.1 and 10, respectively. Prasad et al. [3] studied the mixed convective flow inside a 2D cavity with two vertical side walls kept at a cold temperature and with other vertical walls as adiabatic. It is observed that when the Grashof number (*Gr*) < 0, a strong convection is manifested for ARs with 0.5 and 1.0. Also it is shown that for AR = 2, a Hopf bifurcation occurred at $Gr = -10^5$. In 2D and 3D bottom heating cavities, Mohammad and Viskanta [4] shown that the movement of lid suppresses all forms of convective cells for finite size cavities.

The majority of past literature has been confined to the flow problems in the cavity. While in general, because of the no-slip conditions imposed at the end walls, a closed finite cavity problem possesses the 3D characteristics. Koseff and Street [5-7] observed that the lab experiments on these driven cavity flows have been paid less attention. They conducted experiments to describe the eminent features of the 3D lid driven cavity flows. Using pseudo-spectral method Ku *et al*. [8] attempted to compute the flow inside a cubic cavity at *Re* = 100, 400 and 1000. A systematic computational exercise was performed by Iwatsu *et al.* [9-11] for a cubical cavity in $100 \leq Re \leq 4000$. One among the main result of these 3D numerical simulations indicates that the steady solutions are attained at lower values of *Re*, but the flow becomes unsteady when *Re* exceeds approximately 2000. Aydin et al. [12] numerically analysed the transport mechanism of free and forced convection in a shear cavity with bottom heated wall and other walls as sliding.

From the previous studies, it can be observed that for the flow in the 2D cavity in the absence of top lid motion the vertical heat transfer is shown to be entirely conductive and the externally applied temperature difference is

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PATRIARCHY IN MANJU KAPUR'S 'DIFFICULT DAUGHTERS'

Abstract

The women characters in her novel seem to be left without the freedom to act and they remain solely in the field of hallucination, mere fantasy to be dreamt and loved. Manju Kapur in *Difficult Daughters* projects the image of the rebellious, but stoic women ultimately breaking the customary confines in the backdrop of conformist narrative thread. Manju Kapur in her works, presents women who try to establish their own self. In *Difficult Daughters*, virmati, in her pursuit of identity, who is also the focal character of the novel, revolts against convention. The very name of the Man-ju Kapur is one of the best known celebrated post-independ-ence writers exploring sociological and psychological sensitive issues. Kapur tries to explore the insight or human psyche of her protagonist Virmati, torn between desire for love and duty towards family. Thus, conflicting internal and external experi-ences, pressures and expectation produce worries. The nov-el "*Difficult Daughters*'' are a connotation to a point that a woman, who tries to search for self, is recognized as a diffificult daughter in the family and the society. A woman is "new" if her basic concerns are deeper than purely seeking equality with men, asserting her own persona and insisting upon her own rights as a woman. The woman today has her own quest for self-discovery and self-fulfillment. A woman is trying now to be her own gravitational force, be-yond the pull of patriarchy. Manju Kapur's novel *Difficult Daughters* is a story of a daugh-ter's journey back into her mother's aching past. It spans the genres of literature and history and falters in both. The dream of sovereignty and decolonization were portrayed clearly. The incidents like orgies of rape and murder, staged in the name of freedom. *Difficult Daughters* is a story of three generations of women: Ida, the narrator, who is a divorcee. Virmati, her mother, who marries an already married professor for love, and Kasturi, her grandmother, who come to terms with a difficult daughter, Virmati. This was not a fictional family, but the story of a real, middle class home with fathers, mothers and brothers and sis-ters that one had seen and lived with. Merging them together was the background of the Partition, which 50 years later seems to be the breakpoint event in modern India.

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The Essential of English Language learning context for Engineering graduates

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Abstract: **- The aim this paper is to make the students speak in English without any hesitation. Particularly, the slow learners at the engineering college level are not trained to get to the placements. The needy of English language skills emerged for engineering graduates to meet the global arena. But in the present scenario, they lacked in the communication skills due to the lack of practice, lack of structural grammar usage and the mother tongue influence which plays a vital role as an obstacle in the communication. The AICTE (All India Council for Technical Education) also felt the importance of English in Technical education and has designed the English syllabus for engineering students to enhance the four skills (LSRW) in English. The main objective is, to develop the four skills and to enhance students' performance at placement interviews, Group Discussions, technical paper presentation etc. The view of the expert bodies throws light on the changing paradigms of English in the curriculum of schools and colleges. The University Education Commission (1948) stressed the need to learn English to keep in touch with the stream of knowledge.**

Index Terms: Communication skills, grammar, presentation skills.

INTRODUCTION

English language is an essential for engineering students to communicate effectively. It is a medium through which an individual expresses his / her thoughts and ideas. In present scenario English has become the medium of communication nationally as well as internationally. F.G French observes that it is only through this language that we have, "distilled essence of modern knowledge in all the fields of human activity. Anyone who knows English can keep in touch with the whole world without leaving his /her house." Indian education allows engineering colleges, deemed technical universities and self financing engineering colleges top cater to the technical need of the world. English language is predominantly establishing its supremacy in the field of education. The structure of English language is very different from that of Indian languages.

There are, in general, four language skills, each based upon the modality of emphasis. These are the Listening, Speaking, Reading, and Writing skills. Generally speaking, it is emphasized that we first teach listening, then speaking, then reading and writing. However, in real life situations of language communication, these skills are interdependent in many ways, even though they can be taught independently to some extent.

The Teaching of Listening

According to Vandergrift (1999), listening comprehension is a complex process in which listeners play an active role in discriminating between sounds, understanding vocabulary and grammatical structures, interpreting intonation and stress, and finally, making use of all the skills mentioned above, interpreting the utterance within the socio - cultural context.

Brown (2006) suggests that systematically presenting (1) listening for main ideas, (2) listening for details, and (3) listening and making inferences helps students develop a sense of why they listen and which skill to use to listen better. He also asserts that like reading lessons, in a typical listening lesson there are "pre" activities, "while" activities, and "post" activities interest.

Brown (2006) suggests that a pre -listening task should consist of two parts. Students should be provided with an opportunity to learn new vocabulary or sentence structures used in the listening material and a chance to activate their prior knowledge. Some suggested pre - listening activities are listed as follows.

Pre - listening activities

- Looking at a list of items before listening.
- Reading the text before listening.
- Reading through comprehension checks, questions or completion activities.
- Predicting/speculating — useful with high achievers.
- Previewing new words. (Less than 10 words)
- Using advance organizers - pictures, charts, films or comprehension questions.
- 7. Give a clear and definite purpose for listening each time.

  (A) Listen for main ideas.
  (B) Listen for details.
  (C) Listen and make inferences.

Role of Accounting in Business Enterprises a study of SMEs (Small and Medium Enterprises)

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Abstract

Accounting is a process of Identifying, Analysing, Classifying, recording, summarizing, and interpretation of financial transactions of an enterprise." Accounting is one of the most important functions of any business enterprise. It is often referred to as "Language of Business". The origin of accounting can be traced back to ancient civilizations and over the years it has evolved. Accounting can be divided into various fields like financial accounting, management accounting and Cost accounting, financial accounting and management accounting forms part of Business Enterprise accounting.

This paper aims at understanding accounting needs of owner-managers of small and medium enterprises (SMEs) and the role of small and medium accounting practitioners (SMPs) in meeting such needs. SMEs represent a major business sector in industrialised and emerging economies of the world and SMPs are also a dominant group within such economies and the accounting profession globally and locally. Research shows that a vast majority of SMEs struggle for survival and continuity, and under these circumstances management accounting and control systems have an important role in these organisations. Unfortunately, provision of management accounting services by SMPs is considerably lacking and this study calls for greater and collective involvement of researchers, SMEs, SMPs and the accounting profession in understanding, identifying and meeting SMEs' management accounting needs. Apart from routine compliance works, SMPs' skill sets place them well for more proactive roles in areas such as cost management, pricing decisions, financial planning, information systems and strategic management processes.

1. Introduction

Small and medium enterprises (SMEs) have been an input force in many economies of the world. The vast majority struggle for survival and continuity (Mitchell, 1998; Mitchell and Reid, 2000). Under these circumstances, management accounting information has an important role to play with respect to monitoring and control of the activities of SMEs.

This qualitative field study aims to obtain a rich understanding of the management accounting needs of SME owner-managers and the role of SMPs in fulfilling those needs. The main data collection source will be in the form of in-depth semi structured interviews with SME owner-managers and their public accountants, supported by entity specific archival data collected from sources internal and external to the organisations involved. It is envisaged that this study will provide in-depth insights into issues confronting both SMEs and SMPs generally and more specifically in relation to broader, non-traditional financial and management information needs of SME owner-managers and opportunities for SMPs. Finally, the study should provide opportunities, challenges and future directions for researchers, accounting profession and its members on broader accounting needs of SMEs.

SMPs (small and medium accounting practitioners) are a dominant group within the accounting profession and play an important part in the global as well as in the Fijian economy. In spite of the economic and social importance of SMEs and SMP, management accounting research initiatives and provision for management accounting information in SMEs by SMPs have been considerably lacking. Indeed, these provide challenges to the researchers, accounting practitioners, and the accounting profession as a whole.

2. An outline of the literature

Research shows that owner-managers of SMEs expect, apart from routine compliance services, advice on many broad and specific aspects of their business including financial planning, management accounting and information system, forensic accounting, cost reduction, succession planning and pricing decisions (Arnold, et al. 1986; Kirby and King, 1997; Marriott and Marriott, 2000; Ciccotosto, et al. 2005; Nandan and Ciccotosto, 2007; Alam and Nandan, 2007). While SMPs have the expertise and skills to provide the majority of above mentioned services, they have not been extensively involved in the provision of such services. It also appears that SMPs have not been forthcoming in moving beyond their traditional service areas of compliance (Arnold, et al. 1986; Kirby and King, 1997). The factors that may have influenced such a decision include satisfaction with narrow compliance-based service, reluctance to move out from their comfort

ESSENTIAL AND PROPOSAL OF FOREIGN DIRECT INVESTMENT IN DEVELOPING COUNTRY - STUDY ON INDIA

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***ABSTRACT*:** Foreign Direct Investment (FDI) is considered as an essential factor of overall capital stream. It causes world economic growth by investment opportunities. Emerging nation look for new fund sources for improving the country as the foreign investors seek for new sources of investment. The Foreign Direct Investment both the sources of fund and new technology in the developing country. FDI plays important role. It can boost output growth rate through improved work efficiency and also increases the gross investment level, worked productivity and tax take and future output of the country. In recent days, the flow of FDI in the current backdrop of overall slump in investment in the economy. Investment will reduce, if FDI falls, which in turn will shrink employment generation which would cause a decline in the consumption level and downward trend in the savings.

Index Terms: FD, FDI, FII, GDR and FCCB

I. INTRODUCTION

India is one of the largest markets with high purchasing power. Lots of work to be done in the field of various sectors. It is not possible for Indian government alone to developed world class infrastructure and other allied facilities because of huge investment requirement. FDI in India has in a lot of ways enabled India to achieve a certain degree of financial stability, growth and development. In order to create new & more jobs, FDI is the success mantra now. FDI no doubt is creating innovation in retail sector but simultaneously it may pull down the local and domestic retailers of India which is surely a concern to worry about for Indian government. It reduces the gap between farm prices and retail prices. Gives best management practices from all over the world. Threats on organized and unorganized retail players. One of the most famous and striking feature of today's globalised world is the exponential growth of FDI in both developed and developing countries. In the last two decades the pace of FDI flows are rising faster than almost all other indicators of economic activity worldwide. Developing countries, in particular, considered FDI as the safest type of external finance as it not only supplement domestic savings, foreign reserves but promotes growth even more through of technology, skills, increased innovative capacity, and domestic competition. Now a day, FDI has become an instrument of international economic integration. Located in South Asia, India is the 7th largest, and the 2nd most populated country in the world. India has long been known for the diversity of its culture, for the inclusiveness of its people and for the convergence of geography. Today, the world's largest democracy has come to the forefront as a global resource for industry in manufacturing and services. Its pool of technical skills, its base of an English – speaking populace with an increasing disposable income and its burgeoning market has all combined to enable India emerge as a viable partner to global industry. Recently, investment opportunities in India are at a peak [1].

Creating as much of the biggest advantage of foreign direct investment as possible for host countries can be important, such as technological spill, support for human capital formation, improved ease of use for competitive business environments and contribution to international markets. Improved trade integration and business development can also contribute to improving the environmental and social conditions of the host country by ensuring that foreign direct investment is established as a new "clean" technology, rather than economic benefits, and a more socially responsible business policy. All these rewards contribute to economic growth, which is an important means of reducing poverty in the economy. However, it is difficult to accurately evaluate the economic breach of FDs. The benefits of foreign direct investment (FDI) do not automatically increase in proportion between provinces, sectors and communities. These benefits vary from country to country and are difficult to distinguish and assess [8].

II. FOREIGN INVESTMENT / CAPITAL CONCEPT

Foreign capital includes foreign capital and foreign capital. Foreign capital of the government consists of foreign aid; foreign capital is foreign direct investment or indirect foreign investment. Foreign investments should channel the reinforcement of financial resources such as technology and other achievements from one country to another. Foreign

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Design and Analysis of Axial Flow Compressor Blade Using Different Aspect Ratios with Different Materials

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***Abstract:*-- An axial flow compressor is a pressure developing machine. It is a rotating, airfoil-based compressor in which the working fluid principally flows parallel to the axis of rotation. This is in contrast with other rotating compressors such as centrifugal compressors, axial flow centrifugal compressors and mixed-flow compressors where the air may enter axially but will have a significant radial component on exit. The energy level of air or gas flowing through it is increased by the action of the rotor blades which exert a torque on the fluid which is supplied by an electric motor or a steam or a gas turbine. In this work, an axial flow compressor is designed by varying aspect ratios (ratio of blade height to axial chord length) where blade height is kept constant and 3D models are modeled using Pro/E. The present material used is Chromium Steel it is replaced with Titanium alloy and Nickel alloy.**

CFD analysis is done to verify the flow characteristics of fluid under turbulent conditions by applying the mass flow rate and inlet pressure, outlet pressure, velocity and mass flow rates. Structural analysis is done on the compressor models to verify the strength of the compressor for all the materials chromium steel, titanium alloy and nickel alloy by applying pressure which is output from CFD analysis. The analysis is done in Ansys.

Index Terms - Axial flow compressor, Aspect ratios and CFD analysis.

1. INTRODUCTION

An axial compressor is an important part of any efficient gas turbine. Axial flow compressors are the fluid pumping machinery where the fluid enters and exits axially to the rotor axis. The unique features like high mass flow rate for a small frontal area and high efficiency ratio with higher mass flow rate makes multistage axial flow compressors a perfect choice for gas turbines used in jet engines. The performance and reliability of a gas turbine heavily relies on its axial compressor module. An axial flow compressor is a machine that can continuously pressurize gases. It is a rotating, airfoil-based compressor in which the gas or working fluid principally flows parallel to the axis of rotation. This differs from other rotating compressors such as centrifugal compressors, axial flow centrifugal compressors and mixed-flow compressors where the fluid flow will include a "radial component" through the compressor. The energy level of the fluid increases as it flows through the compressor due to the action of the rotor blades which exert a torque on the fluid. [1]The stationary blades slow the fluid, converting the circumferential component of flow into pressure. Compressors are typically driven by an electric motor or a steam or a gas turbine. Axial flow compressors produce a continuous flow of compressed gas, and have the benefits of high efficiency and large mass flow rate, particularly in relation to their size and cross-section. [2]They do, however, require several rows of airfoils to achieve a large pressure rise, making them complex and expensive relative to other designs (e.g. centrifugal compressors). This paper describes the effect of aspect ratio by using ansys to investigate the influence of aspect ratio on a single stage subsonic axial flow compressor. [3]The design method then provides the blade shape that would accomplish this loading by imposing the appropriate pressure jump across the blades and the flow tangency condition. [4]The axial flow compressor compresses its working fluid by first accelerating the fluid and then diffusing it to obtain a pressure increase. The fluid is accelerated by a row of rotating airfoils(blades) stationary blades(stator).the diffusion in the stator converts the velocity increasing gained in the rotor to a pressure increase[6] The objective of the paper is to design a axial flow compressor blade by using two different aspect ratios to get better efficiency by optimizing the results we going to design axial flow compressor blade with AR1:550:550 and then CFD analysis is done similarly with AR2:550:275 and then CFD analysis is done. Need to optimize the better AR from the results of AR1 & AR2 Then need to perform structural analysis on the compressor blade for three materials chromium steel, titanium alloy and nickel alloy by observing the results we can optimize the best material to be used for manufacturing axial flow compressor blade

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Efficient Automation of Enhanced Process of Nitrogen Generation Plant Using Psa Principle by Using Plc & Scada

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Abstract:-- **In recent days most probably all industrial processes and parameters are controlled by using PLC & SCADA programming. The industrials like Oil refineries, Steel industries, Chemical plants, Shaving products plants. Nitrogen is a corrosive gas and it is usually used in Heat treatment plants. Also, it is used to dilute reagent gases, to increase the yield of some reactions, to decrease the fire or explosion. We generate nitrogen gas by using Pressure swing adsorption principle. Working on this principle depends upon the sequencing of Adsorbing and Desorbing of Carbon molecular sieves by the sequence of tower valves. These Valves are controlled by numerous cam timers, solenoid valves, Actuators and changeover Adsorbing & Desorbing of carbon molecular strainer is depending upon the Opening and closing of PSA valves. So finally Purity of nitrogen is depending upon the multiple cam timers, solenoid valves, Actuators and changeover valves. This is semi-automated. We are developing the PLC & SCADA Programming for this process. This paper describes by adding a Booster after Nitrogen surge vessel to increase pressure and placing the old electromechanical command with the PLC and SCADA. First, it displays the ladder logic that can be implemented to operate the Nitrogen generator plant. Secondly, it exhibits installation of PLC in the plant and factors to be regarded for its installation and operation.**

Index Terms - Booster compressor, Nitrogen, Psa Towers, PLC, SCADA.

INTRODUCTION

In our climatic air, this is having 78% nitrogen, 21% oxygen and 1% other impurities similar to carbon dioxide. Nitrogen plant is working on Pressure swing adsorption principle. Pressure swing adsorption principle means adsorbing and desorbing of oxygen by carbon molecular riddle and separates nitrogen from atmospheric air. In years ago the detachment of nitrogen from atmospheric air where designed using the Dynamic performance using air disunion unit. Dynamic optimization provides a utilitarian framework for the assessment of control performance limitations. It presents an edge near towards identifying the design characteristics of air separation plants that limit agility. The snags of this system design are specified and limit to control performance in retort to variations in electricity fare [1]. Non – cryogenic industrial gas processes comprise adsorption process, chemical process, polymeric membrane and iron transport membrane [2] technology. The comprehensive explanation of cryogenic processing with elucidation about compression cycles, pumped liquid cycles and low and elevated pressure cycles [3] . This paper highlights on PSA (PRESSURE SWING ADSORPTION). PSA can be most economical technique of onsite nitrogen generation for wide range of purity and flow requirements [4].

In this paper the automation is done utilizing industrial control system (ICS).This paper deals with Enhancement process of Nitrogen plant automation using PLC and SCADA. Programmable logic controller (PLC) is a digital computer used or automation of electromechanical processes, such as control of machinery on factory assembly lines, amusement ride, or light fixtures. PLC is applied in many industries and machines. Programs to sway machine operation are routinely stored in battery-backed-up or non-volatile memory. The term SCADA habitually refers to centralized systems which monitor and control entire sites, or complexes of systems unroll out over large areas. For example, a PLC may dominance the flow of cooling water through part of an industrial process, but the SCADA system may allow operators to change the set points for the flow, and enable alarm conditions, such as loss of flow and high temperature, to be displayed and recorded

II. PRINCIPLE OF OPERATION

Plant has two tanks of similar capacity constituting with different solenoid valves and other associated paraphernalia. When the pressure in air receiver tank exceeds 7 kg/cm2, it admits to first tank through appropriate valves. Now, oxygen and other impurities are absorbed by the CMS (Carbon Molecular Sieve) and nitrogen is spilt. When first tank works

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Optimization of Electrical Discharge Machining of Titanium Alloy (Ti-6Al-4 V) Using Taguchi-DEAR Method

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Abstract

Electrical discharge machining (EDM) process is widely used unconventional machining process in manufacturing industry for machining high hardness materials and to make dies of complex cavities. In this work experiments are carried out during electric discharge machining of Titanium alloy (Ti-6Al-4 V). Taguchi L9 orthogonal array is used to conduct experiments. Process parameters, such as, peak current, pulse on time and pulse off time are chosen for this study. Whereas performance characteristics namely material removal rate (MRR), tool wear rate (TWR) and surface roughness (SR) are selected for this study. The significance of process parameters on performance characteristics is analyzed. The objective of present work is to find optimal combination of parameters that gives maximum MRR and minimum TWR and SR simultaneously. Taguchi-data envelopment analysis-based ranking method is used for above multi-response optimization.

Keywords

Data envelopment analysis-based ranking, Material removal rate, Surface roughness, Tool wear rate

1. Introduction

In EDM occurrence of series of electrical sparks between two electrodes remove the material from work piece. These electrodes are separated by a small gap and submerged in a dielectric fluid. Later spark occurs momentarily and is initiated at the peak between the meeting surfaces of tool and workpiece. Due to high temperature of spark cause the localized melting and even vaporization of material from the workpiece. To enhance surface quality and minimized production cost optimization is required. Many of manufacturing research engineers to pay attention into this process to improve process capabilities because of its wide range of applications in industry. The individual effect of process parameters such as peak current and pulse duration on performance characteristics namely MRR, TWR and SR was studied. Experiments are conducted with PH17-4 stainless steel as work material and electrolyte copper as electrode material [1]. Significance of process parameters such as peak current, surfactant concentration and graphite powder concentration on performance characteristics namely, MRR, TWR and SR during EDM of PH17-4 stainless steel with surfactant and graphite powder mixed dielectric was presented. Further process parameters were optimized using Taguchi-DEAR multi response optimization method [2]. The rotary motion of work piece improves the dielectric circulation through the discharge gap results increasing in MRR [3]. The optimization of parameters of EDM process for machining of Ti - 6A1 - 4 V alloy considering multiple performance characteristics using Taguchi method and grey relational analysis have been reported [4]. The influence of process parameters such as discharge current, gap voltage, pulse-on time and duty cycle on performance characteristics material removal rate, electrode wear rate and surface roughness was reported during REDM of Ti-6Al-4 V alloy [5]. Optimization of the electrical discharge machining (EDM) process with multiple performance characteristics based on the orthogonal array with the grey relational analysis has been studied on Ti-6Al-4 V alloy [6]. It was noticed that EDMed surface unevenness increases with discharge current and pulse-on time and the recast layer thickness Increases with the pulse-on time [7]. The influence of working current, working voltage, oil pressure; spark gap, pulse on time and pulse off time on material removal rate and

Application of TOPSIS with Taguchi Method for Multi-Attribute Optimization of Machining Parameters in EDM

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Technical Paper
2018-28-0033

Sector: Automotive

Event:

International Conference on Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility

Language: English

Abstract

The present work focused on application of TOPSIS along with Taguchi method to optimize machining parameters in Electrical Discharge Machining (EDM) of Titanium alloy (Ti-6Al-4 V) considering it as multi-attribute problem. The L9 orthogonal array of Taguchi method is used to conduct experiments. During experimentation Titanium alloy (Ti-6Al-4 V) is chosen as a work material and electrolyte copper is selected as a tool electrode. Whereas peak current, pulse on time and pulse off time are chosen as machining parameters. TOPSIS method is applied to determine the optimal combination of machining parameters to yield maximum material removal rate MRR), minimum tool wear rate (TWR) and surface roughness (SR) simultaneously. Confirmation experiments have been done at optimal parametric setting, then results are compared with predicted values and it was found that percentage error is less than 5.

Fabrication and Experimental Analysis of Epoxy-Glass Fiber Composite Leaf Spring

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Technical Paper
2017-28-1985

Sector: Automotive, Commercial Vehicle

Event:

International Conference on Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility

Language: English

Abstract

Conventional materials like steel, brass, aluminum etc will fail without any indication, cracks initiation, propagation, will takes place with a short span. Now-a-days to overcome these problem, conventional materials are replaced by hybrid composite material. Not only have this conventional material failed to meet the requirement of high technology applications, like space applications and marine applications and structural applications in order to meet the above requirements new materials are being searched. Hybrid composites materials found to the best alternative with its unique capacity of designing the materials to give required properties and light weight. This paper aims to preparing hybrid composite using artificial fibers. Epoxy as resin and glass fiber as fiber for artificial hybrid composite to make a laminate for preparing leaf spring. The CAD models of composite Leaf spring and Steel leaf spring are prepared in Pro/Engineer software and imported in static structural analysis work bench of Ansys 14.5 software where Finite element analysis (FEA) is performed. And both composite and steel leaf spring specimens will be tested for their mechanical properties such as Deflection, bending stress, Stiffness, and weight to strength ratio and cost by using different machines and results will be compared. The design constraints are stresses and deflections. This study gives a comparative analysis between steel leaf spring and artificial hybrid composite leaf spring. The hybrid composite leaf spring is found to have lesser weight, lesser cost, lesser stresses and higher stiffness

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Apply of Hydro Forming For Futuristic Manufacturing

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Abstract: **-- A hydrofoil is a foil which operates in water. As a hydrofoil-equipped watercraft increases in speed, the hydrofoil elements below the hull(s) develop enough lift to raise the hull up and out of the water. This results in a great reduction in hull drag, and a further corresponding increase in speed and efficiency in operation in terms of fuel consumption.**

The foil is shaped to move smoothly through the water causing the flow to be deflected downward which according to Newton's Third Law of Motion exerts an upward force on the foil. This turning of the water causes higher pressure on the bottom and reduced pressure on the top of the foil. This pressure difference is accompanied by a velocity difference, via Bernoulli's principle, so the resulting flow field about the foil has a higher average velocity on one side than the other.

INTRODUCTION

Hydro Forming uses water pressure to form complex shapes from sheet or tube material. The pressure may go up about 60,000 psi depending on the component. As the automobile industry strives to make car lighter, stronger and more fuel efficient, it will continue to drive hydro forming applications. Some automobile parts such as structural chassis, instrument panel beam, engine cradles and radiator closures are becoming standard hydro formed parts.
The capability of hydro forming can be more fully used to create complicated parts. Using a single hydro formed item to replace several individual parts eliminate welding or hole punching, simplifies assembly and reduce inventory.

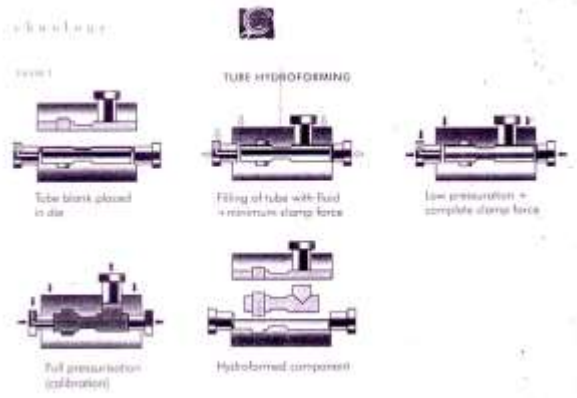
TAKING ADVANTAGE OF HYDRO FORMING

When considering hydro forming, companies need to ask whether this technology will make a part cheaper to produce. The real question is whether you can refine the entire manufacturing process to take advantage of hydro forming that is when it really makes.

Instead of looking at a single competent to determine whether it can be hydro formed , companied need to look at a product through whole process, from material to assembly , to determine what savings can be achieved . For e.g. Hydro forming often reduces number of pieces or the amount of floor space used or eliminates the need for welding stations.

METHODS OF HYDRO FORMING

Tube Hydro forming
Straight, pre bent and or performed tubes are formed by internal water pressure with additional application of compressive mechanical forces. In this method the tube in placed in die and as press clamps the die valves, low pressure fluid in introduced into tube to pre form it. One the maximum clamping pressure in achieved, the fluid pressure inside the tube in increased so that tube bulges to take internal shape of the die. Simultaneously additional cylinders axially compress the tube to prevent thinning and brushing swing expansion.



HOW CAN TUBE HYDRO FORMING BENEFIT

THE AUTO MANUFACTURER
Increased strength to weight ratios

Multiple cross – section reshaping or section modules increase

Improved stiffness torsion and bending rigidly

Improvement in NHV Factor

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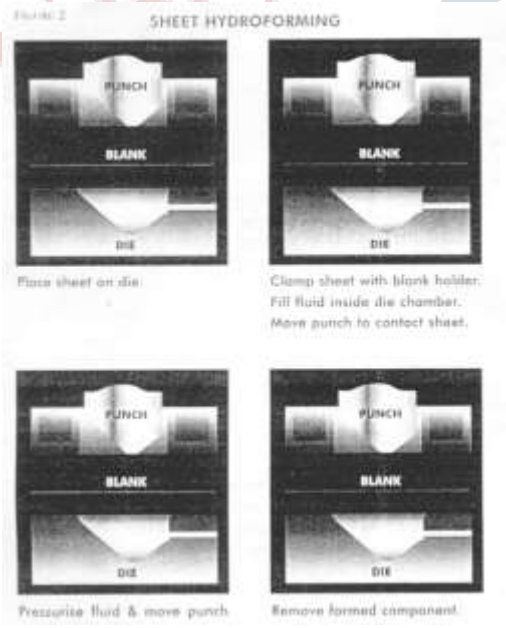
Incorporation of hole punching, slot making, embosses swing hydro forming process.

Reduction in number of manufacturing stages, hence tooling.

Reduction in welding, hence distortion and subsequent heat treatment.

SHEET HYDRO FORMING

Sheet hydro forming involves forming of sheet with application of fluid pressure. A sheet metal blank informed by hydraulic counter pressure generated by punch drawing sheet into pressurized water chambers. The water pressure effectively punches the sheet firmly against punch to form required shape.
The major advantage of fluid forming is increased drawing ratio. The process tale place in two stages performed during one press stroke. The sheet in performed by applying low fluid pressure while it is in clamped firmly by a blank holder pressure. Performing achieves on evenly distributed strengthening in the component centre. In next step fluid pressure in gradually increased and blank holder pressure in controlled relative to sheet to
reformation. The real question is whether you can refine the entire manufacturing process to take advantage of hydro forming that is when it really makes. he entire process of operation takes place inside a closed die, one cannot see what actually happens during forming.

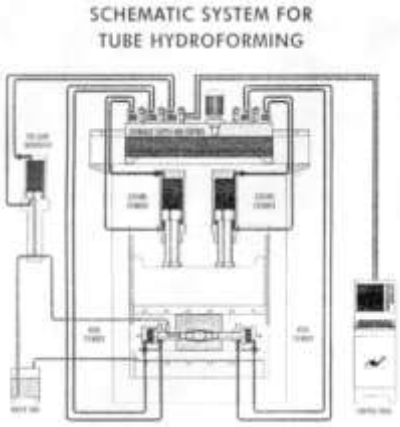


APPLICATION SPECTRUM

There are numerous automotive components well suited to hydro forming of sheets. This is especially true in area of outer skin with its extreme demand of surface quality and dimensional accuracy. Longer outer skin parts for passenger cars, utility vehicles and truck such as goods, doors and tender as well as complex structural components can be formed

HYDRO FORMING PROCESS CONTROL

A typical hydro forming system would include a press capable of developing necessary forces to clamp the die valves together when internal pressure acts on fluid; a high pressure water system to intensify water pressure for forming component, looking including aerial cylinder and punches, depending on component and a control system for process monitoring.
Since the entire process of operation takes place inside a closed die, one cannot see what actually happens during forming. Therefore the controller plays a vital role in displaying, monitoring and controlling the different parameters of forming in real time.



NEW CONCEPT IN SHEET HYDRO FORMING
DOUBLE SHEET HYDRO FORMING

Structural component with closed components are formed by this process. Some advantages of this process are:-
Integration of more parts, further reduction of components & thus steps. Stiffness increase and reduction in overall spring back due to closed box section & continuous weld section. A complete component is made in one single hydro forming step, with only top and bottom die .

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HYDRO PATH WORK OR HYDRO FORMED TAILORED BLANK

By this method, the need for additional forming joining operation in unnecessary. It is used in areas where sound insulation and vibration damping is required & where high degree of energy absorption during crash in needed. The additional or path sheet could be of same or different material or different thickness from parent material.

HYDRO JOINING

Usually after hydro forming, additional joining operations are required to form assemblies. To reduce manufacturing time and number of process steps, joining operation are being integrated into hydro forming process. This also reduces tool cost. Two approaches to hydro joining are punch riveting hydro clinching.

In punch riveting, pressurized fluid acts on one sheet while a moving punch acts on other sheets from opposite sheet . Punch is moved against rivet and under the fluid counter pressure it spreads to form a solid , visually attractive joint .
In hydro clinching, high pressure fluid action the punch. The prescribed fluid presses the material to be hydro formed part through a note in sheet to be joined .

CONCLUSION

During the last 12 years, general awareness of hydro forming has grown steadily . Although interest in hydro forming is wide ranging , the vast majority of application are in automobile industry .

Hydro Forming is not panacea for manufacturing all automotive parts. The benefits of automotive light weight resin and weight reduction achieved by hydro forming can be measured in kilogram. It cannot be applied to every components, one has to study inability of hydro forming the part and the economic and technical payback.

Just like transistor revolutionized the electronic industry, hydro forming has taken the vehicle manufacturing industry a step up to evolutionary ladder, allowing auto component for vehicle . Although hydro forming has not taken off rapidly as it should have , is only matter on time before this technology is absorbed in the industry .

REFERENCES

[1] The Machinist Journal (October Edition)
[2] www.howstuffworks.com
[3] Alessia Mentella, “Introduction to hydro forming process”, University of Cassino
[4] Masaaki Mizumura, ET. al. “Development of hydro forming technology”, Nippon steel technical report no.90, .
[5] Koç, Ed. By “Hydro forming for advanced manufacturing”, 2009 Wood head Publishing Limited
[6] www.ultimatehydroforming.com
[7] http://www.amalco.com/hydroforming.html

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Foreign Direct Investment: It's Impact on Developing Countries Economy - A Study of India

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Abstract: **- Foreign direct investment (FDI) is considered to be one of the important factors, which leads to the globalization of an economy. The globalization over the last two decades has been hailed as a major development, which results in economic prosperity in developing countries. In this paper, we have attempted to identify the Determinants, impact and problems associated with India's current foreign direct investment regime, and more importantly the other associated factors responsible for India's unattractiveness as an investment location. The presence of a large domestic market, fairly well developed financial architecture and skilled human resources, it can attract much larger foreign investments than it has done in the past. India's present international investment regime facilitates easy entry of foreign capital in almost all areas subject to specific limits on foreign ownership. Entry options have not only become procedurally simpler, but prospects for higher yields from investment have also become brighter. But the further boost to Foreign Direct Investment (FDI) will depend significantly on further liberalization of its foreign investment regime. The paper provides the brief synthesis of the regime and analyzes the economic and policy variables as the important determinants of FDI inflows to India.**

Keywords: **- Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), Gross Domestic Product (GDP), Economic Policy Reform.**

I. INTRODUCTION

India is the largest democracy and fourth largest economy in terms GDP in the world. With its consistent growth performance and high-skilled manpower, India provides enormous opportunities for foreign investment. Since the beginning of economic reforms in 1991, major reform initiatives have been taken up in the field of investment, trade and financial sector. Enactment of Competition Act, liberalization of Foreign Exchange Management Act (FEMA), and amendments in Intellectual Property Right (IPR) laws and many other initiatives make India attractive for business. India is the second most attractive foreign Direct Investment destination (A.T. Kearney 2007). Also it is the second most attractive destination among transnational Corporations for 2007- 09 (UNCTAD's World Investment Report, 2007). Though inflows have responded positively to policy changes by increasing from US$ 165 million in 1990-1991 to US$ 90 billion in 2008-2009, there might have been much more had foreign investment not been regulated in some key areas. Till the 1990s the policy was heavily restrictive with majority foreign equity permitted only in a handful export- oriented, high technology industries. Initiated reforms changed the perceptions of foreign investors with foreign investment policy becoming progressively liberal following steady withdrawal of external capital controls and simplification of procedures. While India has an overall market-friendly and liberal policy towards foreign investment, foreign capital still does not enjoy equally easy access in all parts of the economy. The manufacturing sector is still untapped accompanied by lack of access in certain services and agriculture. India's future foreign investment policy faces the critical challenge of increasing access of foreign capital to these segments. Foreign Direct Investment is now recognized as an important driver of growth in the country. Government is making all efforts to attract and facilitate and investment from Non Resident (NRIs) including Overseas Corporate Bodies (OCBs) that are predominantly owned by them, to complement and supplement domestic investment According to the International Monetary Fund (IMF), a has three components, namely equity capital, reinvested earnings and other direct capital. A large number of countries, including several developing countries, report inflows in accordance with the IMF definition. However, the Reserve Bank of India (RBI) reports inflows only on the basis of investments received from non-residents on equity and preference share capital under the scheme. One of the most striking developments during the last two decades is the spectacular growth of in the global economic landscape. This unprecedented growth of global in 1990 around the

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Efficient Automation of Enhanced Process of Nitrogen Generation Plant Using Psa Principle by Using Plc & Scada

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[1] Assistant professor Department of Mechanical Engineering, Balaji Institute of Technology and Science, Warangal, [2][3] Professor, Department of Mechanical Engineering, Balaji Institute of Technology and Science, Warangal

Abstract:-- **In recent days most probably all industrial processes and parameters are controlled by using PLC & SCADA programming. The industrials like Oil refineries, Steel industries, Chemical plants, Shaving products plants. Nitrogen is a corrosive gas and it is usually used in Heat treatment plants. Also, it is used to dilute reagent gases, to increase the yield of some reactions, to decrease the fire or explosion. We generate nitrogen gas by using Pressure swing adsorption principle. Working on this principle depends upon the sequencing of Adsorbing and Desorbing of Carbon molecular sieves by the sequence of tower valves. These Valves are controlled by numerous cam timers, solenoid valves, Actuators and changeover Adsorbing & Desorbing of carbon molecular strainer is depending upon the Opening and closing of PSA valves. So finally Purity of nitrogen is depending upon the multiple cam timers, solenoid valves, Actuators and changeover valves. This is semi-automated. We are developing the PLC & SCADA Programming for this process. This paper describes by adding a Booster after Nitrogen surge vessel to increase pressure and placing the old electromechanical command with the PLC and SCADA. First, it displays the ladder logic that can be implemented to operate the Nitrogen generator plant. Secondly, it exhibits installation of PLC in the plant and factors to be regarded for its installation and operation.**

Index Terms - Booster compressor, Nitrogen, Psa Towers, PLC, SCADA.

INTRODUCTION

In our climatic air, this is having 78% nitrogen, 21% oxygen and 1% other impurities similar to carbon dioxide. Nitrogen plant is working on Pressure swing adsorption principle. Pressure swing adsorption principle means adsorbing and desorbing of oxygen by carbon molecular riddle and separates nitrogen from atmospheric air. In years ago the detachment of nitrogen from atmospheric air where designed using the Dynamic performance using air disunion unit. Dynamic optimization provides a utilitarian framework for the assessment of control performance limitations. It presents an edge near towards identifying the design characteristics of air separation plants that limit agility. The snags of this system design are specified and limit to control performance in retort to variations in electricity fare [1]. Non – cryogenic industrial gas processes comprise adsorption process, chemical process, polymeric membrane and iron transport membrane [2] technology. The comprehensive explanation of cryogenic processing with elucidation about compression cycles, pumped liquid cycles and low and elevated pressure cycles [3] . This paper highlights on PSA (PRESSURE SWING ADSORPTION). PSA can be most economical technique of onsite nitrogen generation for wide range of purity and flow requirements [4].

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Mechanical Characterization of Fiber Reinforced Glass Epoxy Hybrid Composite

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Abstract: **-- This paper presents the study of mechanical properties of the composite reinforced with the slag and coconut shell powder. Composites have been developed by hand lay-up technique with different weight fractions of 0%,3%,6%,9%,12% of slag and coconut shell powder separate composite plates.9% of Coconut shell powder reinforced composite shows better tensile strength results when compared with the slag reinforced composite. From the XRD results, it is noticed that carbon content will be more of Coconut shell powder then slag. The flexural strength tends to increase up to 9% of reinforcement beyond the 9% material tends to exhibit brittleness. The addition slag exhibits higher impact strength when compared with coconut shell powder. Hardness number of composites increases with the addition of reinforcement.**

Index Terms - E-glass, Coconut shell powder (CSP), Slag

INTRODUCTION TO COMPOSITE

Composite is defined as "An anisotropic, heterogeneous medium, made by combining two or more materials with different properties. Composite properties are different they do not merge completely with each other and it is identified by physically interface between them. The properties of the interface also contribute to the properties of the composite". Composite - with light weight, low density, high strength to weight ratio, stiffness property and corrosion resistance have come a long way in replacing the conventional materials such as steel, aluminium, timber, etc. Now a day's composite are being used for the manufacturing of prefabricated, portable and modular buildings as well as for exterior cladding panels, which can simulate masonry or stone. In interior applications composites are used in the manufacturing of the shower enclosures, trays, bath, sinks, troughs and spas. Cast composites products are widely used for the production of vanity units, bench tops and basins. Owing to their good combination of properties, recently composites are widely used in automotive and aircraft industries in the manufacturing of Spaceships, sea vehicles,etc.

EXPERIMENTAL DETAILS

Fiber reinforced composites are composed of fibers and a matrix. Fibers are the reinforcement and the main source of strength while the matrix 'glues' all the fibers together in shape and transfers stresses between the reinforcing fibers. Fillers are added for the manufacturing composite material, to improve the properties of the material and to reduce the product cost by saving the matrix.

Materials Used

SI NO	CONTENT	MATERIAL
1	Reinforcement	E-Glass
2	Matrix	Epoxy LY- 556 with Hardner
3	Fillers	CSP, Slag

Sample Preparation

In the present work a composite sheet of 400 mm X 400 mm X 3 mm thick is fabricated using hand layup and bag molding process for different weight fractions of slag and coconut shell powder reinforced with glass fiber, epoxy resin. Mass of glass fiber, epoxy resin and mass of the fillers were calculated using equations as per their volume and density(Table 1, Table 1.1, Table 1.2).

Table: 1. Mass of glass, Epoxy and slag

Materials	Density	Volume	0%	3%	6%	9%	12%
			Mass (gm)	Mass (gm)	Mass (gm)	Mass (gm)	Mass (gm)
Glass Fiber	2.54	144	365.76	365.76	365.76	365.76	365.76
Epoxy Resign	1.15	336	386.4	369.84	353.28	336.72	320.16
Slag	2.8	-	0	40.32	80.64	120.96	161.28

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Design and Analysis of Axial Flow Compressor Blade Using Different Aspect Ratios with Different Materials

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***Abstract:*-- An axial flow compressor is a pressure developing machine. It is a rotating, airfoil-based compressor in which the working fluid principally flows parallel to the axis of rotation. This is in contrast with other rotating compressors such as centrifugal compressors, axial flow centrifugal compressors and mixed-flow compressors where the air may enter axially but will have a significant radial component on exit. The energy level of air or gas flowing through it is increased by the action of the rotor blades which exert a torque on the fluid which is supplied by an electric motor or a steam or a gas turbine. In this work, an axial flow compressor is designed by varying aspect ratios (ratio of blade height to axial chord length) where blade height is kept constant and 3D models are modeled using Pro/E. The present material used is Chromium Steel it is replaced with Titanium alloy and Nickel alloy.**

CFD analysis is done to verify the flow characteristics of fluid under turbulent conditions by applying the mass flow rate and inlet pressure, outlet pressure, velocity and mass flow rates. Structural analysis is done on the compressor models to verify the strength of the compressor for all the materials chromium steel, titanium alloy and nickel alloy by applying pressure which is output from CFD analysis. The analysis is done in Ansys.

Index Terms - Axial flow compressor, Aspect ratios and CFD analysis.

1. INTRODUCTION

An axial compressor is an important part of any efficient gas turbine. Axial flow compressors are the fluid pumping machinery where the fluid enters and exits axially to the rotor axis. The unique features like high mass flow rate for a small frontal area and high efficiency ratio with higher mass flow rate makes multistage axial flow compressors a perfect choice for gas turbines used in jet engines. The performance and reliability of a gas turbine heavily relies on its axial compressor module. An axial flow compressor is a machine that can continuously pressurize gases. It is a rotating, airfoil-based compressor in which the gas or working fluid principally flows parallel to the axis of rotation. This differs from other rotating compressors such as centrifugal compressors, axial flow centrifugal compressors and mixed-flow compressors where the fluid flow will include a "radial component" through the compressor. The energy level of the fluid increases as it flows through the compressor due to the action of the rotor blades which exert a torque on the fluid. [1]The stationary blades slow the fluid, converting the circumferential component of flow into pressure. Compressors are typically driven by an electric motor or a steam or a gas turbine. Axial flow compressors produce a continuous flow of compressed gas, and have the benefits of high efficiency and large mass flow rate, particularly in relation to their size and cross-section. [2]They do, however, require several rows of airfoils to achieve a large pressure rise, making them complex and expensive relative to other designs (e.g. centrifugal compressors). This paper describes the effect of aspect ratio by using ansys to investigate the influence of aspect ratio on a single stage subsonic axial flow compressor. [3]The design method then provides the blade shape that would accomplish this loading by imposing the appropriate pressure jump across the blades and the flow tangency condition. [4]The axial flow compressor compresses its working fluid by first accelerating the fluid and then diffusing it to obtain a pressure increase. The fluid is accelerated by a row of rotating airfoils(blades) stationary blades(stator).the diffusion in the stator converts the velocity increasing gained in the rotor to a pressure increase[6] The objective of the paper is to design a axial flow compressor blade by using two different aspect ratios to get better efficiency by optimizing the results we going to design axial flow compressor blade with AR1:550:550 and then CFD analysis is done similarly with AR2:550:275 and then CFD analysis is done. Need to optimize the better AR from the results of AR1 & AR2 Then need to perform structural analysis on the compressor blade for three materials chromium steel, titanium alloy and nickel alloy by observing the results we can optimize the best material to be used for manufacturing axial flow compressor blade

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Efficient Automation of Enhanced Process of Nitrogen Generation Plant Using Psa Principle by Using Plc & Scada

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Abstract:-- **In recent days most probably all industrial processes and parameters are controlled by using PLC & SCADA programming. The industrials like Oil refineries, Steel industries, Chemical plants, Shaving products plants. Nitrogen is a corrosive gas and it is usually used in Heat treatment plants. Also, it is used to dilute reagent gases, to increase the yield of some reactions, to decrease the fire or explosion. We generate nitrogen gas by using Pressure swing adsorption principle. Working on this principle depends upon the sequencing of Adsorbing and Desorbing of Carbon molecular sieves by the sequence of tower valves. These Valves are controlled by numerous cam timers, solenoid valves, Actuators and changeover Adsorbing & Desorbing of carbon molecular strainer is depending upon the Opening and closing of PSA valves. So finally Purity of nitrogen is depending upon the multiple cam timers, solenoid valves, Actuators and changeover valves. This is semi-automated. We are developing the PLC & SCADA Programming for this process. This paper describes by adding a Booster after Nitrogen surge vessel to increase pressure and placing the old electromechanical command with the PLC and SCADA. First, it displays the ladder logic that can be implemented to operate the Nitrogen generator plant. Secondly, it exhibits installation of PLC in the plant and factors to be regarded for its installation and operation.**

Index Terms - Booster compressor, Nitrogen, Psa Towers, PLC, SCADA.

INTRODUCTION

In our climatic air, this is having 78% nitrogen, 21% oxygen and 1% other impurities similar to carbon dioxide. Nitrogen plant is working on Pressure swing adsorption principle. Pressure swing adsorption principle means adsorbing and desorbing of oxygen by carbon molecular riddle and separates nitrogen from atmospheric air. In years ago the detachment of nitrogen from atmospheric air where designed using the Dynamic performance using air disunion unit. Dynamic optimization provides a utilitarian framework for the assessment of control performance limitations. It presents an edge near towards identifying the design characteristics of air separation plants that limit agility. The snags of this system design are specified and limit to control performance in retort to variations in electricity fare [1]. Non – cryogenic industrial gas processes comprise adsorption process, chemical process, polymeric membrane and iron transport membrane [2] technology. The comprehensive explanation of cryogenic processing with elucidation about compression cycles, pumped liquid cycles and low and elevated pressure cycles [3] . This paper highlights on PSA (PRESSURE SWING ADSORPTION). PSA can be most economical technique of onsite nitrogen generation for wide range of purity and flow requirements [4].

In this paper the automation is done utilizing industrial control system (ICS).This paper deals with Enhancement process of Nitrogen plant automation using PLC and SCADA. Programmable logic controller (PLC) is a digital computer used or automation of electromechanical processes, such as control of machinery on factory assembly lines, amusement ride, or light fixtures. PLC is applied in many industries and machines. Programs to sway machine operation are routinely stored in battery-backed-up or non-volatile memory. The term SCADA habitually refers to centralized systems which monitor and control entire sites, or complexes of systems unroll out over large areas. For example, a PLC may dominance the flow of cooling water through part of an industrial process, but the SCADA system may allow operators to change the set points for the flow, and enable alarm conditions, such as loss of flow and high temperature, to be displayed and recorded

II. PRINCIPLE OF OPERATION

Plant has two tanks of similar capacity constituting with different solenoid valves and other associated paraphernalia. When the pressure in air receiver tank exceeds 7 kg/cm2, it admits to first tank through appropriate valves. Now, oxygen and other impurities are absorbed by the CMS (Carbon Molecular Sieve) and nitrogen is spilt. When first tank works

Optimization of Electrical Discharge Machining of Titanium Alloy (Ti-6Al-4 V) Using Taguchi-DEAR Method

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Sector: Automotive

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Language: English

Abstract

Electrical discharge machining (EDM) process is widely used unconventional machining process in manufacturing industry for machining high hardness materials and to make dies of complex cavities. In this work experiments are carried out during electric discharge machining of Titanium alloy (Ti-6Al-4 V). Taguchi L9 orthogonal array is used to conduct experiments. Process parameters, such as, peak current, pulse on time and pulse off time are chosen for this study. Whereas performance characteristics namely material removal rate (MRR), tool wear rate (TWR) and surface roughness (SR) are selected for this study. The significance of process parameters on performance characteristics is analyzed. The objective of present work is to find optimal combination of parameters that gives maximum MRR and minimum TWR and SR simultaneously. Taguchi-data envelopment analysis-based ranking method is used for above multi-response optimization.

Application of TOPSIS with Taguchi Method for Multi-Attribute Optimization of Machining Parameters in EDM

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Abstract

The present work focused on application of TOPSIS along with Taguchi method to optimize machining parameters in Electrical Discharge Machining (EDM) of Titanium alloy (Ti-6Al-4 V) considering it as multi-attribute problem. The L9 orthogonal array of Taguchi method is used to conduct experiments. During experimentation Titanium alloy (Ti-6Al-4 V) is chosen as a work material and electrolyte copper is selected as a tool electrode. Whereas peak current, pulse on time and pulse off time are chosen as machining parameters. TOPSIS method is applied to determine the optimal combination of machining parameters to yield maximum material removal rate MRR), minimum tool wear rate (TWR) and surface roughness (SR) simultaneously. Confirmation experiments have been done at optimal parametric setting, then results are compared with predicted values and it was found that percentage error is less than 5.

Fabrication and Experimental Analysis of Epoxy-Glass Fiber Composite Leaf Spring

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Technical Paper
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Sector: Automotive, Commercial Vehicle

Event:

International Conference on Advances in Design, Materials, Manufacturing and Surface Engineering for Mobility

Language: English

Abstract

Conventional materials like steel, brass, aluminum etc will fail without any indication, cracks initiation, propagation, will takes place with a short span. Now-a-days to overcome these problem, conventional materials are replaced by hybrid composite material. Not only have this conventional material failed to meet the requirement of high technology applications, like space applications and marine applications and structural applications in order to meet the above requirements new materials are being searched. Hybrid composites materials found to the best alternative with its unique capacity of designing the materials to give required properties and light weight. This paper aims to preparing hybrid composite using artificial fibers. Epoxy as resin and glass fiber as fiber for artificial hybrid composite to make a laminate for preparing leaf spring. The CAD models of composite Leaf spring and Steel leaf spring are prepared in Pro/Engineer software and imported in static structural analysis work bench of Ansys 14.5 software where Finite element analysis (FEA) is performed. And both composite and steel leaf spring specimens will be tested for their mechanical properties such as Deflection, bending stress, Stiffness, and weight to strength ratio and cost by using different machines and results will be compared. The design constraints are stresses and deflections. This study gives a comparative analysis between steel leaf spring and artificial hybrid composite leaf spring. The hybrid composite leaf spring is found to have lesser weight, lesser cost, lesser stresses and higher stiffness

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Apply of Hydro Forming For Futuristic Manufacturing

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Abstract: **-- A hydrofoil is a foil which operates in water. As a hydrofoil-equipped watercraft increases in speed, the hydrofoil elements below the hull(s) develop enough lift to raise the hull up and out of the water. This results in a great reduction in hull drag, and a further corresponding increase in speed and efficiency in operation in terms of fuel consumption.**

The foil is shaped to move smoothly through the water causing the flow to be deflected downward which according to Newton's Third Law of Motion exerts an upward force on the foil. This turning of the water causes higher pressure on the bottom and reduced pressure on the top of the foil. This pressure difference is accompanied by a velocity difference, via Bernoulli's principle, so the resulting flow field about the foil has a higher average velocity on one side than the other.

INTRODUCTION

Hydro Forming uses water pressure to form complex shapes from sheet or tube material. The pressure may go up about 60,000 psi depending on the component. As the automobile industry strives to make car lighter, stronger and more fuel efficient, it will continue to drive hydro forming applications. Some automobile parts such as structural chassis, instrument panel beam, engine cradles and radiator closures are becoming standard hydro formed parts.
The capability of hydro forming can be more fully used to create complicated parts. Using a single hydro formed item to replace several individual parts eliminate welding or hole punching, simplifies assembly and reduce inventory.

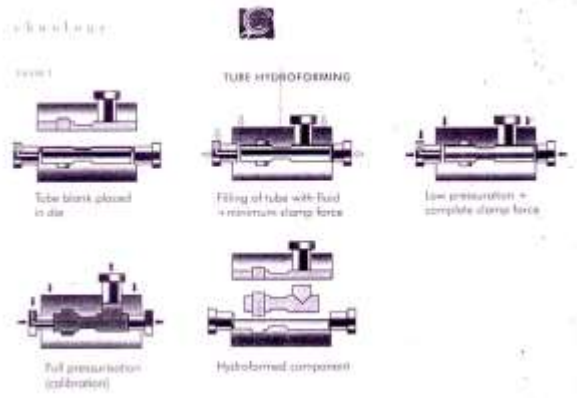
TAKING ADVANTAGE OF HYDRO FORMING

When considering hydro forming, companies need to ask whether this technology will make a part cheaper to produce. The real question is whether you can refine the entire manufacturing process to take advantage of hydro forming that is when it really makes.

Instead of looking at a single competent to determine whether it can be hydro formed , companied need to look at a product through whole process, from material to assembly , to determine what savings can be achieved . For e.g. Hydro forming often reduces number of pieces or the amount of floor space used or eliminates the need for welding stations.

METHODS OF HYDRO FORMING

Tube Hydro forming
Straight, pre bent and or performed tubes are formed by internal water pressure with additional application of compressive mechanical forces. In this method the tube in placed in die and as press clamps the die valves, low pressure fluid in introduced into tube to pre form it. One the maximum clamping pressure in achieved, the fluid pressure inside the tube in increased so that tube bulges to take internal shape of the die. Simultaneously additional cylinders axially compress the tube to prevent thinning and brushing swing expansion.



HOW CAN TUBE HYDRO FORMING BENEFIT

THE AUTO MANUFACTURER
Increased strength to weight ratios

Multiple cross – section reshaping or section modules increase

Improved stiffness torsion and bending rigidly

Improvement in NHV Factor

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Foreign Direct Investment: It's Impact on Developing Countries Economy - A Study of India

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Abstract: **- Foreign direct investment (FDI) is considered to be one of the important factors, which leads to the globalization of an economy. The globalization over the last two decades has been hailed as a major development, which results in economic prosperity in developing countries. In this paper, we have attempted to identify the Determinants, impact and problems associated with India's current foreign direct investment regime, and more importantly the other associated factors responsible for India's unattractiveness as an investment location. The presence of a large domestic market, fairly well developed financial architecture and skilled human resources, it can attract much larger foreign investments than it has done in the past. India's present international investment regime facilitates easy entry of foreign capital in almost all areas subject to specific limits on foreign ownership. Entry options have not only become procedurally simpler, but prospects for higher yields from investment have also become brighter. But the further boost to Foreign Direct Investment (FDI) will depend significantly on further liberalization of its foreign investment regime. The paper provides the brief synthesis of the regime and analyzes the economic and policy variables as the important determinants of FDI inflows to India.**

Keywords: **- Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), Gross Domestic Product (GDP), Economic Policy Reform.**

I. INTRODUCTION

India is the largest democracy and fourth largest economy in terms GDP in the world. With its consistent growth performance and high-skilled manpower, India provides enormous opportunities for foreign investment. Since the beginning of economic reforms in 1991, major reform initiatives have been taken up in the field of investment, trade and financial sector. Enactment of Competition Act, liberalization of Foreign Exchange Management Act (FEMA), and amendments in Intellectual Property Right (IPR) laws and many other initiatives make India attractive for business. India is the second most attractive foreign Direct Investment destination (A.T. Kearney 2007). Also it is the second most attractive destination among transnational Corporations for 2007- 09 (UNCTAD's World Investment Report, 2007). Though inflows have responded positively to policy changes by increasing from US$ 165 million in 1990-1991 to US$ 90 billion in 2008-2009, there might have been much more had foreign investment not been regulated in some key areas. Till the 1990s the policy was heavily restrictive with majority foreign equity permitted only in a handful export- oriented, high technology industries. Initiated reforms changed the perceptions of foreign investors with foreign investment policy becoming progressively liberal following steady withdrawal of external capital controls and simplification of procedures. While India has an overall market-friendly and liberal policy towards foreign investment, foreign capital still does not enjoy equally easy access in all parts of the economy. The manufacturing sector is still untapped accompanied by lack of access in certain services and agriculture. India's future foreign investment policy faces the critical challenge of increasing access of foreign capital to these segments. Foreign Direct Investment is now recognized as an important driver of growth in the country. Government is making all efforts to attract and facilitate and investment from Non Resident (NRIs) including Overseas Corporate Bodies (OCBs) that are predominantly owned by them, to complement and supplement domestic investment According to the International Monetary Fund (IMF), a has three components, namely equity capital, reinvested earnings and other direct capital. A large number of countries, including several developing countries, report inflows in accordance with the IMF definition. However, the Reserve Bank of India (RBI) reports inflows only on the basis of investments received from non-residents on equity and preference share capital under the scheme. One of the most striking developments during the last two decades is the spectacular growth of in the global economic landscape. This unprecedented growth of global in 1990 around the

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Plant has two tanks of similar capacity constituting with different solenoid valves and other associated paraphernalia. When the pressure in air receiver tank exceeds 7 kg/cm2, it admits to first tank through appropriate valves. Now, oxygen and other impurities are absorbed by the CMS (Carbon Molecular Sieve) and nitrogen is spilt. When first tank works

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Mechanical Characterization of Fiber Reinforced Glass Epoxy Hybrid Composite

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Abstract: **-- This paper presents the study of mechanical properties of the composite reinforced with the slag and coconut shell powder. Composites have been developed by hand lay-up technique with different weight fractions of 0%,3%,6%,9%,12% of slag and coconut shell powder separate composite plates.9% of Coconut shell powder reinforced composite shows better tensile strength results when compared with the slag reinforced composite. From the XRD results, it is noticed that carbon content will be more of Coconut shell powder then slag. The flexural strength tends to increase up to 9% of reinforcement beyond the 9% material tends to exhibit brittleness. The addition slag exhibits higher impact strength when compared with coconut shell powder. Hardness number of composites increases with the addition of reinforcement.**

Index Terms - E-glass, Coconut shell powder (CSP), Slag

INTRODUCTION TO COMPOSITE

Composite is defined as "An anisotropic, heterogeneous medium, made by combining two or more materials with different properties. Composite properties are different they do not merge completely with each other and it is identified by physically interface between them. The properties of the interface also contribute to the properties of the composite". Composite - with light weight, low density, high strength to weight ratio, stiffness property and corrosion resistance have come a long way in replacing the conventional materials such as steel, aluminium, timber, etc. Now a day's composite are being used for the manufacturing of prefabricated, portable and modular buildings as well as for exterior cladding panels, which can simulate masonry or stone. In interior applications composites are used in the manufacturing of the shower enclosures, trays, bath, sinks, troughs and spas. Cast composites products are widely used for the production of vanity units, bench tops and basins. Owing to their good combination of properties, recently composites are widely used in automotive and aircraft industries in the manufacturing of Spaceships, sea vehicles,etc.

EXPERIMENTAL DETAILS

Fiber reinforced composites are composed of fibers and a matrix. Fibers are the reinforcement and the main source of strength while the matrix 'glues' all the fibers together in shape and transfers stresses between the reinforcing fibers. Fillers are added for the manufacturing composite material, to improve the properties of the material and to reduce the product cost by saving the matrix.

Materials Used

SI NO	CONTENT	MATERIAL
1	Reinforcement	E-Glass
2	Matrix	Epoxy LY- 556 with Hardner
3	Fillers	CSP, Slag

Sample Preparation

In the present work a composite sheet of 400 mm X 400 mm X 3 mm thick is fabricated using hand layup and bag molding process for different weight fractions of slag and coconut shell powder reinforced with glass fiber, epoxy resin. Mass of glass fiber, epoxy resin and mass of the fillers were calculated using equations as per their volume and density(Table 1, Table 1.1, Table 1.2).

Table: 1. Mass of glass, Epoxy and slag

Materials	Density	Volume	0%	3%	6%	9%	12%
			Mass (gm)	Mass (gm)	Mass (gm)	Mass (gm)	Mass (gm)
Glass Fiber	2.54	144	365.76	365.76	365.76	365.76	365.76
Epoxy Resign	1.15	336	386.4	369.84	353.28	336.72	320.16
Slag	2.8	-	0	40.32	80.64	120.96	161.28

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MATRIX CONVERTER BASED MULTI-PHASE POWER CONVERSION

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ABSTRACT
This paper proposes a new approach of design and implementation of 3 phase to 3 phase conversion using matrix converter. It includes the design, modeling and implementation. The entire matrix converter circuits are developed by mathematical model so as to reduce computational time and performances of the converter are evaluated using MATLAB/SIMULINK for RL Load. The mathematical expressions relating the input and output of the three phase matrix converter are implemented by using simulink block set. The duty cycles of the matrix converter bidirectional switches are calculated using modified venturini algorithm for maximum (0.866) and minimum (0.5) voltage transfer ratio.
Keywords - 3 phase to 3 phase converter, AC to AC converter, Matrix converter, Multi-phase converter, Power converter.

I. INTRODUCTION

A matrix converter is an ac/ac converter that can directly convert an ac power supply voltage into an ac voltage of variable amplitude and frequency. It has high power quality and it is fully regenerative. Due to the increasing importance of power quality and energy efficiency issues, the Matrix converter technology has recently attracted the power electronics industry. Direct ac/ac converters have been studied in an attempt to realize high efficiencies, long lifetime, size reduction, and unity power factors. The benefits of using direct ac/ac converters are even greater for medium voltage converters as direct ac/ac converters do not require electrolytic capacitors, which account for most of the volume and cost of medium-voltage converters. Due to the absence of energy storage elements, Matrix converter has higher power density than PWM inverter drives. However, for the same reason, the ac line side disturbances can degrade its performance and reliability. Therefore the matrix converter drive performance under abnormal input voltage conditions were introduced [1].Timing errors in the switching between the series-connected switches cause a voltage imbalance in the snubber circuit and increase voltage stress. A new bidirectional switch with regenerative snubber to realize simple series connection for matrix converters was proposed [2]. Forced commutations of the high number of semiconductors cause switching losses that

Simulation of Switched Capacitor Inverter Topology with Boost Facility

R. Saravanan, A. Hanumaiah, M. Venkatesan, K Balachander

Abstract: ***Simulation of switched capacitor inverter topology with boost facility is presented in this paper. The main merits of this inverter topology with boos facility are highly adaptable for Photo Voltaic (PV) applications. The inverter is capable of boosting up low voltage DC into high voltage DC and then invert it to the required voltage level with a single stage. The switched capacitor inverter has a special extended structure, which minimizes the number of components and devices when compared to the other inverter is switched by the means of level shifting carrier based Pulse Width Modulation (PWM) technique. Further, some of the switches in the topology operate in the low frequency and this resulted in a reduction in switching losses thereby increasing the efficiency. This maintains the capacitor voltages at a balanced level. The simulation results are verified through MATLAB/Simulink.***

Keywords**: Switched capacitor inverter, boost facilities Level shift PWM, THD.***

I. INTRODUCTION

In recent years, multilevel inverter (MLIs) structure has grown to be an attractive area among researches and industrials, who work in the area of which includes renewable energy integration and high power converters etc. [1]. MLIs are capable of generating nearly sinusoidal waveforms, which can solve of power quality problem. Primarily, MLIs produces a high quality AC output from a different DC voltage sources. MLIs are classified into diode clamped, capacitor clamped and cascaded H-bridge. The drawbacks of diode clamped inverter topology are that it shares unequal voltage between series connected capacitors and also it requires more diodes to produce more number of voltage levels at the output. Some of the advanced diode clamped inverter topologies are presented in [2]-[7]. In those topologies diodes are replaced with active devices, but this result in increased conduction losses because of high total conduction voltage at zero vectors. A cascaded MLI has many H-bridges which are connected in series at the output side. Each H-bridge requires an independent input DC source. If the magnitude of DC sources of all the H-bridge is equal, then the configuration is called as symmetrical configuration, whereas if the magnitudes of DC sources are different then the configuration is called as asymmetrical configuration. Asymmetrical configuration can generate more number of levels at the load when compared to symmetrical configuration. But controlling the asymmetrical configuration is highly complicated when compared to symmetrical one. Furthermore, both configurations a number of DC source. To generate higher level, utilization of the device is also increased. Many researchers have been designed using single DC source instead of separate DC sources for solving many problems in this paper [8, 9]. In Photovoltaic (PV) applications, generally a DC-DC converter is used to obtain high voltage from a low DC voltage. This high DC voltage is again inverted into AC voltage through MLIs. Hence, it is necessary for two stages of conversion. Thus this two stage conversion increases the system complexity and reduces the efficiency of the system. This paper proposes a new extendable capacitor clamped MLI using switched capacitor topology. Further, the proposed inverter uses a level shifting carrier based PWM to trigger the devices of the inverter. The main advantage of the system is that, components utilization of the system has been reduced due to its combined structure.

II. POWER CIRCUIT DIAGRAM

Figure 1 shows the circuit diagram of a proposed inverter. It comprises a conventional H- bridge inverter along with switched capacitor network.

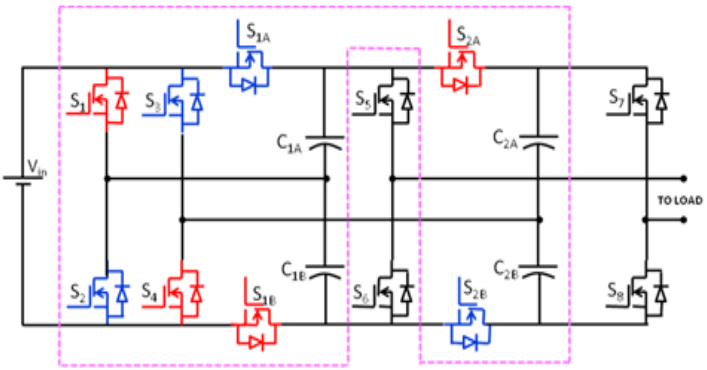

Fig.1 Power circuit diagram

The SCT has four capacitors and eight power devices. Switches S_1, S_4, S_{1B}, S_{2A} are named as S_P switches and S_2, S_3, S_{1A}, S_{2B} is named as S_N switches. The circuit operates in two states such as state A and B. In state A, S_P switches are turned ON and in state B S_N switches are turned ON as shown in Figure 2(a) and 2(b) respectively.

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An Efficient Kalman Noise Canceller for Cardiac Signal Analysis in Modern Telecardiology Systems

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ABSTRACT The monitoring of electrocardiography (ECG) in ambulatory conditions is an important task for achieving success in remote healthcare monitoring. In this paper, Kalman-based adaptive artifact cancellation structures, which are the hybrid versions of least-mean-square (LMS) algorithm variants, are proposed for the high-resolution enhancement of an ECG signal. The main advantage of the Kalman-based adaptive filter structure lies in the extraction of the ECG signal at a low signal-to-noise ratio (SNR). This property helps the Kalman noise canceller (KNC) to achieve greater monitoring accuracy. The hybrid version of this Kalman algorithm makes the noise canceller independent of the step-size parameter, whereas the performance of conventional adaptive filters depends on the step-size parameter. In the proposed KNCs, we use discrete wavelet transform to generate a reference component from the contaminated ECG signal itself. In addition to these constraints, in remote health care monitoring, it is necessary to lower the computational burden and increase the convergence rate of the noise canceller. In a practical remote health care monitoring system if the computational burden of the signal conditioning unit is more, then it takes a much greater amount of time to process samples in the filter. This leads to waiting of incoming samples at the input port of the filter. This causes overlapping of samples at the input port and causes ambiguity in the diagnosis process. To achieve the feature of low computational complexity, we combine Kalman-based LMS (KLMS) with sign algorithms. In addition, data normalization is introduced to improve convergence characteristics. Finally, to test the performance of the proposed implementations, real ECG signals from the MIT-BIH database is used. The measured parameters, namely, SNR, excess mean square error, and mis-adjustment are calculated in the enhancement process to judge the ability of various algorithms. Experimental results confirm that the proposed Kalman-based adaptive algorithms are better than the LMS-based algorithms. Among the implemented techniques sign regressor-based KNC performs better in terms of various considered measures.

INDEX TERMS Adaptive noise cancellers, artifacts, convergence, electrocardiography, Kalman filter, telecardiology.

I. INTRODUCTION

This storage modern day healthcare and advancements in technology is able to reach and service a large group of people in all parts of the world where conventional health care systems face limitations. Advanced technologies are increasingly needed to meet the challenges posed by increased health issues. One of the most commonly known problems is heart health. With the diversities in lifestyles across the globe, this problem matters. In the WHO's report on non-communicable diseases, it was reported that approximately 33% of people face heart problems [1]. However, it is possible to identify cardiac health via analysis. Arrhythmia, which is indicative of heart problems, can be identified by analyzing ECG signals. It is done by monitoring the signal morphology over a time period. The components P, Q, R, S and T are the elements that are observed in an ECG signal, and these elements help in identifying the arrhythmia. However, the ECG signal can be severely affected by noise during extraction and transmission. Noise affects the shape and amplitude of the elements of ECG signals. As a result, identifying the

Adaptive Artifact Elimination in Telecardiology Systems using Leaky LMS Variants

AsiyaSulthana, Md. Zia Ur Rahman

Abstract: ***Evaluation of Electrocardiogram (ECG) facilitates the heart stroke volume in the sudden cardiac arrest. ECG is a noninvasive method for indirect analysis of stroke volume, monitoring the cardiac output and observing the hemodynamic parameters by changes in the blood volume of the body. Changes in the blood volume caused due to several physiological processes are extracted in the form of the impedance variations of the body segment. In the real time clinical environment ECG signals are contaminated with various artifacts. As these artifacts are not stationary in nature, we developed several hybrid adaptive filtering techniques to enhance the resolution of ECG signals. Least mean square (LMS) algorithm is the basic enhancement technique in the adaptive filtering. But, in the non-stationery environment the LMS algorithm suffers with low convergence rate and weight drift problems. In this paper we developed hybrid versions of LMS algorithm that is Normalized Leaky LMS (NLLMS) for ECG signal enhancement. More over to improve the rate of convergence, filtering capability and to minimize the computational complexity we also implement various sign versions of LLMS algorithms. The sign versions of NLLMS algorithms are sign regressor NLLMS (SRNLLMS), Sign NLLMS (SNLLMS), and Sign Sign NLLMS (SSNLLMS). Based on these adaptive algorithms, we developed several adaptive signal enhancement units (ASEUs) and performance is evaluated on the real ECG signal components obtained from MIT-BIT database. To ensure the ability of these algorithms, four experiments were performed to remove the various artifacts such as sinusoidal artifacts (SA), respiration artifacts (RA), muscle artifacts (MA) and electrode artifacts (EA). Among these techniques, the ASEU based on SRNLLMS performs better in the artifacts removing process. The signal to noise ratio improvement (SNRI) for this algorithm is calculated as 18.3165 dBs, 8.0964 dBs, 6.7025 dBs and 8.0825 dBs respectively for SA, RA, MA and EA. Hence, the SRLLMS based ASEUs are more suitable in ECG signal filtering in real time health care sensing systems.***

Index Terms**: *adaptive filter, artifacts, electrocardiography, non-invasive, signal enhancement.***

I. INTRODUCTION

According to the statistic reports given by World Health Organization (WHO), the ischemia Heart disease is one of the leading causes of death worldwide [1]. One of the popular methods to measure cardiac activity is hemodynamics in which the flow of the blood across the body is measured. Impedance plethysmography techniques that use changes in electrical impedance on the surface of the body to measure hemodynamic parameters. Electrocardiography (ECG) is a simple, inexpensive and noninvasive method to observe the electrical impedance changes of thorax, which is caused due to the periodic changes in the volume of blood in aorta.To estimate Cardiac Output (CO), Stroke Volume (SV) and other hemodynamic parameters [2] an appropriate thorax model is used. To identify the variations of body impedance due to the periodic changes in the flow of blood caused by heartbeat. The Research has been stared in this field of ECG with particularly in cardiac area using Impedance Plethysmography techniques [3]. Several studies are accomplished in the field among noninvasive ECG and invasive methods [4, 5]. The evaluation of ECG is presented in [6] which subjects with heart diseases. The experimental results are most reliable and accurate. With the advancement in technology, wearable devices with ECG sensors are designed to facilitate long term recordings and provide comfort to patients [7]. Since the origin of ECG there has been an increase in the reliability of the technique and development in the cardiac parameter's measurement [8–11]. During the extraction of ECG signal the desired signal components are contaminated with artifacts. The tiny features of the desired signal components are masked by these artifacts and causes ambiguities during diagnosis [6]. The major artifacts are Sinusoidal Artifacts (SA), Respiratory Artifacts (RA), Muscle Artifacts (MA) and Electrode Artifacts (EA). These artifacts must be eliminated to provide high resolution ECG signal components for estimating stroke volume and intensity. These artifacts are not stationery and hence conventional filters with fixed coefficients are not preferable for ECG filtering. So that adaptive filtering techniques are suitable to change the filter weights in according to the statistical nature of error signal [12].Until now, several researchers have proposed various signal processing techniques to enhance the ECG signal [13-15]. In these papers, conventional Least Mean Square (LMS) and Recursive Least Square (RLS) algorithms are used to remove artifacts. But the drawbacks of these algorithms are weight drift, and less stable. To overcome these drawbacks and to enhance the performance of artifact cancelation we developed some hybrid algorithms. With these hybrid algorithms we can also achieve less computation complexity. In [16–19] Rahman et al. used some adaptive artifact cancellers to enhance the cardiac signal and brain activity using various versions of LMS.

We considered the same framework for the development of ECG signal enhancement. The performance of ASEUs for ECG analysis in a typical health care monitor system can be improved by various hybrid signalprocessing techniques.

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Artifact Cancellation from Cardiac Signals in Health Care Systems using a Zoned Adaptive Algorithm

Asiya Sulthana, Zia Ur Rahman

***Abstract*: *Electrocardiogram (ECG) is a noninvasive technique for indirect evaluation of volume of stroke, output related to cardiac is monitoredalsoobservation ofaddedparameters that are hemodynamic thru changes related to blood volume is done within the body. Changes taking place in the blood volume inside a certain body segment due to several physiological processes are extracted in the form of the impedance variations of the body segment. The Analysis of ECG facilitates the heart stroke volume in sudden cardiac arrest. In the clinical environment ECG signals are affected by various physiological and non-physiological artifacts.As these artifacts are not stationary, we propose adaptive filtering techniques to improve ECG signals. In this paper we used normalized version of Dead Zone Least Mean Square (NDZLMS) adaptive techniques to remove artifacts in ECG signals. So as to minimize the computational complexity, this DZLMS is combined with sign algorithms and results Sign Regressor NDZLMS (SRNDZLMS), Sign NDZLMD (SNDZLMS), Sign Sign NDZLMS (SSNDZLMS) algorithms. Based on these algorithms, several adaptive signal enhancement units (ASEUs) are developed and validated on the real ECG signal components.To ensure the ability of these algorithms, four experiments were performed to eliminate the various artifacts such as sinusoidal artifacts (SA), respiration artifacts (RA), muscle artifacts (MA) and electrode artifacts (EA). Among these techniques, the ASEU based on SRNDZLMS performs better with respect to process of filtering. The signal to noise ratio improvement (SNRI) for this algorithm is calculated as 21.8684 dB, 8.4544 dB, 8.6966 dB and 8.7101 dB respectively for SA, RA, MA and EA. Hence, the SRNDZLMS based ASEUs are more suitable for filtering ECG signal in real health care monitoring systems.*

Index Terms*: *adaptive filter, artifacts, electrocardiogram, signal enhancement, stroke volume

I. INTRODUCTION

Ischemia Heart disease remains one of the leading causes of death worldwide based on World Health Organization (WHO) reports[1]. Hemodynamics is a popular method to measure the cardiac activity, in which the flow of the blood throughout the body is often measured. Impedance plethysmography methods that use electrical impedance changes on the body surface to measure tissue volume changes. Electrocardiogram (ECG) is a simple, inexpensive and noninvasive method to monitor electrical impedance changes for thorax, which is initiatedthru periodic changes in the volume of blood in aorta. An appropriate thorax model can be used to estimate Cardiac Output (CO), Stroke Volume (SV), alsoadditionalfactors that are hemodynamic [2]. Bio-impedance in electrical form identifies the variations related to thoracic impedance using electric current stimulation. The output related to Cardiac standsconstantly evaluated by means of electrodes by analyzing the variation of the signal that occurs with various mathematical models. The Research has been stared within area of ECG thru study related to fluids flow within cardiac area with the use of methods for Impedance Plethysmography[3]. In [6] the investigation of ECG is presented in subjects with heart diseases during the exercises. With the advancement in technology, wearable devices with ECG sensors are designed to facilitate recordings of long termalsorelieffor patients [7]. Fromorigin ofECG,an increase within reliability alsoenhancementrelated to cardiac parameter's measurement is presented [8–12].

While extracting the ECG signal, the desired signal components are contaminated with undesired artifacts. Minute features related to desired signal are masked by artifacts, which causes ambiguities during diagnosis [6]. The leading artifacts are Sinusoidal Artifacts (SA), Respiratory Artifacts (RA), Muscle Artifacts (MA) and Electrode Artifacts (EA). Hence, to facilitate high resolution ECG signal for estimating intensity of stroke volume these artifacts need to be eliminated. In the real-time situations, these artifacts are not stationery and that's why conventional fixed weighted filters are not appropriate for ECG filtering. Thus, adaptive filtering techniques are suitable to change the filter weights in according to the error component [13]. Until now, several authors are proposed techniques to enhance the ECG signal using several adaptive signal enhancement techniques [14–17]. The drawbacks of these techniques are high steady state error, weight drift, round off error and impulsive noise. To overcome these drawbacks and to enhance the performance of artifact cancelation we developed some hybrid algorithms. With these hybrid algorithms we can achieve less computation complexity also. In [18-21] Rahman et al. developed some adaptive noise cancellers to enhance the cardiac signal and brain activity using various LMS variants. We considered the same framework for the development of ECG signal filtering techniques.The performance of ASEUs for ECG analysis in a typical health care monitor systemcan be improved by various hybrid signal processing techniques. The characteristics of interest in any typical health care monitor system are signal enhancement capability, convergence rate, and computational complexity. Toachieve these

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DESIGN AND ANALYSIS OF INEXACT FLOATING POINT ADDERS

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Abstract - *Floating-point applications are a growing trend in the FPGA community. Power has become a major constraint in nanoscale integrated circuit design due to the increasing demands for mobile computing and higher integration density. Lowpower is an imperative requirement for portable multimedia devices employing various signal processing algorithms and architectures. As an emerging computational paradigm, an inexact circuit reduces both dynamic and static power dissipation for error-tolerant applications. In this paper, an inexact floating-point adder is proposed by approximately designing an exponent subtractor and mantissa adder. Related operations such as normalization and rounding are also dealt with in terms of inexact computing. High dynamic range images are then processed using the proposed inexact floating-point.*

***Key Words*:** Inexact computing, Floating-point adders, Low power, High-dynamic range image

1. INTRODUCTION

With progression and advancement of creative computerized coordinated circuits, control utilization has drastically expanded; control has turned into a key plan requirement because of the appeal for versatile registering and higher combination thickness. Conventional plans apply completely exact figuring to a wide range of uses;
nonetherless, mistake tolerant applications including human mediation, (for example, picture handling) don't require full exactness. Thus, it is conceivable to perform calculation with inaccurate circuits; in these cases, vague processing is an alluring way to deal with spare power and territory, while accomplishing enhanced execution contrasted with exact outlines.
The number juggling unit is the center of a processor, and its energy to a great extent decides the energy of the entire processor. Late research on vague settled point adders has demonstrated that inaccurate preparing equipment with a relative mistake of 7.58 percent can be about 15 times more proficient as far as speed, zone and vitality item than an exact chip. Estimated chips are littler, speedier and expend less vitality. Albeit settled point number crunching circuits have been examined as far as inaccurate registering, skimming point (FP) number crunching circuits are altogether more power hungry and they have not been completely considered for estimated figuring. The FP arrange offers a high unique range for computationally escalated applications; FP adders and multipliers are ordinarily utilized as a part of DSP frameworks However, its application to implanted DSP frameworks is constrained because of the powerful utilization.
A low power outline of a FP multiplier was researched by Tong et al.; this plan includes the truncation of equipment and a decrease of the bit width portrayal of the FP information. A probabilistic FP multiplier was proposed by Gupta et al. generally as a vitality proficient outline. A lightweight FP configuration stream utilizing bit-width enhancement was proposed for low power flag preparing Applications . Low exactness FP numbers have likewise been utilized for MP3 disentangling to decrease memory usage and power utilization. Notwithstanding, to the best of the creators' learning, there has been no examination to date on an estimated FP viper plan. In this paper, viper plans are examined as a beginning stage for estimated FP number juggling; a few vague adder outlines are proposed and surveyed for application to high unique range pictures. The upper bound blunder because of the estimated configuration is broke down for the normal case to control the outline of inaccurate FP adders. A subjective visual distinction indicator metric is utilized to quantify the aftereffects of Each genuine number has a whole number
part and a portion section; a radix point is utilized to separate between them. The quantity of paired digits alloted to the whole number part might be diverse to the quantity of digits doled out to the fragmentary part.

2. Background

2.1 Floating-Point Format

i) Sign
ii) Exponent
iii) Mantissa

- **Sign** bit is the first bit of the binary representation. '1' implies negative number and '0' implies positive number.
  Example: 11000001110100000000000000000000
  This is negative number.
- **Exponent** is decided by the next 8 bits of binary representation. 127 is the unique number for 32 bit floating point representation. It is known as bias. It is determined by 2^{k-1} -1 where 'k' is the number of bits in exponent field.
  There are 3 exponent bits in 8-bit representation and 8 exponent bits in 32-bit representation.
  Thus
  bias = 3 for 8 bit conversion (2^{3-1} -1 = 4-1 = 3)
  bias = 127 for 32 bit conversion. (2^{8-1} -1 = 128-1 = 127)
  Example: 01000001110100000000000000000000
  10000011 = $(131)_2$
  131-127 = 4
  Hence the exponent of 2 will be 4 i.e. 2^4 = 16.
- **Mantissa** is calculated from the remaining 23 bits of the binary representation. It consists of '1' and a fractional part which is determined by:
  Example:
  01000001110100000000000000000000

  The fractional part of mantissa is given by:

  1*(1/2) + 0*(1/4) + 1*(1/8) + 0*(1/16) +…… =

  0.625

DESIGN OF REVERSIBLE 32-BIT BCD ADD-SUBTRACT UNIT USING PARALLEL PIPELINED METHOD

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Abstract:

This paper proposes the design of 32- bit Binary Coded Decimal (BCD) addition and subtraction unit using reversible logic gates. The reversible 32 -bit BCD addition unit is designed using the following modules such as reversible 4-bit Carry Propagate unit using reversible logic gate Peres gate and a reversible 4-bit error correction unit. The reversible 32-bit BCD subtraction unit is designed based on the nine's complement method of 4-bit reversible BCD addition. In BCD subtraction unit, the error correcting block is designed with the conditional reversible logic COG gate to make the necessary corrections at the output to get exact output. The reversible 32- bit BCD addition and subtraction unit is designed based on the parallel pipelined unit to enhance the speed of operation.

Index Terms - Reversible logic gates; BCD adder; BCD subtractor, Reversible add and subtract unit.

I. INTRODUCTION

The growing technologies have increased the demand of high performance computing. According to G. Moore's low, number of transistor counts to be integrated per unit area in devices will almost double in one and half year. To achieve high speed computation, high packaging density in the logic circuits is required which results in more heat dissipation. The conventional computing is found unable to deal with low power, high compaction and heat dissipation issues of the current computing environment. Reversible Computing is one way to overcome the problem of heat dissipation in computing chips which in turn help in increasing the packaging density. Reversible circuits do not lose information. A reversible logic gate has one to one mapping between input and output vectors.

Reversible logic is the effective alternative in the design of low power arithmetic unit. The reversible logic gate, which has one to one mapping technology provide output with zero loss of information. In reversible logic gates input vectors can be retrieved from the output vectors with accuracy and low power dissipation. BCD employed on various digital processors decreases the delay of manipulation. BCD circuit may open new application areas of finance, commerce In this paper, BCD addition and subtraction unit has been implemented using the reversible logic gates. The addition and subtraction unit is designed for 32-bit input data using reversible logic gates. BCD adder and subtraction requires error correction unit which provides exact BCD output. , land management and internet-based systems. BCD digit eliminates

Super Capacitor Energy Storage System Wind Turbines DFIG with Constant Power Control

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ABSTRACT:

This paper proposes a novel two-layer constant power control scheme for a wind farm equipped with doubly fed induction generator (DFIG) wind turbines. Each DFIG wind turbine is equipped with a super capacitor energy storage system (ESS) and is controlled by the low-layer wind turbine generator (WTG) controllers and coordinated by high-layer wind farm supervisory controller (WFSC). The WFSC generates the active power references for low-layer WTG controller then regulate each DFIG wind turbine to generate the desired amount of active power, where the deviation between the available wind energy input and desired active power output are compensated by ESS. Simulations are given in MATLAB on a wind farm equipped with 15 DFIG wind turbines

.

KEYWORDS:

Doubly fed induction generator (DFIG)**,** energy storage system (ESS)**,** wind turbine generator (WTG), wind farm supervisory controller (WFSC)**.**

I.INTRODUCTION

Wind Turbine generators (WTGs) are usually controlled to generate maximum electrical power from wind under normal wind conditions. However, because of the variations of the wind speed, the generated electrical power of a WTG is usually fluctuated. At such a penetration level, it is not necessary to require WTGs to participate in automatic generation control, unit commitment, or frequency regulation**.** WTGs to supply a desired amount of active power to participate in automatic generation control or frequency regulation of the grid. However, the intermittency of wind resources can cause high rates of change in power generation, which is a critical issue for balancing power systems. Moreover, to optimize the economic performance of power systems with high penetrations of wind power, it would be desired to require WTGs to participate in unit commitment, economic dispatch, or electricity market operation. In practice, short-term wind power prediction is carried out to help WTGs provide these functions. Under these conditions, the replacement power is supported by reserves, which, however, can be more expensive than base electricity prices. To enable WTGs to effectively participate in frequency and active power regulation, unit commitment, economic dispatch, and electricity market operation, energy storage devices will be required to dynamically match the intermittency of wind energy. Therefore, supercapacitors are a good candidate for short-term (i.e., seconds to minutes) energy storage that enables WTGs to provide the function of frequency regulation and effectively participate in unit commitment and electricity market operation. The use of supercapacitors or batteries as energy storage devices for WTGs has been studied by some researchers. However, these studies only focused on control and operation of individual WTGs and did not investigate the issues of WTGs to participate in grid regulation.

This paper proposes a novel two-layer constant power control (CPC) scheme for a wind farm equipped with doubly fed induction generator (DFIG) wind turbines, where each WTG is equipped with a supercapacitor energy storage system (ESS). The CPC consists of a high-layer wind farm supervisory controller (WFSC) and low-layer WTG controllers. The high layer WFSC generates the active power references for the low layer WTG controllers of each DFIG wind turbine according to the active power demand from the grid operator. The low-layer WTG controllers then regulate each DFIG wind turbine to generate the desired amount of active power, where the deviations between the available wind energy input and desired active power output are compensated by the ESS.

Super Capacitor Energy Storage System Wind Turbines DFIG with Constant Power Control

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Data Encoding Techniques for Reducing Energy Consumption in Network-On-Chip

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Abstract: **- In this paper, we display an arrangement of information encoding plans went for diminishing the power disseminated by the connections of a NoC. As innovation recoils, the power disseminated by the connections of a system-on-chip (NoC) begins to contend with the power dispersed by alternate components of the correspondence subsystem to be specific the switches and the system interfaces (NIs). The proposed plans are general and straightforward regarding the hidden NoC texture (i.e., their application does not require any adjustment of the switches and connection design). Examinations completed on both engineered and genuine movement situations demonstrate the adequacy of the proposed plans, which permit setting aside to 51% of energy scattering and 14% of vitality utilization with no huge execution corruption and with under 15% territory overhead in the system interface. The EDA instrument utilized as a part of the paper is Software apparatuses i.e. Modalism 10.0c (Simulation), Xilinx ISE 14.4 (Synthesis) and dialects utilized for yields is Verilog-HDL.**

Keywords: **- Coupling Switching Activity, Data Encoding, Interconnection on Chip, Low Power, Network-On-Chip (Noc), Power Analysis.**

I. INTRODUCTION

As per Moore's law thickness of transistors pairs like clockwork and presently we as a whole realize that there are a huge number of FETs on a solitary chip is known as VLSI. Coordinating these FETs consolidate together to perform set of tasks and applications, for example, DSP, Communications, Robotics and therapeutic documented. System on chip is a correspondence subsystem an on incorporated circuit runs of the mill between IP centers in a framework on a chip (SOC). NOC Technology connected strategies to on chip correspondence and brings eminent change over customary transport and crossbar interconnections. NOC enhances the adaptability of SOC's and the power effectiveness of complex SOC's contrasted with different outlines. A system on chip utilizes parcels to exchange information between IP center interfaces inside a chip. The NOC construct framework with respect to chips forces different outline issues on the manufacture of such coordinated chips. Right off the bat, the reasonable topology for the objective NOCs with the end goal that the introduction supplies and outline imperatives are fulfilled Secondly, the plan of system interfaces to get to the on chip system and switches give the physical interconnection components to transport information between preparing centers. At long last, as innovation scales and exchanging speed builds, future system on chips will turn out to be more responsive and inclined to mistakes and blames. On-chip correspondence issues are more significant to contrast with the computational important issues. The computational subsystem has real targets like including cost, execution, control dissemination, vitality utilization; dependability in this manner, the aggregate energy of a framework on chip relies upon the correspondence subsystem. In this work, we are going to decreasing the power dissemination in the system joins. The power dispersal in the system on chip is pertinent to the power dissemination in the switches and Network Interfaces (NIs). For exceptionally incorporated electronic frameworks, the decrease of on-chip control dissemination is a fundamental one. The measure of energy utilization in a NOC develops straightly by expanding the measure of bit advances in subsequent information bundles sent through the interconnect design. By utilizing the coding plans we are diminishing the exchanging movement on the two wires and rationale thusly we are lessening the power utilization in the NOC. The power because of self-exchanging action of individual transport lines while overlooking the power dispersal inferable from their coupling exchanging movement. Information encoding is essentially utilized for decreasing the quantity of bit progress over interconnects. Transport rearrange (BI), Adaptive coding, Gray coding and Transition strategy these are the different encoding methods utilized as a part of the NOC. We are utilizing the information encoding with dim

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Energy Efficient Handling of Big Data in Embedded, Wireless Sensor Networks

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Abstract: **- The advancement of remote gadget systems has come to some degree wherever every individual hub of a system could store and convey a tremendous amount of (sensor based) information straightforwardly or after some time. In the future, enormously associated to a great degree dynamic remote gadget system like vehicle-2 vehicle correspondence circumstances could hold significantly with bigger information potential. This can be to a great extent as a result of the ascent in hub quality. Therefore, information volumes can turn into a tangle for old learning collection techniques movement astute further like pertinence vitality intensity. In this manner, amid this paper, we prescribe to choice such circumstances gigantic learning circumstances as they cause comparable inquiries and issues as antiquated gigantic learning circumstances. Despite, the fact is that the last mentioned center absolutely around business insight issues. We tend to at that point propose A collection methodology fixing to innovative stipulations that change the sparing utilization of vitality furthermore, thusly the treatment of tremendous learning volumes. Besides, we have a tendency to exhibit the vitality protection potential bolstered explores different avenues regarding real gadget stages.**

Keywords: **- WSN, Vehicle Communication, Big Data, Energy Efficiency.**

I. INTRODUCTION

An Embedded System might be a blend of component what's more, bundle, and perhaps additional mechanical or extraordinary segments, intended to play out a specific work. a not too bad case is that the microwave. for all intents and purposes each house has one, and many a few them square measure utilized a day, however just a couple of people see that a processor furthermore, bundle square measure worried inside the planning of their lunch or dinner. For case, if the timeframe framework AN element} of a plane's control framework, it's feasible for the lives of the travelers and group to be helpless by one boundless point in time. Nonetheless, if rather the framework is worried in satellite correspondence, the damage may well be confined to one degenerate data bundle. The extra serious the suggestions, the extra conceivable it'll be previously mentioned that the point in time is "hard" and along these lines, the framework might be a debilitating timeframe framework. Timeframe frameworks at the contrary complete of this dialog square measure previously mentioned to possess "delicate" due dates. To actualize Energy temperate taking care of of enormous data in inserted, remote indicator systems that utilizations MEMS to watch the vehicle developments what's more, track the vehicle exploitation GPS once a mischance happens to the vehicle The full instrumentation of this venture is put inside a vehicle isn't unmistakable to others. Here amid this task we've temperature finder and CO indicator that square measure interfaced to the little controller. Temperature indicator through that we will live amount of Temperature depleted from the vehicle. CO identifier can detect the quantity of CO gas discharged from the vehicle. These qualities additionally are shown on advanced show. At whatever point the CO gas level surpasses as far as possible then the engine of the vehicle is ceased. Horrendous finder inside the module is utilized to refer to any deterrent inside the surroundings of the vehicle and private the microcontroller which can stop the vehicle. We've MEMS estimating instrument which can detect the developments of the vehicle relentlessly. Once A mishap happens to the vehicle the development of the vehicle is adjusted which can be identified by the MEMS and this information is given to microcontroller. We tend to utilize GPS (Global Positioning Framework) module here to prompt the position of the vehicle wherever the mischance has happened. The position values square measure given to microcontroller. By exploitation GPRS electronic hardware we will send this data to net and SMS to client versatile.

II.ARCHITECTURE

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Foreign Direct Investment: It's Impact on Developing Countries Economy - A Study of India

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Abstract: **- Foreign direct investment (FDI) is considered to be one of the important factors, which leads to the globalization of an economy. The globalization over the last two decades has been hailed as a major development, which results in economic prosperity in developing countries. In this paper, we have attempted to identify the Determinants, impact and problems associated with India's current foreign direct investment regime, and more importantly the other associated factors responsible for India's unattractiveness as an investment location. The presence of a large domestic market, fairly well developed financial architecture and skilled human resources, it can attract much larger foreign investments than it has done in the past. India's present international investment regime facilitates easy entry of foreign capital in almost all areas subject to specific limits on foreign ownership. Entry options have not only become procedurally simpler, but prospects for higher yields from investment have also become brighter. But the further boost to Foreign Direct Investment (FDI) will depend significantly on further liberalization of its foreign investment regime. The paper provides the brief synthesis of the regime and analyzes the economic and policy variables as the important determinants of FDI inflows to India.**

Keywords: **- Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), Gross Domestic Product (GDP), Economic Policy Reform.**

I. INTRODUCTION

India is the largest democracy and fourth largest economy in terms GDP in the world. With its consistent growth performance and high-skilled manpower, India provides enormous opportunities for foreign investment. Since the beginning of economic reforms in 1991, major reform initiatives have been taken up in the field of investment, trade and financial sector. Enactment of Competition Act, liberalization of Foreign Exchange Management Act (FEMA), and amendments in Intellectual Property Right (IPR) laws and many other initiatives make India attractive for business. India is the second most attractive foreign Direct Investment destination (A.T. Kearney 2007). Also it is the second most attractive destination among transnational Corporations for 2007- 09 (UNCTAD's World Investment Report, 2007). Though inflows have responded positively to policy changes by increasing from US$ 165 million in 1990-1991 to US$ 90 billion in 2008-2009, there might have been much more had foreign investment not been regulated in some key areas. Till the 1990s the policy was heavily restrictive with majority foreign equity permitted only in a handful export- oriented, high technology industries. Initiated reforms changed the perceptions of foreign investors with foreign investment policy becoming progressively liberal following steady withdrawal of external capital controls and simplification of procedures. While India has an overall market-friendly and liberal policy towards foreign investment, foreign capital still does not enjoy equally easy access in all parts of the economy. The manufacturing sector is still untapped accompanied by lack of access in certain services and agriculture. India's future foreign investment policy faces the critical challenge of increasing access of foreign capital to these segments. Foreign Direct Investment is now recognized as an important driver of growth in the country. Government is making all efforts to attract and facilitate and investment from Non Resident (NRIs) including Overseas Corporate Bodies (OCBs) that are predominantly owned by them, to complement and supplement domestic investment According to the International Monetary Fund (IMF), a has three components, namely equity capital, reinvested earnings and other direct capital. A large number of countries, including several developing countries, report inflows in accordance with the IMF definition. However, the Reserve Bank of India (RBI) reports inflows only on the basis of investments received from non-residents on equity and preference share capital under the scheme. One of the most striking developments during the last two decades is the spectacular growth of in the global economic landscape. This unprecedented growth of global in 1990 around the

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Study on the Seismic Response of a Steel Building with Viscous Fluid Dampers – Chevron Configuration

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Abstract - *A 20-Storey benchmark steel moment resisting frame* [1]Ohtori, Y (2004) *is taken for study of seismic response reduction by providing viscous fluid dampers for chevron mechanisms. The model time history analysis of the frame subjected to four types of earthquake loads with chevron dampers is carried out. The Linear time history analysis (LTHA) was carried out and responses such as absolute acceleration, displacements, drifts, damper displacements and damper forces are found for all six models of chevron mechanism dampers for four different time histories considered for analysis such as El Centro, Kobe, Northridge and S_Monica with PGAs normalized to of 0.35g. LTHA was carried out for six different types of chevron mechanism damper with 40% damping coefficient. The effective placement of damper in the bare frame is found by comparing the peak average response reduction values of six different models of chevron dampers. CH_M_5 model damper placements are found to be more effective and cost effective compared to other types of damper placement and distribution. The peak average response reduction values for CH_M_5 are 63.5 for absolute acceleration, 43.2 for displacements and 39.8 for drifts.*

***Key Words*: Linear Time History analysis, Chevron configuration, Viscous fluid dampers, Displacements, Absolute acceleration, Drifts**

1. INTRODUCTION

In the present day scenario, the necessity of more flexible civil engineering structures such as tall buildings and long span bridges is increased and they are subjected to undesirable vibration, deformation and accelerations due to strong earthquakes, blasts, wind, moving loads, machines and large ocean waves. Excessive vibration in structures is an unwanted phenomenon which causes human discomfort, waste of energy, partial collapse of structural parts, transmits unnecessary forces and also poses a threat to structural safety and, sometimes leads to collapse.

In order to eliminate the undesirable effects of vibrations in structures, it is necessary to understand the behavior and response of structural systems subjected to dynamic loads such as earthquake and wind loads. One of the main challenges the structural engineers of the present decade are facing, is towards the development of innovative design concepts to protect the civil engineering structures from damages, including the material contents and human occupants from the hazards of strong winds and earthquakes. Traditionally, the structural systems relied on their inherent strength and ability to dissipate energy to survive under severe dynamic loading and blast loads. The energy dissipation in such systems may occur by the inelastic cyclic deformations at the specially detailed plastic hinge regions of structural members. This causes localized damages in the structure as the structure itself must absorb much of the input energy from dynamic forces and this involves high cost of repair. But, for essential structures such as hospitals, police and fire stations must remain functional even after an earthquake. For a structure to remain functional after the earthquake, the conventional design approach is inappropriate as it allows a structure to undergo considerable damages.

Tall buildings are a special class of structures with their own peculiar characteristics and requirements. Tall buildings are often occupied by a large number of people. Therefore, their damage, loss of functionality, or collapse can have very severe and adverse consequences on the life and limb and on the economy of the affected regions. Each tall building represents a significant investment and as such tall building analysis and design is generally performed using more sophisticated techniques and methodologies. Furthermore, typical building code provisions are usually developed without particular attention to tall buildings, which represent a very small portion of the construction activity in most regions.

Therefore, understanding modern approaches to seismic analysis and design of tall buildings can be very valuable to structural engineers and researchers who would like to have a better grasp on design and performance of these icons of a modern megacity.

In recent years, innovative means of enhancing structural functionality and safety against dynamic loadings have gained momentum. This includes the use of supplemental energy absorption and dissipation devices in structures to mitigate the effects of these dynamic loadings. These systems work by absorbing and reflecting a portion of input energy that would be otherwise transmitted to the structure itself. These systems can be classified as passive, active, semi - active and hybrid vibration control systems based on the manner in which they act to control the vibrations.

In the few decades, the use of energy dissipation devices in structural system has gained momentum. To keep the vibration of these structural systems within the functional and serviceability limits and to control and reduce structural and architectural damage caused by the extreme loads, different passive-, semi active-, active- and hybrid-devices and design methodologies are being developed. Addition of supplemental passive devices and semi active energy devices such as VFDs and MR dampers are considered to be viable strategies for enhancing the seismic performance of building structures. Several researchers have carried out theoretical and experimental studies on passive and semi-active vibration control systems.

The lateral loads mainly consist of seismic forces, blast load, wind load, mooring load, tsunami etc., amongst which the seismic force and the wind force are the common ones. The application of these forces and the behavior of the structure vary.

In order to design a structure to resist wind and earthquake loads, the forces on the structure must be specified. The exact forces that will occur during the life of the structure cannot be anticipated. Most national building codes identify some factors according to the boundary conditions of each building considered in the analysis to provide for life safety[2] (Khaled, M H., 2012).

The placing of fluid dampers to a structure does not significantly alter its natural period, but it increases damping from about 2 to 5% (internal damping) to between 20% and 40%, and sometimes even more[3] (Haskell and lee, 2007). It is found that external damping beyond 30% results in small decrease in responses, and such increases lead to usage of more dampers [4](Hanson and soong, *2001*).

An analytical study was carried out on three new configurations of toggle braced dampers about their configurations, placements, equation, magnification factors and efficiency . Experimental verification was done on these toggle dampers [5] Constantinou MC, *et.al*, (2001).

Ohtori, Y (2004) [1] proposed a guideline for set of benchmark control problems for seismically excited nonlinear buildings for 3-, 9- and 20- storey steel frame structures and developed various structural control strategies.

In the present study, G+19 storey steel frame structure are considered for linear time history analysis subjected to four types of time history earthquakes such as Elcentro, Kobe, Northridge and S_Monica with their *PGAs* normalized to 0.35 using SAP2000. For a steel frame structure, a lateral force resisting system namely viscous damper in Chevron configuration is implemented while analyzing the building.

The following are the objective of the present work.

- To study the responses such as displacements, acceleration, inter-storey drifts in 20-storey moment resistant steel frame subjected to four types of earthquake loadings for bare frame structure, and chevron damped structures.
- To study the response reduction in steel frame structure for different types of damper configuration and damper type in comparison with bare frame structure.
- To study about the damper responses such as damper displacements and damper forces for the viscous fluid dampers placed in the building during earthquake excitation.
- To find the effective damper configurations to be provided in a steel frame structure.

DESCRIPTION OF MODEL

The plan, and elevation of the 20-storey bench mark building considered in the present study are shown in Fig 1 and Fig 2.

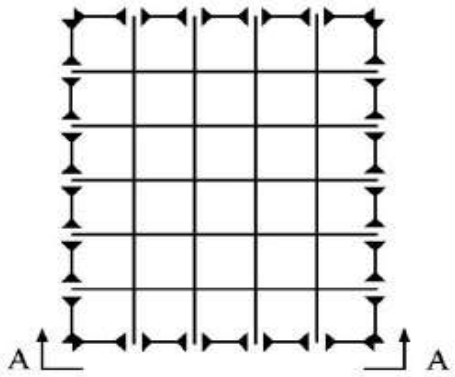


Fig 1 Plan of Twenty storey benchmark building,

(Y.Ohtori et al., 2004)

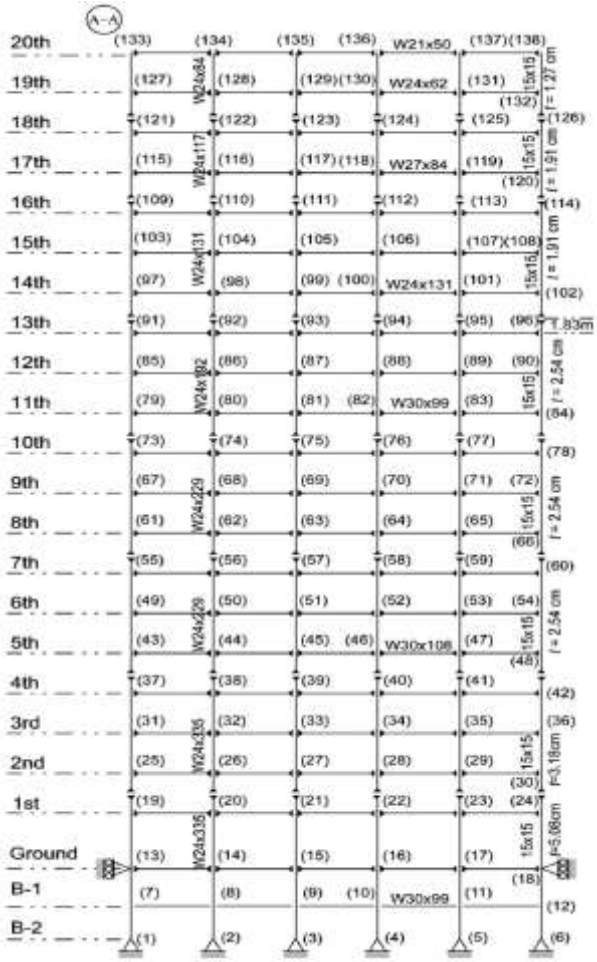


Fig 2 Elevation of Twenty storey benchmark building,

1.1 CHEVRON BRACE CONFIGURATION

In Chevron configuration (Fig-3 and Fig-4) the energy dissipation devices are fixed parallel to beam element in structure. The magnification factor for chevron braced configuration is equal to one. The magnification factor depends on the angle of inclination and placement of dampers. The magnification factor is defined as the ratio of damper displacement to inter-storey drift. It is denoted as *f*. For chevron bracing the magnification factor (*f*) = 1.

Fig -3 Chevron configuration above ground floor

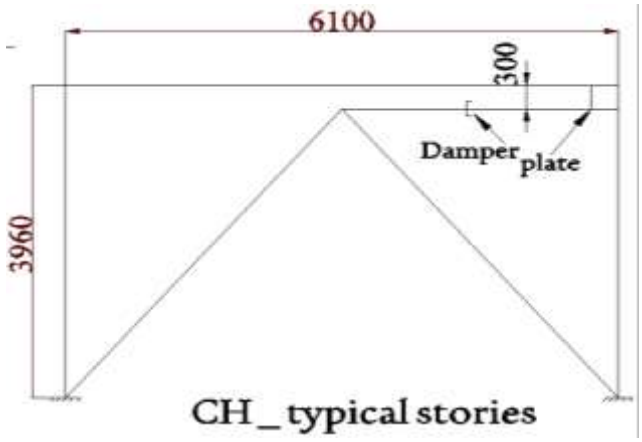


Fig- 4 Chevron configuration for ground floor

The damping coefficient (C_0) values for chevron damper to be used as input in SAP2000 are given in Table 1. There are six different types of chevron mechanism damper configuration (CH_M_1, CH_M_2, CH_M_3, CH_M_4, CH_M_5, and CH_M_6)to distribute along the height of the frame. The corresponding detail of placing dampers along the frame are as shown in Fig-5.

2 TYPES OF CHEVRON CONFIGURATION DAMPER MODELS

Six different types of chevron mechanism damper models (CH_M_1, CH_M_2, CH_M_3, CH_M_4, CH_M_5, and CH_M_6)are considered for analysis to find the effective placements and distribution of lower toggle mechanism system. The chevron mechanism systems are distributed along the height of the frame. The corresponding models of placing dampers along the frame are as shown in Figure 3. The following six models are used for the study.

1. Model_1 (CH_M_1): Dampers are placed in all stories along the height of the building and distributed as 5 chevron along with dampers per storey. So that total number of dampers placed throughout the height is 100. The distributions of dampers are as shown in Fig-5 (a).

2. Model_2 (CH_M_2): Dampers are placed in G+9 stories throughout the bay length such as 5chevronconfigurations dampers in each stories and from 10^{th} to 20^{th} storey dampers are placed in 2^{nd}, 3^{rd} and 4^{th} bay length such as 3chevron configuration dampers per story. So that, total numbers of dampers placed along the height of the building are 80. The distributions of dampers are as shown in Fig-5 b).

3. Model_3 (CH _M_3): Dampers are placed in G+9 stories throughout the bay length such as 5chevron configuration dampers in each stories and from 10^{th} to 20^{th} storey dampers are placed in 1^{st}, 3^{rd} and 5^{th} bay length such as 3chevron configuration dampers per story. So that, total numbers of dampers placed along

the height of the building are 80. The distributions of dampers are as shown in Fig- 5 c).

4. Model_4 (CH _M_4): Dampers are placed in G+9 stories throughout the bay length such as 5chevron configuration dampers in each stories and from 10^{th} to 20^{th} storey dampers are placed in 3^{rd} bay length alone, such as 1chevron configuration dampers per story. So that, total numbers of dampers placed along the height of the building are 60. The distributions of dampers are as shown in Fig- 5 d).

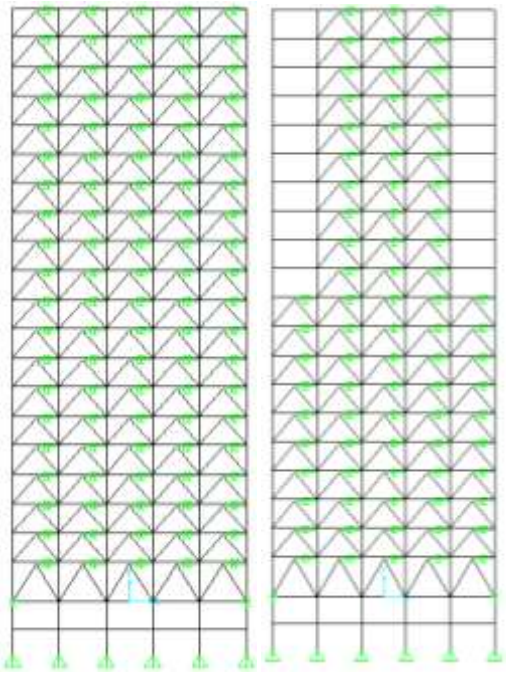
5. Model_5 (CH _M_5): Dampers are placed in G+4 stories throughout the bay length such as 5chevron configuration dampers in each stories and from 5^{th} to 20^{th} storey dampers are placed in 1^{st}, 3^{rd} and 5^{th} bay length, such as 3chevron configuration dampers per story. So that, total numbers of dampers placed along the height of the building are 70. The distributions of dampers are as shown in Fig- 5 e).

6. Model_6 (CH _M_6): Dampers are placed in ground story alone for the bay length such as 5chevron configuration dampers in that storey and from 1^{th} to 19^{th} storey dampers are placed in 1^{st}, 3^{rd} and 5^{th} bay length, such as 3 chevron configuration dampers per story. So that, total numbers of dampers placed along the height of the building are 62. The distributions of dampers are as shown in Fig-5 f).

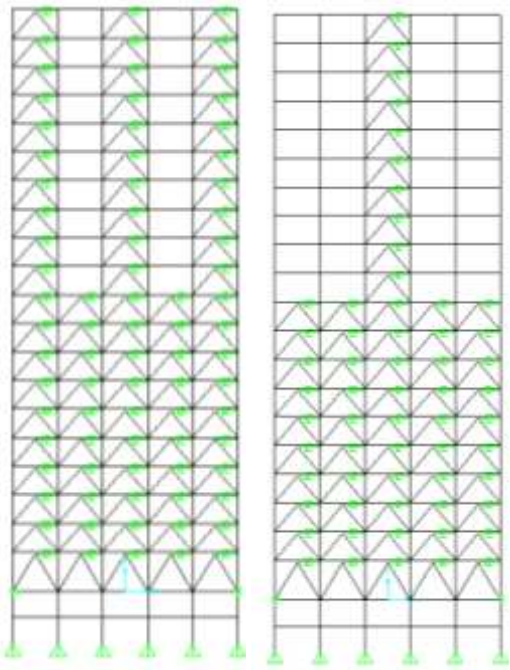
For six different types of chevron mechanism damper configuration linear time history analysis are made and 40% of damping are used for present study based upon base shear graphs. So, damping coefficient values of 40% is used for analyzing all models.

Table 1 Damping coefficients (C_0) for chevron dampers in kN

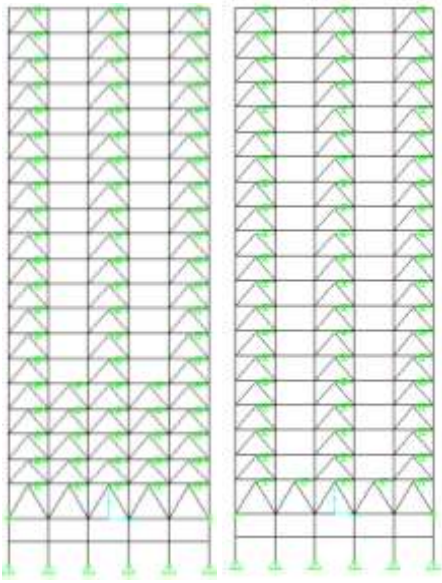
zeta	Entire building	storey	Distribution of damping coefficient		
			5 dampers per storey	3 dampers per storey	1 dampers per storey
0.1	87865	4393	879	1464	4393
0.2	175730	8787	1757	2929	8787
0.3	263600	13180	2636	4393	13180
0.4	351460	17573	3515	5858	17573
0.5	439330	21966	4393	7322	21966
0.6	527190	26360	5272	8787	26360
0.7	615060	30753	6151	10251	30753
0.8	702920	35146	7029	11715	35146
0.9	790790	39539	7908	13180	39539
1	878650	43933	8787	14644	43933



a) CH_M_1 b) CH_M_2



c) CH_M_3 d) CH_M_4



e) CH_M$_5$ f) CH_M$_6$

Fig- 5 Six different models of chevron placements in bare frame

3 LINEAR TIME HISTORY ANALYSIS FOR CHEVRON MECHANISM AND ITS RESPONSES

Linear time history analysis was carried out and responses such as absolute acceleration, displacements, drifts, damper displacements and damper forces are found for all six models of chevron mechanism dampers for four different time histories considered for analysis such as El Centro, Kobe, Northridge and S_Monica with PGAs normalized to of 0.35g.

The responses of absolute acceleration (a), displacements (d), The responses of inter-storey drifts (dr) for all six models are presented in Table-2, Table-3, Table-4, Table-5, Table-6, and Table-7 and represented as graphs in Fig-6, Fig-7, Fig-8, Fig-9, Fig-10 and Fig-11.

Table -2 Peak Response Reduction b/w BF and CH_M_1 for peak absolute acceleration, displacements and drifts

S	A		d		Drifts		% difference		
	BF	CH_M_1	BF	CH_M_1	BF	CH_M_1	a	d	drifts
20	9.57	2.05	0.39	0.34	0.034	0.012	78.6	13.9	65.3
19	5.24	1.72	0.38	0.33	0.021	0.013	67.2	13.9	36.4
18	4.95	1.52	0.36	0.31	0.028	0.015	69.2	12.6	46.1
17	4.85	1.35	0.33	0.30	0.029	0.016	72.1	9.8	45.9
16	4.14	1.22	0.30	0.28	0.028	0.016	70.5	6.3	43.4
15	4.62	1.11	0.30	0.27	0.024	*0.017*	76.0	10.4	28.7
14	4.89	1.10	0.29	0.25	0.015	*0.018*	77.6	15.5	18.8
13	4.55	1.38	0.29	0.23	0.016	0.016	69.6	21.5	0.2
12	5.85	1.72	0.30	0.21	0.021	*0.017*	70.6	29.6	19.9
11	6.12	2.02	0.31	0.20	0.023	*0.017*	67.1	35.9	24.9
10	5.98	2.25	0.30	0.18	0.017	*0.017*	62.4	40.6	0.9
9	6.13	2.41	0.29	0.16	0.020	*0.017*	60.6	43.7	15.4
8	6.44	2.53	0.27	0.15	0.026	*0.018*	60.6	45.9	31.9
7	6.49	2.62	0.24	0.13	0.024	*0.018*	59.7	47.3	26.6
6	5.88	2.72	0.22	0.11	0.026	*0.018*	53.7	49.6	32.0
5	5.54	2.86	0.20	0.09	0.030	*0.017*	48.4	53.1	42.0
4	5.68	3.03	0.17	0.08	0.034	*0.017*	46.7	55.0	51.8
3	5.21	3.27	0.13	0.06	0.038	0.016	37.1	55.9	57.1
2	5.76	3.61	0.10	0.04	0.041	*0.017*	37.3	55.4	59.5
1	4.609	4.04	0.056	0.03	0.056	*0.027*	12.2	52.3	52.3

Table-3 Peak Response Reduction b/w BF and CH_M_2 for peak absolute acceleration, displacements and drifts

S	a		d		drifts		% difference		
	BF	CH_M_2	BF	CH_M_2	BF	CH_M_2	a	d	drifts
20	9.57	1.76	0.39	0.34	0.034	0.014	81.6	13.4	59.2
19	5.24	1.62	0.38	0.33	0.021	0.015	69.0	13.9	25.3
18	4.95	1.47	0.36	0.31	0.028	*0.019*	70.3	13.3	32.5
17	4.85	1.30	0.33	0.29	0.029	*0.019*	73.3	11.6	34.3
16	4.14	1.13	0.30	0.27	0.028	*0.021*	72.6	9.4	25.1
15	4.62	0.97	0.30	0.25	0.024	*0.024*	79.0	15.3	0.7
14	4.89	1.05	0.29	0.23	0.015	*0.018*	78.5	22.8	-15.4
13	4.55	1.34	0.29	0.21	0.016	*0.019*	70.6	28.7	-16.5
12	5.85	1.63	0.30	0.19	0.021	*0.021*	72.1	37.4	3.3
11	6.12	1.88	0.31	0.17	0.023	*0.018*	69.3	44.8	18.4
10	5.98	2.03	0.30	0.15	0.017	0.015	66.0	50.1	11.2
9	6.13	2.10	0.29	0.14	0.020	0.014	65.8	53.1	29.6
8	6.44	2.12	0.27	0.12	0.026	0.014	67.1	54.8	47.4
7	6.49	2.14	0.24	0.11	0.024	0.014	67.0	55.6	44.1
6	5.88	2.24	0.22	0.10	0.026	0.014	61.8	56.1	48.5
5	5.54	2.43	0.20	0.08	0.030	0.014	56.0	57.9	54.3
4	5.68	2.70	0.17	0.07	0.034	0.014	52.5	58.6	59.6
3	5.21	3.07	0.13	0.06	0.038	0.015	41.1	58.3	61.3
2	5.76	3.49	0.10	0.04	0.041	0.016	39.3	57.1	61.0
1	4.609	4.01	0.056	0.03	0.056	*0.025*	13.0	54.3	54.3

Table 4 Peak Response Reduction b/w BF and CH_M_3 for peak absolute acceleration, displacements and drifts

S	a		d		drifts		% difference		
	BF	CH_M_3	BF	CH_M_3	BF	CH_M_3	a	d	drifts
20	9.57	1.76	0.39	0.34	0.034	0.014	81.6	13.4	59.2
19	5.24	1.62	0.38	0.33	0.021	0.015	69.0	13.9	25.3
18	4.95	1.47	0.36	0.31	0.028	*0.019*	70.3	13.3	32.5
17	4.85	1.30	0.33	0.29	0.029	*0.019*	73.3	11.6	34.3
16	4.14	1.13	0.30	0.27	0.028	*0.021*	72.6	9.4	25.1
15	4.62	0.97	0.30	0.25	0.024	*0.024*	79.0	15.3	0.7
14	4.89	1.05	0.29	0.23	0.015	*0.018*	78.5	22.8	-15.4
13	4.55	1.34	0.29	0.21	0.016	*0.019*	70.6	28.7	-16.5
12	5.85	1.63	0.30	0.19	0.021	*0.021*	72.1	37.4	3.3
11	6.12	1.88	0.31	0.17	0.023	*0.018*	69.3	44.8	18.4
10	5.98	2.03	0.30	0.15	0.017	0.015	66.0	50.1	11.2
9	6.13	2.10	0.29	0.14	0.020	0.014	65.8	53.1	29.6
8	6.44	2.12	0.27	0.12	0.026	0.014	67.1	54.8	47.4
7	6.49	2.14	0.24	0.11	0.024	0.014	67.0	55.6	44.1

6	5.88	2.24	0.22	0.10	0.026	0.014	61.8	56.1	48.5
5	5.54	2.43	0.20	0.08	0.030	0.014	56.0	57.9	54.3
4	5.68	2.70	0.17	0.07	0.034	0.014	52.5	58.6	59.6
3	5.21	3.07	0.13	0.06	0.038	0.015	41.1	58.3	61.3
2	5.76	3.49	0.10	0.04	0.041	0.016	39.3	57.1	61.0
1	4.609	4.01	0.056	0.03	0.056	*0.025*	13.0	54.3	54.3

Table 5 Peak Response Reduction b/w BF and CH_M_4 for peak absolute acceleration, displacements and drifts

S	a		d		drifts		% difference		
	BF	CH_M_4	BF	CH_M_4	BF	CH_M_4	a	d	drifts
20	9.57	2.10	0.39	0.36	0.034	*0.020*	78.1	7.4	42.3
19	5.24	1.85	0.38	0.34	0.021	*0.023*	64.7	9.2	11.9
18	4.95	1.58	0.36	0.32	0.028	*0.033*	68.0	10.5	16.7
17	4.85	1.22	0.33	0.29	0.029	*0.033*	74.7	12.8	13.4
16	4.14	1.04	0.30	0.25	0.028	*0.028*	74.8	15.3	0.8
15	4.62	1.40	0.30	0.23	0.024	*0.023*	69.8	23.7	6.4
14	4.89	1.76	0.29	0.20	0.015	*0.019*	64.0	30.8	22.1
13	4.55	1.90	0.29	0.18	0.016	*0.020*	58.3	37.0	24.4
12	5.85	1.97	0.30	0.17	0.021	*0.025*	66.3	44.7	17.7
11	6.12	2.27	0.31	0.15	0.023	0.015	62.9	50.4	34.1
10	5.98	2.47	0.30	0.15	0.017	0.009	58.7	51.8	47.3
9	6.13	2.49	0.29	0.14	0.020	0.009	59.3	51.8	55.2
8	6.44	2.43	0.27	0.13	0.026	0.011	62.2	51.3	58.4
7	6.49	2.35	0.24	0.12	0.024	0.013	63.8	50.6	47.0
6	5.88	2.38	0.22	0.11	0.026	0.015	59.4	51.0	44.0
5	5.54	2.59	0.20	0.09	0.030	0.016	53.3	53.0	47.4
4	5.68	2.80	0.17	0.08	0.034	0.016	50.7	54.0	53.4
3	5.21	3.06	0.13	0.06	0.038	*0.017*	41.2	54.1	55.8
2	5.76	3.46	0.10	0.05	0.041	*0.018*	39.9	53.4	56.8
1	4.609	3.97	0.056	0.03	0.056	*0.027*	13.8	50.9	50.9

Table 6 Peak Response Reduction b/w BF and CH_M_5 for Peak absolute acceleration, displacements and drifts

S	a		d		drifts		% difference		
	BF	CH_M_5	BF	CH_M_5	BF	CH_M_5	a	d	drifts
20	9.57	1.46	0.39	0.30	0.034	0.011	84.8	22.7	67.8
19	5.24	1.32	0.38	0.29	0.021	0.013	74.9	22.8	38.5
18	4.95	1.19	0.36	0.28	0.028	*0.017*	75.9	21.9	40.0
17	4.85	1.03	0.33	0.26	0.029	*0.017*	78.7	20.4	42.4
16	4.14	0.91	0.30	0.25	0.028	*0.018*	78.0	18.2	35.9
15	4.62	0.89	0.30	0.23	0.024	*0.019*	80.7	23.2	19.6
14	4.89	0.96	0.29	0.21	0.015	*0.017*	80.3	29.2	10.4
13	4.55	1.21	0.29	0.19	0.016	0.016	73.5	34.8	2.6
12	5.85	1.47	0.30	0.18	0.021	*0.018*	74.8	42.4	17.8
11	6.12	1.72	0.31	0.16	0.023	0.013	72.0	48.8	43.6
10	5.98	1.89	0.30	0.15	0.017	0.014	68.4	52.0	19.4
9	6.13	2.03	0.29	0.13	0.020	0.015	66.8	53.9	26.5
8	6.44	2.17	0.27	0.12	0.026	0.015	66.3	55.4	41.1
7	6.49	2.34	0.24	0.11	0.024	0.015	64.0	56.6	39.2
6	5.88	2.58	0.22	0.09	0.026	0.015	56.1	58.4	42.2
5	5.54	2.86	0.20	0.08	0.030	0.013	48.3	61.5	57.4
4	5.68	3.11	0.17	0.06	0.034	0.012	45.2	62.3	64.1
3	5.21	3.39	0.13	0.05	0.038	0.013	35.0	61.8	65.2
2	5.76	3.72	0.10	0.04	0.041	0.015	35.4	60.5	64.4
1	4.609	4.13	0.056	0.02	0.056	*0.024*	10.4	57.5	57.5

Table 7 Peak Response Reduction b/w BF and CH_M_6 for peak absolute acceleration, displacements and drifts

S	A		d		drifts		% difference		
	BF	CH_M_6	BF	CH_M_6	BF	CH_M_6	a	d	drifts
20	9.57	1.48	0.39	0.30	0.034	0.011	84.5	22.9	67.4
19	5.24	1.34	0.38	0.29	0.021	0.013	74.4	23.1	37.8
18	4.95	1.21	0.36	0.28	0.028	*0.017*	75.6	22.2	39.3
17	4.85	1.03	0.33	0.26	0.029	*0.017*	78.7	20.8	41.9
16	4.14	0.87	0.30	0.24	0.028	*0.017*	78.9	18.7	39.0
15	4.62	0.86	0.30	0.23	0.024	0.015	81.4	23.4	37.6
14	4.89	0.91	0.29	0.21	0.015	0.014	81.4	27.9	7.1
13	4.55	1.15	0.29	0.20	0.016	*0.018*	74.8	32.6	7.7
12	5.85	1.39	0.30	0.18	0.021	*0.017*	76.1	40.8	19.4
11	6.12	1.61	0.31	0.16	0.023	0.013	73.7	47.1	43.5
10	5.98	1.75	0.30	0.15	0.017	0.014	70.7	49.4	19.7
9	6.13	1.86	0.29	0.14	0.020	0.015	69.6	50.8	27.3
8	6.44	1.95	0.27	0.13	0.026	0.015	69.8	51.7	41.2
7	6.49	2.05	0.24	0.12	0.024	0.014	68.5	52.1	41.3
6	5.88	2.21	0.22	0.10	0.026	0.015	62.3	53.2	43.8
5	5.54	2.44	0.20	0.09	0.030	0.014	55.9	55.5	54.1
4	5.68	2.69	0.17	0.07	0.034	0.015	52.6	55.7	55.1
3	5.21	3.00	0.13	0.06	0.038	*0.018*	42.3	55.8	53.1
2	5.76	3.51	0.10	0.04	0.041	*0.018*	39.1	56.9	57.1
1	4.609	4.06	0.056	0.02	0.056	*0.024*	12.0	56.8	56.8

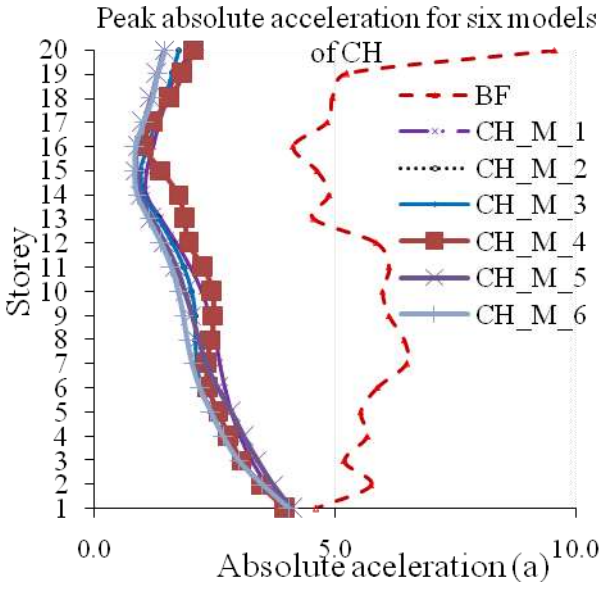


Fig-6 Peak absolute acceleration for six models

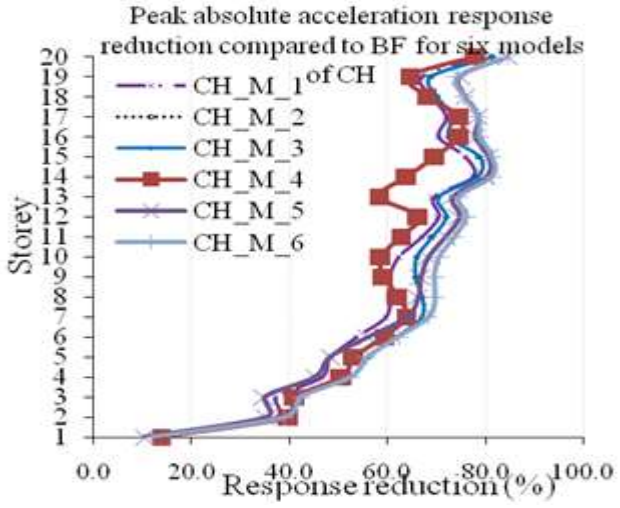


Fig-7 Peak absolute accelerations and their response reduction compared to BF for six models of CHD

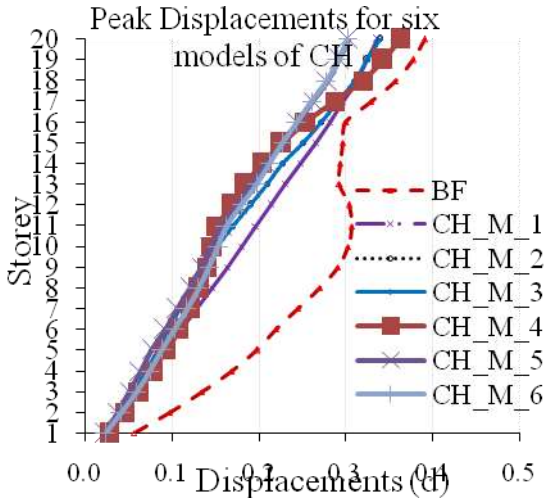


Fig-8 Peak Displacements

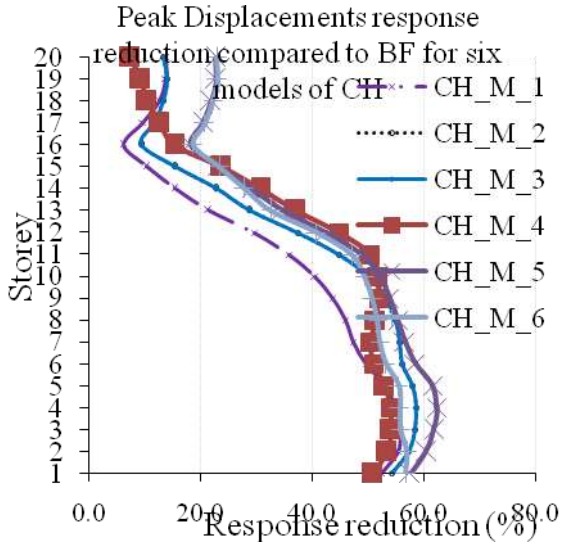


Fig-9 Peak displacements and their response reduction compared to BF for six models of CHD

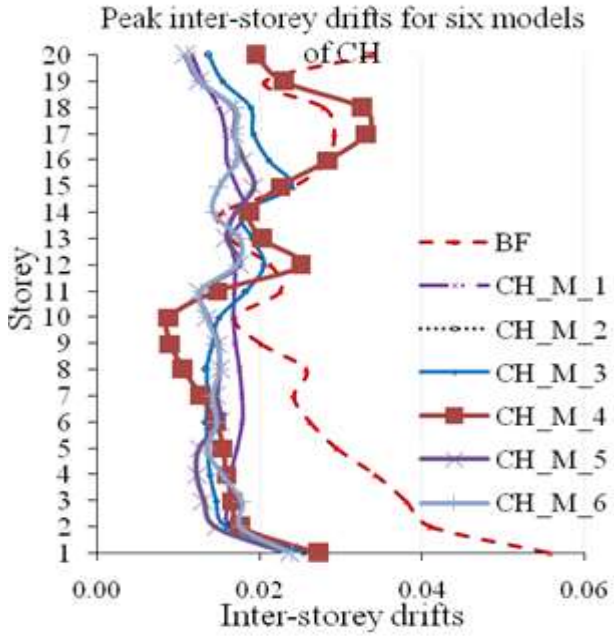


Fig-10 Peak Inter-storey drifts for six models

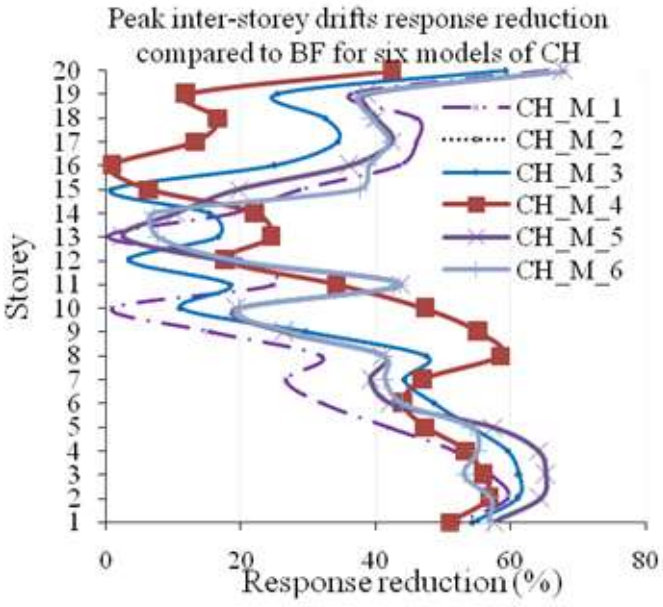


Fig-11 Peak inter-storey drifts and their response reduction compared to BF for six models of CHD

4 RESULTS AND DISCUSSIONS

Among the four time histories EQ analysis, such as El Centro (*EC*), Kobe (*KO*), Northridge (*NR*) and S_Monica (*SM*), the peak responses and its difference between bare frame are found for absolute acceleration, displacements, drifts, damper displacements, and damper forces for each model. Now peak responses from different models (CH_M_1, CH_M_2, CH_M_3, CH_M_4, CH_M_5, and CH_M_6) are compared with peak responses of bare frame and their respective peak response reduction are found out.

The effective placement of damper in the bare frame is found by comparing the peak average response reduction values of six different models of chevron dampers. CH_M_5 model damper placements are found to be more effective and cost effective compared to other types of damper placement and distribution. The peak average response reduction values of CH_M_5 are 63.5 for absolute acceleration, for displacements 63.5 ,43.2 and 39.8 for drifts.

5 CONCLUSIONS

The study on a 20 storey steel model frame with six different configuration of chevron dampers was carried out under various LTHA. Based on the seismic performance , the optimum position of chevron dampers in the model frame is arrived .The effective placement of damper in the bare frame is found by comparing the peak average response reduction values of six different models of chevron dampers. CH_M_5 model damper placements are found to be more effective and cost effective compared to other types of damper placement and distribution. The peak average response reduction values of the frame model CH_M_5 for absolute acceleration, storey displacements and drifts are 63.5 , 43.2and 39.8 respectively.

REFERENCES

[1] Y. Ohtori, R. E. Christenson, B. F. Spencer, S. J. Dyke (2004) Bench mark control problems for seismically excited non linear buildings", jornal of Engineering mechanics, volume 130 Issue 4 April 2004 pp.366-385.

[2] Khaled, M H., and Magdy, A T., "Comparative Study of The Effects of Wind and Earthquake Loads on High-rise Buildings", Concrete research letters (www.crl.issres.net), Vol. 3(1), March 2012.

[3] Haskell G and Lee D. Fluid Viscous Damping as an Alternative to Base Isolation. http://www.taylordevices.com/FluidViscousDamping.htm accessed on 7.05.2007

[4] Hanson RD and Soong TT Seismic design with supplemental energy dissipation devices, EERI Publication No. MNO-8, 2001.

[5] Constantinou MC, Tsopelas P, Hammel W and Sigaher AN. Toggle-Brace-Damper Seismic Energy Dissipation Systems, Journal of Structural Engineering ASCE 2001; Vol.127, No.2, pp. 105-112.

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Study on the Seismic Response of a Steel Building with Viscous Fluid Dampers – Chevron Configuration

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Abstract - *A 20-Storey benchmark steel moment resisting frame* [1]Ohtori, Y (2004) *is taken for study of seismic response reduction by providing viscous fluid dampers for chevron mechanisms. The model time history analysis of the frame subjected to four types of earthquake loads with chevron dampers is carried out. The Linear time history analysis (LTHA) was carried out and responses such as absolute acceleration, displacements, drifts, damper displacements and damper forces are found for all six models of chevron mechanism dampers for four different time histories considered for analysis such as El Centro, Kobe, Northridge and S_Monica with PGAs normalized to of 0.35g. LTHA was carried out for six different types of chevron mechanism damper with 40% damping coefficient. The effective placement of damper in the bare frame is found by comparing the peak average response reduction values of six different models of chevron dampers. CH_M_5 model damper placements are found to be more effective and cost effective compared to other types of damper placement and distribution. The peak average response reduction values for CH_M_5 are 63.5 for absolute acceleration, 43.2 for displacements and 39.8 for drifts.*

***Key Words*: Linear Time History analysis, Chevron configuration, Viscous fluid dampers, Displacements, Absolute acceleration, Drifts**

1. INTRODUCTION

In the present day scenario, the necessity of more flexible civil engineering structures such as tall buildings and long span bridges is increased and they are subjected to undesirable vibration, deformation and accelerations due to strong earthquakes, blasts, wind, moving loads, machines and large ocean waves. Excessive vibration in structures is an unwanted phenomenon which causes human discomfort, waste of energy, partial collapse of structural parts, transmits unnecessary forces and also poses a threat to structural safety and, sometimes leads to collapse.

In order to eliminate the undesirable effects of vibrations in structures, it is necessary to understand the behavior and response of structural systems subjected to dynamic loads such as earthquake and wind loads. One of the main challenges the structural engineers of the present decade are facing, is towards the development of innovative design concepts to protect the civil engineering structures from damages, including the material contents and human occupants from the hazards of strong winds and earthquakes. Traditionally, the structural systems relied on their inherent strength and ability to dissipate energy to survive under severe dynamic loading and blast loads. The energy dissipation in such systems may occur by the inelastic cyclic deformations at the specially detailed plastic hinge regions of structural members. This causes localized damages in the structure as the structure itself must absorb much of the input energy from dynamic forces and this involves high cost of repair. But, for essential structures such as hospitals, police and fire stations must remain functional even after an earthquake. For a structure to remain functional after the earthquake, the conventional design approach is inappropriate as it allows a structure to undergo considerable damages.

Tall buildings are a special class of structures with their own peculiar characteristics and requirements. Tall buildings are often occupied by a large number of people. Therefore, their damage, loss of functionality, or collapse can have very severe and adverse consequences on the life and limb and on the economy of the affected regions. Each tall building represents a significant investment and as such tall building analysis and design is generally performed using more sophisticated techniques and methodologies. Furthermore, typical building code provisions are usually developed without particular attention to tall buildings, which represent a very small portion of the construction activity in most regions.

Therefore, understanding modern approaches to seismic analysis and design of tall buildings can be very valuable to structural engineers and researchers who would like to have a better grasp on design and performance of these icons of a modern megacity.

In recent years, innovative means of enhancing structural functionality and safety against dynamic loadings have gained momentum. This includes the use of supplemental energy absorption and dissipation devices in structures to mitigate the effects of these dynamic loadings. These systems work by absorbing and reflecting a portion of input energy that would be otherwise transmitted to the structure itself. These systems can be classified as passive, active, semi - active and hybrid vibration control systems based on the manner in which they act to control the vibrations.

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Earthquake Resistant Low-Rise Open Ground Storey Framed Building By Pushover Analysis

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Abstract: **-- Presence of infill walls in the frames alters the behaviour of the building under lateral loads. However, it is common industry practice to ignore the stiffness of infill wall for analysis of the framed building. Engineers believe that analysis without considering infill stiffness leads to a conservative design. But this may not be always true, especially for vertically irregular buildings with discontinuous infill walls. Hence, the modeling of infill walls in the seismic analysis of framed buildings is imperative. Indian Standard IS 1893: 2002 allows analysis of open ground storey buildings without considering infill stiffness but with a multiplication factor 2.5 in compensation for the stiffness discontinuity. As per the code, the columns and beams of the open ground storey are to be designed for 2.5 times the storey shears and moments calculated under seismic loads of bare frames (i.e., without considering the infill stiffness). However, as experienced by the engineers at design offices, the multiplication factor of 2.5 is not realistic for low rise buildings. This calls for an assessment and review of the code recommended multiplication factor for low rise open ground storey buildings.**

Index Terms - Infill walls, Open ground storey, Equivalent static analysis, response spectrum analysis, pushover analysis, low rise building.

1. INTRODUCTION

Due to increasing population since the past few years car parking space for residential apartments in populated cities is a matter of major concern. Hence the trend has been to utilize the ground storey of the building itself for parking. These types of buildings having no infill masonry walls in ground storey, but infilled in all upper storeys, are called Open Ground Storey (OGS) buildings. They are also known as 'open first storey building'. The OGS framed building behaves differently as compared to a bare framed building (without any infill) or a fully infilled framed building under lateral load. A bare frame is much less stiff than a fully infilled frame; it resists the applied lateral load through frame action and shows well-distributed plastic hinges at failure.

1.1 NEED FOR THE PRESENT STUDY

As experienced by the engineers at design offices the multiplication factor of 2.5 given by IS 1893:2002, for ground storey beams and columns, is not realistic for low rise buildings. This calls for a critical assessment and review of the code recommended multiplication factor. Assessment of the multiplication factor (MF) requires accurate analysis of OGS buildings considering infill stiffness and strength. The presence of infill walls in upper storey's of OGS buildings accounts for the following issues:
Increases the lateral stiffness of the building frame. Decreases the natural period of vibration. Increases the base shear. Increases the shear forces and bending moments in the ground storey columns.

1.2 SCOPE OF THE STUDY

Open ground storey (OGS) buildings are commonly constructed in populated countries like India since they provide much needed parking space in an urban environment. Failures observed in past earthquakes show that the collapse of such buildings is predominantly due to the formation of soft-storey mechanism in the ground storey columns.

1.3 REVIEW OF LITERATURE

A state of the art literature review is carried out as part of the present study. This chapter presents a brief summary of the literature review. The literature review is divided into two parts. The first part deals with the seismic behaviour of the open ground storey buildings whereas the second part of this chapter discusses about the previous work carried out on the linear and nonlinear modelling of infill walls.

Karisiddappa (1986) and ***Rahman (1988***) examined the effect of openings and their location on the behaviour of single storey RC frames with brick infill walls.
Choubey and Sinha (1994) investigated the effect of various parameters such as separation of infill wall from frame, plastic deformation, stiffness and energy dissipation of infilled frames under cyclic loading.
Deodhar and Patel (1998) pointed out that even though the brick masonry in infilled frame are intended to be non-structural, they can have considerable influence on the lateral response of the building.
Davis and Menon (2004) concluded that the presence of masonry infill panels modifies the structural force distribution significantly in an OGS building.

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Scaling of wall shear stresses in emergent, sparse and rigid vegetated open channel flows with rough bed interior of the vegetation patch

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Abstract: **-- In this study, scaling of dominant Reynolds shear stress within the vegetation patch is performed. To simulate such flows, an emergent and sparse vegetation patch is prepared using acrylic cylindrical rods with regular spacing in streamwise and lateral directions. The vegetation patch is placed in the middle cross-section of the open channel flume. Three-dimensional flow velocities interior of the vegetation patch are measured using a Nortek Vectrinoplus Acoustic Doppler Velocimeter. The measurements are taken along the centerline in the vegetation patch. The dominant Reynolds shear stress (RSS) interior of the vegetation patch is found to be less than the vegetation-free fully developed flow. In addition, RSS values are decreasing in the downstream direction within the vegetation patch although there is a similarity in the shape of RSS profiles. The decrease in flow rate in the downstream direction along the centerline is responsible for the decrease in RSS values. There found to be a bandwidth in which all RSS values near the bed are contained. In the similarity analysis, the RSS profiles scaled such that non-dimensional RSS profiles collapse on each other. The similarity of non-dimensional RSS profiles is attempted in the paper. Scaling demonstrates wake effect, velocity defect, disturbance in the boundary layer and etc.in addition to highlighting the typical behavior of RSS profiles in any general emergent vegetation flows.**

Index Terms - Open channel flow, Emergent vegetation patch, ADV, Reynolds shear stress, Scaling.

1.0 INTRODUCTION

In this study, we performed analysis of important turbulent features at upstream, interior and downstream of a sparse vegetation patch in an open channel turbulent flow. Velocities were measured with an ADV down looking probe along stream wise, lateral and vertical directions. The vegetation patch placed in the middle cross section of the open channel flume.

The emergent vegetation patch is made by seventy uniform rigid acrylic cylindrical rods together with regular spacing between two cylinders along stream wise and lateral directions. Emergent vegetation in open channel flow affects mass and moment transfer, roughness, sedimentation, velocity of flow, bed shear, turbulence quantities, biological processes and roughness aquatic life.
Additionally, flow through emergent vegetation is characterized by significant velocity gradients and drag discontinuity at the interface resulting in shear layer formation between the vegetation stems and flow outside the vegetation.A number of experimental (prototype and laboratory) and computational studies on the mean fully-developed flow and the turbulence characteristics through emergent and over submerged vegetation of infinite length are available.

Turbulent open-channel flow over rough beds is a subset of turbulent boundary layers with two notable characteristics, namely,
(1) Flow can be defined as an equilibrium turbulent boundary layer using the asymptotic invariance principle; and

(2) This class of flows has been reported to deviate from the wall similarity hypothesis, whereby turbulent motions above the near-wall layers are independent of surface condition.

An equilibrium turbulent boundary layer is one in which the solutions exhibit self-similarity and the boundary-layer equation does not show dependence on the streamwise (x) coordinate. By defining the equilibrium solution based on the asymptotic invariance principle (AIP) (George and Castillo (1997)), it is assumed that all velocities, turbulent length scale and the pressure gradients maintain the same x dependence in order for the conditions to be equilibrium. Mixed scaling includes scaling in both logarithmic and outer layer. Nepf and Vivoni (2000) performed the experiment in open channel flume with model vegetation to understand how vegetation impact flows.

2.0 EXPERIMENTAL METHODOLOGY:

Experimental Flume Design:
Experiments were conducted in a recirculating flume of width 0.91m, length 12m and depth 0.7m with very mild

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Experimental Study on Partial Replacement of Cement with Fly Ash & Fine Aggregate with Waste Foundry Sand for M25 Grade Concrete

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Abstract - *The infrastructure are developing day by day so demand is more for concrete. The construction activity is readily depend on concrete directly or indirectly. By this significant demand for natural resources like sand etc., are depleting day by day and heavy release of carbon dioxide gas in cement manufacturing process, destruction of environment taking place. To overcome these problems, partially use of industrial waste in place of cement and sand are necessary in the production of concrete. In this study an attempt has been made with a M25 mix proportion. Experimental study is conducted to evaluate the strength characteristics of hardened concrete. Properties of concrete have been assessed by partially replacing cement with Fly-Ash and sand with waste foundry sand. The cement has been replaced by Fly-Ash in the range of 0%, 10%, 20% and 25% by weight of cement. The sand has been replaced by Waste foundry sand in the range of 0%, 10%, 20%, 25% and 30% by weight of sand. Concrete cubes were casted and tested after 7 days and 28 days of curing for compressive strength and compared the results with the control cube specimens. The optimum mix of Fly-Ash and Waste foundry sand are determined.*

***Key Words*: industrial waste, Fly Ash, Waste Foundry Sand, Sand, Compressive strength.**

1. INTRODUCTION

Concrete is one of the significantly accepted construction material in the development of infrastructure. It is perfectly matches with several requirements such as strength, durability, impermeability and fire resistant. The current consumption of concrete is approximately 500 million tons per annum and demand is expected to reach one billitons in next decade. Concrete is a heterogeneousmix of cement, aggregates and water. Cement is an artificial material manufactured with naturally available limestone, silica and gypsum. Aggregates are considered to be one of main constituents of concrete since they occupy more than 70% of concrete matrix. In the recent years, green concrete has draws serious attention of researchers and investigators because a concept of eco-friendly. The contribution of ordinary Portland cement production worldwide to greenhouse gas emissions is estimated to be approximately 1.35 billion tons per year. To keep the global environment safe from the consequence of cement production, it is essential to explore the alternative materials than can at least partially eliminate the use of cement in concrete and no environment destruction.

2. MATERIALS AND METHODOLOGY

1. Cement: Ordinary Portland cement (OPC) of 43 Grade (Ultratech) with respect to IS 8112-1989 was considered for present study.

Table 1: Physical properties of cement

SI No	Parameter	Value
1	Specific gravity	3.11
2	Normal Consistency	30%
3	Initial setting time	48min
4	Final setting time	355min
5	Fineness	4%
6	3days compressive strength	25.5Mpa
7	7days compressive strength	36.4Mpa

2. Fly Ash: Fly Ash is a waste industrial bi-product from the thermal power plant use to make power generation. It can be used as a cementations material. For our research work Fly Ash used is brought from Raichur Thermal Power Station. The properties of Fly Ash are tabulated below.

Table- 2: properties of Fly ash

Colour	Dark Gray
Fineness	3%
Specific gravity	1.91

3. Fine aggregate: Locally available natural river sand is used. Sand having fineness modulus 3.17 and confirmed to grading zone-I as per IS: 383-1970 recommendation.

Table-3: Test Results of Fine Aggregate

Grade zone as per IS: 383-1970	zone -1
Fineness Modulus	3.13
Specific Gravity	2.547

Experimental Study on Partial Replacement of Cement with Fly Ash & Fine Aggregate with Steel Slag for M20 Grade Concrete

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Abstract - *The infrastructure are developing day by day so demand is more for concrete. The construction activity is readily depend on concrete directly or indirectly. By this significant demand for natural resources like sand etc., are depleting day by day and heavy release of carbon dioxide gas in cement manufacturing process, destruction of environment taking place. To overcome these problems, partially use of industrial waste in place of cement and sand are necessary in the production of concrete. In this study an attempt has been made with a M20 mix proportion. Experimental study is conducted to evaluate the strength characteristics of hardened concrete. Properties of concrete have been assessed by partially replacing cement with Fly-Ash and sand with Steel Slag. The cement has been replaced by Fly-Ash in the range of 0%, 10%, 20%, 25% & 30% by weight of cement. The sand has been replaced by Steel Slag in the range of 0%, 10%, 20%, 25% and 30% by weight of sand. Concrete cubes were casted and tested after 7 days and 28 days of curing for compressive strength and compared the results with the control cube specimens. The optimum mix of Fly-Ash and Steel Slag are determined.*

***Key Words*: industrial waste, Fly Ash, Steel Slag, Sand, Compressive strength.**

1. INTRODUCTION

Concrete is one of the significantly accepted construction material in the development of infrastructure. It is perfectly matches with several requirements such as strength, durability, impermeability and fire resistant. The current consumption of concrete is approximately 500 million tons per annum and demand is expected to reach one billitons in next decade. Concrete is a heterogeneousmix of cement, aggregates and water. Cement is an artificial material manufactured with naturally available limestone, silica and gypsum. Aggregates are considered to be one of main constituents of concrete since they occupy more than 70% of concrete matrix. In the recent years, green concrete has draws serious attention of researchers and investigators because a concept of eco-friendly. The contribution of ordinary Portland cement production worldwide to greenhouse gas emissions is estimated to be approximately 1.35 billion tons per year. To keep the global environment safe from the consequence of cement production, it is essential to explore the alternative materials than can at least partially eliminate the use of cement in concrete and no environment destruction.

2. MATERIALS AND METHODOLOGY

1. Cement: Ordinary Portland cement (OPC) of 43 Grade (Ultra tech) with respect to IS 8112-1989 was considered for present study.

Table 1: Physical properties of cement

SI No	Parameter	Value
1	Specific gravity	3.11
2	Normal Consistency	30%
3	Initial setting time	48min
4	Final setting time	355min
5	Fineness	4%
6	3days compressive strength	25.5Mpa
7	7days compressive strength	36.4Mpa

2. Fly Ash: Fly Ash is a waste industrial bi-product from the thermal power plant use to make power generation. It can be used as a cementations material. For our research work Fly Ash used is brought from Raichur Thermal Power Station. The properties of Fly Ash are tabulated below.

Table- 2: properties of Fly ash

Colour	Dark Gray
Fineness	3%
Specific gravity	1.91

3. Fine aggregate: Locally available natural river sand is used. Sand having fineness modulus 3.17 and confirmed to grading zone-I as per IS: 383-1970 recommendation.

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"EXPERIMENTAL STUDY ON THE BEHAVIOUR OF STEEL FIBRE REINFORCED CONCRETE"

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Abstract - In recent years the applications of high strength concrete have increased many part of the world. This growth has been possible as a result of recent developments in technology and demand for high strength concrete there are many advantages in using high strength concrete in building construction. Such as, reduction in member size, reduction in self-weight and early stripping of formwork. Reduced member sizes increase amount of rental area and this is beneficial, when there are architectural restrictions on column size or when land prices are very high

The addition of steel fibre to high strength concrete in various volumes fractions, can be lengthen concrete in various volume fraction, can lengthen the time elapsed before cracking and can provide a confinement.

The experimental progamme was designed to the of effect of steel fibers on compressive strength, split tensile strength of high strength concrete and testing of cubes of size (150mm x 150mm x 150mm), cylinders of 150mm diameter, height 300mm.the mix proportion for M30 grade of concrete 1:0.91: 2.41 with w/c ratio 0.37 was obtained. Then the steel fibres were added in the volume fraction of 0%, 0.25%, 0.5%, 0.75%, 1.0%, and 1.25%.

The experiential results shown that the addition of steel fibre improves the crack arresting capacity of concrete .the addition of steel fibre prove that there is significantly enhancing the energy absorbing capacity of specimens.

***Key Words*: Steel fibre Reinforced Concrete, high compressive strength, Flat steel fibres, Shear Resistance, Dynamic Resistance etc**

1. INTRODUCTION

Fibre reinforced concrete is a concrete mix that contains short discrete fibres that are uniformly distributed and randomly oriented. As a result of these different formulations, four categories of fibre reinforcing have been created. These include steel fibres, glass fibres, synthetic fibres and natural fibres. Within these different fibres that character of Fibre Reinforced Concrete changes with varying concrete's, fibre materials, geometries, distribution, orientation and densities. The amount of fibres added to a concrete mix is measured as a percentage of the total volume of the composite (concrete and fibres) termed Volume Fraction. Typically ranges from 0.1 to 3%. Aspect ratio (l/d) is calculated by dividing fibre length (l) by its diameter (d). Fibres with anon-circular cross section use an equivalent diameter for the calculation of aspect ratio. If the modulus of elasticity of the fibre is higher than the matrix (concrete or mortar binder), they help to carry the load by increasing the tensile strength of the material. Increase in the aspect ratio of the fibre usually segments the flexural strength and toughness of the matrix. However, fibres which are too long tend to "ball" in the mix and create workability problems. Unlike resin and metal the fibre composites in which the fibres are aligned and amount to 60 - 80 % of the composite volume, fibre reinforced Cement or Concrete composites contain a less percentage of fibres which are generally arranged in planar or random orientations. Unidirectional fibres uniformly distributed throughout the volume are the most efficient in uniaxial tension. While flexural strength may depend on the unidirectional alignment of the fibres dispersed for away from the neutral plane, flexural shear strength may call for a random orientation. A proper shape and higher aspect ratio are also needed to develop an adequate bond between the concrete and the fibre so that the fracture of the fibres may be fully utilized.

1.1 FEATURES AND BENEFITS OF SFRC

- Elimination of manufacturing, handling, storage and positioning of reinforcement cages.
- Reduction in the production cycle time resulting in increased productivity.
- Improved impact resistance during handling, erection.
- Increased load bearing capacity and less spalling damage.
- Enhanced durability.
- Important time savings due to the elimination of the manufacturing, transport, handling and positioning of the conventional reinforcement.
- No damage to sealing due to reinforcement.
- Excellent corrosion resistance, spalling is totally excluded.
- Excellent crack control, the fibres control and distribute the cracks.
- The fibres give resistance to tensile stresses at any point in the shot Crete layer.
- Reinforces against the effect of shattering forces.
- Reinforces against material loss from abrading forces.
- Reinforces against water migration.

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Enabling Cloud Storage Auditing With Verifiable Outsourcing of Key Updates

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ABSTRACT:

Cyber Defense shows that the depth of resistance is always important for the protection of applications, it is a big problem for many applications. Recently, to deal with the problem of cloud storage, audit setting and significant proposed study. Challenges, to cope with the current solution for mobile phones, especially when the customer will essentially be able to calculate such resources, bring them to the customer who will be updated with the new position of load of their secret essential key. The period of time is limited, as is. In this paper, we will be able to offer a new paradigm focus on cloud storage as possible to outsourcing customer and key updates, key updates to transparent audit. In this paradigm, it is important, then you can be efficient out of the safe party, and important updates to customer load will be minimized. TPA with our design, all legal actions of the customer, the customer is required to hold an encrypted version of a secret key. TPA secret key from encrypted download, upload new files to cloud client. In addition, the validity of our design to verify the encrypted secret key is fitted to customers with the ability to deliver TPA. Transparent resistance as possible with important performance features of the audit process, carefully designed to make the customer. We include a formal security model definition and parameters. Safety instantiations that showcase on our detailed design and simulation shows are safe and effective performance.

I. INTRODUCTION:

We are displayed in the updated user's secret key cloud storage feature designed for the protocol. In this way, the cloud storage audit can reduce the risk of significant risk. Some customers are limited resources to calculate, they cannot do for a time duration, such as additional counts. The major updates of this date will be more attractive and transparent, customer will often make key updates. Wang et al. Proposed protocol to protect privacy in a public audit They have random masking techniques to obtain privacy protocol protection properties. Outsourcing of Important Updates We have proposed a new paradigm of cloud storage with applied audits. This is a new paradigm, but one of the most important up-to-date operations is done by an authorized party client. The visions they want to download and encrypt by an authorized party decrypts the secret key when uploading new files to the client.

Additionally, customers can confirm the validity of the encrypted secret key. We are outsourcing the design of the most important update for storage, audit cloud, applicable protocol first. We prove our performance through the implementation of our security protocol, security model and concrete. TPA Cloud storage does not know the secret key for customer audit, but it's just an encrypted version. Obviously, we established secret key to use for the property with light techniques to encrypt TPA by identical encryption algorithm. This makes our protocols safe and effective operation of encryption. Meanwhile, complete the TPA key update, encrypted. They can confirm the validity of the encrypted secret key that came from TPA customers. The visions they want to download and encrypt by an authorized party decrypts the secret key when

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Research Paper

Efficient adaptive noise cancellation techniques in an IOT Enabled Telecardiology System

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Abstract

An increasing number of elderly and disabled people urge the need for a health care monitoring system which has the capabilities for analyzing patient health care data to avoid preventable deaths. Medical Telemetry is becoming a key tool in assisting patients living remotely where a "Real-time Remote Critical Health Care Monitoring System" (RRCHCMS) can be utilized for the same. The RRCHCMS is capable of receiving and transmitting data from a remote location to a location that has the capability to diagnose the data and affect decision making and further providing assistance to the patient. During the cardiac analysis, several artifacts solidly affect the ST segment, humiliate the signal quality, frequency resolution, and results in large amplitude signals in ECG that simulate PQRST waveform and cover up the miniature features that are useful for clinical monitoring and diagnosis. In this paper, several leaky based adaptive filter structures for cardiac signal improvement are discussed. The Circular Leaky Least Mean Square (CLLMS) algorithm being the steepest drop strategy for dropping the mean squared error gives a better result in comparison with the Least Mean Square (LMS) algorithm. To enlarge the filtering ability some variants of LMS, Normalized Least Mean Square (NLMS), CLLMS, Variable Step Size CLLMS (VSS-CLLMS) algorithms are used in both time domain (TD) and frequency domain (FD). At last, we applied this algorithm on cardiac signals occurred due to MIT-BIH database. The performance of CLLMS algorithm is better compared to LLMS counterparts in conditions of Signal to Noise Ratio Improvement (SNRI), Excess Mean Square Error (EMSE) and Misadjustment (MSD). When compared to all other algorithms VSS-CLLMS gives superior SNRI. These values are 13.5616dB and 13.7592dB for Baseline Wander (BW) and Muscle Artifact (MA) removal.

Keywords: *Telecardiology, Artifact, Baseline wander,Muscle Artifact, ECG, IOT.*

1. Introduction

WHO report on global health scenario confirms that the major mortality rate is due to the reason that the patient is not timely treated. In [1-3] Suzzanna M. M. Martens, Mohammed Reza Meidani, Naumann Razzaq et al. discussed the suppression of the Power Line Interference (PLI) and harmonics added as noise to the High-Resolution ECG (HRECG). In [4] G. V. S. Karthik et al. presented several efficient and less complex signal conditioning algorithms for a brain signal enhancement in remote health care monitoring applications. In [5] H. Sharma et al. presented a technique that removes the baseline wander (BW) from electrocardiogram (ECG). In [6] Santhosh Kumar Yadav et al. described power line interference; baseline wander, muscle noise etc are due to the Adaptive White Gaussian Noise (AWGN). In [7] Rik Vullings et al. described that the ECG monitoring techniques are more necessary and less disruptive. In [8] Ebadollah Kheirati et al. described the paper that introduces an improved signal decomposition model based Bayesian Framework (EKS6). In [9] Rahman et al. presented an efficient and simplified nonlinear adaptive filters, having compound calculations such as multiplier, free weight update loops is used for termination of noise in ECG signals. In [10] Lukas smital et al. discussed about the adaptive wavelet wiener filtering of ECG signals mainly attentive on the diminition of broadband myopotentials (EMG) in ECG signals. In [11] Shintari Izumi et al. studies say that the Wearable Healthcare system must be with the exact size and weight constraints which enforce considerable restrictions on battery size and signal to noise ratio of biological signals. In [12] Muhammad Zia Ur Rahman, G. V. S. Karthik et al. proposed several block based leaky LMS algorithms for artefact removal from cardiac signal. In [13] Ke Li et al. discussed the lossless ECG with low-power wearable devices. In [14] Jinseok lee et al. described an automatic motion and noise artifacts which sometimes results in the disturbances in accuracy and performance of signals taken from the Holter monitor. In [15] Nassim Ravanshad et al. presented a level crossing QRS method says that an asynchronous analog is converted as information used for computing the RR intervals in ECG waves. In [16] Fatiha bouaziz et al. discussed an ECG signal gives a clinical procedure so as to evaluate a cardiac condition of a patient. In [17] E. Arrais Junior et al. discussed about ECG detection mechanism based on the Redundant Discrete Wavelet Transform (RDWT) analyzed with MIT-BIH arrhythmia database. In [18 -19] Gabriel Nallathambi, Jun Jhang et al. discussed about fire (IF) sampler and Body Area Networks (BAN). In [20] Jacquemet et al. discussed the drawing out and study of T-waves causing the atrial flutter in ECG. Several related biomedical signal processing techniques are presented in [21]-[48].

Considering health conditions of the person, a few very crucial steps in RRCHCMS are as following:

Adaptive Artifact Elimination in Telecardiology Systems using Leaky LMS Variants

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Abstract: ***Evaluation of Electrocardiogram (ECG) facilitates the heart stroke volume in the sudden cardiac arrest. ECG is a noninvasive method for indirect analysis of stroke volume, monitoring the cardiac output and observing the hemodynamic parameters by changes in the blood volume of the body. Changes in the blood volume caused due to several physiological processes are extracted in the form of the impedance variations of the body segment. In the real time clinical environment ECG signals are contaminated with various artifacts. As these artifacts are not stationary in nature, we developed several hybrid adaptive filtering techniques to enhance the resolution of ECG signals. Least mean square (LMS) algorithm is the basic enhancement technique in the adaptive filtering. But, in the non-stationery environment the LMS algorithm suffers with low convergence rate and weight drift problems. In this paper we developed hybrid versions of LMS algorithm that is Normalized Leaky LMS (NLLMS) for ECG signal enhancement. More over to improve the rate of convergence, filtering capability and to minimize the computational complexity we also implement various sign versions of LLMS algorithms. The sign versions of NLLMS algorithms are sign regressor NLLMS (SRNLLMS), Sign NLLMS (SNLLMS), and Sign Sign NLLMS (SSNLLMS). Based on these adaptive algorithms, we developed several adaptive signal enhancement units (ASEUs) and performance is evaluated on the real ECG signal components obtained from MIT-BIT database. To ensure the ability of these algorithms, four experiments were performed to remove the various artifacts such as sinusoidal artifacts (SA), respiration artifacts (RA), muscle artifacts (MA) and electrode artifacts (EA). Among these techniques, the ASEU based on SRNLLMS performs better in the artifacts removing process. The signal to noise ratio improvement (SNRI) for this algorithm is calculated as 18.3165 dBs, 8.0964 dBs, 6.7025 dBs and 8.0825 dBs respectively for SA, RA, MA and EA. Hence, the SRLLMS based ASEUs are more suitable in ECG signal filtering in real time health care sensing systems.***

Index Terms**: *adaptive filter, artifacts, electrocardiography, non-invasive, signal enhancement.***

I. INTRODUCTION

According to the statistic reports given by World Health Organization (WHO), the ischemia Heart disease is one of the leading causes of death worldwide [1]. One of the popular methods to measure cardiac activity is hemodynamics in which the flow of the blood across the body is measured. Impedance plethysmography techniques that use changes in electrical impedance on the surface of the body to measure hemodynamic parameters. Electrocardiography (ECG) is a simple, inexpensive and noninvasive method to observe the electrical impedance changes of thorax, which is caused due to the periodic changes in the volume of blood in aorta.To estimate Cardiac Output (CO), Stroke Volume (SV) and other hemodynamic parameters [2] an appropriate thorax model is used. To identify the variations of body impedance due to the periodic changes in the flow of blood caused by heartbeat. The Research has been stared in this field of ECG with particularly in cardiac area using Impedance Plethysmography techniques [3]. Several studies are accomplished in the field among noninvasive ECG and invasive methods [4, 5]. The evaluation of ECG is presented in [6] which subjects with heart diseases. The experimental results are most reliable and accurate. With the advancement in technology, wearable devices with ECG sensors are designed to facilitate long term recordings and provide comfort to patients [7]. Since the origin of ECG there has been an increase in the reliability of the technique and development in the cardiac parameter's measurement [8–11]. During the extraction of ECG signal the desired signal components are contaminated with artifacts. The tiny features of the desired signal components are masked by these artifacts and causes ambiguities during diagnosis [6]. The major artifacts are Sinusoidal Artifacts (SA), Respiratory Artifacts (RA), Muscle Artifacts (MA) and Electrode Artifacts (EA). These artifacts must be eliminated to provide high resolution ECG signal components for estimating stroke volume and intensity. These artifacts are not stationery and hence conventional filters with fixed coefficients are not preferable for ECG filtering. So that adaptive filtering techniques are suitable to change the filter weights in according to the statistical nature of error signal [12].Until now, several researchers have proposed various signal processing techniques to enhance the ECG signal [13-15]. In these papers, conventional Least Mean Square (LMS) and Recursive Least Square (RLS) algorithms are used to remove artifacts. But the drawbacks of these algorithms are weight drift, and less stable. To overcome these drawbacks and to enhance the performance of artifact cancelation we developed some hybrid algorithms. With these hybrid algorithms we can also achieve less computation complexity. In [16–19] Rahman et al. used some adaptive artifact cancellers to enhance the cardiac signal and brain activity using various versions of LMS.

We considered the same framework for the development of ECG signal enhancement. The performance of ASEUs for ECG analysis in a typical health care monitor system can be improved by various hybrid signalprocessing techniques.

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MITIGATION, COMPLEXITY REDUCTION OFDM BASED TIME VARYING CHANNELS

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ABSTRACT

Time differing channels crush the symmetry among subcarriers in symmetrical recurrence division multiplexing (OFDM) frameworks, and present entomb bearer impedance (ICI). Bunches of endeavors have been given to alleviate ICI in OFDM frameworks, with various casing structures and channel models, however the computational multifaceted nature of the strategies is generally high. In different information various yield (MIMO) frameworks, the many-sided quality is significantly higher. In this paper, a low-intricacy ICI relief technique is proposed for MIMO-OFDM frameworks under the suspicion of straight time-changing channels. It decreases the many-sided quality of ICI remuneration from (K3(N3 + MN2 + MN) + NK (K)) to O(K(N3 + 2MN2 + 2MN + 2M2 + N log(K))), where K is the quantity of subcarriers, M the quantity of transmitters, and N the quantity of collectors. It requires channel estimation in light of the straight time-changing channel show, and no transmission overhead is required. The proposed calculation applies to all OFDM frameworks as long as direct time-fluctuating station estimation is relevant. Time-area synchronous-OFDM normally suits for the proposed ICI alleviation calculation since its beneficiary can without much of a stretch gauge straight time-changing channels. Recreation with QPSK and 16QAM tweak shows the execution of the proposed technique, in correlation with no ICI alleviation case. It demonstrates that 2 dB flag to commotion gain is accomplished when the un coded bit blunder rate is 10 to 3 and the standardized Doppler recurrence is 0.1.

Keywords: Multiple-input multiple output orthogonal frequency division multiplexing (MIMO-OFDM), Inter-Carrier Interference (ICI) Mitigation.

INTRODUCTION:

Orthogonal frequency division multiplexing (OFDM) has been effectively connected in tremendous regions of broadband correspondences Conventionally, OFDM frameworks accept the divert stays static in one OFDM image span, and in this manner one-tap equalizer would be adequate for leveling on a particular subcarrier. In any case, this suspicious may not generally be powerful in rapid versatile condition.

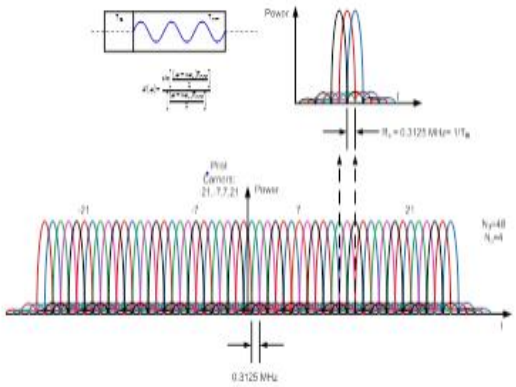

Fig1: OFDM and Channel Equalization:

For example, in the telecom stations, in the basement uplink/downlink stations on fast railroad or in submerged acoustic stations, where OFDM image length surpasses station reasonable time. Time-shifting channels would be present between transporter impedance (ICI), obliterate the inventiveness among sub-careers, and base

WIRELESS DATA MONITORING IN CRITICAL HEALTHCARE SYSTEM

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ABSTRACT

The main aim of the project is to design a system which is utilized to screen the patient condition and remote framework that uses framework to normally report the patient's information and zone information and status to a near to facility or doctor's facility. To guarantee the security of therapeutic information data transmitted in remote sensor systems.To ensure the security of medical data information transmitted in wireless sensor networks.In the past existing strategy PC gadgets utilized as information obtaining (DAQ) frameworks we can gather fundamental data about the patients remotely. Existed framework which screens temperature, heartbeat rate and blood pressure of patients and prompt move is made utilizing Wi-Fi innovation. for instance, ventilators, dialysis machines, and patient observing devices, are life-supporting machines used widely by patients at home.While advantageous and sparing, at-home use of DME is vulnerable to control blackouts, particularly the ones caused by catastrophic events that frequently happen in extensive territory and for a long length. There is small existing innovation allowing hospitals to screen DME-subordinate patients without utilizing the current framework, for example, the landlines, the cell towers, Ethernet link or the Internet. Revealed thus is a novel wireless framework that that uses a radio improvised framework to consequently report the patient's information and region, and the DME information and status to a near to center when a power outage is distinguished. This system contains two areas: a clinic based getting contraption, called the Base Station center, and diverse transmitting devices, called User Nodes,each connected to the DME at patients' homes.

I. INTRODUCTION

Indian has a huge human services framework, yet the nature of administration at clinics will be diverse amongst country and urban territories and additionally amongst open and private social insurance framework is distinctive because of less in number of specialists. Disregarding this, In future India progressed toward becoming as a mainstream goal for treatment for different ailments over the world in light of ease and high caliber of its private clinics. As the innovation expands we are discovering answer for the issues that we are having in restorative social insurance framework.

A current report demonstrates that around 90% of the matured individuals need to live autonomously. Be that as it may, the people whose age crossed 60 are experiences no less than one constant illness because of this numerous matured individuals to experience issues in dealing with themselves. This will be taken as a social test by different associations as they will work for these individuals. With the adjustment in innovation numerous devices were created in the field of Medical society.

Most capable correspondence framework Internet of things had a made unrest in giving the data over the globe. It can ready to interface the electronic gadgets with the web so IOT expands its administration through web and makes it more inescapable.

Utilizing IOT we can ready to interface gadgets and cooperate with sensor,. Due to this reason IOT was used as a piece of medicinal services framework. In our task we utilize IOT and distinctive wearable sensors which can ready to get the data from our human organs and body and the processor utilized will compute the data. We will utilize sensors in wellbeing observing framework, which will make the checking framework all the more serious anyplace, whenever.With this enhances the period of individuals which enhances the personal satisfaction.Web server data can be observed by the doctor's facility staff like specialists and can ready to prudent strides at the crisis level.

SAFETY HELMET FOR PRE INFORMATION TRANSMISSION SYSTEM FOR UNEXPECTED EVENTS

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ABSTRACT

The main aim of the project is protective cap has been created that can recognize of dangerous occasions in the mines business. In the advancement of cap, we have considered the three primary sorts of risk, for example, air quality, protective cap evacuation, and impact (excavators are struck by a question). The first is the focus level of the perilous gases, for example, CO, SO2, NO2, and particulate issue.

The second risky occasion was named an excavator evacuating the mining protective cap off their head. An IR sensor was created unsuccessfully however an off-the rack IR sensor was then used to effectively decide when the protective cap is on the excavator's head. The third dangerous occasion is characterized as an occasion where diggers are struck by a question against the head with a power surpassing an estimation of 1000 on the HIC (Head Injury Criteria). An accelerometer was utilized to quantify the quickening of the head and the HIC was figured in programming.

The format of the perception programming was finished, anyway the usage was unsuccessful. Tests were effectively done to adjust the accelerometer. PCB's that were planned and made incorporated a breakout board and a model board. An entire programming execution was done in light of Contact working framework keeping in mind the end goal to do the control of the estimating of sensors and of computations finished with the deliberate qualities. This paper exhibits the embraced configuration itemizing answers for issues brought up in past research.

I. INTRODUCTION

South Africa is known for its wide and different mineral resources and broad mining industry. Managers are considered as possible for all harmful effects upheld under their supervision, and should in like manner think about possibly perilous conditions. The issue tended to have in the documentation at variety of mining head defender with a particular ultimate surely having objective larger security care in diggers. When working with rowdy equipment, observing one's condition can a section having time challenge.

In the mining business diggers have a tendency to clear a segment of their prosperity adapt light in way that the contraption is excessively significant, warm or clumsy, making it impossible to work with. In any case, diggers all around don't remove their defensive tops. Eventually mining prosperity tops simply have

MULTIPLE MOTION CONTROL SYSTEM OF ROBOTIC CAR BASED ON IOT TO PRODUCE CLOUD SERVICE

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I. ABSTRACT

The world of control is an exciting field that has exploded with new technologies where the Internet of Things (IOT) vision becomes reality. This paper proposes a multiple motion robot car controlling mechanism of a robotic car using controller which works. Each device is uniquely identifiable by the controlling software which is the core concept of IOT. The information sending to the Commands and data are stored in cloud service which delivers them when the device is ready to receive. A GPS system is incorporated thus clients can trace the car. The system has ultrasonic distance sensor for avoiding obstacles coming in between its path. This paper proposes a robotic car where we will control its movement remotely using controller. Client can manages the activities of the car from remote or far away spots over the remote correspondence using Bluetooth module and cloud service. We present the architecture and design of the ARM processor and illustrate how to control the car by means of commands and application.

Keywords: Microcontroller, GSM, Voice module, Speakers, Devices etc.

II. INTRODUCTION

The IOT allows objects to be sensed or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into computer based systems, and resulting in improved efficiency, accuracy and economic benefit in addition to reduced human intervention. In our project we can control the vehicle by using GPS and GPRS i.e. we are sending the commands from our android mobile through Bluetooth, then the vehicle receives (acts as receiver) the signals, according to the commands being received from the mobile based on that the direction of the vehicle is controlled. As well as we can control the robot from the IOT by using GPRS (transceiver).When IOT is augmented with sensors, the technology becomes an instance of the more general class of cyber-physical systems. Several advanced control systems of

ARM7 BASED SMART CAR SECURITY SYSTEM

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I. ABSTRACT

Vehicle theft is one of the major problems faced by civil society today. Statistics shows vehicles which get stolen only 1 by 4th of them recovered. Current systems use key and remote to lock the vehicle. At main locations CCTV camera's are present which are used to locate the stolen vehicle. But at many places CCTV cameras are not present. Control of vehicle and knowledge of their location even after theft can help recovery of the stolen vehicle fast.

With the development and applications of many embedded techniques, car security system design and analysis are constantly improving. Many new techniques, such as face recognition technique, image processing technique, communication technique and so on, have been integrated into car security systems. At the same time, the amount of accident of cars still remains high. So, one practicable car security system should be efficient, robust and reliable. Traditional car security systems rely on many sensors and cost a lot. When one car is really lost, no more feedback could be valid to help people to find it back. We put forward the face detection technique to be applied in car security system because this kind of technique is effective and fast, and one alarm signal could be given to make an alarm.

Keywords: *Microcontroller, Face detection, GSM, GPS, Alcohol sensor, Reflection sensor, camera etc.*

II. INTRODUCTION

In this modern age, there is rapid increase in number of vehicles and so there is the number of car theft attempts. Thus, the protection of vehicles from theft becomes important due to insecure environment.

Face detection techniques have been heavily studied in recent years, and it is an important computer vision problem with applications to surveillance, multimedia processing, and consumer products. Many new face detection techniques have been developed to achieve higher detection rate and faster.

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A Novel approach of 4*4 Vedic Multiplier using Reversible Logic Gates

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ABSTRACT-

The performance of the multiplier determines the system performance, because the multiplier is slowest element in the system. Multiplication is one of the major operation in arithmetic and logical operations and multiplier is used in many applications like FFT, DFT, Image enhancement, DWT etc,. The multiplication speed influences the processor speed, so the speed of the multiplication should be high. There is one such promising solution i.e., Vedic multiplier. Vedic multiplier is designed using Vedic mathematics. Vedic mathematics is an ancient system of mathematics, which is formulated by Sri Jagadguru Bharathi Krishna tirthaji (1884-1960). The word Vedic is obtained from the word Veda‖ which gives the meaning of power house of knowledge and devine. This paper proposes the novel approach of 4*4 Vedic multiplier using reversible logic gates. Design of high speed Vedic multiplier is designed based on Vedic mathematics Vedic mathematic. Usage of reversible logic gates leads to reduction of power dissipation. Power dissipation is an important factor which can‘t be neglected in VLSI. The multiplier is designed using ―Urdhva Tiryakbhyam‖ sutra from Vedic mathematics which is different from conventional multiplier like array and booth multiplier. The coding is done using VHDL for 2*2 Vedic multiplier and simulation is done using Xilinx 14.5 tool. The logic verification of the modules has been done by usingModelsim.

Keywords: Vedic mathematics, Vedic multiplier, Urdhva Tiryakbhyam, Reversible logic gates, garbage outputs, constant inputs, quantum cost, gate counts.

I. INTRODUCTION

Multiplier has many applications like FFT, DFT and image enhancement. In order to increase the operation speed of FFT, DFT the multiplication process should be faster. Compared to basic multiplier like Wallace and array multiplier Vedic multiplier is faster and it consumes less power. The entire speed and the performance of the system is depends on the speed of the addition and multiplication taking place in the system. Delay will be more due to the long multiplication process, and the propagation delay will also be considered because of the parallel adders used in the addition stage.The multiplication done in threeways: Partial Products Generation (PPG), Partial Products Addition (PPA) and Final Convectional Addition. The main issue is to increase the speed of the multiplier partialproducts should be reduce. Vedic mathematics is an ancient system of mathematics, which formulated by Sri Jagadguru Bharathi Krishna tirthaji (1884-1960). The word Vedic is obtained from the word ―Veda‖ which gives the meaning of power house of knowledge and devine. These are 16 sutras in Vedic mathematics Urdhva Tiryakbhyam and Nikhilam Navatascaramam Dasatah are traditionally taken to design multiplier. Vedic multiplier does not produce any partial products so the number of adders required in the multiplier is less which leads to simplicity of the circuit. There are 16 sutras in

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New advancement and developments in non-convectional energy sources

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Abstract

Energy is the key input to drive and improve the life cycle. Primarily, it is the gift of the nature to the mankind in various forms. That the human race faced an energy crisis became painfully obvious during the 1970s. Since that time the blatant obviousness of the problem has waned, but the underlying technical and political problems have not disappeared. Humanity continues to increase in number (the world population is, at present, in excess of five billion) and, despite major efforts towards improving the efficiency of energy consumption, the overall per capita use of energy continues to increase.

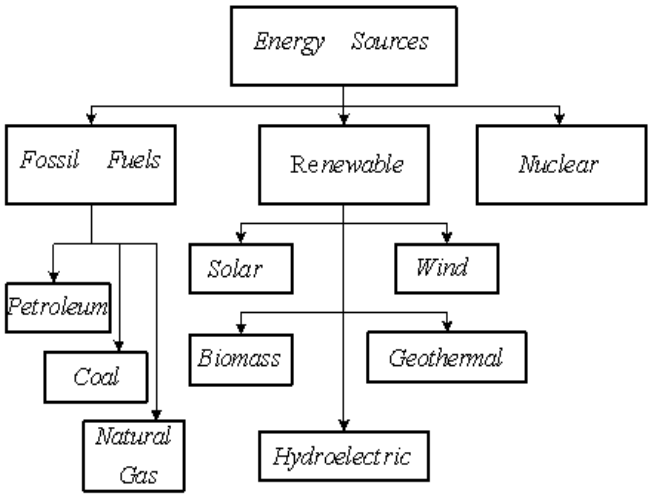
With ever growing population, improvement in the living standard of the humanity, industrialization of the developing countries, the global demand for energy is expected to increase rather significantly in the near future. The primary source of energy is fossil fuel, however the finiteness of fossil fuel reserves and large scale environmental degradation caused by their widespread use, particularly global warming, urban air pollution and acid rain, strongly suggests that harnessing of non-conventional, renewable and environment friendly energy resources is vital for steering the global energy supplies towards a sustainable path.

1).Introduction

1.1)Energy Sources

Originally, coal was the main source of energy. It remains so throughout the 18th century during the period of the rapid industry development. Later on, oil and naphtha began to be used as energy sources and their usage expanded especially in 19th century. A special feature of the above mentioned fossil fuels is their long creation period – requiring millennia. They are a result of rotting of different plant and animal kinds. In comparison to the period of their formation, the period of their utilization is far shorter. In accordance with a number of existing statistics about 2050 year it may be talked about a
depletion of the liquid fossil fuels, also, the world coal supplies are considered to last within the next 200 years.

Therefore, the development of nuclear power engineering is considered to be one of the alternatives to generate energy. Recently, the nuclear power energy generation has been denied in many countries because of the risks associated with its generation and because these risks have been confirmed by serious accidents throughout the World. The storage of worked nuclear waste is also a problem and risky. The renewable energy sources are another possibility to generate energy. Significant achievements have been made in the 20th century. Many of them need additional supplies of energy. The needs are especially high in the developing countries. Different kinds of energy sources known at present are shown in Figure 1.



Fossil fuels supply most of the energy consumed today. They are relatively concentrated and pure energy sources and

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ENGLISH LANGUAGE TEACHING FOR CULTURALLY DIVERSE STUDENTS IN INDIAN SCHOOLS AND COLLEGES

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ABSTRACT

English lingo learners (ELLs) are the fastest growing group of students in India. Today, one out of every nine students is learning English as a second language. If this example continues with, current projections demonstrate that by the year 2030, 40% of all school-developed youths in India will be speakers of a first tongue other than English (Duffey, 2004). Teacher asks for and covets today are much more conspicuous than they have ever been. In any case, are classroom teachers agreeably organized to train and interface with this socially and phonetically contrasting masses? In classrooms where what is bestowed, practiced, and seen unprecedented impact and impact students, it is fundamental that teachers make sense of how to effectively pass on differently in such extraordinary settings. If teachers are to wind up particularly suitable, variety communicators, it is fundamental to appreciate the part that culture plays in the multi-social school setting. Lustig and Koester (2003) describe culture as "an informed course of action of shared explanations about feelings, qualities, and measures, which impact the acts of a for the most part significant social event of people." Similarly, Samovar and Porter (1991) clear up culture as a medium that touches and changes all parts of human life, including personality, how people pass on what necessities be (which joins presentations of feeling), the way they think, how they move, and how issues are disentangled. Truth be told, culture goes far past the air, sustenance, and dress of a teachers nearby country.

Keywords: Culturally diverse students, classroom, English, language, resources, teacher

Advancing variety qualities are an objective shared by numerous in American schools and colleges, yet really accomplishing this objective in the everyday classroom are regularly difficult to do. The objective of this showing module is to highlight a couple of the key difficulties and worries in advancing variety qualities, and represent approaches to fuse a comprehension of differences in the classroom and past.

I. VARIETY AFFECTS THE CLASSROOM

Much talk about verity qualities concentrates on the accompanying types of minimization: race, class, sex, and sexual introduction and which is all well and good, given the significance of these types of contrast. Indeed, students go to the college classroom with various foundations, sets of encounters, social settings, and world perspectives. Moreover, issues of variety qualities assume a part in how students and teachers see the significance of the classroom and what ought to occur there. For instance, suspicions about what a regular student ought to know, the assets they have and their earlier information are critical.

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TEACHING ENGLISH LANGUAGE IN A MULTICULTURAL SOCIETY

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ABSTRACT

India Is a classic example of a multicultural, multi religious country following a policy of multilingualism. Indian culture has always been an integral part of India's education system. Therefore, teachers and learners need to have awareness regarding the issues of cultural diversity between English and the local languages. The multicultural education may be an alternative way of improving the cultural awareness in the process of English language teaching. English language is important in order to be able to communicate with people from other cultures. It is a medium to form a picture of society. By applying this multicultural perspective in the practice of English language teaching and learning, the learners will acquire attitude, knowledge, and skills needed to function within their own culture, mainstream cultural and the global community.

Key words: English language teaching, multiculturalism, multilingualism, Globalization, culture, cultural awareness

I. INTRODUCTION

India is a multicultural, multilingual country. A defining feature of India is its diversity in terms of religion, caste, language and cultural. It has twenty eight states, seven union territories, 22 national languages, 1162 other languages and dialects. India is a classic example of a multicultural muti religious country following a policy of multilingualism. After independence India adopted a federal form of government to provide a certain degree of autonomy to the states to formulate their own laws and policies which would assist the different linguistic groups to protect and promote their language and cultural. Moreover, Indian cultural is a thing of pride with its flexibility, assimilation and preservation of the best practices prevailing in the contemporary society. Indian cultural has always been an integral part of India's education system. Therefore, teachers and learners need to have awareness regarding the issue of cultural diversity between English and the local languages. They need to consider the fact that their students come from different cultural background, have different level of proficiency, speak their first language , and also may have different social, religious and economic background. Hence, it is essential to enhance teachers and students' interest in incorporating multicultural approaches into educational setting.

The multicultural education maybe an alternative way of improving the cultural awareness in the process of English language teaching. Learning second language play an important role in paying respect towards one another's culture. Thus, English language is important in order to be able to communicate with

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Optimization of Multiple Performance Characteristics in Electrical Discharge Machining of Titanium Alloy Using Grey Relational Analysis

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Abstract – This paper represents the effect of process parameters on machining characteristics during electrical discharge machining of Titanium alloy (Ti-6Al-4V). The process parameters are chosen as peak current, pulse on time and pulse off time and machining characteristics are selected as material removal rate, tool wear rate and surface roughness. Further, an attempt is made to obtain optimal combination of process parameters that yields maximum material removal rate, minimum tool wear rate and surface roughness simultaneously using Taguchi-grey relational analysis. Experiments were conducted using Taguchi L9 orthogonal array. Results revealed that process parameters peak current, pulse on time and pulse off time having significant affect on material removal rate and surface roughness. However, pulse off time has no significant affect on tool wear rate. Further, optimal combination of process parameters is achieved as when It was found that the optimum parametric condition from results of GRA give Peak current: 28A (Level 3), pulse on time; 150 µs (Level 2) and pulse off time: 65 µs (Level 1), and the response values obtained are MRR=1.81339 mm³/min, TWR=1.08379 mm³/min and SR=8.16675 µm. confirmation experiments were conducted at optimal parametric setting. Predicted values were compared with experimental values and the deviation is 0.80% which was found satisfactory.

Key words: Electrical Discharge Machining, Optimization, Taguchi-Grey Relational Analysis

I.INTRODUCTION

Electrical discharge machining (EDM) is one of the most widely used unconventional material removal processes to machine high hardness conductive materials. It is largely used in the manufacture of automotive, aerospace and dies, moulds components. In EDM removal of material over work piece takes place through occurrence of series of electrical sparks between the electrodes (tool and work piece). These electrodes are immersed in a dielectric fluid and are separated by small gap. Spark occurs momentarily and is initiated at the peak between the contacting surfaces of tool and work piece. Owing to high te`mperature spark, the removal of material from the work piece by localized melting and even vaporization of material. To reduce production cost and improve product quality, optimization of EDM is required. The extensive applications and usage of this process made many manufacturing research engineers to pay attention into this process to improve the process capabilities. S.Gopalakannan et.al[1]have been developed Mathematical model and analyzed the effects of EDM process parameters such as pulse current, gap voltage, pulse on time and pulse off time on performance characteristics namely material removal rate (MRR), electrode wear ratio (EWR) and surface roughness (SR) during EDM of metal matrix composite (MMC) of aluminium 7075 reinforced with 10 wt% of B4C particles using response surface methodology (RSM) .V.V.Reddy et.al [2] presented the individual effect of process parameters such as peak current and pulse duration on performance characteristics namely MRR, TWR and SR. Experiments are conducted with PH17-4 stainless steel as work material and electrolyte copper as electrode. R.Rajesh et.al[3] was studied The influence of working current, working voltage, oil pressure; spark gap, pulse on time and pulse off time on material removal rate and surface roughness . Further empirical models are developed to predict material removal rate and surface roughness. Genetic Algorithm (GA) based multi-objective optimization has been done for maximization of material removal rate and minimization of surface roughness by using the developed empirical models.

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Research... ? Let's do it.

Experimental Investigation on EDM of Titanium Alloy using Taguchi Method

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Keywords:

Electro Discharge Machining, EDM of Titanium Alloy

Abstract

Electro Discharge Machining (EDM) is a newly developed non-traditional machining technique for â€œdifficult to machineâ€□ conducting materials. In EDM, the material removal of the electrode is achieved through high frequency sparks between the tool and the work-piece immersed into the dielectric. In the present work, an investigation has been made into the electrical discharge machining process during machining of Titanium alloy (Ti-6Al-4V). Taguchi method is used to formulate the experimental layout, to analyze the effect of each process parameters peak current (I), pulse on time (Ton) and pulse off time (Toff); varied in three different levels to predict the optimal choice for each Material Removal Rate (MRR), Tool Wear Rate (TWR) and Surface Roughness(SR). L9 Orthogonal array is used to conduct Experimentation. To identify the significance of parameters on measured responses, the analysis of variance (ANOVA) has been done. It is found that parameters peak current and pulse on time have the significant affect on material removal rate, tool wear rate and surface roughness. However, parameter pulse off time has less significant affect compared to the former on material removal rate. Optimal combination of process parameters was obtained to yield max MRR, min TWR and SR separately using Taguchi method. The optimal parametric setting for Maximum MRR (2.30248 mmÂ³/min) is at Peak current: 28A (Level 3), pulse on time; 100 Âµs (Level 1) and pulse off time: 185 Âµs (Level 3). The optimal parametric setting for Minimum TWR (0.0149 mmÂ³/min) is at Peak current: 12A (Level 1), pulse on time; 200 Âµs (Level 3) and pulse off time: 185 Âµs (Level 3) and for minimum SR (3.3505 Âµm) it is at Peak current: 12A (Level 1), pulse on time; 100 Âµs (Level 1) and pulse off time: 65 Âµs (Level 1). Confirmation tests are conducted at their respective optimum parametric settings to verify the predicted optimal values of each performance characteristics. The results obtained were in good agreement with the experimental values.

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Article Preview

Design and Analysis of Centrifugal Pump by using CFD

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Abstract— Centrifugal pumps are used to transport fluids by the conversion of rotational kinetic energy to the hydrodynamic energy of the fluid flow. The rotational energy commonly originates from a motor or electric engine. The liquid enters the direct impeller along or close to the pivoting hub and is quickened by the impeller, streaming radically outward into a diffuser or volute chamber (packaging), from where it exits. Basic uses incorporate water, sewage, oil and petrochemical pumping; an outward fan is normally used to actualize a vacuum cleaner. The capacity of the outward pump is a water turbine changing over potential energy of water weight into mechanical rotational energy. The purpose of this paper is to identify /observe and determine the pattern of velocity profile and pressure distribution by using CFD solid works simulation module by using non Newtonian fluids, such as olive oil, and slurry after the 3D design and modeling of the pump is made using solid works 2016 software. Basically, this paper revolves around the idea of investigating the effect and distribution of velocity profile and pressure within a pump by using water and non-Newtonian fluids.

Key words: Newtonian Fluids, Olive Oil and CFD

I. INTRODUCTION

Most centrifugal pumps are not self-preparing. At the end of the day, the pump packaging must be loaded with fluid before the pump is begun, or the pump won't have the capacity to work. On the off chance that the pump packaging winds up noticeably loaded with vapors or gasses, the pump impeller progresses toward becoming gas-bound and unequipped for pumping[1]. Solid works mechanical design automation software is a feature-based, parametric solid modeling design tool which advantage of the easy to learn windows graphical user interface [2].,We can create fully associate 3-D solid models with or without while utilizing automatic or user defined relations to capture design intent. Parameters allude to imperatives whose esteems decide the shape or geometry of the model or gathering [3]. Parameters can be either numeric parameters, for example, line lengths or circle distances across, or geometric parameters, for example, digression, parallel, concentric, level or vertical, and so forth. Numeric parameters can be related with each other using relations, which enable them to catch plan goal. Outline plan is the means by which the maker of the part needs it to react to changes and updates [4]. A few variables add to how we catch plan goal are Automatic relations, Equations, included relations and dimensioning.

A. Modeling of a Centrifugal Pump

Initially the model is drawn in 2-D by using different commands in Auto cad software and the isometric view of centrifugal pump as shown in the figure 1.

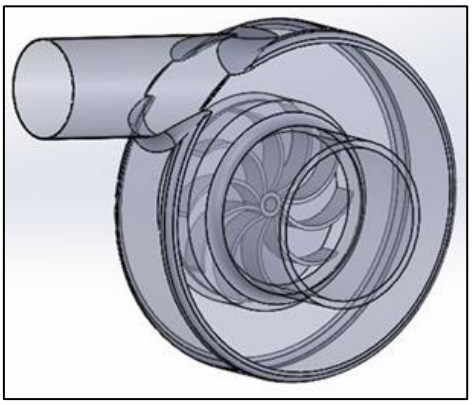

Fig. 1: Isometric View of Centrifugal Pump

II. SOLID WORK SIMULATIONS

Solid Works Simulation provides simulation solutions for linear and nonlinear static, frequency, buckling, thermal, fatigue, pressure vessel, drop test, linear and nonlinear dynamic, and optimization analyses.

Fig. 2: Simple Simulation

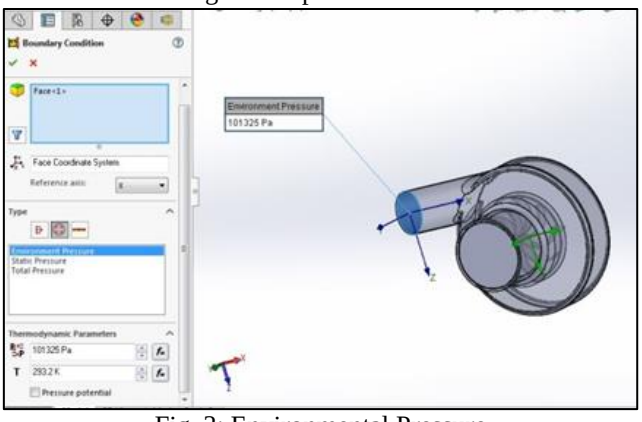

Fig. 3: Environmental Pressure

Initially the modelling of centrifugal pump is done in auto cad software and imported to solid work design software for further analysis. CFD analysis is carried out on fluids like Olive oil and slurry. Initially the pressure of 101.325 bars is taken on centrifugal pump for analysis and angular velocity of 210 rad/s.

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A Fault-Tolerant Memory System for Nano Memory Applications

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Abstract: **- Due to the increase in the soft error rate in logic circuits, the encoder and decoder circuitry around the memory blocks have become susceptible to soft errors as well and must also be protected. We introduce a new approach to design fault-secure encoder and decoder circuitry for memory designs. Hamming codes are often used in today's memory systems to correct single error and detect double errors in any memory word. In these memory architectures, only errors in the memory words are tolerated and there is no preparation to tolerate errors in the supporting logic (i.e. encoder and corrector). However combinational logic has already started showing susceptibility to soft errors, and therefore the encoder and decoder (corrector) units will no longer be immune from the transient faults. Therefore, protecting the memory system support logic implementation is more important. Here we proposed a fault tolerant memory system that tolerates multiple errors in each memory word as well as multiple errors in the encoder and corrector units. We illustrate using Euclidean Geometry codes and Projective Geometry codes to design the fault-tolerant memory system, due to their well-suited characteristics for this application.**

Keywords: **- Soft error rate, Fault-secure, Euclidean Geometry Code.**

I. INTRODUCTION

Electronic space provided by silicon chips (semiconductor memory chips) or magnetic/optical media as temporary or permanent storage for data and/or instructions to control a computer or execute one or more programs. Two main types of computer memory are: (1) Read only memory (ROM), smaller part of a computer's silicon (solid state) memory that is fixed in size and permanently stores manufacturer's instructions to run the computer when it is switched on. (2) Random access memory (RAM), larger part of a computer's memory comprising of hard disk, CD, DVD, floppies etc., (together called secondary storage) and employed in running programs and in archiving of data. Memory chips provide access to stored data or instructions that is hundreds of times faster than that provided by secondary storage. Particularly, we identify a class of error-correcting codes (ECCs) that guarantees the existence of a simple fault-tolerant detector design. This class satisfies a new, restricted definition for ECCs which guarantees that the ECC codeword has an appropriate redundancy structure such that it can detect multiple errors occurring in both the stored codeword in memory and the surrounding circuitries. We call this type of error-correcting codes, fault-secure detector capable ECCs (FSD-ECC). The parity-check Matrix of an FSD-ECC has a particular structure that the decoder circuit, generated from the parity-check Matrix, is Fault-Secure. The ECCs we identify in this class are close to optimal in rate and distance, suggesting we can achieve this property without sacrificing traditional ECC metrics. We use the fault-secure detection unit to design a fault-tolerant encoder and corrector by monitoring their outputs. If a detector detects an error in either of these units, that unit must repeat the operation to generate the correct output vector. Using this retry technique, we can correct potential transient errors in the encoder and corrector outputs and provide a fully fault-tolerant memory system.

SYSTEM OPERATION:

LOW-density parity-check (LDPC) codes were first discovered by Gallager in the early 1960s [2] and have recently been rediscovered and generalized .It has been shown that these codes achieve a remarkable performance with iterative decoding that is very close to the Shannon limit[3]. Consequently, these codes have become strong competitors to turbo codes for error control in many communication and digital storage systems where high reliability is required.

LDPC codes can be constructed using random or deterministic approaches. In this report, we focus on a class of LDPC codes known as Euclidean Geometric (EG) LDPC codes, which are constructed deterministically using the points and lines of a Euclidean geometry [1,16]. The EG

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Design and Implementation of Robot Arm Control Based on Matlab with Arduino Interface

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***Abstract*: -- In the present days, a number of situations exist where it is not possible for a human operator to do an activity on his/her own, due to a level of danger or difficulty involved. They may involve taking readings from an active volcano, entering a building on fire, diffusing a bomb, or collecting a radioactive sample. Rather than compromising on human lives, it is better to employ robotic systems for performing difficult tasks. Robotic systems are far superior in ensuring the accuracy of the system under adverse circumstances wherein a human operator may lose his/her composure and focus. Here we propose to build a robotic arm controlled by Matlab/Simulink interfacing with Arduino Uno. The development of this arm is based on Arduino platform and Matlab. A servo motor is a combination of DC motor, position control system, gears. The position of the shaft of the DC motor is adjusted by the control electronics in the servo, based on the duty ratio of the PWM signal. Servo is proposed for low speed, medium torque and accurate position application. These motors are used in robotic arm machines, flight controls and control systems. This project presents an interactive module for learning both the fundamental and practical issues of servo systems interface with ARDUINO UNO. This project, developed using Matlab coding tool, is used to control robotics applications. The objective of this project is to control the servo by using ARDUINO UNO with MATLAB & SIMULINK.**

***Keywords*- Arduino UNO, Servo motors, ATmega 328, matlab, pwm signal , robotic arm.**

I. INTRODUCTION

Nowadays, robots are increasingly being integrated into working tasks to replace humans, especially to perform repetitive tasks. In general, robotics can be divided into two areas, industrial and service robotics. International Federation of Robotics (IFR) defines a service robot as a robot which operates semi or fully autonomously to perform services useful to the well-being of humans and equipment, excluding manufacturing operations. These robots are currently used in many fields of applications including office, military tasks, hospital operations, dangerous environment and agriculture. Besides, it might be difficult or dangerous for humans to do some specific tasks like picking up explosive chemicals, defusing bombs or to pick and place a bomb somewhere for containment, and for repeated pick and place action in industries. Therefore, a robot can replace a human to do work.
A robotic arm by definition is a robot manipulator, usually programmable, with functions similar to a human arm. The links of such a manipulator are connected by joints all owing either rotational motion (such as in an articulated robot) or translational (linear) displacement. The links of the manipulator can be considered to form a kinematic chain. The business end of the kinematic chain of the manipulator is called the end effector and it is analogous to the human hand. The end effectors can be designed to perform any desired task such as welding, gripping, spinning, dropping etc., depending on the application. The robotic arm can be autonomous or controlled manually, which imparts to it the characteristic to be used to perform a variety of tasks with great accuracy. The robotic arm can be fixed or mobile (i.e. wheeled) and can be designed for industrial or home applications. [1][2]. There are various ways in which a robotic arm may be controlled. In the past, many researchers have worked to control a robotic arm through computer terminals, joysticks, even interfacing them with the internet so that they can be controlled from anywhere in the world [1],[2].

Typically, the following types of robotic arms are defined [3]:
- Cartesian/Gantry Robot
- Cylindrical Robot
- Spherical/Polar Robot
- SCARA Robot
- Articulate Robot
- Parallel Robot

The proposed robotic arm is an Articulated Robot. Usually most of the robotic arms are controlled by a central controller which makes use of values taken in from the terminal that are entered by the user at the terminal to move the arm to particular coordinates in space. This makes the control very difficult as the control values of the motors are very difficult to predict to achieve a particular movement. This is easily achieved by our project.

In this study we are implementing it using MATLAB to track the human arm using different X and Y axis to control the robotic arm. For each position of hand there is a color to detect its positions that is from shoulder to elbow the color let us say

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Home Automation with MATLAB and ARDUINO Interface

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***Abstract*: -- Home automation trade has drawn the goodish attention of researchers for quite a decade. The main plan is to mechanically management and monitor electrical and electronic home appliances. Consistent with the marketing research firm ABI regarding 4 million home automation systems were subscribed globally in 2013.An equivalent firm additionally calculable that regarding 90 million homes would use home automation system by the top of 2017, many industrial and analysis versions of the home automation system are introduced and designed. A good home system has captured many technologies. Main aim of this paper is to propose a system which demonstrates interfacing between MATLAB and Arduino board for household equipment monitoring and control. In the proposed system, Arduino board is interfaced with MATLAB using serial communication to control home appliances. Image acquisition device is interfaced to MATLAB that will continuously show the status of household equipment's on Graphical User Interface [GUI] designed in MATLAB. Proper commanding is done from MATLAB GUI, household equipment's can be turned ON or OFF which are interfaced to Arduino through relay board.**

***Keywords*- Arduino UNO, MATLAB, Automation, Condition monitoring, Computerized Monitoring.**

I. INTRODUCTION

The Home automation market is very promising field that is growing at faster rate. Lot of discussion has been carried out about home automation systems. It shows that, home automation is a technology involving centralized & autonomous control of housing, buildings and industry, including safety features against various sudden unanticipated scenarios. Home automation basically incorporates an electronic control of household activities like control of electrical appliances, lightning, central heating & air conditioning and security system. The rapid growth and application of control systems has not been confined to industrial use but also implemented in personal and private spaces of people all around the world. The idea of autonomous home has been one of the most desirable technologies in life of human beings and considerable improvements have been made in this field.The system presented in this paper shows continuous monitoring and control of home appliances with Arduino Matlab interface. Realizing the hardware potential, software suppliers Like Mathworks and National Instruments have included the Arduino package on the software accessories of MATLAB and LAB View.

II. LITERATURE SURVEY

In 21st century, various system implementations are present for home automation with wired as well as wireless communication as key element. A comparative analysis on most common and recent techniques that have been implemented in field of home automation systems along with advantages and disadvantages of each . A novel architecture for a home automation system is presented and implemented in using Zigbee technology which lowers the expense of system and the instructiveness of respective systems. Generally advanced aged people have more needs than middle aged people. Thus efforts are made to improve home automation system by using Z-wave technology to transfer data in home network to have control over devices . A system architecture presented in provides control over networked devices which can be controlled securely via internet. An intelligent automation system using Google cloud messaging server and android operating system uses a local device to transfer a signal to home appliances, a webserver to store customer and mobile smart device running android application as the emerging technology in home automation. As Speech processing with MATLAB and android application plays very vital role to support home automation system, a system presented in uses speech processing and speech recognition to control electrical appliances. System architecture developed in consists of ATMega16 as brain of system along with different supporting hardware's like remote controller, touch screen, temperature and humidity sensor, speed regulator. As per commands forwarded by user through touch screen all home appliances can be controlled manually .the system also works with complete automotive mode by detecting presence of human beings according to given commands. Now a day's many systems are implemented which uses simple image processing algorithm designed in MATLAB and hardware control support through MATLAB-Arduino

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Real-time Arduino Controller Inexpensive Active Dual Axis Solar Tracker

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***Abstract*: -- Renewable energy is generally defined as energy that is collected from resources and continuously replenished, such as sunlight, water, wind, tides and biomass. Most of the renewable energy source comes either directly or indirectly from the sun. This solar energy can be utilised by using solar photovoltaic cells and photovoltaic effect to convert solar energy into electrical energy [1]. There are different types of mechanisms to improve the solar cell efficiency and to reduce the cost. The solar tracking system is the most appropriate method to improve the efficiency of solar cells by tracking the sun with respect to its change in direction. Thus the solar trackers come into existence. The main aim of this paper is the design and construction of a real-time dual axis Arduino controlled solar tracker to get the maximum power from the solar panels by changing their direction with respect to the sun. This setup uses Light Dependent Resistors (LDR) to sense the position of the sun which is interfaced to an Arduino Uno microcontroller which then commands a pair of linear-actuators to re-orient the solar panel in order to stay perpendicular to the sun rays. The design was constructed successfully and tested to determine the raise/gain in efficiency. The result shows the new system performs XX.XX% better than the immobile solar tracking system.**

***Keywords*- Light dependent resistor, Solar PV panels, Dual axis Arduino controller solar tracker, linear actuators**

I. INTRODUCTION

Renewable energy is generally defined as energy that is collected from resources and continuously replenished, such as sunlight, water, wind, tides and biomass. Most of the renewable energy source comes either directly or indirectly from the sun. This solar energy can be utilised by using solar photovoltaic cells and photovoltaic effect to convert solar energy into electrical energy[1]. There are different types of mechanisms to improve the solar cell efficiency and to reduce the cost. Solar tracking system is the most appropriate method to improve efficiency of solar cells by tracking the sun with respect to its change in direction. Thus the solar trackers come into existence. If solar trackers are not used; solar panels should be oriented in an ideal position i.e, at a tilt angle equal to latitude of the sit facing south for northern hemisphere [2]. Several tracking system designs are available which have single axis or Dual axis of freedom. This includes both active and passive systems. Single axis trackers can be classified as: horizontal single axis tracker (HSAT); vertical single axis tracker (VSAT); tilted single axis tracker (TSAT) and polar aligned single axis tracker (PASAT) [3]. Horizontal axis tracker is used in tropical regions where day time is short and sun gets very high at moon time. Vertical axis tracker is used at places where summer days are long and sun does not get very high. Using single axis of tracking cannot provide a significant power gain to the system [3;4]. Dual axis solar trackers have both a horizontal and a vertical axle and so can track the sun's change in motion exactly anywhere in the world. This type of system is used to control astronomical telescopes, and so there are a number of software available to automatically detect and track the motion of the sun across the sky. Dual-axis trackers track the sun from both north to south and east to west for added power output (approx 40% gain) and convenience[4]. In active tracking system; the sun's position during the day is continuously determined by feedback sensors [8]. The sensors will trigger of actuator; which will in turn cause the movement of the solar panels will always be perpendicular to the sun throughout the day. The drawback of such a system is that it is very sensitive to certain atmospheric conditions and might not be able to continue tracking the sun on a cloudy day. One of the most important factor behind the selection of a tracking system is cost. To reduce the cost of the system; Arduino Uno; single-board microcontroller; instead of servo motor or stepper motor a pair of linear actuators has been used. A linear actuator is an actuator that creates motion in a straight line, in contrast to the circular motion of a conventional electric motor. Linear actuators are used in machine tools and industrial machinery. Hydraulic or pneumatic cylinders inherently produce linear motion. Many other mechanisms are used to generate linear motion from a rotating motor. It consumes power when it actuates to the commanded position; but after that it rests; whereas stepper motors continue to consume power to lock in and hold the commanded position. The actuators uses less energy for the same functionality. Active trackers measure the light intensity from the sun by using LDR's to determine where the solar modules should be pointing. Light dependent resistors are positioned on the tracker at various locations in specially shaped holders. If the sun is not facing the tracker

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Remote Control of Home Appliances via Bluetooth and Android Smart Phones

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***Abstract*: -- With everyone being on the move in a fast paced World, technologies have been increasing rapidly. ThisWork is regarding a student-designed project allowing users to be able to control multiple appliances remotely from the Single mobile device. This project involves the use of Bluetooth Communication and the Arduino Uno Rev 3 Microcontrollers. The whole idea is to design an app on an Android cell phone to control home appliance remotely such as lights and fans Using AC power. Although there are commercially available products on the market that implement the control of multiple Applications with a single device, this project is a teaching Point for students to build their own communication networks, create Android phone apps, and practice electrical operation of circuits.**

I. INTRODUCTION

The Enabling Technologies Laboratory Student Design Program provides Wayne State University's undergraduate engineering students with the opportunity to design and Create prototypes, custom designed devices, software and services to aid persons, especially for those with disabilities. In This paper, we shall present a student design work. With many Electronic devices adopting wireless technologies, everyday Tasks are becoming easier to perform from a single device. Turning on lights while you are at office or monitoring your Homes thermostat, for example, no longer requires you to perform them from a fixed location. These tasks can be achieved by using Bluetooth systems [1] where Bluetooth Technology is used to send data over short distance. Many Mobile devices such as cell phones and tablets have this Function already packaged with the device. This paper will present a design of using an Arduino microcontroller and an HC-05 Bluetooth module to implement remote functionality of various outputs. The outcome of this work is a system that Utilizes an Android phone app to turn on/off a fan (120V AC) And an LED strip (9V DC). The purpose of this project is to gain a better understanding on how Bluetooth communication operates, more in depth, in terms of sending and Receiving serial data between multiple devices. This project will implement design, circuitry, and programming, graphical user interface (G.U.I), and project management skills in order to construct a system that allows the user to control multiple Outputs remotely using Bluetooth technology.

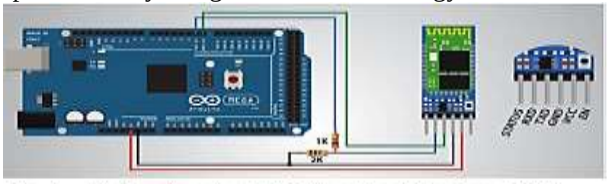

Fig. 1. Arduino board and HC-05 wiring (Courtesy of [2])

1) Implementation of serial communication between an Arduino and a Bluetooth module,
2) Creation of an Android phone app that can be used to Communicate to Bluetooth module,
3) Construction of Arduino programs that will receive data from the Bluetooth module and perform tasks based on data on serial bus,
4) Test of phone app in conjunction with the Bluetooth module and Arduino, and
5) display of status of outputs on phone app and debugging Of software of any unwanted actions / outcomes.

II. METHODOLOGY

A. Communication of Various Hardware Boards

The first step in creating a system that utilizes Bluetooth technology is to ensure that the selected hardware boards could communicate with each other. To confirm communication among the Arduino board, Android phone, and Bluetooth module, a simple circuit was constructed to see if an LED could be turned on and off using the phone app. Fig. 1 is the wiring of the Arduino with an HC-05 module. In order to monitor the serial bus, within the Arduino IDE, the serial bus can be displayed using the command Ctrl + Shift + M. Once the serial bus is displayed, traffic over the Tx and Rx pins on the Arduino can be monitored. For this test, text strings LED: ON and LED: OFF were sent from the phone to the Bluetooth module then sent over to the Arduino. The Android phone app was created using the tools from MIT App inventor 2, which is a free online tool. Successful communication was confirmed between the phone app and Arduino. Bluetooth module HC-05 Receive Pin operates at 3.3 Volts, which is why there is a voltage
Divider implemented.

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A new Design and Control of a Two-Wheel Self-Balancing Robot using the Arduino Microcontroller

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***Abstract*: -- In the last decade, the open source community has expanded to make it possible for people to build complex products at home. [1] In this thesis a two wheeled self-balancing robot has been designed. These types of robots can be based on the physical problem of an inverted pendulum [2]. In this paper, we can see the design, construction and control of a two-wheel self-balancing robot. This system consists of a pair of DC motor and an Arduino UNO R3 microcontroller board, make a robot which can balance itself on two wheels the platform will not remain stable itself. Our job will be to balance the platform using distance sensors and to maintain it horizontally. At first, we have decided to just balance the robot on its two wheels.**

***Keywords:* — Robot, Arduino, AT mega 328, Control Systems, PID controller, Linear Quadratic Regulator.**

I. INTRODUCTION

To make a robot which can balance itself on two wheels. There will be only one axle connecting the two wheels and a platform will be mounted on that .There will be a another platform above it. The platform will not remain stable itself. Our job will be to balance the platform using distance sensors and to maintain it horizontal. At first we have decided to just balance the robot on its two wheels. Basically, a two-wheel self-balancing robot is very similar to the inverted pendulum, and which is an important test part in control system and research education purpose; let us see, for an example [5], [6]. A Two-wheeled self-balancing vehicle commercially known as "Segway".And also the Segway can never stay upright.Besides the development of Segway, studies of two-wheel self-balancing robots have been widely reported. For example, JOE [5] and nBot [6] are both early versions complete with inertia sensors and motor encoders and also along with on-vehicle microcontrollers. Arduino is an open prototyping platform based up on Atmega processors .And It will be a fast becoming popular platform for both education [7] and product development, with applications ranging from robotics [8], [9] to process control [10], [11] and networked control [12].In this paper, we report a student project on the basis of design, construction and control of a two-wheel self-balancing robot with Ardunio software. The robot is driven by two DC motors, and is equipped with an Arduino Uno board which is based on the ATmega328 microprocessor, and also including with a single-axis gyroscope and a 2-axis accelerometer for attitude determination. In order to compensate for gyro drifts common in COTS sensors, a complementary filter is implemented [13]. For two wheel control designs are based up on the linearized equations of motion, such as a proportional-integral-differential (PID) control.

This paper is arranged as follows: The Section 2 describes the hardware and system architecture of the robot. The designs of filters, inner control loop to equilibrate the two motors,and balancing control in Section 3. Finally Section 4 represents the experimental results, followed by some conclusion in Section 5.

II. STRUCTURE OF THE TWO-WHEEL BALANCING ROBOT

In the structure of a self-balancing robot can be classified into three parts such as sensors, motor and motor control, and develop board [4], [5]. In Section II-A introduces the application and advantage of the sensors on the proposed balancing robot, andalso how these sensors are employed to obtain measurements of acceleration, and distance traveled,androbot tilt angle. The Section II-B describes the motor selection and control for the balancing robot. And Section II-C discusses the reason behind choosing the Arduino develop board, and how it is deployed.

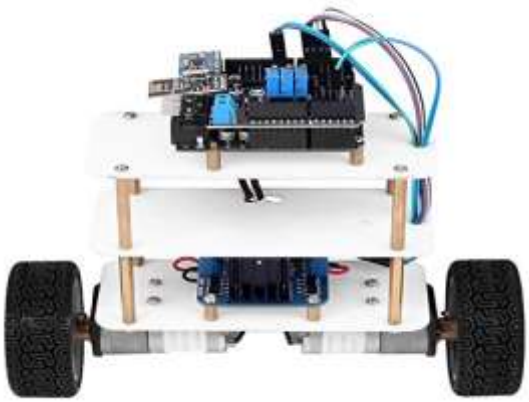

Fig 1: Self Balancing Robot

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Ethernet Based Control of Electrical Appliances with Arduino Uno Interface

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***Abstract*: -- This project is based on the construction of a model simulating a home automation with different operation modes which can be controlled also by Ethernet. To achieve this objective, a scale house that captures different signals, both digital and analog, has been developed. To approach the house to a real web server can be implemented in a device in your own home connected to your pc via a local area network. To capture the signals, the prototype has temperature, lighting, for the regulation and control. The core is an Arduino uno board that allows the application operation and receives, from a web server, operating modes commands and, if it is operating manually, orders to individually controls the different actuators. For the data transmission from the Arduino to the web server, is used communication via Ethernet.**

Keywords: Home automation, Arduino uno, Ethernet,Web Server.

I. INTRODUCTION

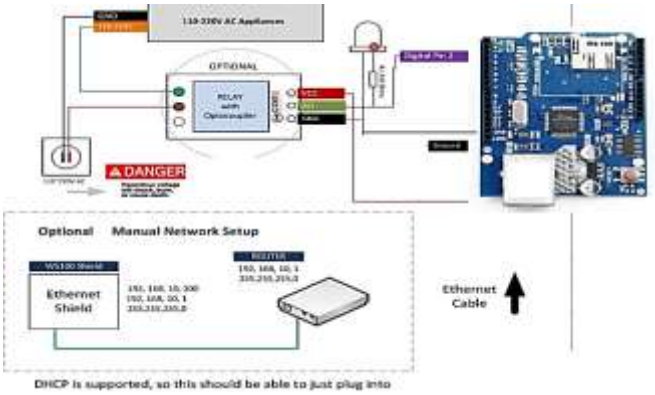
The main aim of this project is to implement a Home automation console that can be easily accessible from distant places through a simple web server running inside the home. The basic functionalities in this proposed system includes automatic control of Lights and other electrical / electronic appliances. Internet-enabled hardware products are slowly becoming popular. A real web server can be implemented in a device in your own home connected to your pc via a local area network. This will allow you to do things like display temperature, control heater/geyser and switch light/fan remotely from any web browser in the house. Arduino uno based devices used at residential locations for the purpose of home automation such as TV ON/OFF control, speed control of fan, lighting control etc. Arduino uno communicate with each other via Ethernet a wired communication. Because thesesystems use hard-wired Ethernet, communication between components is reliable and fast.

II. ARDUINO UNO BOARDS

A micro-controller is a small computer on a single integrated circuit Containing aprocessor core, memory, and programmable input/output peripherals The important Part forus is that a micro-controller contains the processor (which all computers have) and memory,and some input/output pins that you can control. (often called GPIO –General Purpose Input Output Pins)

The board contains everything needed to support the microcontroller; simply connect it to a computer with a micro-USB cable or power it with a AC-to-DC adapter or battery to get started. The Due is compatible with all Arduino shields that work at 3.3V and are compliant with the 1.0 Arduino pin out

III. CIRCUIT DIAGRAM



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Electronic Scrolling Display Using Arduino Board

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***Abstract*: -- The led Display System is aimed at the colleges and universities for displaying day-to-day information continuously or at regular intervals during the working hours. Being GSM-based system, it offers flexibility to display flash news or announcements faster than the programmable system. Keyboard-based display system can also be used at other public places like schools, hospitals, railway stations, gardens etc. without affecting the surrounding environment. The led display system mainly consists of a receiver and a display toolkit which can be programmed from an Arduino IDE platform. It receives the message, through serial port and displays the desired information after necessary code conversion. It can serve as an electronic notice board and display the important notices instantaneously thus avoiding the latency. Being modular design, the led display is easy to expand and allows the user to add more display units at any time and at any location in the campus depending on the requirement of the institute.**

I. INTRODUCTION

Now-a-days LED Message Scrolling Displays are becoming very popular .These displays are used in shopping malls, theatres , public transportation, traffic signs, highways signs, etc., The big problem with these displays is to carry a computer or special keyboard for generating and sending messages to LED moving display boards dynamically. Carrying a host computer or special keyboard every time to generate message for LED display boards is big headache and also increase cost if it go for wireless based message sending. To make the LED scrolling display more portable, a GSM mobile phone is used instead of carrying keyboard or a host computer for generating or sending messages to LED display board. A text message is typed in the GSM mobile phone and sent it by using SMS service of the mobile phone to LED moving display boards. A Arduino board is connected to the LED display hardware is used to receive the message and send it to the controller circuit of the LED display. Then the controller circuit of the LED display filters the message content in message and changes the display text in LED display dynamically. By using this arduino sketch it is possible to change the text in the LED display board from anywhere in the country. The idea implemented in this project reduces the total cost that is required in the traditional LED display boards not only it makes easier to send message to the LED display boards. The project uses a Arduino UNO board at the display side with atmel 328p micro controller to send text to drive the LED display board. Along with these a power supply unit and supporting hardware for microcontroller is used.

A dot matrix is a 2-dimensional patterned array, used to represent characters, symbols and image. Every type of modern technology uses dot matrices for display of information, including cell phones, televisions, and printers. They are used in textiles with sewing, knitting and weaving. A seven segment display is a form of electronic display device for displaying decimal numerals that is an alternative to the complex dot matrix displays.

The roll of a dice has decided the fate of kingdoms. The dice is the oldest device known to human beings for generating random numbers from 1 to 6.In this paper, we present an electronic device using an 8x8 dot-matrix LED display to simulate the faces of a real dice. Pressing a switch generates a random number on the display. A microcontroller is used to check the status of the switch and generate a random number. The dice number is displayed on the dot-matrix LED display with the help of an LED display driver.

Dot Matrix Display:

The dot matrix LED displays can be made with individual LEDs, or a pluggable unit can be bought. By making use of the premade pluggable unit, production costs can be lowered. Further, this type of display can show graphics and normal text. This enables the display to be used for more than just sporting events. It can be used as a billboard and information board in shopping malls. These units can be stacked or cascaded in such a manner that a larger display can be constructed. This is usually done in multiples of eight, making use of an eight bit microcontroller, as this enables easier driving. A 40-pixel by 56-pixel size is thus the smallest size of a LED panel that can be constructed when making use of a 5-pixel by 7-pixel LED dot matrix unit as shown in figure. 1. Each of these LED dot matrix display units can display a character or symbol, hence a total of 40 characters could be displayed at any given time. These characters will, however, be too small to be seen at long distances away from a LED dot matrix billboard. Hence pixel binning will have to be used. This is the process in which adjacent LEDs are grouped together to make larger pixels. By doing this the resolution of the LED dot matrix billboard will be lowered, but the size of each character will be larger and appear brighter.

• be visible in bad weather conditions

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Implementation of Arduino Based AC Voltage Controller Using Single Phase Controller Techniques

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***Abstract*: -- This paper introduces a high-efficiency AC voltage regulator based on an AC/AC buck converter cascaded by a transformer in series with the input voltage. The AC/AC converter uses an overlap time in the gate signals to solve the commutation problem. Non-use of any snubbed circuits and current sensors leads to lower cost, smaller size and simpler hardware. The converter generates only the compensation term which results in smaller switches and, thus, lower cost. Simulation and experimental results verify the performance of the proposed topology.**

Keywords: Aurdino UNO, AC Voltage Regulator, AC Chopper, AC/AC Buck Converter, Power Electronics, Light Emitting Device.

I. INTRODUCTION

About AC regulator:

A voltage controller also called an AC voltage controller or AC regulator is an electronic module based on either thyristors, TRIACs, SCRs or IGBTs, which converts a fixed voltage, fixed frequency alternating current (AC) electrical input supply to obtain variable voltage in output delivered to a resistive load. This varied voltage output is used for dimming street lights, varying heating temperatures in homes or industry, speed control of fans and winding machines and many other applications, in a similar fashion to an autotransformer. Voltage controller modules come under the purview of power electronics. Because they are low-maintenance and very efficient, voltage controllers have largely replaced such modules as magnetic amplifiers and saturable reactors in industrial use A regulator is designed to automatically maintain a constant voltage level. A voltage regulator may be a simple "feed-forward" design or may include negative feedback control loops. It may use an electromechanical mechanism, or electronic components. Depending on the design, it may be used to regulate one or more AC or DC voltages

II. IMPLIMENTATION SETUP COMPONENTS

A. Arduino Board:

Arduino is a tool for making computers sense and control more of the physical world than your desktop computer. It's an open-source physical computing platform based on a simple microcontroller board, and a development environment for writing software for the board. Arduino can be used to develop interactive objects, taking inputs from a variety of switches or sensors, and controlling a variety of lights, motors, and other physical outputs. Arduino projects can be stand-alone, or communicate with software running on your computer. There are many other microcontrollers and micro- controller platforms available for physical computing. All of these tools take the messy details of microcontroller programming and wrap it up in an easy-to-use package. Arduino is also simplifies the process of working with microcontrollers, but it offers some advantage for teachers, students, and interested amateurs over other systems.

Fig Arduino board

The Arduino Uno is a microcontroller board based on the ATmega328 (datasheet). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or battery to get started. The Uno differs from all preceding boards in that it does not use the USB-to-serial driver chip.

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Line Follower Alphabot Using Arduino Micro Controller

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***Abstract*: -- This paper has been designed to build a Line following Robot using IR sensor to follow a designated path which is provided and runs over it. ROBOT has sufficient intelligence to cover the maximum area of space provided. It will move in a particular direction Specified by the user to navigate the robot through a black line marked on the white surface. Autonomous Intelligent Robots perform desired tasks in unstructured environments without continuous human guidance. The path can be visible like a black line on the white surface (or vice-versa) or it can be invisible like a magnetic field. Sensing a line and manoeuvrings the robot to stay on course while, constantly correcting wrong moves using feedback mechanism forms a simple yet effective closed loop system. The base of the developed robot is Arduino UNO R3 which is a microcontroller board based on the ATmega328 (datasheet).**

Keywords: Line follower, IR sensor, Robot, Arduino, ATmega328.

I. INTRODUCTION

Robot is a machine that is usually designed to reduce the amount of human work where it is applicable. It is usually developed for reducing risk factor for human work and increase comfort of any worker. Robotics has greatly advanced in the developed countries. High performance, high accuracy, lower labor cost and the ability to work in hazardous places have put robotics in an advantageous position over many other such technologies But as for developing countries like Bangladesh it is still quite out of reach. In this paper a line tracer or follower has been presented which will trace a white line on a black surface or vice-versa [2]. We have make use of sensors to achieve this objective. The main component behind this robot is ATmega328p microcontroller which is a brain of this robot. The idea proposed in this paper is by using machine vision to guide the robot We have made a robot that has several works to perform besides following a line [1]. It can be assured that the robot can detect three ways round obstacles while following a black line and a switch is added to make it smarter and more efficient and easier to operate. Our robot revolves around itself when it is somehow removed from the black line; and it starts following a black line on a white surface.[5]So our line follower robot is being called a line follower with several modes to operate Other use of this robot includes entertaining when it just follows a line without going to other direction. The construction of the robot circuit is easy and small. The main component behind this robot is ATmega328p microcontroller which is a brain of this robot. The idea proposed in this paper is by using machine vision to guide the robot. The field of machine vision has growing at a fast pace. Machine vision applications can be divided into four types from a technical point of view. They can be used to locate, measure, inspect and identify. The robot proposed in this paper is guided with the help of machine vision. The best part of our project is that if any obstacle is encountered by the robot the robot automatically stops and bluetooth module HC-06 comes into the picture and user can control the robot manually. [6]

II. BLOCK DIAGRAM

Here firstly, we chose a configuration to develop a line follower only using two infrared sensors with connection of Arduino Uno through motor driver IC. We followed a block diagram on thi regard. The block diagram illustrates the connection for the development of the line follower which follows a black line on white surface.[3][4]

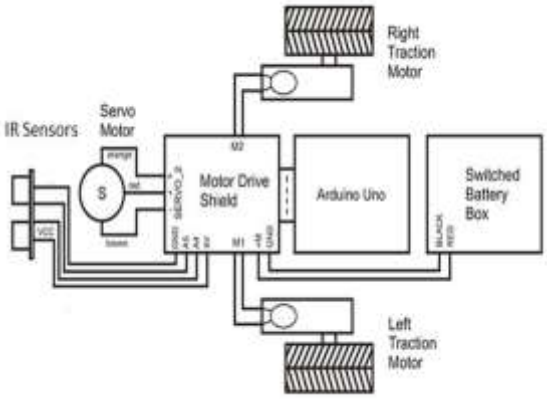

Fig.1. Block diagram of a line follower robot

After that, we have used the following block diagram for connecting three sonars with our line follower for obstacle detection purpose for our line follower.

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Vibration Analysis of DC Motor with ADXL335 and MATLAB

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***Abstract*: -- Most of the failures in the industrial systems are due to motor faults which can be catastrophic and cause major downtimes. Hence, continuous health monitoring, precise fault detection and advance failure warning for motors are pivotal and cost-effective. The identification of motor faults requires sophisticated signal processing techniques for quick fault detection and isolation. This paper presents a real time health monitoring technique for induction motor using pattern recognition method. The proposed fault detection and isolation scheme comprises three stages: data acquisition, feature extraction and multiclass support vector machine classifier. This paper investigates single and multiple faults in single-phase induction motor including bearing fault, load fault and their combination. The test bed consists of 1⁄2 hp, 220V squirrel cage induction motor with load, vibration sensor, current sensor, data acquisition system and controller. Two features standard deviation and average value are computed for each sensor's data. Multiclass support vector machine classifier is implemented using a low-cost Arduino controller for fault detection and isolation. The performance analysis of the classifier with real-time sensor's data is presented which shows superior capabilities of the developed method.**

Keywords: Arduino, MATLAB, ADXL335

I. INTRODUCTION

Electric motors are electro-mechanical devices used for the conversion of electrical energy into mechanical energy.Motors are integral component of almost every electromechanical system and have wide range of industrial applications. Motors might be subjected to several electrical and mechanical faults during operation. The continuity of service with high level of reliability is an important characteristic of an industrial system that requires continuous monitoring of system and its components. This encouraged many scientists and engineers to carry out research on industrial machines in an effort to enhance reliability with incorporation of fault detection and isolation (FDI) techniques.A variety of fault detection and isolation methods have been reported in the literature that encompasses techniques based on model and data driven approaches[1]–[3]. Model based methodsutilize mathematical or graphical models for design of fault detection scheme such as Kalman filters and adaptive observer[4], multiple observer banks[5], and bondgraphs[6].The scope of model based fault detection and isolation methods is limited due to problem-specific design nature.Also, the performance of model based FDImethods degrades in the presence of uncertain industrial environment. On the other hand, data driven or signal based fault detection approaches are generic, independent of mathematical model that utilize process history/trends for FDI design. For instance,Bayesian, support vector machines (SVM) and neural network classifiers[4], [7], [8].Kolla and Altman [9]presented an artificial neural network (ANN)to identify external faults and no fault condition in a three-phase induction motor. Yuanet al. [10] presented power estimation based health monitoring and fault detection scheme. Their proposed method was based on performance degradation assessment of system components using sensor measurements and power efficiency calculations. However, the approach was problem-specific and incapable of multiple fault detection. Romero-Troncoso[11]presented FPGA based online detection of multiple faults in induction motors. A Reliable online machinery condition monitoring systemis very useful to a wide array of industries to recognize anincipient machinery defect so as to prevent machinerynon-fatal failure, malfunctions, or even catastrophic failures.An early fault warning can enable the establishment of a predictive maintenance program [1], which is critical tothose machines (e.g., airplanes, power turbines, andchemical engineering facilities) to which an unexpectedshutdown would cause serious economic or environmentalconsequences [2, 3]. Fault detection can be conducted basedon information carriers such as the acoustic emission,vibration frequency waveform, oil analysis, temperaturevariation, etc. However early fault warning based onvibration signal has proven track record of preventingcatastrophic failures; hence we will discuss about that indetailed manner in this paper [1]. Vibration, speed, acceleration and frequency spectrum. The measures which characterize themovement (vibration) of the system that is the displacement,speed and acceleration are defined according to the relations(1), (2) and (3):

A Dual Security and Protection Mechanism in Cloud Storage

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Abstract- *Cloud computing is rising technology which provide higher performance and may be use to supply forms of services like computer code as a Service (SAAS), Platform as a Service (PAAS) and Infrastructure as a Service (IAAS) at low price. The difficulty in providing SAAS is security of cloud user's knowledge once it's uploaded on cloud and authentication of cloud user before accessing the info. The plain knowledge isn't on top of things of cloud user once it's uploaded on cloud therefore it's prone to attack from cloud merchandiser itself associated an external aggressor. Additionally plain knowledge in transit is prone to attack. The projected methodology emphasizes on up knowledge security mechanism by implementing Two-factor authentication for shopper & provides encryption that shield knowledge from cloud merchandiser, associate aggressor and knowledge in transit additionally key sharing mechanism facilitate to share non-public knowledge with different cloud user.*

Keywords- Authentication, Cloud computing, Key sharing.

I. INTRODUCTION

Cloud computing refers to provision of procedure resources on demand via a electronic network. cloud computing provides varied services which has package as a service, platform as a service, infrastructure as a service. In ancient model of computing, user's laptop contain each knowledge and package; whereas in cloud computing there's no have to be compelled to contain knowledge and software solely the system desires software and browser. Cloud computing provides varied blessings that embrace economies of scale, dynamic provisioning, raised flexibility, low cost and lots of more[1]. As cloud computing share resources over the network, security is that the basic concern. knowledge house owners store their knowledge on external servers therefore knowledge confidentiality, authentication, access management area unit a number of the essential considerations. to shield user's privacy a method is to use authentication technique like username and watchword. Authentication is to envision user's identity, means that whether or not the person is same as he pretends to be. There area

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A NOVEL KEYWORD SEARCH USING K-NNE ALGORITHM

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ABSTRACT: Spatial databases are stores the knowledge regarding the special objects that are related to the keywords to point the knowledge equivalent to its business/services/features. Vital downside called nearest keywords search is to question objects, referred to as keyword cowl. In nearest keyword search, it covers a collection of question keywords and minimum distance between objects. From previous couple of years, keyword rating will increase its availableness and importance in object analysis for the choice creating. this is often the most reason for developing this new algorithmic program referred to as Best keyword cowl that is considers inter-distance in addition because the rating provided by the purchasers through the web business review sites. Nearest keyword search algorithmic program combines the objects from completely different question keywords to get candidate keyword covers. Baseline algorithmic program and keyword nearest neighbor growth algorithms are wont to realize the most effective keyword cowl. The performance of the nearest keyword algorithmic program drops dramatically, once the quantity of question keyword will increase. To resolve this downside of the prevailing algorithmic program, this work proposes generic version referred to as keyword nearest neighbor growth that reduces the resulted candidate keyword covers.

KEYWORDS: Spatial database, point of interests, keywords, keyword rating, keyword cover.

I. INTRODUCTION

An increasing variety of applications need the economical execution of nearest neighbor (NN) queries strained by the properties of the abstraction objects. because of the recognition of keyword search, notably on the net, several of those applications permit the user to produce a listing of keywords that the abstraction objects (henceforth observed merely as objects) ought to contain, in their description or alternative attribute. let's say, on-line telephone book permit users to specify Associate in Nursing address and a group of keywords, and come back businesses whose description contains these keywords, ordered by their distance to the required address location. As another example, property websites permit users to go looking for properties with specific keywords in their description and rank them per their distance from a given location. we tend to decision such queries abstraction keyword queries. A abstraction keyword question consists of a question space and a group of keywords. the solution may be a list of objects hierarchic per a mixture of their distance to the question space and also the connection of their text description to the question keywords. an easy nonetheless common variant, that is employed in our running example, is that the distance-first abstraction keyword question, wherever objects square measure hierarchic by distance and keywords square measure applied as a conjunctive filter to eliminate objects that don't contain them. that is our running example, displays a dataset of fictitious hotels with their abstraction coordinates and a group of descriptive attributes (name, amenities)? Associate in Nursing example of a abstraction keyword question is "find the closest hotels to purpose that contain keywords net and pool". the highest results of this question is that the edifice object. sadly there's no economical support for top-k abstraction keyword queries, wherever a prefix of the results list is needed. Instead, current systems use ad-hoc mixtures of nearest neighbor (NN) and keyword search techniques to tackle the matter. as an example, Associate in Nursing R-Tree is employed to search out the closest neighbors Associate in Nursing for every neighbor an inverted index is employed to envision if the question keywords square measure contained. we tend to show that such two-phase approaches square measure inefficient.

II. RELATED WORK

Keyword increased nearest neighbor search has recently sparked interest among researchers. Ke Deng [1] comes with algorithms to seek out nearest neighbor victimization keywords. Joao B Rocha [2] projected abstraction inverted index, a variant of inverted index to store keywords. Xin Cao [3] projected the conception of collective abstraction keyword querying. The central plan is to go looking for collective objects that put together satisfy a question. Nearest neighbor search additionally comes underneath class of looking method. With this idea in mind, Gisli R [4] projected distance browsing algorithmic rule in abstraction databases. Ronald character [5] restricted best aggregation algorithmic rule that helps in quick keyword search. Yufei Tao [6] projected technique for locating nearest neighbors victimization tree structure as index. Lisi Chen [7] provides a survey of indices to store keywords also as abstraction location. Xin Cao [8] restricted varied abstraction keyword queries. The conception of Boolean vary question comprise the class of abstraction keyword question. Dongxiang Zhang [9] projected ascendable integrated inverted index for storing abstraction knowledge. Bolin dong [10] provides technique to expeditiously method keyword queries. Shuyao [11] projected the conception of keyword question. Jianhua thought of a kind of index named keyword combine primarily based structure for locating prime k answers victimization keyword search. The retrieval of geographic data incorporates a means of representing thematic and geographic data at intervals queries. Thematic data is managed by data retrieval technique love keyword matching and geographic data is given by names of places. The place

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Analysis of Words on Emotions

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ABSTRACT:

Tuning Mode analysis and opinion out useful to extract information on mining, text documents, and subjective value. The market and of great importance to the impact of the customers were especially put changes in products and services reviewed the business and become marketers. This document is a rapid detection of common sense of the people with different languages of the fragments of the text to the proposed method, consider flexible. The proposed method and classification models polarization of data obligations stories represented by the vector used a machine learning approach to education. Mantel based, word-based and hybrid vectorizations, including many involving vector systems documents' represented studied. Job qualifications for the group this function represents the feelings Classification high and low bending, Greek and English, four sets of online research to represent the user is determined by the review. Pro is less need for computing resources, limited resources, which is the law, then it can affect the real world scenarios.

I. INTRODUCTION:

Discussion boards, online platforms, etc., around the products, services and offers are used, social networks, blogs everyday millions, Wiki, have expressed their views. The most accurate way to express the views expressed emo naturally or automatically, business, professional researchers have realized that marketing is of great importance. Collection of data from the source material challans secret subjective feelings reflects the views of the people of the analysis process, information.

In general, the concept of analysis, sometimes negative or positive, neutral, basic hand signals to reach the media. As a terminology facility-based approach involves information about the overall document of the document's outcome trend, it is a vocabulary of documents, which is to suffer any of such words, receive less coverage. It is especially obvious in a text block that can be used to communicate with customers. Furthermore, their system is not more invisible because they failed to occupy public sentiments and emotions in the former press itself. However, they have special feelings in a document / emotions do not assume the word profit. In this work, we will feel documented, with a vocabulary of its state, the state's art voice and power fluctuations hypothesis models are expected to be due to better performance under current ratings.

(I) dictionary and (ii) embedded based word based system, which is included hybrid vector to provide document more comprehensive: we proposed method features document actual level is used. The proposed method (film technology products, Greek and English) checking user reviews is a series of four set experiments. Dictionaries in the context of the proposed hybrid vector to evaluate the effectiveness of the word based feature vector concept or based on different embedded experience. We have multilingual emotions analysis rules, the ability of the system and ability for industrial applications to be included in the same language method, a method is also prohibited by being useful. Currently under investigation, only language, English and Greek, folding is a basic difference, and morphology is worried.

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IMPLEMENTATION OF DISTRIBUTED APPROACH FOR OUTLIER DETECTION USING NEAREST NEIGHBOR

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Abstract: Outlier detection in high-dimensional information presents numerous challenges ensuing from the "curse of spatiality." A prevailing read is that distance concentration, i.e., the tendency of distances in high-dimensional information to become indiscernible, hinders the detection of outliers by creating distance-based strategies label all points as nearly equally smart outliers. During this paper, we offer proof supporting the opinion that such a read is just too easy, by demonstrating that distance-based strategies will turn out additional different outlier scores in high-dimensional settings. What is more, we have a tendency to show that top spatiality will have a special impact, by reexamining the notion of reverse nearest neighbors within the unattended outlier-detection context. Namely, it had been recently ascertained that the distribution of points' reverse-neighbor counts becomes skew in high dimensions, leading to the development called hub ness. We offer insight into however some points (anti-hubs) seem terribly occasionally in k-NN lists of alternative points, and justify the association between anti-hubs, outliers, and existing unattended outlier-detection strategies. By evaluating the classic k-NN technique, the angle-based technique designed for high-dimensional information, the density-based native outlier issue and influenced outlierness strategies, and anti hub-based strategies on numerous artificial and real-world information sets, we provide novel insight into the utility of reverse neighbor counts in unattended outlier detection.
Index Terms: Outlier detection, reverse nearest neighbors, high-dimensional data, distance concentration

I. INTRODUCTION

Outlier detection is studied wide within the survey as a result of would like of looking intrusion detection and anomaly detection in several applications. There square measure 3 main styles of outlier detection ways specifically, unsupervised, semi-supervised and supervised. These sorts square measure divided by labels of instances on that outlier detection is to be applied. would like availableness of correct labels of the instances for supervised and semi- supervised outlier detection. For outlier detection availableness of labels isn't much doable thus unsupervised technique is employed wide that doesn't would like label to the instances. most well-liked and effective technique for unsupervised outlier detection is distance based mostly outlier detection [1]. Distance based mostly outlier detection think about instances have tiny distance among them and outliers have massive distance from normal instances. V. Huhtamaki et al [2] expressed that because the dimensions of the info raises, distances flip useless to search out outliers as a result of every purpose looks as outlier. unsupervised outlier detection confronts some challenges in high-dimensionality. in spite of the common notion that each one points during a high-dimensional data-set appear to show outliers, Milos Radovanovic et al [20] showed that unsupervised ways will notice outliers below the idea that each one (or most) knowledge attributes square measure purposeful, i.e. not noisy. The relation between the high spatial property and outlier nature of the instances investigates by Milos Radovanovic et al [20]. K-nearest neighbor of {the purpose the purpose} P is K points whose distance to point P is a smaller amount than all different points. Reverse nearest neighbors (RNN) of purpose P is that the points that P is in their k nearest neighbor list. Some points square measure oftentimes comes in k-nearest neighbor list of different points and a few points square measure occasionally comes in k nearest neighbor list of another points square measure referred to as Anti-hubs. Density based mostly native Identifiers (LOF) [9] its variants square measure projected in literature. conjointly Angle-Based Outlier Detection is offered within the literature [10]. For outlier detection RNN thought is employed in literature [2] [4], however there's no theoretical proof that explores the relation between the outlier natures of the points and reverse nearest neighbors. Gustavo H. Orair et al[6] expressed that reverse nearest count is get affected because the spatial property of the info will increase, thus there's ought to investigate however outlier detection ways bases on RNN get littered with the spatial property of the info. Milos Radovanovic et al [20] discusses one. In high spatial property the issues in outlier detection and shows that however unsupervised ways may be used for outlier detection. 2. however Anti-hubs square measure relating to outlier nature of the purpose is investigates. 3. For outlier detection supported the relation anti-hubs and outlier 2 ways square measure projected for top and low dimensional knowledge for showing the outlierness of points, starting with the strategy Odin (Outlier Detection victimization in-degree Number). In existing system it takes massive computation value, time to calculate the reverse nearest neighbors of the all points. Use of ant hubs for outlier detection is of high process task. Computation complexness will increase with the info spatial property. For this there's scope to removal of impertinent options before application of Reverse Nearest Neighbor. thus to beat this downside, feature choice is applied on the info. during this step, all options square measure rank in step with

INTEROPERABLE ELECTRONIC PERSONAL HEALTH RECORD USING CDA GENERATION ON CLOUD

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ABSTRACT: The patient's details concerning its safety and quality care as with success is important for the clinic; however it's the requirement of ability between Health data Exchange at totally different hospitals. The Clinical Document design (CDA) developed by HL7 may be a core document normal to assurer such ability, and extension of this document format is essential for ability. Badly, hospitals aren't interested to adopt practical HIS owing to its readying value apart from during a handful countries. A tangle arises even once a lot of hospitals begin mistreatment the CDA document format as a result of the information unfold in several documents are arduous to manage. During this paper, we have a tendency to describe our CDA document generation and integration Open API service supported cloud computing, through that hospitals are permit to handily generate CDA documents while not having to get proprietary software system. Our CDA document integration system integrates multiple CDA documents per patient into one CDA document and doctor and patients will browse the clinical

Knowledge in written account order. Our system of CDA document generation and integration relies on cloud computing and therefore the service is obtainable in Open API. Developer's mistreatment totally different platforms therefore will use our system to extend ability.

KEYWORDS: Health information exchange, HL7, CDA, cloud computing, software as a service, Open API.

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Rebuilding the Original Network, With the Path of Network Packets

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ABSTRACT:

Recently, wireless sensor networks (WSNs) are becoming complex with the increasing network level, and dynamic nature of wireless communication. And for a thorough analysis of the behavior of a variety of complex network route paths for each packet based on measurement and analysis of the policy. In this paper, we propose a new approach to iPath, measures to overcome dynamic and massive reconstruction of network packet route paths per network. Long way back to the original analogy of the analogy to loot the iPath results from those people. The path begins with an initial set of iPath logic and will run again. The iPath hash function is not considered to be a novel design authorization for that easy way. Implementation and expansion of WSN iPath extensively We also examine its performance using actual signals. A very high proportion of state-of-the-art shows, the result of various network settings for rebuilding other than iPath.

INTRODUCTION:

Each packet pathway, many sensor nodes must expand out of the reach and analysis of effective management and implementation of protocol solutions WSNs. For example, the route path is based on information to remove the root causes of extraordinary event pads for a Bayesian network structure. A network manager is also important to effectively manage information in a sensor network. For example, according to the information packet, a network manager can easily pack a lot of packets, and the nodes can easily forward them to the network locations of the hop.

After that, as the nodes of this kind of change, the deployment manager and the route layer protocol, you can take measures to deal with this problem. Apart from this, the penalty for supervising a link for information packet- measures of particles are necessary. For example, the loss of current delays and measurement points can be considered as a primer path topology. A variety of effective path topology, route packet can be obtained by significant delay and an increase in the values of the existing WSN tomography system. Increasing wireless network channels WSNs can be difficult to handle complex and dynamic nature. The current approach to the problem can be packed with a big head and long route path. Given that limited communication resources WSNs, in practice, this approach is usually not necessary.

In this paper, we proposed the nine-sink iPath of the path, a novel way of point estimate. In this study, we see more similarities. Long way back to the original analogy of the analogy to loot the iPath results from those people. In iPath way (eg, one-hop route is already known from the display), the logic is known under the name of the set and start again. One way to estimate this is to mistakenly be considered as a long-hop and it will be repeated to try. To ensure the correct estimate iPath has not taken a long way to verify or to be in a small way. A novel design of the hash ceremony for this purpose is a light iPath. Hoping to update a hash value for each data pack, hop. It is in comparison to the hash value calculation of the value of a derived hash record.

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Performance Analysis of Cooperative for Virtual-MIMO Systems

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Abstract: *In this paper, we studied the performance of bit error rate(BER) for a virtual multiple-input multiple-output (MIMO) based communications architecture. As a case, wireless sensor networks with clusters were considered. Then an optimal transmitting power(TP) scheme for cooperative sensor nodes was presented. Specifically, by minimizing BER of the Nt×1 virtual MIMO system, we derived the closed-form of the optimal TP for each cooperating node in one cluster. Through simulations, we compared this strategy with an equal TP assignment method. Its performance enhancement was verified by extensive simulations under different scenes. At the aim to energy efficient, a thorough explanation of optimally choosing number of cooperating nodes was also delivered by the aid of mathematical analysis as well as simulation verifications.*

Keywords: Energy Efficiency, Virtual MIMO, Wireless Sensor Networks (WSNs).

I. INTRODUCTION

Wireless sensor networks (WSNs) have being research hotspots recently as they use cheap and low-power sensors to perform surveillance tasks. For example, environmental monitoring, military surveillance, animal tracking, and home applications. However, sensor nodes are usually battery operated and their operational life time should be maximized, hence energy consumption is a crucial issue in real WSN applications[1].Since multiple-input-multiple-output (MIMO) can dramatically increase the channel capacity while also reduce transmission energy consumption in fading channels, schemes named virtual MIMO have been proposed for WSN to improve the system performance[2][6]. Similar to MIMO, in such a strategy, when a node has information to send, it cooperates with adjacent nodes tied by single-antenna to transmit its information to a certain destination, which forms a virtual antenna array. So the adjacent nodes who participate in cooperating act as the relay channels for the source node [2][3][6]. In[2], S.Cui analyzed the total energy consumption per bit of multi-antenna nodes. The represents that single input-single-output (SISO) systems use more energy than MIMO as the communication scheme. And X. Li [6] proposed no a virtual MIMO scheme using two transmitting sensors and space-time block code (STBC) to provide transmission diversity in WSN with neither antenna-array or transmission synchronization. Studies above have shown that cooperation among sensor nodes can lead to significant capacity increases. However, in these literatures, they both assumed that each node has the same channel fading conditions and equal transmitting power(TP). In fact, it may be reasonable to assume that the channel gains from each cooperating node to the destination are different, as senor nodes are always placed randomly in a complex environment. So setting the optimal transmitting power for each cooperating node in one cluster is necessary to maximize the system performance. In this paper, the optimality is determined in terms of minimizing the bit-error–rate(BER) of the system. As a case, an Nt×1 virtual MIMO network topology is considered. And the closed-form solutions of optimal TP are provided. To make the virtual MIMO network energy efficient, methods for choosing number of cooperating nodes is also delivered. The rest of the paper is organized as follows. In Section II, related work about virtual MIMO is given. In Section III, we present the system model and provide exact BER expressions under a Nakagami fading narrowband channel with parameter m, and we compute the optimal TP for each cooperating node. In Section, performance improvement of the proposed scheme is compared to traditional strategies through simulations, and the effect of the number of the cooperating nodes on the EPUB (Energy-per-useful-bit) is analyzed by the aid of mathematical analysis and simulation verifications. Finally, in Section V, we conclude the whole paper.

II. RELATED WORK

The origin of cooperative communication can be traced back to the work of Cover and El Gamal [3], which presents numerical results for the relaying scenario of Gaussian channels setup. And in [4], authors set up the first information theoretic approach to cooperative for multi-hop transmission. As real MIMO techniques require complex transceiver circuitry and large amount of signal processing which lead to increased power consumption at the circuit level, it is not a viable technology for energy-limited wireless sensor networks. However, it is showed in recent papers that implementing MIMO techniques in wireless sensor networks via cooperative communication techniques is possible instead of physically having multiple antennas at the sensor nodes.

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MMSE Channel Estimation for MIMO-OFDM Using Spatial and Temporal Correlations

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Abstract:- Channel has been introduced to achieve high data speed and better bit rate. The system becomes more efficient when OFDM (Orthogonal Frequency Division Multiplexing) is combined with MIMO to obtain high transmission rates, good quality of service and minimize the probability of error. Channel estimation is of great importance in MIMOOFDM system. To improve accuracy of the channel, this paper proposes a parametric sparse multiple input multiple output (MIMO)-OFDM channel estimation scheme based on the finite rate of innovation (FRI) theory, whereby super-resolution estimates of path delays with arbitrary values can be achieved. For outdoor communication scenarios, where wireless channels are sparse in nature, path delays of different transmit-receive antenna pairs share a common sparse pattern due to the spatial correlation of MIMO channels. Meanwhile, the channel sparse pattern is nearly unchanged during several adjacent OFDM symbols due to the temporal correlation of MIMO channels. The proposed scheme performs better than existing schemes.Meanwhile, both the spatial and temporal correlations of wireless MIMO channels are exploited to improve the accuracy of the channel estimation.

Keywords: MIMO-OFDM, Super-resolution, sparse channel estimation, finite rate of innovation (FRI), spatial and temporal correlations

INTRODUCTION:- In broadband wireless communications, MIMO (Multiple Input Multiple Output) OFDM becomes more efficient to achieve high data rate and better performance. Accurate and efficient channel estimation plays a key role in MIMO-OFDM wireless communications. Channel capacity of MIMO-OFDM system is increased by channel estimation. The increase in the demand for bandwidth and different high performance services opened the door for using multiple antennas at transmitter and receiver. The wireless channel properties are dynamic in nature as it is frequency selective and time-dependent. Multiple Input Multiple Output (MIMO)-OFDM is widely recognized as a key technology for future wireless communications due to its high spectral efficiency and superior robustness to multipath fading channels [1]. In general, there are two groups of channel estimation schemes for MIMO-OFDM system. The first one is nonparametric channel estimation scheme, which adopts orthogonal frequency-domain pilots or orthogonal time-domain training sequences to convert the channel estimation in MIMO systems to that in single antenna systems [2]. However, such scheme suffers from high pilot overhead when

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E-Monitor of ECG using Webserver

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Abstract:*Advances in information and communication technology have led to the emergence of Internet of Things (IoT).In the modern health care environment, the usage of IoT technologies brings convenience of physicians and patients, since they are applied to various medical areas (such as real-time monitoring, patient information management, and healthcare management). The Body Sensor Network (BSN) technology is one of the core technologies of IoT developments in healthcare system, where a patient can be monitored using a collection of tiny-powered and lightweight wireless sensor nodes. However, the development of this new technology in healthcare applications without considering security makes patient vulnerable. In this paper, at first, we highlight the major security requirements inBSN-based healthcare system. Subsequently, we proposed a secure IoT-based healthcare system using BSN, called BSN-care, which can efficiently accomplish those requirements.*

Key words: IOT, Body sensor networks, heart rate sensor,

1. INTRODUCTION

Embedded system is a process of integrating the hardware with system specific software for the purpose of particular application which can be used in real time applications. Embedded applications can reduce the cost, increases the life cycle of the application. In this system microprocessors can able to work with different types of inputs depends on the application. These microprocessors, working on basic assembly languages or high level languages that are supported by the processor like c, are the heart of the appliances.

India has a vast health care system, but the quality of service at hospitals will be different between rural and urban areas as well as between public and private health care system is different due to very less in number of doctors. Despite this, In future Indiabecame as a popular destination for treatment for various diseases across the world because of low cost and high quality of its private hospitals. As the technology increases we are finding solution for the problems that we are having in medical health care system.

A recent report indicates that about 90% of the agedpeople want to live independently. However, the persons whose age crossed 60 are suffers from at least one chronic disease due to this many aged people to have difficulty in taking careof themselves. This will be taken as a social challenge by various organizations as they are willing to work for these people. With the change in technology many tools were developed in the field of Medical society. Most powerful communication system Internet of things had a made revolution in providing the information across the globe. It can able to interface the electronic devices with the internet so IOT extends its service through internet and makes it more pervasive.

Using IOT we can able to connect devices and interact with sensor such as heart beat sensor, Temperature sensor. Because of this reason IOT was used in health care system. In our project we use IOT and different wearable sensors which can able to get the information from our human organs and body and the processor used will calculate the information. We will be using sensors in health monitoring system, which will make the monitoring system more powerful anywhere, any time. With this improves the age of people which improves the quality of life.

For the health care system we are using low power consumption and light weight based wireless sensors. These sensors were be used to monitor the human body functions such as heart beat and environment parameters like

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Self-Configuration And Smart Control System

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Abstract:

The development of wireless communications technology was proposed for detection appliances and radar information and home appliances monitoring, control. Wireless sensor networks (WSNs) made a remarkable change in the electronic industry the system that has developed with wireless sensor networks have grown to be more and more to watch and manage situational information for various intelligent services. The design and development of the monitoring and controlling system of electrical appliances in real-time reported within this project. In this project we primarily monitors the information of sensors such as LDR, PIR, gas temp and humidity then based on the sensor information it control the parameters of household home appliances. The system that was developed is a low-cost and high reliable functioning and with this we can save electricity cost of most effective. The other sensors gas, humidity, pir and Temp are used to collect the information of various objects. Information can be collected from house hold objects. The prototype to be tested in various zones and atmospheric conditions will provide the results in better understanding of project and working standards of experimental objects of the defined system.

1. INTRODUCTION

The development of wireless communications technology was proposed for detection appliances and radar information and home appliances monitoring, control. ZigBee technology used in many applications like providing communication and sensing parameters from large range of fields with low power consumption, high reliability, and multi-node networking. Today, this ZigBee is widely used in applications like process control and monitoring in industry, consumer products for electronic devices for monitoring and controlling home appliances, testing applications in the medical and collection of patient information such as heart beat, pulse rate and body temperature. ZigBee was used for environmental applications such as the detection of pollution water, air and moisture level using sensors. As the technology increases smart devices has resulted in new applications of Wireless sensor networks with respect to the consumer goods for a long time.

Self-Configuration and smart Connection System proposes the integration of Wireless Sensor Networks and ZigBee technology. LDR light dependent resistors are connected to self configure the system and used control the automatic lighting system. The system that control the lighting based on information provided by sensor called LDR. With this the effectiveness of automatic lighting control can be improved.

The design and development of the monitoring and controlling system of electrical appliances in real-time reported within this project. In this project we primarily monitors the information of sensors such as LDR, PIR, gas temp and humidity then based on the sensor information it control the parameters of household home appliances. The system that was developed is a low-cost and high reliable functioning and with this we can save electricity cost of most effective. The other sensors gas, humidity, pir and Temp are used to collect the information of various objects. Information can be collected from house hold objects. The prototype to be tested in various zones and atmospheric conditions will provide the results in better understanding of project and working standards of experimental objects of the defined system.

Wireless sensor networks (WSNs) made a remarkable change in the electronic industry

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ADAPTIVE CYBER PHYSICAL SYSTEM FOR MONITORING ENVIRONMENTAL STATUS

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Abstract - CYBER PHYSICAL SYSTEMS(CPS) represents a new generation of digital systems,where cyber entities and physical devices cooperate towards a set of common goals.This paper presents that the CPS monitors the environmental conditions in real time.The communication between the systems componenets is performed by using IEEE 802.11 b/g standards .It provides a possibility of logging into the system from anywhere in the world with the device connected to the internet.

key words - Cyber physical system(cps),sensors,Internet Of Things(IOT),wireless communication,wi-fi

I. INTRODUCTION

The importance of environmental monitoring p l a y s a v i t a l r o l e . This is the field where wireless sensor networks (WSNs) have been first used, their primary purpose consisting in the observation of the physical world and the recording of physical quantities characterizing it . CPSs composed of interconnected clusters of process- ing elements and large-scale wired and wireless networks of sensors and actuators gathering data about and acting upon the environment[1] . These newly appeared systems have a lot of similarities with the Internet of Things (IoT), an enabler of ubiquitous sensing, that envisions a world in which many billions of Internet-connected objects or things, with sensing, communication, computing, and potentially actuating capabilities, will coexist, allowing an uninterrupted connection between people and.

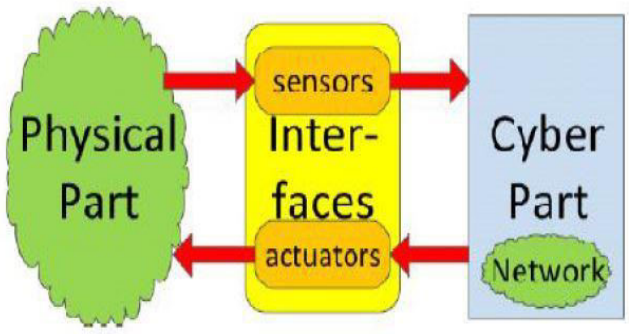

Fig 1: cyber physical system

The paper proposed a real-time Cyber-Physical system for environmental monitoring based on WSNs and cloud computing. The architecture is designed according CPSs paradigm, and restful API are used to distribute sensor data for upper application. In this paper, we propose a method to tag time stamp with sensor data. Even under the poor network condition, the system senses environment without data missing. We

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FLOATING-POINT BUTTERFLY ARCHITECTURE BASED ON CARRY SELECT ADDER REPRESENTATION

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ABSTRACT

Fast Fourier transform (FFT) coprocessor, having a noteworthy crash on the performance of communication systems. The FFT function consists of uninterrupted multiply add operations over complex statistics, dubbed as butterfly units. By applying floating-point (FP) arithmetic to FFT architectures, expressly butterfly units, has become more popular recently. It off-load compute-intensive errands from general-purpose processors by dismissing FP (e.g., scaling and overflow, underflow etc). However, the key downside of FP butterfly is its slowness in contrast with its fixed-point equal. This reveals the spur to develop a high-speed FP butterfly architecture to moderate FP slowness. This brief proposes a fast FP butterfly unit via a devised FP fused-dot-product-add (FDPA) unit, to compute AB ± CD ± E, based on carry select adder (CSA)representation. The FP three-operand CSA adder and the FP CSA constant multiplier are the constituents of the proposed FDPA unit. A CSA adder is planned and used in the three- operand adder and the parallel CSA multiplier so as to improve the speed of the FDPA unit. The blend results show that the proposed FP butterfly architecture is greatly faster than previous architecture. It has an advantage of speedup processes and reducing of gate developing area.

Index Terms – Carry Select Adder (CSA) representation, butterfly unit, Fast Fourier Trans-form (FFT), Floating-Point (FP), three-operand addition

1. INTRODUCTION

Fast Fourier transform (FFT) circuitry consists of numerous consecutive multipliers and adders over complex numbers; thus an appropriate number representation must be selected wisely. Mainly of the FFT architectures have been using fixed-point arithmetic, awaiting recently that FFTs based on floating-point (FP) operations grow up . The core advantage of FP in excess of fixed-point arithmetic is the wide active range it introduces; but at the expense of superior cost. Moreover, use of IEEE-754-2008 usual for FP arithmetic allows for an FFT coprocessor in alliance with general purpose processors. This off-load compute-intensive tasks from the processors and lead to higher performance. The main downside of the FP operations is their slowness in comparison with the fixed-point counterparts. A way to velocity up the FP arithmetic is to come together several operations in a single FP unit, and hence save delay, area, and power utilization. By means of redundant number systems is another renowned way of overcome FP slowness, where there is no word-wide carry propagation within the intermediate operation. A number system, distinct by a radix r and a digit-set [α, β], is outmoded if $\beta-\alpha+1>r$. The renovation, from non-redundant, to a redundant layout is a carry-free operation; on the other hand, the undo conversion requires carry-propagation. This make redundant representation extra of use everywhere numerous consecutive arithmetic operations are carry out prior to the final result. This brief proposes a butterfly architecture by means of redundant FP arithmetic, which is functional for FP FFT coprocessors and contribute to digital signal processing application. Even though there are other plant on the use of redundant FP number systems, they are not optimized for butterfly architecture

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DYNAMICPERFORMANCE ANALYSIS OF OUTRIGGER AND OUTRIGGER WITH BELT TRUSS SYSTEM IN COMPOSITE HIGH RISE BUILDING"

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Abstract - *In high rise building the outrigger is used as one of the structural system to effectively control the excessive drift due to lateral loads induced due to earthquake or wind, and to analyse the risk of the structural and non-structural damage and how it can be minimized. When the height of the structure increases, the building stiffness becomes more important and introduction of the outrigger beams between the shear walls and external columns is often used to provide sufficient lateral stiffness to the structure. The objective of study is to optimize outrigger and outrigger with belt truss system location and to assess the efficiency of each outrigger used in the structure. In 60–storey three dimensional model outrigger and outrigger with belt truss system are subjected to wind and earthquake load, analyzed and compared to find the lateral displacement reduction related to the outrigger and belt truss system location.*

Key Words: Outriggers, Lateral loads, Displacement, Base Shear, Lateral Stiffness,Belt truss system.

1.INTRODUCTION

Human race had always fascinated for height and throughout our history, we have constantly sought to reach for the stars, from the ancient pyramids to today's modern skyscraper. Today, there has been a demonstrated competitiveness that exists in human race to proclaim to have the tallest structure in the world. In late 19th century the tall structures were emerged in the U.S.A. They constituted so-called "American Building Type," meaning is that most important tall buildings were built in the U.S.A. However, now a day's there is a worldwide architectural phenomenon in the development of tall buildings which has evolved rapidly in recent years.

As the population increases in the metropolitan cities the availability of land for shelter is diminishing. Hence to overcome these problems multistorey's buildings are most prominent and efficient solution. In development of tall buildings we have to take an account of various aspects such as requirements, technology, and construction regularities and so on. For designer as the building height increases the challenges will also increases and self-weight of the building, live load acting, and earthquake loads and along with wind forces are significant factors that will affect the design.

For mutistoreys building we have to ensure safe working environment against the dynamic actions. An earthquake is an unexpected moment of the earth's crust which originates below the ground surface. When an earthquake occurs the structures moves vertically and horizontally caused by the ground motion induced by earthquake.

A structure is to be designed to resist the lateral forces which occur to it. In order to achieve this lateral resisting system should be introduced to the structures such as moment resisting frames, infilled frames, shear walls, framed tubes, trussed tubes, super frames, tube in tube, bundle tubes, outriggers etc.

1.1 OUTRIGGER

The outrigger and belt truss system acts very important role to resist the lateral loads in the structure. In the structure the external columns are tied to the central core wall with stiffened outriggers and belt truss at one or different levels. This system is rigidly fixed to the core and simply connected to the exterior columns. When central core tries to bend, the belt trusses act as lever arms which directly transfer axial stresses into the perimeter columns, so that the columns act as struts to resist the lateral deflection of the core. Hence the core fully develops the horizontal shear and the belt trusses transfer the vertical shear from the core to the outrigger frame. Thus, the structure is made to act as a single unit similar to cantilever tube.

Outriggers are stiff elements connected to a structure core or to outer columns. Outriggers improve the stiffness against overturning by developing a tension-compression couple in perimeter columns when a central core tries to bend, generating restoring moment acting on the core at the outrigger level.

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"PARTIAL REPLACEMENT OF COARSE AGGREGATES IN CONCRETE WITH LIGHTNING INSULATORS"

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ABSTRACT: The project aims to partially replace the coarse Aggregate which is going rare these days with Lightning Insulators which is discarded in landfills and are not environmentally friendly either. A lightning arrester is a device used on electrical power systems and telecommunications systems to protect the insulation and conductors of the system from the damaging effects of lightning. The typical lightning arrester has a high-voltage terminal and a ground terminal. When a lightning surge (or switching surge, which is very similar) travels along the power line to the arrester, the current from the surge is diverted through the arrestor, in most cases to earth. If protection fails or is absent, lightning that strikes the electrical system introduces thousands of kilovolts that may damage the transmission lines, and can also cause severe damage to transformers and other electrical or electronic devices. Lightning-produced extreme voltage spikes in incoming power lines can damage electrical home appliances or even produce death. These insulators thus represent a residue from electric poles. These insulators after used, are waste for the environment and so recycling or locking up of this waste is very crucial from the environmental point of view too. The main advantage of this type of concrete over the conventional ones is the reduction in the quantity of coarse aggregates and thus to minimise the initial cost. The results of this study indicate that the Lightning Insulators can be used as an ingredient in the range of certain limits to improve expanded concrete. As a result, it can be said that the usage of the arrestors in concrete, decreases its detrimental environmental effect. Moreover, the insulators have some beneficial effect on concrete properties. Therefore, the results of this investigation result into lots of benefits for industrial growths in eco-friendly way.

Key Words: compressive strength, insulators, coarse aggregate, water, cement,

1.INTRODUCTION:

In its simplest form, concrete is a mixture of paste and aggregates, or rocks. The paste, composed of Portland cement and water, coats the surface of the fine (small) and coarse (larger) aggregates which hardens over time. Mostly used concrete is the lime-based concrete which is the Portland cement concrete. In Portland cement concrete (and other hydraulic cement concretes), when the aggregate is mixed together with the dry cement and water, they form a fluid mass that is easily molded into shape. The cement reacts chemically with the water and other ingredients to form a hard matrix which binds all the materials together into a durable stone-like material that has many uses. Often, additives (such as pozzolans or super-plasticizers) are included in the mixture to improve the physical properties of the wet mix or the finished material. Most concrete is poured with reinforcing materials (such as rebar) embedded to provide tensile strength, yielding reinforced concrete. Concrete has relatively high compressive strength, but much lower tensile strength. For this reason it is usually reinforced with materials that are strong in tension (often steel). The elasticity of concrete is relatively constant at low stress levels but starts decreasing at higher stress levels as matrix cracking develops. Concrete has a very low coefficient of thermal expansion and shrinks as it matures. All concrete structures crack to some extent, due to shrinkage and tension. Concrete that is subjected to long-duration forces is prone to creep. Different mixes of concrete ingredients produce different strengths. Concrete strength values are usually specified as the compressive strength of either a cylindrical or cubic specimen, where these values usually differ by around 20% for the same concrete mix.

1.2 COMPOSITION OF CONCRETE

There are many types of concrete available, created by varying the proportions of the main ingredients. In this way or by substitution for the cementious and aggregate phases, the finished product can be tailored to its application with varying strength, density, or chemical and thermal resistance properties. Aggregate consists of large chunks of material in a concrete mix, generally a coarse gravel or crushed rocks such as limestone, or granite, along with finer materials such as sand.

Cement, most commonly Portland cement, is associated with the general term "concrete." A range of materials can be used as the cement in concrete. One of the most familiar of these alternative cements is asphalt concrete. Other cementitious materials such as fly ash and slag cement, are sometimes added as mineral admixtures either pre-blended with the cement or directly as a concrete component and become a part of the binder for the aggregate.

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"EXPERIMENTAL STUDY ON THE BEHAVIOUR OF STEEL FIBRE REINFORCED CONCRETE"

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Abstract - In recent years the applications of high strength concrete have increased many part of the world. This growth has been possible as a result of recent developments in technology and demand for high strength concrete there are many advantages in using high strength concrete in building construction. Such as, reduction in member size, reduction in self-weight and early stripping of formwork. Reduced member sizes increase amount of rental area and this is beneficial, when there are architectural restrictions on column size or when land prices are very high

The addition of steel fibre to high strength concrete in various volumes fractions, can be lengthen concrete in various volume fraction, can lengthen the time elapsed before cracking and can provide a confinement.

The experimental progamme was designed to the of effect of steel fibers on compressive strength, split tensile strength of high strength concrete and testing of cubes of size (150mm x 150mm x 150mm), cylinders of 150mm diameter, height 300mm.the mix proportion for M30 grade of concrete 1:0.91: 2.41 with w/c ratio 0.37 was obtained. Then the steel fibres were added in the volume fraction of 0%, 0.25%, 0.5%, 0.75%, 1.0%, and 1.25%.

The experiential results shown that the addition of steel fibre improves the crack arresting capacity of concrete .the addition of steel fibre prove that there is significantly enhancing the energy absorbing capacity of specimens.

***Key Words*: Steel fibre Reinforced Concrete, high compressive strength, Flat steel fibres, Shear Resistance, Dynamic Resistance etc**

1. INTRODUCTION

Fibre reinforced concrete is a concrete mix that contains short discrete fibres that are uniformly distributed and randomly oriented. As a result of these different formulations, four categories of fibre reinforcing have been created. These include steel fibres, glass fibres, synthetic fibres and natural fibres. Within these different fibres that character of Fibre Reinforced Concrete changes with varying concrete's, fibre materials, geometries, distribution, orientation and densities. The amount of fibres added to a concrete mix is measured as a percentage of the total volume of the composite (concrete and fibres) termed Volume Fraction. Typically ranges from 0.1 to 3%. Aspect ratio (l/d) is calculated by dividing fibre length (l) by its diameter (d). Fibres with anon-circular cross section use an equivalent diameter for the calculation of aspect ratio. If the modulus of elasticity of the fibre is higher than the matrix (concrete or mortar binder), they help to carry the load by increasing the tensile strength of the material. Increase in the aspect ratio of the fibre usually segments the flexural strength and toughness of the matrix. However, fibres which are too long tend to "ball" in the mix and create workability problems. Unlike resin and metal the fibre composites in which the fibres are aligned and amount to 60 - 80 % of the composite volume, fibre reinforced Cement or Concrete composites contain a less percentage of fibres which are generally arranged in planar or random orientations. Unidirectional fibres uniformly distributed throughout the volume are the most efficient in uniaxial tension. While flexural strength may depend on the unidirectional alignment of the fibres dispersed for away from the neutral plane, flexural shear strength may call for a random orientation. A proper shape and higher aspect ratio are also needed to develop an adequate bond between the concrete and the fibre so that the fracture of the fibres may be fully utilized.

1.1 FEATURES AND BENEFITS OF SFRC

- Elimination of manufacturing, handling, storage and positioning of reinforcement cages.
- Reduction in the production cycle time resulting in increased productivity.
- Improved impact resistance during handling, erection.
- Increased load bearing capacity and less spalling damage.
- Enhanced durability.
- Important time savings due to the elimination of the manufacturing, transport, handling and positioning of the conventional reinforcement.
- No damage to sealing due to reinforcement.
- Excellent corrosion resistance, spalling is totally excluded.
- Excellent crack control, the fibres control and distribute the cracks.
- The fibres give resistance to tensile stresses at any point in the shot Crete layer.
- Reinforces against the effect of shattering forces.
- Reinforces against material loss from abrading forces.
- Reinforces against water migration.

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"Study of Compressive Strength of Concrete by Partially Replacing Fine Aggregate with Quarry Dust"

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Abstract - *Nowadays the availability of Natural fine aggregates reduced, so we want to find substitute materials, so we have to search for any other easily available materials like Quarry dust, Copper slag, Granulated blast furnace slag , Bottom ash, Foundry sand, Construction and demolition waste etc.., By replacing the substitute materials we can check whether the strength remains same or varies. Anyhow we are getting quarry dust easily and it is eco Friendly also so we can use quarry dust as a substitute for fine aggregate and we can check the strength, if strength remains same we can replace quarry dust as a substitute in the construction fields. In the production of concrete, fine aggregate place a vital role.*

In Warangal district resources material of fine aggregate of natural sand is less available. So my studies on compressive strength test by partial replacing fine aggregate with quarry dust. Partially replacing quarry dust in fine aggregate mixing ratios at an interval of 10%, 20% and 30%. Mix proportions for M_{15} concrete is prepared with reference to IS: 10262-2009 and IS: 456-2000 for the study of workability. Compression testing machine test results with the conventional concrete. The strengths were obtained at the ages of 7 days, 14 and 28 days. Compression test compressive strength increased marginally from 0% to 20% replacement. There is a slight decrease in the corresponding compression test compressive strength at 30% replacement. Good correlation was observed between compression test compressive strength. It was observed that the addition of quarry dust that would replace the fine material at particular proportion has displayed an enhancing effect on properties of concrete. This investigation proves that quarry dust can be used as a partial substitute for natural sand in preparing concrete.

Key words: *compression test, quarry dust…*

I. INTRODUCTION

Common river sand is expensive due to excessive cost of transportation from natural sources. Also large-scale depletion of these sources creates environmental problems. As environmental transportation and other constraints make the availability and use of river sand less attractive, a substitute or replacement product for concrete industry needs to be found. River sand is most commonly used fine aggregate in the production of concrete poses the problem of acute shortage in many areas. Whose continued use has started posing serious problems with respect to its availability, cost and environmental impact?

A comparatively good strength is expected when sand is replaced partially or fully with or without concrete admixtures.

Quarry dust has been used for different activities in the construction industry such as road construction and manufacture of building materials such as light weight aggregates, bricks and tiles. This paper presents the results for compressive strengths by compression testing machine test by partially replacing fine aggregate with quarry dust. Quarry dust is used an alternative for natural sand is collected from nearby quarry. Quarry dust is easily available, effective usage of quarry dust as a partial or full replacement to natural sand can reduce the demand for natural sand, pollution in environment and topography of the area. Hence, it is essential to find some way to use the quarry dust.

This study initiated to assess the suitability of quarry dust as partial substitute for fine aggregate in concrete. The evaluation is based on parameters such as gradation results, compressive strength with both compression testing machine and Rebound hammer test.

II. SCOPE OF PRESENT STUDY

In this study, M15 grade of concrete was obtained and the mixtures were modified by partially replacing natural sand with quarry dust. The strength of concrete was evaluated in terms of compressive strength by compression testing machine.

1. To check the compressive strength of concrete by replacing quarry dust.
2. To observe whether the compressive strength varies with percentage of substitute material.
3. To know whether can we use query dust as a substitute material for fine aggregate.

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Studies on Strengthening of High Performance Self Compacting Concrete

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Abstract

Self Compacting Concrete (SCC) has more consideration in light of its capacity to minimal without the need of interior or outside vibration. The setting of typical traditional cement is troublesome in fortification restriction places and furthermore the quality of the solid is low when it is subjected to extreme introduction condition. With a specific end goal to defeat these impacts the admixtures were utilized as a part of the solid to build the quality and tough properties of the solid. Self-Compacting Concrete (SCC) is one of the solid which makes utilization of admixture to build the stream capacity of the solid with no extra vibration. As the solid is flowable, it has great workability. SCC has greater workability and by the expansion of mineral admixture like flyash and silica rage, the solid will achieve more quality and tough, with the goal that the solid will act as Self Compacting High Performance Concrete (SCHPC).The point of the examination is to decide the flexural conduct of the self-compacting superior cement. In this present work the different literary works identified with SCC with various mineral admixtures was considered also, the best among them was picked for the future work

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A STUDY ON SEISMIC RESPONSES OF REINFORCED CONCRETE (RC) BUILDINGS WITH LATERAL FORCE RESISTING SYSTEMS

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ABSTRACT

Today, tall buildings are a worldwide architectural phenomenon and it is a major challenge to study the impact and performance of tall structures under wind and seismic loading. In the present work, Time History Analysis and response spectrum analysis are carried out for a G+19 multistory Reinforced Concrete (RC) framed building taken from Panchal and Marathe (2011)[1] ,with minor changes made in the building. This RC frame along with three types of lateral force resisting systems such as brick infill and shear walls in two different types of placements are considered for the analysis. The influence of the lateral force resisting systems in the reduction of peak responses such as absolute accelerations, displacements and drifts of the bare frame under four types of Time History Earth Quakes (THEQ) are found out using the SAP2000 software. based on responses of the building. The Linear Time History Analysis (LTHA) of the frames subjected to four types of THEQ such as El Centro (EC), Kobe (KO), Northridge (NR) and S Monica (SM) are carried out. The responses shows that provision of both models of shear wall considered for the buildings in the present work reduces the seismic responses effectively and responses are within the allowable limits prescribed in IS1893 (Part 1) :2002. The effective arrangement of lateral load resisting systems is found out for the RC building also by the response spectrum analysis of all the three types of models with brick infill and shear wall provisions. The peak value of inter storey drifts are reduced by 66.67 % with the provision of lateral force resisting systems in the bare frame.

Keyword: Absolute Acceleration, Brick Infill, Drifts, Seismic Responses, Shear Wall, Time History Analysis.

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DYNAMIC ANALYSIS OF MULTI STOREY STEEL STRUCTURES

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Abstract - *In every aspect of human civilization, we needed structures to live in or to get what we need. But it is not only building structures but to build efficient structures so that it can fulfill the main purpose for what it is made for. The action applied to a structure by an earthquake is a ground movement with horizontal and vertical components. The horizontal movement is the most specific feature of earthquake action because of its strength and because structures are generally better designed to resist gravity than horizontal forces. Experience shows that steel structures subjected to earthquakes behave well. Global failures and huge numbers of casualties are mostly associated with structures made from other materials.*

Key Words: Staad pro,Static analysis& Dynamic analysis

1. INTRODUCTION

A building is exposed to a large number of different loads as shown in Fig.2. They can be static or dynamic, come from outside or inside of the building. Simple categorization of them may be based on its direction; vertically or horizontally. Vertical loads also known as gravity loads generally consist of dead loads, live loads, and snow loads. Horizontal, or lateral loads, may occur in the form of wind load, tilt and seismic responses.

This may be explained by some of the specific features of steel structures. Steel structures are generally light in comparison to those constructed using other materials. As earthquake forces are associated with inertia, they are related to the mass of the structure and so reducing the mass inevitably leads to lower seismic design forces. Indeed some steel structures are sufficiently light that seismic design is not critical. This is particularly the case for halls/sheds: they create an envelope around a large volume so their weight per unit surface area is low and wind forces, not seismic forces, generally govern the design. This means that a building designed for gravity and wind loads implicitly provides sufficient resistance to earthquakes. This explains why in past earthquakes such buildings have been observed to perform so much better than those made of heavy materials.

1.1 TYPES OF STRUCTURAL STEEL:

The structural designer is now in a position to select structural steel for a particular application from the following general categories.

a) Carbon steel (IS 2062):

Carbon and manganese are the main strengthening elements. The specified minimum ultimate tensile strength for these varies about 380 to 450 MPa and their specified minimum yield strength from about 230 to 300MPa(IS 800:2007)

b) High –strength carbon steel:

This steel specified for structures such as transmission lines and microwaves towers. The specified ultimate tensile strength, is ranging from about 480-550 MPa, and a minimum yield strength of about 350-400 MPa.

c) Medium-and-high strength micro alloyed steel (IS 85000):

This steel has low carbon content but achieves high strength due to the addition of alloys such as niobium, vanadium, titanium, or boron. The specified ultimate tensile strength, is ranging from about 440-590 MPa, and a minimum yield strength of about 300-450 MPa

d) High –strength quenched and temperature steels (IS 2003):

This steel is heat treated to develop high strength. The specified ultimate tensile strength, is ranging from about 700-950 MPa, and a minimum yield strength of about 550-700 MPa.

1.2 Classification of multi-storey buildings:

The various structural systems can be broadly classified into two main types:

1. Medium-height buildings with shear-type deformation predominant.
2. Multi-storey cantilever structures such as framed tubes, diagonal tubes and braced trusses.

2. LITERATURE REVIEW

V.Varalakshmi: The design and analysis of¬ multistoried G+5 building at Kukatpally, Hyderabad, India. The Study includes design and analysis of columns, beams, footings and slabs by using well known civil engineering software named as STAAD.PRO. Test on safe bearing capacity of soil was obtained.

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DYNAMIC ANALYSIS OF MULTI STOREY STEEL STRUCTURES

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Abstract - *In every aspect of human civilization, we needed structures to live in or to get what we need. But it is not only building structures but to build efficient structures so that it can fulfill the main purpose for what it is made for. The action applied to a structure by an earthquake is a ground movement with horizontal and vertical components. The horizontal movement is the most specific feature of earthquake action because of its strength and because structures are generally better designed to resist gravity than horizontal forces. Experience shows that steel structures subjected to earthquakes behave well. Global failures and huge numbers of casualties are mostly associated with structures made from other materials.*

Key Words: Staad pro,Static analysis& Dynamic analysis

1. INTRODUCTION

A building is exposed to a large number of different loads as shown in Fig.2. They can be static or dynamic, come from outside or inside of the building. Simple categorization of them may be based on its direction; vertically or horizontally. Vertical loads also known as gravity loads generally consist of dead loads, live loads, and snow loads. Horizontal, or lateral loads, may occur in the form of wind load, tilt and seismic responses.

This may be explained by some of the specific features of steel structures. Steel structures are generally light in comparison to those constructed using other materials. As earthquake forces are associated with inertia, they are related to the mass of the structure and so reducing the mass inevitably leads to lower seismic design forces. Indeed some steel structures are sufficiently light that seismic design is not critical. This is particularly the case for halls/sheds: they create an envelope around a large volume so their weight per unit surface area is low and wind forces, not seismic forces, generally govern the design. This means that a building designed for gravity and wind loads implicitly provides sufficient resistance to earthquakes. This explains why in past earthquakes such buildings have been observed to perform so much better than those made of heavy materials.

1.1 TYPES OF STRUCTURAL STEEL:

The structural designer is now in a position to select structural steel for a particular application from the following general categories.

a) Carbon steel (IS 2062):

Carbon and manganese are the main strengthening elements. The specified minimum ultimate tensile strength for these varies about 380 to 450 MPa and their specified minimum yield strength from about 230 to 300MPa(IS 800:2007)

b) High –strength carbon steel:

This steel specified for structures such as transmission lines and microwaves towers. The specified ultimate tensile strength, is ranging from about 480-550 MPa, and a minimum yield strength of about 350-400 MPa.

c) Medium-and-high strength micro alloyed steel (IS 85000):

This steel has low carbon content but achieves high strength due to the addition of alloys such as niobium, vanadium, titanium, or boron. The specified ultimate tensile strength, is ranging from about 440-590 MPa, and a minimum yield strength of about 300-450 MPa

d) High –strength quenched and temperature steels (IS 2003):

This steel is heat treated to develop high strength. The specified ultimate tensile strength, is ranging from about 700-950 MPa, and a minimum yield strength of about 550-700 MPa.

1.2 Classification of multi-storey buildings:

The various structural systems can be broadly classified into two main types:

1. Medium-height buildings with shear-type deformation predominant.
2. Multi-storey cantilever structures such as framed tubes, diagonal tubes and braced trusses.

2. LITERATURE REVIEW

V.Varalakshmi: The design and analysis of¬ multistoried G+5 building at Kukatpally, Hyderabad, India. The Study includes design and analysis of columns, beams, footings and slabs by using well known civil engineering software named as STAAD.PRO. Test on safe bearing capacity of soil was obtained.

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"PARTIAL REPLACEMENT OF COARSE AGGREGATES IN CONCRETE WITH LIGHTNING INSULATORS"

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ABSTRACT: The project aims to partially replace the coarse Aggregate which is going rare these days with Lightning Insulators which is discarded in landfills and are not environmentally friendly either. A lightning arrester is a device used on electrical power systems and telecommunications systems to protect the insulation and conductors of the system from the damaging effects of lightning. The typical lightning arrester has a high-voltage terminal and a ground terminal. When a lightning surge (or switching surge, which is very similar) travels along the power line to the arrester, the current from the surge is diverted through the arrestor, in most cases to earth. If protection fails or is absent, lightning that strikes the electrical system introduces thousands of kilovolts that may damage the transmission lines, and can also cause severe damage to transformers and other electrical or electronic devices. Lightning-produced extreme voltage spikes in incoming power lines can damage electrical home appliances or even produce death. These insulators thus represent a residue from electric poles. These insulators after used, are waste for the environment and so recycling or locking up of this waste is very crucial from the environmental point of view too. The main advantage of this type of concrete over the conventional ones is the reduction in the quantity of coarse aggregates and thus to minimise the initial cost. The results of this study indicate that the Lightning Insulators can be used as an ingredient in the range of certain limits to improve expanded concrete. As a result, it can be said that the usage of the arrestors in concrete, decreases its detrimental environmental effect. Moreover, the insulators have some beneficial effect on concrete properties. Therefore, the results of this investigation result into lots of benefits for industrial growths in eco-friendly way.

Key Words: compressive strength, insulators, coarse aggregate, water, cement,

1.INTRODUCTION:

In its simplest form, concrete is a mixture of paste and aggregates, or rocks. The paste, composed of Portland cement and water, coats the surface of the fine (small) and coarse (larger) aggregates which hardens over time. Mostly used concrete is the lime-based concrete which is the Portland cement concrete. In Portland cement concrete (and other hydraulic cement concretes), when the aggregate is mixed together with the dry cement and water, they form a fluid mass that is easily molded into shape. The cement reacts chemically with the water and other ingredients to form a hard matrix which binds all the materials together into a durable stone-like material that has many uses. Often, additives (such as pozzolans or super-plasticizers) are included in the mixture to improve the physical properties of the wet mix or the finished material. Most concrete is poured with reinforcing materials (such as rebar) embedded to provide tensile strength, yielding reinforced concrete. Concrete has relatively high compressive strength, but much lower tensile strength. For this reason it is usually reinforced with materials that are strong in tension (often steel). The elasticity of concrete is relatively constant at low stress levels but starts decreasing at higher stress levels as matrix cracking develops. Concrete has a very low coefficient of thermal expansion and shrinks as it matures. All concrete structures crack to some extent, due to shrinkage and tension. Concrete that is subjected to long-duration forces is prone to creep. Different mixes of concrete ingredients produce different strengths. Concrete strength values are usually specified as the compressive strength of either a cylindrical or cubic specimen, where these values usually differ by around 20% for the same concrete mix.

1.2 COMPOSITION OF CONCRETE

There are many types of concrete available, created by varying the proportions of the main ingredients. In this way or by substitution for the cementious and aggregate phases, the finished product can be tailored to its application with varying strength, density, or chemical and thermal resistance properties. Aggregate consists of large chunks of material in a concrete mix, generally a coarse gravel or crushed rocks such as limestone, or granite, along with finer materials such as sand.

Cement, most commonly Portland cement, is associated with the general term "concrete." A range of materials can be used as the cement in concrete. One of the most familiar of these alternative cements is asphalt concrete. Other cementitious materials such as fly ash and slag cement, are sometimes added as mineral admixtures either pre-blended with the cement or directly as a concrete component and become a part of the binder for the aggregate.

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"EXPERIMENTAL STUDY ON THE BEHAVIOUR OF STEEL FIBRE REINFORCED CONCRETE"

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Abstract - In recent years the applications of high strength concrete have increased many part of the world. This growth has been possible as a result of recent developments in technology and demand for high strength concrete there are many advantages in using high strength concrete in building construction. Such as, reduction in member size, reduction in self-weight and early stripping of formwork. Reduced member sizes increase amount of rental area and this is beneficial, when there are architectural restrictions on column size or when land prices are very high

The addition of steel fibre to high strength concrete in various volumes fractions, can be lengthen concrete in various volume fraction, can lengthen the time elapsed before cracking and can provide a confinement.

The experimental progamme was designed to the of effect of steel fibers on compressive strength, split tensile strength of high strength concrete and testing of cubes of size (150mm x 150mm x 150mm), cylinders of 150mm diameter, height 300mm.the mix proportion for M30 grade of concrete 1:0.91: 2.41 with w/c ratio 0.37 was obtained. Then the steel fibres were added in the volume fraction of 0%, 0.25%, 0.5%, 0.75%, 1.0%, and 1.25%.

The experiential results shown that the addition of steel fibre improves the crack arresting capacity of concrete .the addition of steel fibre prove that there is significantly enhancing the energy absorbing capacity of specimens.

***Key Words*: Steel fibre Reinforced Concrete, high compressive strength, Flat steel fibres, Shear Resistance, Dynamic Resistance etc**

1. INTRODUCTION

Fibre reinforced concrete is a concrete mix that contains short discrete fibres that are uniformly distributed and randomly oriented. As a result of these different formulations, four categories of fibre reinforcing have been created. These include steel fibres, glass fibres, synthetic fibres and natural fibres. Within these different fibres that character of Fibre Reinforced Concrete changes with varying concrete's, fibre materials, geometries, distribution, orientation and densities. The amount of fibres added to a concrete mix is measured as a percentage of the total volume of the composite (concrete and fibres) termed Volume Fraction. Typically ranges from 0.1 to 3%. Aspect ratio (l/d) is calculated by dividing fibre length (l) by its diameter (d). Fibres with anon-circular cross section use an equivalent diameter for the calculation of aspect ratio. If the modulus of elasticity of the fibre is higher than the matrix (concrete or mortar binder), they help to carry the load by increasing the tensile strength of the material. Increase in the aspect ratio of the fibre usually segments the flexural strength and toughness of the matrix. However, fibres which are too long tend to "ball" in the mix and create workability problems. Unlike resin and metal the fibre composites in which the fibres are aligned and amount to 60 - 80 % of the composite volume, fibre reinforced Cement or Concrete composites contain a less percentage of fibres which are generally arranged in planar or random orientations. Unidirectional fibres uniformly distributed throughout the volume are the most efficient in uniaxial tension. While flexural strength may depend on the unidirectional alignment of the fibres dispersed for away from the neutral plane, flexural shear strength may call for a random orientation. A proper shape and higher aspect ratio are also needed to develop an adequate bond between the concrete and the fibre so that the fracture of the fibres may be fully utilized.

1.1 FEATURES AND BENEFITS OF SFRC

- Elimination of manufacturing, handling, storage and positioning of reinforcement cages.
- Reduction in the production cycle time resulting in increased productivity.
- Improved impact resistance during handling, erection.
- Increased load bearing capacity and less spalling damage.
- Enhanced durability.
- Important time savings due to the elimination of the manufacturing, transport, handling and positioning of the conventional reinforcement.
- No damage to sealing due to reinforcement.
- Excellent corrosion resistance, spalling is totally excluded.
- Excellent crack control, the fibres control and distribute the cracks.
- The fibres give resistance to tensile stresses at any point in the shot Crete layer.
- Reinforces against the effect of shattering forces.
- Reinforces against material loss from abrading forces.
- Reinforces against water migration.

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- Reinforces against material loss from abrading forces.
- Reinforces against water migration.

Location-Aware and Personalized Collaborative Filtering for Web Service Recommendation

23 SEPTEMBER 2015 by: VARADAN in: BLOG note: NO COMMENTS

Location-Aware and Personalized Collaborative Filtering for Web Service Recommendation

ABSTRACT:

Collaborative Filtering (CF) is widely employed for making Web service recommendation. CF-based Web service recommendation aims to predict missing QoS (Quality-of-Service) values of Web services. Although several CF-based Web service QoS prediction methods have been proposed in recent years, the performance still needs significant improvement. Firstly, existing QoS prediction methods seldom consider personalized influence of users and services when measuring the similarity between users and between services. Secondly, Web service QoS factors, such as response time and throughput, usually depends on the locations of Web services and users. However, existing Web service QoS prediction methods seldom took this observation into consideration. In this paper, we propose a location-aware personalized CF method for Web service recommendation. The proposed method leverages both locations of users and Web services when selecting similar neighbors for the target user or service. The method also includes an enhanced similarity measurement for users and Web services, by taking into account the personalized influence of them. To evaluate the performance of our proposed method, we conduct a set of comprehensive experiments using a real-world Web service dataset. The experimental results indicate that our approach improves the QoS prediction accuracy

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Segmentation Techniques of Brain MRI

Arun Kumar A.*, S. Munisankaraiah and M. Shankar Lingam*****

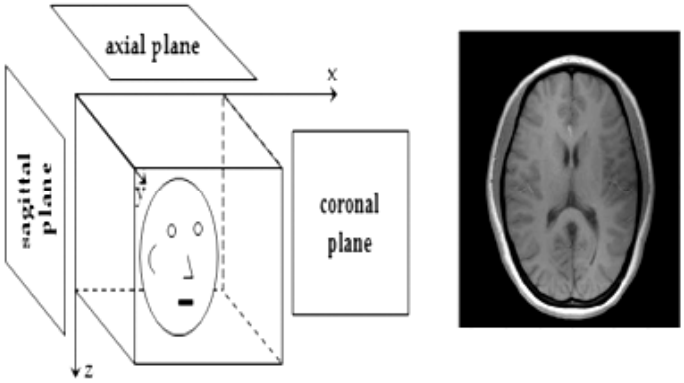
ABSTRACT

Mighty, exceptional and consistent mind cortical tissue segmentation from magnetic resonance (MR) photographs is among the most outstanding problems in many capabilities of clinical image processing. These purposes comprise surgical planning (Kikinis et al., 1996), surgical process navigation (Grimson et al., 1997), multimodality snapshot registration (Saeed, 1998), abnormality detection (Rusinek et al., 1991), a couple of sclerosis lesion quantification (Udupa et al., 1997), intellect tumour detection (Vaidyanathan et al., 1997), realistic mapping (Roland et al., 1993), etc. As a rule, the motive of segmentation is to partition the picture into non-overlapping, constituent areas (or called publications, clusters, subsets or sub-regions) that are homogeneous with admire to intensity and texture (Gonzalez & Woods, 1992). Segmentation is an fundamental side of medical image processing.

1. INTRODUCTION

MR imaging (MRI), invented with the help of Raymond V. Damadian in 1969, and was once to start with entire on a human physique in 1977 (Damadian et al., 1977). MR imaging is a modern-day clinical imaging approach utilized in radiology to imagine particular inside of constructions. It presents nice contrast between targeted tender tissues of the body, which makes it exceptionally useful in imaging the mind, muscles, the guts and cancers compared with other clinical imaging programs, corresponding to computed tomography (CT) or X-rays (Novelline & Squire, 2004). In retaining with specified magnetic signal weighting with particular values of the echo time and the repetition time , three satisfactory pics can even be done from the same physique: -weighted, -weighted, and PD-weighted (proton density).

In the clinical prognosis, one sufferer's head is examined from three planes validated in Fig.1 (a), they usually're axial airplane, sagittal plane and coronal aircraft. The -weighted mind MR portraits from specific planes are respectively verified in Fig.1 (b), (c), and (d).



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2. The obstacles of communication skills in (LSRW) faced by engineering graduates as per statistical analysis of cosmopolitan cities in India of

2015-D. Rayappa

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Abstract

Communication is a key to success for every engineering graduate to meet the career goals. This paper evaluates communication silks of Engineering graduates as per 2015 statistical analysis in cosmopolitan cities of India. In communicative English there are four fold skills LSRW (listening, speaking, reading and writing). They play a vital role in the part of communication. In the present scenario engineering graduate could not speak English fluently. After completion of their course they could not be selected in the interview process or group discussion part due to lack of communication skills. The proficiency in English is very important for engineering graduates. Because it is a medium of communication in and around the world. It is also the predominant language for international communication, international relations, science & technological research and education. Academic success predominantly depends on proficiency in using the English language. Global wide opportunities became narrow for Indian students due to the lack of communication skills. Thus, competence in English is very important for the engineering students in India not only for their academic career but also their prospective professional life. According to Aspiring Minds census, only 7.1% of students can speak English which is considered as meaningful and presentable during an interview.

Key words: The obstacles of listening, speaking, reading and writing and importance.

Introduction

English is one of the widely spoken languages around the world for engineering graduates. English language fluency is important both in studies and career. Engineering is one of the largest fields of study and many of the works of research and academics are recorded in English. Without fluency in English, engineering students may find it difficult to understand the concept being conveyed by the authors. Also, many modules in engineering require writing academic reports. Hence, a good fluency and grasp of English language is necessary. Basic reasons why an Engineer should be fluent in English are as follows: In a student's social life, English language is most important. It helps to build strong relationship and better understanding among fellow students and peers. For success in any field, one has to know, understand and communicate effectively. In the era of liberalization, privatization and globalization, communication skills are the key to success. The English language is now a bridge language of international business, technology, research and aviation. About 1.8 billion speak English and the number is still rising.

The importance of communication for engineering graduates

For communication purposes, an engineer graduates must bear these things in mind:

- Most of the theories are taught in English language. For this reason, an expected level of proficiency in English language would be essential.
- To study abroad in some of the best universities in the world, students have to take up standardized tests to prove their English language proficiency. These tests play a major role for admissions to most of the universities overseas. These tests are measurements carried out to ensure that the students from non-English speaking countries are able to write, listen, and converse in English fluently.
- Engineers today have to communicate with their counterparts across the globe. Among most of the professionals like the scientists, technologists and business experts who belong to different cultural and linguistic backgrounds, English is predominantly considered to be a language of communication. For professional purposes, English may come in very handy.

Here are some of the reasons:

(1). In today's world, employers seek engineering graduates with sound communication skills, along with technical engineering knowledge.

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Need of LSRW Skills for the Students of Science and Technology

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VIJAYAWADA, A.P

Abstract

English may not be the most spoken language in the world, but it is the official language in a large number of countries. It is estimated that the number of people in the world who use English to communicate on a regular basis is 2 billion! English is the dominant business language and it has become almost a necessity for people to speak English if they are to enter a global workforce. Research from all over the world shows that cross-border business communication is most often conducted in English. Its importance in the global market place therefore cannot be under-stated. *The four skills (Listening, Speaking, Reading and Writing) are necessary for all the people living on the earth*. Learning English will really change one's life. Many of the world's top films, books and music are published and produced in English. Therefore by learning English one will have access to a great wealth of

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EASY STEPS TO COPE UP WITH THE NEW COLLEGE CAMPUS AND TO SUCCEED IN ACADEMICS

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Abstract

Unlike secondary college education, college education expects students to be more pro-active and independent throughout the learning process. They are expected to take their own notes, search for information, undertake group projects, participate in class discussion, give oral presentations, etc. They also need to schedule their timetable and decide on their electives. To those students who have been brought up in a culture where emphasis is on teaching and examinations, these new demands will cause them serious problems if they have not been successful in formulating an independent approach to studying in their college. Childs and Spencer (2002) found in their study that the change in study approach in college caused six kinds of student concerns. These concerns were: "losing direction; not maintaining the motivation; not knowing if you are doing enough work generally or doing it as efficiently as possible; lack of confidence; not being able to take relevant and thorough enough notes which are useful for revision; and less time to ask questions and have them answered"(p.6). In particular, they found that quite a number of students had difficulties in handling the workload. This paper makes an attempt to reveal many easy steps to cope up with the new college campus and to succeed in academics. The scenario of both Indian and abroad universities is taken into consideration in this paper.

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ENGLISH – AN ESSENTIAL LANGUAGE FOR ALL ENGINEERING STUDENTS

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Abstract

Inspite of the fact that we are in a 21st century situation, our Indian engineering graduates are experiencing the issues of having languid relational abilities (LSRW). The measurable examination demonstrates that 47.6 rate of our students are unfit to communicate in English according to the National Employability Report of 2015 (NER) and National Communicated In English review of 2015 (NSES). The study accounted from the broad communications correspondence. The review led by "Yearning Minds an employability assessment and accreditation organization" considered just about 30,000 students crosswise over 500 engineering schools in the nation. As per the outcomes, engineering graduates demonstrate bigger hole in components of communicating in English, elocution and familiarity. Just 6.8 rates of Engineering graduates had the capacity to talk or react suddenly. In cosmopolitan urban areas of Delhi, Mumbai, Pune and Bangalore, the students do better in communicating in English. Hyderabad and Chennai students require most extreme change of relational abilities (LSRW). This paper assesses and tosses light on the impediments of relational abilities of engineering graduate students.

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IMAGES OF WOMEN IN INDIAN LITERATURE

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Abstract

Women and literature are closely related to each other because it requires a lot of artistic creativity to be good at literature and women are too good when it comes to artistic creativity. Women novelists from India are the one to add a new dimension to the English literature of India. Obviously, the current Indian English literature is due to the effort of many prolific writers. At the time, when novels were not so popular in the world of literature, women writers in India used to create lyrics for songs, write short stories, and small plays too. Profound literary personalities believe that women writers were the one who supported the old tradition of narrating tales in India. In between the 19th century, more women became English writers, and as the time went on, women writers were able to inculcate the emotions of ladies in their writings. This had a great impact on the language patterns of Indian literature. Women writers introduced new styles in Indian writing, and such novels have become very popular among the Indian readers these days.

Key Words: English, equal, history, India, images, literature, popular, women, writers

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VIJAYAWADA, A.P

Abstract

English may not be the most spoken language in the world, but it is the official language in a large number of countries. It is estimated that the number of people in the world who use English to communicate on a regular basis is 2 billion! English is the dominant business language and it has become almost a necessity for people to speak English if they are to enter a global workforce. Research from all over the world shows that cross-border business communication is most often conducted in English. Its importance in the global market place therefore cannot be under-stated. *The four skills (Listening, Speaking, Reading and Writing) are necessary for all the people living on the earth*. Learning English will really change one's life. Many of the world's top films, books and music are published and produced in English. Therefore by learning English one will have access to a great wealth of

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'Distance Education System' -- A Boon to Learners

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Abstract

In this fast growing world, it is very difficult to assume that anyone would be able to live without communication technologies (radios, televisions, telephones, and the latest forms of communication such as computers and cell phones). Educational systems are changing at great speed and the technology is changing rapidly. Older technology is replaced by new technological phenomena and the new ones are being adopted and these are affecting the educational systems. In many countries, many university systems have adopted distance education to solve their educational dilemmas. Although sometimes considered to be the poorer cousin of regular college programmes, distance learning comes as a blessing to students who want to study further while continuing with jobs or who might not be able to attend a full-time course for various reasons. The most frequent query from students is related to the confusion over the value of a distance learning programme. The answer to this totally depends on the student. Some students can make the most out of a distance learning programme, but there are also others who are not comfortable with this pattern. What higher education systems can do for their societies are to improve and to reinforce the present

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Satire on Politics and Government: A study on Post Independent situation in the Novel of Shrilal Shukla's *Raag Darbari*

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Abstract:

Mastering satire is the Holy Grail for a writer. It is not difficult to keep a reader silent by depicting a suspense thriller or make him shout suddenly with huge sound. But it is not impossible to make him laugh from page to page by thinking seriously about the future of the country. Srilal Shukla's book Raag Darbari does exactly what the reader needs of the hour. Written in 1960s, it gives an account of India that nearly every person who has ever been to a village can still identify to. His impeccable take on Village politics and satirical way of saying things directly strikes into the heart of the reader. The present article, ***"Satire on Politics and Government: A Study on Post Independent Era in Shrilal Shukla's novel Raag Darbari"*** *throws light on how the writer used satire as a weapon to make the reader to think in a correct way. Each line in the novel is filled with wit and aphorism. Humour is so subtly woven in the fabric of the story that keeps the reader chuckling throughout the reading at the imagination of the author. The main purpose of the paper is to observe how the writer adopts satire to portray various problems prevailed in post independent era. He also exposes the gap that falls in between the represented and the real. Politics and Government are the most important theme in the novel where the author tries to evaluate the gap that falls between what is a representation and reality through satire. the difference in perception is that the satire is as a tool used in the novel which critique politics and government relieving the reader from dire consequences of reality.*

Key words: Politics, reality, satire, village, government, novel, prevail and reader.

This paper is an attempt to study the purpose of Satire that Srilal Shukla adopts to critique the notion of politics and government in his novel *Raag Darbari* which portrays a village in Uttar Pradesh surviving in the post-independent era to expose the gap that falls in between the represented and the real. Although Srilal Shukla tries to treat the novel in the Realist novel realm yet he does it through satire rather than scathing horrific imagery. However, satire leaves the reader with a more inconsolable pessimism than an implicit optimism that is found even in the most desperate, desolate realist writings. Politics and Government are also the most important themes of Shrilal Shukla's Raag Darbari. The Novelist tries to evaluate the gap that falls between what is a representation and reality through satire. the tradition of satire and self-mockery is carried further in novels that depict the disillusionment the citizen experienced in the post-colonial state, most evocative in Shrilal Shukla's novel of post-Independent despair, Raag Darbari. The use of satire strikes a bitterly mocking tone, yet the humour assuages, lifts the narrative from being a work of utter desolation to one the reader can understand, mourn and yet laugh while thinking.

The narrator of *Raag Darbari* too

introduces his reader to the realism of the novel but infused it with a self-mocking satire, when he describes Shivpalganj- a fictional village in Uttar Pradesh, in the first chapter by stating that:

> At first sight it was clear that the shops were too numerous to count. Nearly all of them offered one of the favorite drinks of the Indian masses, which was prepared from dust, dirt, tea leaves which had already been used several times, boiling water and so forth. The shops also stocked sweets which battled valiantly day and night against the onslaught of rain, dust- storms, flies and mosquitoes… we're still the people in the world who can rubbish into the tastiest of snacks" (1)

Srilal Shukla was perhaps doing the same in his novel by presenting the rubbish that existed around and turning it into a sweet in the form of his novel but conscientiously also would warn the consumer (in this case the reader) of its ingredients. This reminds one of the classic nineteenth century French fictions which had similar settings of "lower middle-class life: small- town tedium, frustrated youths, couple incapable of communicating with each other, the impossible gulfs between aspiration and reality" (Orsini 88). His novel is perhaps a more of a response to the realism of the notion that Partha Chatterjee supported, when the latter wrote:

> Nationalism sought to demonstrate the falsity of the colonial claim that The backward peoples were culturally incapable of ruling themselves in the conditions of the modern world. Nationalism denied the alleged inferiority of the colonised people; it also asserted that a backward nation could 'modernise' itself while retaining its cultural identity. It thus produced a discourse in which, even as it challenged the colonial claim to political dominion, it also accepted the very intellectual premise of 'modernity' on which colonial domination was based. (105)

The above quoted passage does not say anything which is untrue of the anti-colonial nationalism of the Indian subcontinent but at the same time fails to represent all sections of the Indian population. Srilal Shukla is successful in showing his readers the sharp wedge that exists in urban and rural India, when he sketches the character of Rangnath, who has done his M.A. from the town come to his uncle's village Shivpalganj to recover from an illness. However, Shivpalganj does not resemble the pastoral setting of a village that Rangnath may have hoped for, instead it is a town infested with its own illnesses of nepotism, factionalism and corruption of every kind. Srilal Shukla uses a simile of a "pure lotus" (2) implicitly comparing Shivpalganj to dirty mud (kicchad in hindi), describing, "so Rangnath stood head to toe, a vision of white khadi cotton, the homespun cloth popularised by Mahatma Gandhi. He wore a khadi cap, shirt and pajamas, and over his

shoulders hung a bag of the kind used by the Gandhian 'land gift' movement" (2). Here it is relevant to understand how Guha's essay On Some Aspects of the Histiography of Colonial India talks about the contemporary Indian anti-colonial Nationalism function on the hierarchical binary by which the Indian elite subject the subaltern classes to their whims. In Raag Darbari however, it is not the urban elite who subjugate the poor or the subaltern broadly speaking, but the elite are the corrupt, power menacing people in the bureaucracy who make befool the villagers who are no simpletons. According to the author the localities are like courtiers who are tuned to the 'Raag' or tune of the head or the "latter-day local Raja" (v) who is none other than the court politician and a vaidya (a local doctor) by profession, the author makes an ironical remark by saying that "One of Vaidyaji's professions was ayurveda. …In his practice of ayurvedic medicine he had two special formulae: 'free treatment for the poor' and 'money back if not satisfied.' Leaving aside whatever relief these formulae brought to the people, they didn't leave Vaidyaji lacking any comfort" (29).Vaidyaji plays a very vital role in the politics of Shivpalganj as he sees to that the monopoly of the dominant castes such as Brahmins and Thakurs are maintained. His profession and name also ironical because despite being a doctor and an active politician, he is unable to cure the diseases of corruption and filth of discrimination from his village instead he is one of the perpetrators. For example, in chapter four, Vaidyaji is introduced to Rangnath by Rupan Babu who is Vaidyaji's son and also the local goon. He speaks of his father as a man of all professions and definitely someone who is in an effectual power position. "In a very business- like fashion Ruppan said, "Father is a college manager. The appointment of masters is in his hands" (28) and a little later he also says that "He was, is and will remain the Managing Director… during the British Raj he had revered the British. In the days of the Indian government he had begun to revere Indian rulers. He was an old servant of the nation" (28). These lines do not reflect very well of the administrator, politician, doctor and generally a man of all trades- Vaidyaji. This is the function of Satire that the author has brought to full 'Politics of Ulti Batein' by Ulka Anjaria. She says:

> This ulta logic presents effects before or as causes, appearances before or as essences and results before or as essences and results before or as intentions. The effect of the inversions in the descriptive logic of the novel is to produce a disjuncture between "common sense" read: realist) assumptions about the way the state works and the experience of the state from a perspective of those on the receiving end of its programmes, from where the whole thing looks significantly different. (4798)

In order to contextualize the above quotation, let us take examples from the novel, where in one place the author describes the state of the community centre of Shivpalganj, saying,

> "On three sides of it a thatched roof had been raised on mud walls to make stables… Near the stables a

modern-style building had been constructed, on which was written 'Community Centre, Shivpalganj'" (14).

The condition of the village's intermediate college was no better as there was no infrastructure for emanating good education to the students of the village. They thought of themselves only to be slightly advanced than Tagore's university at Shantiniketan. They had heard of western education and its benefits but that too they had learnt it in "an Indian tradition" (14) they were oblivious of electricity, tap water or a well made (Pucca) non-mud floor, yet on the other hand Srilal Shukla uses the logic of 'Ulti Baatein' when he describes the house of Vaidyaji in the fourth chapter stating: Its front portion was of brick and quite impressive by rural standards. At the back the walls were made of mud and there was a suspicion that behind that was a heap of rubbish. The sort of'symbolic' modernization exemplified by India's gleaming airports and glittering five-star hotels had even had an effect on the architecture of his house- which only goes to prove that from Delhi to Shivpalganj the Indian creative genius is more or less the same. (26)

Hence, on one hand the power holder and gambler hoards money and comfort for himself whereas the village is neglected completely. This also aims at uninhibitedly narrating the failure of the Nehruvian ideals of modernised states in his five years plan which encouraged industrialization and modernisation of each district of India. It is true that some of these got realised but they were only restricted to the urban sectors of India. Most of these got lost in the translating the plans and the funds from paper to the real thing at the hands of the middle men, corrupt politicians and inactive, dishonest administrators. The novel is a commentary on such a failure, a gap that falls in between the representational which is on the paper and the real that, which never is realised. In such a situation the nationalism that was given birth to in the anti-colonial struggle is shredded into innumerable fragments, reduced to emblems such as Gandhian khadi, bag or cap. Sudipta Kaviraj in his essay says that, "Modern Nationalism commonly arises out of an aspiration to control the forces of modernity, and therefore is affiliated to the rise and growth of gesellschaft organizations. If modern nationalism is seen to be affiliated to these processes of transformation of social forms, this produces a paradox" (21). This is evident in the plot of the novel where every individual is concerned of his personal profit and the sense of community is muddled up. Shrilal Shukla mocks every political and administrative aspect of the village and its administrators. He attacks with his sarcasm the inadequacy of knowledge of Vaidyaji as he dips his finger in every pie. The mockery of the education system is blatantly done. If education is the way forward and the road to the desired modernity, then ironically it remains the most deprived. The funniest episodes are the ones which depict people bewildered by the new, complicated and corrupt British legal system. The hindi novel was published in 1968, which was marking four years after the death of Pandit Nehru but

with his death, dies ideal nationalism as well.

This is being said of Rangnath. If he is seen as the symbol of an optimistic future that may resolve or get rid of the factionalism and its breed of sycophants and cronies of Shivpalganj, but this does not take place as the college principle addresses Rangnath in one of the closing lines of the novel, saying, "Babu Rangnath, your ideas are very elevated. But all in all, they prove that you're a fool" (343). Here, being a "fool" does not correspond to being insipid but being a romantic and idealist. The novel leaves us with two stark images, one that of the uninhibited consumption of 'Bhaang' amongst the men folk of the village and the other is the notion of 'impotency'. The author comically addresses the dawn of the era of a new disease which is impotency. He writes, "the age of soft dispositions, office chairs, comfortable living, round the clock food and drink and light work, is gradually infecting the population, and piles, the symbol of modernity, is entering the field to combat the ubiquitous curse of impotency" (58-59). Obviously Shukla was referring to the metaphorical meaning of impotency, in which one looses one's will to act against the corrupt. Rangnath too is to be understood in the same context, he is no different from the inhabitants of the place. Similarly, 'Bhaang' has the same effect on the people of Shivpalganj, who escape their drudgeries through artificial means. They recognise the fact that unlike Rangnath who would choose to return to the town or the city, they would have to live in the same old Shivpalganj. The satire that Shrilal Shukla throws back us does not resound with hope; instead it is immersed into deep, chaotic and desolating cynicism and pessimism which is cyclic and never ending.

References:

1. Shukla, Shrilal. Raag Darbari. Trans. Gillian Wright. New Delhi: Penguin Books India, 1992.
2. Anjaria, Ulka. Rev. Satire, Literary Realism and the Indian State: Six Acres and a Third and Raag Darbari Chha Mana Atha Guntha (Six Acres and a Third) by Fakir Mohan Senapati in Economic and Political Weekly.
3. Kaviraj, Sudipta. "The Imaginary Institution of India" in Subaltern Studies Reader. Vol. VII. Print.
4. Kaviraj, Sudipta. The Unhappy Consciousness: Bamkinchandra Chattopadyaya and the Formation of Nationalist Discourse in India. New Delhi: OUP, 1995.
5. Mukherjee, Meenakshi. Narrating a Nation in Indian Literature, Vol. 35, No.4 (150) (July-August, 1992), pp. 138-149.
6. Orsini, Francesca. India in the Mirror of World Fiction. New Left Review 13 Jan Feb 2002.

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Need of LSRW Skills for the Students of Science and Technology

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Abstract

English may not be the most spoken language in the world, but it is the official language in a large number of countries. It is estimated that the number of people in the world who use English to communicate on a regular basis is 2 billion! English is the dominant business language and it has become almost a necessity for people to speak English if they are to enter a global workforce. Research from all over the world shows that cross-border business communication is most often conducted in English. Its importance in the global market place therefore cannot be under-stated. *The four skills (Listening, Speaking, Reading and Writing) are necessary for all the people living on the earth*. Learning English will really change one's life. Many of the world's top films, books and music are published and produced in English. Therefore by learning English one will have access to a great wealth of

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EASY STEPS TO COPE UP WITH THE NEW COLLEGE CAMPUS AND TO SUCCEED IN ACADEMICS

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Abstract

Unlike secondary college education, college education expects students to be more pro-active and independent throughout the learning process. They are expected to take their own notes, search for information, undertake group projects, participate in class discussion, give oral presentations, etc. They also need to schedule their timetable and decide on their electives. To those students who have been brought up in a culture where emphasis is on teaching and examinations, these new demands will cause them serious problems if they have not been successful in formulating an independent approach to studying in their college. Childs and Spencer (2002) found in their study that the change in study approach in college caused six kinds of student concerns. These concerns were: "losing direction; not maintaining the motivation; not knowing if you are doing enough work generally or doing it as efficiently as possible; lack of confidence; not being able to take relevant and thorough enough notes which are useful for revision; and less time to ask questions and have them answered"(p.6). In particular, they found that quite a number of students had difficulties in handling the workload. This paper makes an attempt to reveal many easy steps to cope up with the new college campus and to succeed in academics. The scenario of both Indian and abroad universities is taken into consideration in this paper.

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ENGLISH – AN ESSENTIAL LANGUAGE FOR ALL ENGINEERING STUDENTS

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Abstract

Inspite of the fact that we are in a 21st century situation, our Indian engineering graduates are experiencing the issues of having languid relational abilities (LSRW). The measurable examination demonstrates that 47.6 rate of our students are unfit to communicate in English according to the National Employability Report of 2015 (NER) and National Communicated In English review of 2015 (NSES). The study accounted from the broad communications correspondence. The review led by "Yearning Minds an employability assessment and accreditation organization" considered just about 30,000 students crosswise over 500 engineering schools in the nation. As per the outcomes, engineering graduates demonstrate bigger hole in components of communicating in English, elocution and familiarity. Just 6.8 rates of Engineering graduates had the capacity to talk or react suddenly. In cosmopolitan urban areas of Delhi, Mumbai, Pune and Bangalore, the students do better in communicating in English. Hyderabad and Chennai students require most extreme change of relational abilities (LSRW). This paper assesses and tosses light on the impediments of relational abilities of engineering graduate students.

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The Essential of English Language learning context for Engineering graduates

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Abstract: **- The aim this paper is to make the students speak in English without any hesitation. Particularly, the slow learners at the engineering college level are not trained to get to the placements. The needy of English language skills emerged for engineering graduates to meet the global arena. But in the present scenario, they lacked in the communication skills due to the lack of practice, lack of structural grammar usage and the mother tongue influence which plays a vital role as an obstacle in the communication. The AICTE (All India Council for Technical Education) also felt the importance of English in Technical education and has designed the English syllabus for engineering students to enhance the four skills (LSRW) in English. The main objective is, to develop the four skills and to enhance students' performance at placement interviews, Group Discussions, technical paper presentation etc. The view of the expert bodies throws light on the changing paradigms of English in the curriculum of schools and colleges. The University Education Commission (1948) stressed the need to learn English to keep in touch with the stream of knowledge.**

Index Terms: Communication skills, grammar, presentation skills.

INTRODUCTION

English language is an essential for engineering students to communicate effectively. It is a medium through which an individual expresses his / her thoughts and ideas. In present scenario English has become the medium of communication nationally as well as internationally. F.G French observes that it is only through this language that we have, "distilled essence of modern knowledge in all the fields of human activity. Anyone who knows English can keep in touch with the whole world without leaving his /her house." Indian education allows engineering colleges, deemed technical universities and self financing engineering colleges top cater to the technical need of the world. English language is predominantly establishing its supremacy in the field of education. The structure of English language is very different from that of Indian languages.

There are, in general, four language skills, each based upon the modality of emphasis. These are the Listening, Speaking, Reading, and Writing skills. Generally speaking, it is emphasized that we first teach listening, then speaking, then reading and writing. However, in real life situations of language communication, these skills are interdependent in many ways, even though they can be taught independently to some extent.

The Teaching of Listening

According to Vandergrift (1999), listening comprehension is a complex process in which listeners play an active role in discriminating between sounds, understanding vocabulary and grammatical structures, interpreting intonation and stress, and finally, making use of all the skills mentioned above, interpreting the utterance within the socio - cultural context.

Brown (2006) suggests that systematically presenting (1) listening for main ideas, (2) listening for details, and (3) listening and making inferences helps students develop a sense of why they listen and which skill to use to listen better. He also asserts that like reading lessons, in a typical listening lesson there are "pre" activities, "while" activities, and "post" activities interest.

Brown (2006) suggests that a pre -listening task should consist of two parts. Students should be provided with an opportunity to learn new vocabulary or sentence structures used in the listening material and a chance to activate their prior knowledge. Some suggested pre - listening activities are listed as follows.

Pre - listening activities

- Looking at a list of items before listening.
- Reading the text before listening.
- Reading through comprehension checks, questions or completion activities.
- Predicting/speculating — useful with high achievers.
- Previewing new words. (Less than 10 words)
- Using advance organizers - pictures, charts, films or comprehension questions.
- 7. Give a clear and definite purpose for listening each time.

  (A) Listen for main ideas.
  (B) Listen for details.
  (C) Listen and make inferences.

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A Novel on Personal Health Record in Cloud by using MA-ABE

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Abstract: Cloud computing, is an emerging computing environment which allows users to remotely store the data in one centralized place. This facilitates on demand scalable services as well as efficient management and sharing of data. However, there have been wide privacy concerns as data is outsourced to third party servers and to unauthorized users. The best way to ensure confidentiality of the data in the cloud is to utilize encryption/decryption for data in transit and data at rest. Data encryption/decryption technique can be applied on both coarse grained level and fine grained level but in both techniques it is required to give another party your private key. Hence Key management becomes a critical issue and the cloud provider require policies and procedures in place for storage, generation and archival of private keys. To achieve scalability in key management, flexible access and efficient user revocation an attribute based encryption (ABE) technique has been recently popularized. Using ABE records are encrypted at fine-grained level instead of coarse grain level which helps in scalable data access control. The paper discusses the use of cloud computing and cryptographic techniques i.e. (ABE) for Personal health record (PHR).PHR is an upcoming patient-centric model for storing patients' e-record in one centralized place. It allows patients to create, manage, control and share their health information with other users as well as health care providers. In additional it allows patients to provide Read/Write access based on users attribute.

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.**Keywords:** Attribute based encryption, cloud computing, MA-ABE, Personal Health Record.

I. INTRODUCTION

One of the biggest advantages of cloud computing is that users can access data stored in the cloud anytime and anywhere using any device. Considering these merits of cloud computing an idea of PHR model is put forth. Personal health record (PHR) is an upcoming patient-centric model for storing patient's e-record in one centralized place. It allows patients to create, manage, control and share their health information with other users as well as health care providers. The other long term benefits are easy management of personal health information, freedom of sharing only relevant information with authorized care providers and lastly to maximize health benefits. For better usage patient can upload health measurements directly from their devices or can also import their health records from hospital EHR System. Considering the value of sensitive PHI and as cloud services do not come under covered entities[1], there exist health care regulations such as HIPAA [2] which is recently amended to incorporate business associates rules. Current date leading third party service providers are Microsoft HealthVault1, Google Health or Web MD. To ensure patient-centric privacy control over their own PHRs, it is essential to have fine-grained data access control mechanisms that work with semi-trusted servers' .A best suited approach would be to encrypt the data before outsourcing. A PHR should only be available to set of users with the alternative decryption key while it should not be exposed to rest of the users. The patient shall retain the rights to grant as well as revoke the access rights [3].The users can be further categorized as Personal and Professional. Personal include family members and friends while Professional cover the large scope like medical doctors, pharmacists, and researchers, etc. Professional category requires potentially large scale key management if done by single authority. To avoid this problem a PHR system with multiple owners is put forth [4],[5]. They may encrypt according to their own ways, possibly using different sets of cryptographic keys. The paper focuses on patient centric and secure sharing of PHR records with multi-owner environment on a semi trusted server and try to minimize the complexity of key management.

II. RELATED WORK

A. Existing System

Personal health record (PHR) is an emerging patient-centric model of health information exchange, which is often outsourced to be stored at a third party, such as cloud providers. However, there have been wide privacy concerns as personal health information could be exposed to those third party servers and to unauthorized parties. To assure the patients' control over access to their own PHRs, it is a promising method to encrypt the PHRs before outsourcing. Yet, issues such as risks of privacy exposure, scalability[6] in key management, flexible access, and efficient user revocation, have remained the most important challenges toward achieving fine-grained, cryptographically[7] enforced data access control.

B. Proposed System

In this paper, we propose a novel patient-centric framework and a suite of mechanisms for data access control to PHRs

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An Identity Based Encryption (IBE) Technique for Secured Patient Healthcare Mobile Monitoring in Cloud Computing

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Abstract:
Cloud Computing has appeared as one of the trends in the latest epoch of computing and storage. This hoist has led the developers and programmers to embrace this technology in their products. Ample spread usage of mobile devices like mobile phones, tablets etc has given this growth a heavy boost. The cloud server respects the privacy of a patient and keeps it secured by protecting the medical history of the patient. This paper addresses the design of a cloud assisted privacy preserving mobile health monitoring system to protect the privacy of the involved parties and their data. The main objective of the proposed system is preserving the privacy of the information ensuring that this information cannot be misused. The patient's report will reach the doctor in encrypted format, while a master key helps to deliver the report to the doctor in decrypted format. Then the doctor's prescription will reach the patient in encrypted format by using the Outsourcing Decryption Technique while a master key helps to deliver the prescription to the patient in decrypted format. Finally, our security and performance analysis demonstrates the effectiveness of our proposed design.

Keywords: Patient Healthcare Monitoring; Decryption; Cloud Computing; m Health

1. INTRODUCTION

Wide spread usage of mobile devices, such as smart-phones equipped with low cost sensors, has already shown great potential in improving the quality of health-care services. Remote mobile health monitoring has already been recognized as not only a potential, but also a successful example of mobile health (mHealth) applications although cloud-assisted mHealth monitoring could offer a great opportunity to improve the quality of health-care services and Potentially reduce healthcare costs. Without properly addressing the data management in an mHealth system, client's privacy may be severely breached during the collection, storage, diagnosis, communications and computing the current law is more focused on protection against adversarial intrusions while there is little effort on protecting clients from business collecting private information. Meanwhile, many companies have significant commercial interests in collecting clients" private health data and sharing them with either insurance companies, research institutions or even the government agencies. Traditional privacy protection mechanisms by simply removing clients" personal identity information (such as names or SSN) or by using anonymization technique fails to serve as an effective way in dealing with privacy of mHealth systems due to the increasing amount and diversity of personal identifiable information personal identifiable information (PII) is "any information, recorded or otherwise, relating to an identifiable individual.

Cloud Assisted Mobile Health Monitoring System.

This system consists of following four parties:

1) Cloud server: simply called as server

2) Company: the company provides mobile health monitoring service also called as the healthcare service provider

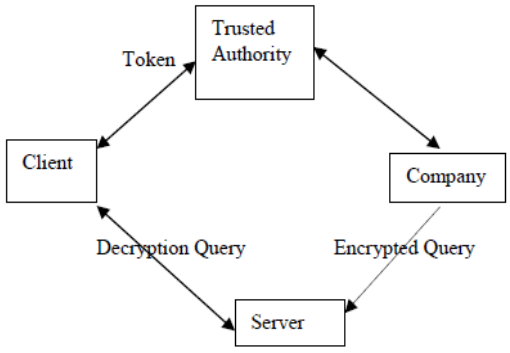

Fig. 1 Architecture

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Design and Analysis of Mergable Flipflops for Carry Look Ahead Adder

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Abstract: The consumption of power has become animportant issue in modern VLSI design. PowerConsumption can be reduced by replacing some flip-flopswith fewer multi-bit flip-flops. Multi-bit flip-flop is one ofthe methods for clock power consumption reduction. Thiswork presents on reduction of power using multi-bit flip-flops by clock synchronization. Two single bit flip-flops aresynchronized with one clock pulse or clock edge whichreduces power consumption. Merging single bit flip-flopsinto one multi-bit flip-flop avoids duplicate inverters, lowersthe total clock power consumption and reduces the totalarea. A combination table which can store the flip-flops thatcan be merged to obtain a multi-bit flip-flop. In this workfocuses on D flip-flop which increases the loading of theclock signal. The QCL adder is used as an application for multibitflip-flop. Highest '1' bit finding algorithm is used to findthe highest 1 bit from the output of QCL adder. TheAlgorithm checks the output of QCL adder in each cycle.

Keywords: Flip-Flop, Latch, Clock Buffer, Clock Network Single Bit Flip Flop, Multi Bit Flip Flop, Carry Look Ahead Adder.

I. INTRODUCTION

Power has become a burning issue in modern VLSI Design. The power Consumed by clocking gradually takes a dominant part. In this design, to reduce its power consumption byreplacing some flip-flops with fewer multi-bit flip-flops. However, one of these procedures may affect the original circuit of performance. Hence, replacement of flip-flop without timing and placement capacity constraints violation becomes a quite complex problem to deal withthe difficulty efficiently and we have several techniques. First, it can be perform a co-ordinate transformation to identify those flip- flops that can bemerged and their legal regions. Besides, we can see how tobuild a combination table to enumerate possiblecombinations of flip-flops provided by a library. Finally,we use a hierarchical way to merge flip-flops. Besidespower reduction, the main objective is minimizing the totalwire length is also considered. The number of elements used in the design has also been increased and are proved in present application that as audio and video decoder.

II.MULTIBIT FLIP-FLOP CONCEPT

In this multi-bit flip-flop concept. Before that, we will review single-bit flip flop. The below shows an example of single-bitFlip-flop. A SBFF has two latches(Master latch and slave latch). The latches are need"Clk" and "Clk' " signal to perform operations, Such as Figure1 shows. Ithas betterdelay from Clk-> Q; it will regenerate "Clk" from"Clk' ". It has two inverters in theClock path. The fig2 shows an example of merging two 1-bitFlip-flops into one 2-bit flip-flop. Each 1-bit flip-flop Contains two inverters, master and slave latch.According to the manufacturing rules, inverters inflip-flops tend to be oversized. The process of technology advances into smaller geometry nodes mergingsingle-bit flip-flops into one multi-bit flip-flop canavoid duplicate inverters, and lower the total clockdynamic power consumption. The total areacontributing to flip-flops can be reduced.

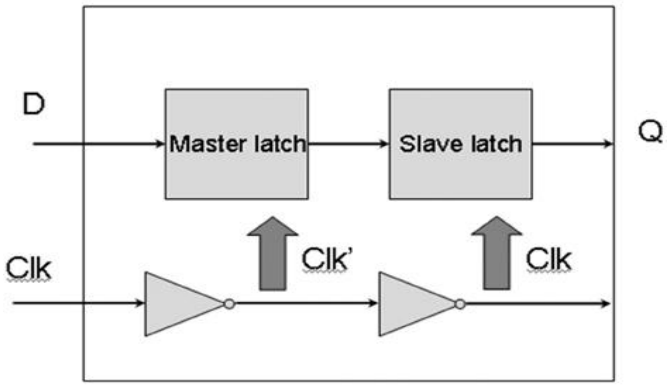

Fig1. Single-Bit Flip-Flop.

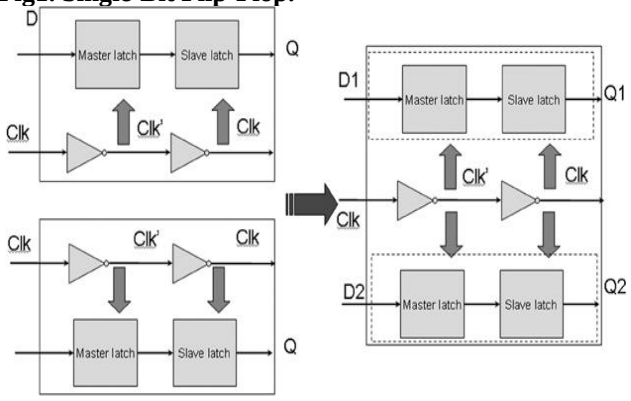

Fig2. Merging two 1-bit flip-flops into one 2-bit flip-flop.

Design and implementation of efficient low complexity biomedical artifact canceller for nano devices

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Abstract

In the current day scenario, with the rapid development of communication technology remote health care monitoring becomes as an intense research area. In remote health care monitoring, the primary aim is to facilitate the doctor with high resolution biomedical data. In order to cancel various artifacts in clinical environment in this paper we propose some efficient adaptive noise cancellation techniques. To obtain low computational complexity we combine clipping the data or error with Least Mean Square (LMS) algorithm. This results sign regressor LMS (SRLMS), sign LMS (SLMS) and sign LMS (SSLMS) algorithms. Using these algorithms, we design Very-large-scale integration (VLSI) architectures of various Biomedical Noise Cancellers (BNCs). In addition, the filtering capabilities of the proposed implementations are measured using real biomedical signals. Among the various BNCs tested, SRLMS based BNC is found to be better with reference to convergence speed, filtering capability and computational complexity. The main advantage of this technique is it needs only one multiplication to compute next weight. In this manner SRLMS based BNC is independent of filter length with reference to its computations. Whereas, the average signal to noise ratio achieved in the noise cancellation experiments are recorded as 7.1059dBs, 7.1776dBs, 6.2795dBs and 5.8847dBs for various BNCs based on LMS, SRLMS, SLMS and SSSLMS algorithms respectively.

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Through put improvement Techniques for Routing Protocols in Manets

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ABSTRACT
In recent years many efforts have been made on routing the data in mobile ad hoc networks efficiently. Subsequently, several specialists have provided distinct routing protocol for ad hoc networks, especially routing protocols using the concept of multiple paths such as AOMDV. This is on the account of the utilization of multipath routing protocols that has various benefits like load balancing, better energy consumption etc. Various multi path routing protocols are proposed by analysts with aim to minimize the energy utilization in mobile ad hoc networks such as E-AOMDV. The focus of the paper is to throw light on the critical issue of lowering the routing overhead while preserving the energy consumption in mobile ad hoc networks. The paper presents routing scheme where ratio of residual energy of the nodes and distance is taken into account while making multiple paths between source and destination.

Keywords
Mobile ad hoc network, AOMDV, E-AOMDV, multi path routing.

1. INTRODUCTION
In recent years, huge improvements have taken place in the technology used to build digital electronics, Micro-Electro-Mechanical Systems (MEMS) and wireless communications. Hence there is an immediate need for the development of minimal effort, low-force, multi-purpose little sensor nodes that can convey crosswise over short distances. There has been an immense measure of investigation into routing in wireless sensor networks. As communication between nodes is fundamental to most provisions, routing in wireless sensor networks is considered very critical. The basic architecture of MANET consists of nodes that are dynamically self-organized into arbitrary and temporary network topology without any infrastructure support. The advantage of employing MANET is to offer a large degree of freedom at a minimal cost in comparison to other networking solutions. Routing is characterized as the act of moving information from source to destination in a network. The primary objective of routing protocols is to minimize delay, amplify the network throughput, maximize network lifetime and maximize energy efficiency. Determining optimal routing path and internetwork packet transfer are the two basic activities involved in routing. Mobile Ad-Hoc Network is the fast developing engineering from the previous 20 years. The increase in their prevalence is as a result of the ease of deployment, infrastructure less and their dynamic nature. MANETs made another set of requests to be actualized and to give proficient better end-to-end communication.

The basic principle of an multipath routing protocol is to provide for load balancing in the network. The source node broadcasts the route request packets to the destination node in search of optimal path. Upon receiving the route reply the source node selects more than path possible path to the destination. This provides the network with the load balancing. While in single path routing protocol, the nodes in the path tend to get over-utilized over a period of time. Whereas in multiple path scenario that work to route the data to the destination gets distributed on more than path. This also tends to conserve the energy of the nodes. The basic routing protocol in mobile ad hoc network which provides for multiple paths is AOMDV. With an effort to conserve more energy of the network and hence increase its lifetime, energy efficient AOMDV, (E-AOMDV) [5] has also been proposed. This routing protocol takes energy of the nodes into account while forming the multiple paths between the source to destination node.

2. RELATED WORK
Deepti Singh, et al. [9] discussed various challenges are faced in routing in MANETs. Different routing protocols based on flat topology and hierarchical topologies, have been evaluated for better performance of mobile ad-hoc networks, in terms of delay, throughput, load balancing and congestion control. This paper focuses multipath transmission capability and load balancing, to get efficient routing for heavy load traffic. Different issues of multipath routing, like route discovery, energy consumption, load balancing and security issues are discussed in this paper and performance of different multipath routing protocols is compared on the basis of these issues and, Quality of Service parameter is also taken into account.

Bhavna Sharma, et al. [5] proposed a new protocol E-AOMDV. Existing Multipath routing protocol has provided the concept of load balancing but had not considered the energy. The proposed E-AOMDV i.e. Energy Efficient AOMDV have taken both parameters energy and load balancing into consideration. The selection of next hop is depended upon its energy level and load balancing among its neighbors. The load from each node i.e. data sent through selected node is calculated. The performance of proposed E-AOMDV is compared with AOMDV on the basis of different performance metrics like Packet delivery ratio, Average end-to-end latency, Routing packet overhead, and Throughput, using NS-2.31 as simulation environment. The proposed scheme has shown better performance over existing protocol. E- AOMDV helped in distributing the load properly and in reducing energy consumption.

Priyanaka Bansal, et al. [27] proposed a new multipath protocol called Improved AOMDV (IAOMDV), an extension over AOMDV. IAOMDV has provided enhancement in the security by avoiding black hole attacks and DDOS attacks using P.G.P model. For the simulation results NS2 simulator has been used. In the simulation results it has shown that the packet delivery fraction and throughput for the IAOMDV are effective as compared to AOMDV. The routing overhead on case of IAOMDV has been found lesser as compared to

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Recovery of Data in Cluster Computing By Using Fault Tolerant Mechanisms

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Abstract: *Many applications executing on cluster architectures consisting of several number of computers create several problems with reliability. The problems are system crashes, code failures and network problems etc. This paper using Fault tolerant mechanisms to recover the data in cluster computing. The two Rollback Recovery protocols[5] are Theft Induced check pointing protocol (TIC) and systematic event logging protocol TIC protocol is used to recover the information during crash, the information is send to client (receiver) by using SEL protocol. It is proven that the complexity of protocol is very small and the information lost by crashed process is recovered here.*
Section 1: describes the main objectives of TIC&SEL protocols
Section 2: describes the background for grid or cluster computing
Section 3: describes the definition of checkpoints & different types of checkpoints
Section 4: gives the details about work stealing or task stealing of different tasks
Section 5: describes an algorithm, which is mainly used for retrieving information from database server and creates backup of db
Section 6: gives the experimental results
Section 7: gives concluded the different techniques
Keywords: *Cluster computing, rollback, recovery, message logging. Event logging, check pointing, local technique, Forced technique, Global technique*.

I. Introduction

Large Applications executing on cluster architectures several computational nodes, inter connection networks, mass storage with reliability. This paper presents two fault tolerant techniques to overcome the problems with reliability. The two fault tolerant techniques are TIC [10] and SEL [10] protocols we implemented KAAPI (Kernel Adaptive Asynchronous Parallel Interface) by taking 'n' number of clients. This KAAPI [1] environment gives the general relationship between the processors and processes. Each process has its own stack (or) queue. The main objective of TIC protocol is to store the information in periodic time intervals and that information will send to receiver by using SEL protocol. Thus two protocols are introduced in sections 4.1

II. Background

Several Fault tolerant techniques are introduced to overcome the problem of reliability, node failure and the need for dynamic configuration over extensive runtime. The recovery means that it depends on redundancy we have several redundancy principles i.e. information, time and spatial. The information redundancy depends on stable storage method ,the other two redundancies are not suitable for cluster (or) Grid [20] computing.

III. Different Approaches

Based on stable storage we have two approaches

1. Logging based approaches.
2. Check pointing based approaches.

1. Logging based approaches:
In this approach, there is a difficulty with message logging [6] due to time and spatial redundancy.

2. Check pointing based approaches:
In this approach, the state of computations from first check point to last check point (or) last storage is saved.

3.1 Definition of Check point:

A check point is used to save the state of computation from starting point to ending point. It is based on saved states are based on time intervals.

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DYNAMIC ANALYSIS OF MULTI STOREY STEEL STRUCTURES

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Abstract - *In every aspect of human civilization, we needed structures to live in or to get what we need. But it is not only building structures but to build efficient structures so that it can fulfill the main purpose for what it is made for. The action applied to a structure by an earthquake is a ground movement with horizontal and vertical components. The horizontal movement is the most specific feature of earthquake action because of its strength and because structures are generally better designed to resist gravity than horizontal forces. Experience shows that steel structures subjected to earthquakes behave well. Global failures and huge numbers of casualties are mostly associated with structures made from other materials.*

Key Words: Staad pro,Static analysis& Dynamic analysis

1. INTRODUCTION

A building is exposed to a large number of different loads as shown in Fig.2. They can be static or dynamic, come from outside or inside of the building. Simple categorization of them may be based on its direction; vertically or horizontally. Vertical loads also known as gravity loads generally consist of dead loads, live loads, and snow loads. Horizontal, or lateral loads, may occur in the form of wind load, tilt and seismic responses.

This may be explained by some of the specific features of steel structures. Steel structures are generally light in comparison to those constructed using other materials. As earthquake forces are associated with inertia, they are related to the mass of the structure and so reducing the mass inevitably leads to lower seismic design forces. Indeed some steel structures are sufficiently light that seismic design is not critical. This is particularly the case for halls/sheds: they create an envelope around a large volume so their weight per unit surface area is low and wind forces, not seismic forces, generally govern the design. This means that a building designed for gravity and wind loads implicitly provides sufficient resistance to earthquakes. This explains why in past earthquakes such buildings have been observed to perform so much better than those made of heavy materials.

1.1 TYPES OF STRUCTURAL STEEL:

The structural designer is now in a position to select structural steel for a particular application from the following general categories.

a) Carbon steel (IS 2062):

Carbon and manganese are the main strengthening elements. The specified minimum ultimate tensile strength for these varies about 380 to 450 MPa and their specified minimum yield strength from about 230 to 300MPa(IS 800:2007)

b) High –strength carbon steel:

This steel specified for structures such as transmission lines and microwaves towers. The specified ultimate tensile strength, is ranging from about 480-550 MPa, and a minimum yield strength of about 350-400 MPa.

c) Medium-and-high strength micro alloyed steel (IS 85000):

This steel has low carbon content but achieves high strength due to the addition of alloys such as niobium, vanadium, titanium, or boron. The specified ultimate tensile strength, is ranging from about 440-590 MPa, and a minimum yield strength of about 300-450 MPa

d) High –strength quenched and temperature steels (IS 2003):

This steel is heat treated to develop high strength. The specified ultimate tensile strength, is ranging from about 700-950 MPa, and a minimum yield strength of about 550-700 MPa.

1.2 Classification of multi-storey buildings:

The various structural systems can be broadly classified into two main types:

1. Medium-height buildings with shear-type deformation predominant.
2. Multi-storey cantilever structures such as framed tubes, diagonal tubes and braced trusses.

2. LITERATURE REVIEW

V.Varalakshmi: The design and analysis of¬ multistoried G+5 building at Kukatpally, Hyderabad, India. The Study includes design and analysis of columns, beams, footings and slabs by using well known civil engineering software named as STAAD.PRO. Test on safe bearing capacity of soil was obtained.

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Video Surveillance with Background Subtraction

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Abstract:- **Security is a major aspect in today's life. Everywhere in every field we need to be secure or provide security so as to avoid any major losses. Our project is based on security that is used to monitor the moving objects and store the images. Notify the owner about the slight changes by sending a message to the owner on his/her mobile phone. For this we are making use of BACKGROUND SUBTRACTION METHOD. Background subtraction is a widely used approach for detecting moving objects from static cameras. Background subtraction is the process of separating out foreground objects from the background in a sequence of image frames.**

Keywords: **- Background Subtraction Algorithm, Kernel Density Approximation, Support Vector Machine**

I.INTRODUCTION

Normally all working environments need security. Security can be implemented in many ways, sometimes audio, video or by any other means. Video surveillance systems are most common today. Intelligent video surveillance systems deal with the real-time monitoring of persistent and transient objects within a specific environment. This type of video surveillances can be applied not only to various security systems, but also for environmental surveillance. This surveillance can be used for many other purposes like event detection, visual surveillance and robotics. A normal object detection algorithm can be applied for this purpose, but it may be difficult to detect unknown objects with significant changes in colour, shape and texture.

So most surveillance systems use static cameras which make the object detection much more easy .In such cases a background model is trained with data obtained from empty scenes and foreground regions are identified using the dissimilarity between the trained model and new observations. This method is normally used in all static cameras.

Background subtraction is a widely used approach for detecting moving objects from static cameras. Fundamental logic for detecting moving objects from the difference between the current frame and a reference frame, called "background image" and this method is known as FRAME DIFFERENCE METHOD. Challenges are associated with background modelling. Dynamic backgrounds. Gradual illumination changes, sudden illumination changes, Shadows another challenge is that many moving foregrounds can appear simultaneously with the above non-static problems.

Name Background subtraction algorithm CB codebook-based technique in the paper MOG mixture of Gaussians by Stauffer & Grimson (1999) KER and KER.RGB* non-parametric method using Kernels by Elgammal et al. (2000). UNI unimodal background modeling by Horprasert et al.(1999). CCTV cameras are used. There is a need for human to interact for knowing about the changes in the current surveillance systems. It is not a fast secured monitored due to the time delay taken for human interaction. Due to time delay there is a problem in updating of information.

When the background is modeled with probability density functions, background probabilities between features may be inconsistent due to illumination changes in light, foreground objects similar in features to the background and shadows of images. For this purpose we use a Support Vector Machine (SVM) which mitigates the inconsistency and the correlation problem among different features. This algorithm works as three different phases, in first phase multiple features are integrated. In the second phase one dimensional density estimation by KDA is done efficiently and finally SVM classifies foreground/background. These phases are strongly coordinated to improve background subtraction performance.

RELATED WORK

1. Adaptive Background Mixture Model

An Improved Adaptive Background Mixture Model for Real time tracking with Shadow Detection, a new update algorithm for learning adaptive mixture models of background scene for the real-time tracking of moving objects is presented. A method to detect moving shadows using our existing mixture model is proposed. This significantly reduces additional computational burdens. Shadow detection