

# International Journal of Engineering and Advanced Technology

**ISSN : 2249 - 8958**

**Website: [www.ijeat.org](http://www.ijeat.org)**

**Volume-3 Issue-2, December 2013**

**Published by:**

**Blue Eyes Intelligence Engineering and Sciences Publication Pvt. Ltd.**



## **Editor In Chief**

### **Dr. Shiv K Sahu**

Ph.D. (CSE), M.Tech. (IT, Honors), B.Tech. (IT)

Director, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., Bhopal (M.P.), India

### **Dr. Shachi Sahu**

Ph.D. (Chemistry), M.Sc. (Organic Chemistry)

Additional Director, Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., Bhopal (M.P.), India

## **Vice Editor In Chief**

### **Dr. Vahid Nourani**

Professor, Faculty of Civil Engineering, University of Tabriz, Iran

### **Prof.(Dr.) Anuranjan Misra**

Professor & Head, Computer Science & Engineering and Information Technology & Engineering, Noida International University, Noida (U.P.), India

## **Chief Advisory Board**

### **Prof. (Dr.) Hamid Saremi**

Vice Chancellor of Islamic Azad University of Iran, Quchan Branch, Quchan-Iran

### **Dr. Uma Shanker**

Professor & Head, Department of Mathematics, CEC, Bilaspur(C.G.), India

### **Dr. Rama Shanker**

Professor & Head, Department of Statistics, Eritrea Institute of Technology, Asmara, Eritrea

### **Dr. Vinita Kumari**

Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., India

### **Dr. Kapil Kumar Bansal**

Head (Research and Publication), SRM University, Gaziabad (U.P.), India

### **Dr. Deepak Garg**

Professor, Department of Computer Science and Engineering, Thapar University, Patiala (Punjab), India, Senior Member of IEEE, Secretary of IEEE Computer Society (Delhi Section), Life Member of Computer Society of India (CSI), Indian Society of Technical Education (ISTE), Indian Science Congress Association Kolkata.

### **Dr. Vijay Anant Athavale**

Director of SVS Group of Institutions, Mawana, Meerut (U.P.) India/ U.P. Technical University, India

### **Dr. T.C. Manjunath**

Principal & Professor, HKBK College of Engg, Nagawara, Arabic College Road, Bengaluru-560045, Karnataka, India

### **Dr. Kosta Yogeshwar Prasad**

Director, Technical Campus, Marwadi Education Foundation's Group of Institutions, Rajkot-Morbi Highway, Gauridad, Rajkot, Gujarat, India

### **Dr. Dinesh Varshney**

Director of College Development Counseling, Devi Ahilya University, Indore (M.P.), Professor, School of Physics, Devi Ahilya University, Indore (M.P.), and Regional Director, Madhya Pradesh Bhoj (Open) University, Indore (M.P.), India

### **Dr. P. Dananjayan**

Professor, Department of Department of ECE, Pondicherry Engineering College, Pondicherry, India

### **Dr. Sadhana Vishwakarma**

Associate Professor, Department of Engineering Chemistry, Technocrat Institute of Technology, Bhopal(M.P.), India

### **Dr. Kamal Mehta**

Associate Professor, Deptment of Computer Engineering, Institute of Technology, NIRMA University, Ahmedabad (Gujarat), India

### **Dr. CheeFai Tan**

Faculty of Mechanical Engineering, University Technical, Malaysia Melaka, Malaysia

### **Dr. Suresh Babu Perli**

Professor & Head, Department of Electrical and Electronic Engineering, Narasaraopeta Engineering College, Guntur, A.P., India

**Dr. Binod Kumar**

Associate Professor, School of Engineering and Computer Technology, Faculty of Integrative Sciences and Technology, Quest International University, Ipoh, Perak, Malaysia

**Dr. Chiladze George**

Professor, Faculty of Law, Akhaltsikhe State University, Tbilisi University, Georgia

**Dr. Kavita Khare**

Professor, Department of Electronics & Communication Engineering., MANIT, Bhopal (M.P.), INDIA

**Dr. C. Saravanan**

Associate Professor (System Manager) & Head, Computer Center, NIT, Durgapur, W.B. India

**Dr. S. Saravanan**

Professor, Department of Electrical and Electronics Engineering, Muthayamal Engineering College, Resipuram, Tamilnadu, India

**Dr. Amit Kumar Garg**

Professor & Head, Department of Electronics and Communication Engineering, Maharishi Markandeshwar University, Mullana, Ambala (Haryana), India

**Dr. T.C.Manjunath**

Principal & Professor, HKBK College of Engg, Nagawara, Arabic College Road, Bengaluru-560045, Karnataka, India

**Dr. P. Dananjayan**

Professor, Department of Department of ECE, Pondicherry Engineering College, Pondicherry, India

**Dr. Kamal K Mehta**

Associate Professor, Department of Computer Engineering, Institute of Technology, NIRMA University, Ahmedabad (Gujarat), India

**Dr. Rajiv Srivastava**

Director, Department of Computer Science & Engineering, Sagar Institute of Research & Technology, Bhopal (M.P.), India

**Dr. Chakunta Venkata Guru Rao**

Professor, Department of Computer Science & Engineering, SR Engineering College, Ananthasagar, Warangal, Andhra Pradesh, India

**Dr. Anuranjan Misra**

Professor, Department of Computer Science & Engineering, Bhagwant Institute of Technology, NH-24, Jindal Nagar, Ghaziabad, India

**Dr. Robert Brian Smith**

International Development Assistance Consultant, Department of AEC Consultants Pty Ltd, AEC Consultants Pty Ltd, Macquarie Centre, North Ryde, New South Wales, Australia

**Dr. Saber Mohamed Abd-Allah**

Associate Professor, Department of Biochemistry, Shanghai Institute of Biochemistry and Cell Biology, Yue Yang Road, Shanghai, China

**Dr. Himani Sharma**

Professor & Dean, Department of Electronics & Communication Engineering, MLR Institute of Technology, Laxman Reddy Avenue, Dundigal, Hyderabad, India

**Dr. Sahab Singh**

Associate Professor, Department of Management Studies, Dronacharya Group of Institutions, Knowledge Park-III, Greater Noida, India

**Dr. Umesh Kumar**

Principal: Govt Women Poly, Ranchi, India

**Dr. Syed Zaheer Hasan**

Scientist-G Petroleum Research Wing, Gujarat Energy Research and Management Institute, Energy Building, Pandit Deendayal Petroleum University Campus, Raisan, Gandhinagar-382007, Gujarat, India.

**Dr. Jaswant Singh Bhomrah**

Director, Department of Profit Oriented Technique, 1 – B Crystal Gold, Vijalpore Road, Navsari 396445, Gujarat. India

**Technical Advisory Board**

**Dr. Mohd. Husain**

Director. MG Institute of Management & Technology, Banthara, Lucknow (U.P.), India

**Dr. T. Jayanthy**

Principal, Panimalar Institute of Technology, Chennai (TN), India

**Dr. Umesh A.S.**

Director, Technocrats Institute of Technology & Science, Bhopal(M.P.), India

**Dr. B. Kanagasabapathi**

Infosys Labs, Infosys Limited, Center for Advance Modeling and Simulation, Infosys Labs, Infosys Limited, Electronics City, Bangalore, India

**Dr. C.B. Gupta**

Professor, Department of Mathematics, Birla Institute of Technology & Sciences, Pilani (Rajasthan), India

**Dr. Sunandan Bhunia**

Associate Professor & Head,, Dept. of Electronics & Communication Engineering, Haldia Institute of Technology, Haldia, West Bengal, India

**Dr. Jaydeb Bhaumik**

Associate Professor, Dept. of Electronics & Communication Engineering, Haldia Institute of Technology, Haldia, West Bengal, India

**Dr. Rajesh Das**

Associate Professor, School of Applied Sciences, Haldia Institute of Technology, Haldia, West Bengal, India

**Dr. Mrutyunjaya Panda**

Professor & Head, Department of EEE, Gandhi Institute for Technological Development, Bhubaneswar, Odisha, India

**Dr. Mohd. Nazri Ismail**

Associate Professor, Department of System and Networking, University of Kuala (UniKL), Kuala Lumpur, Malaysia

**Dr. Haw Su Cheng**

Faculty of Information Technology, Multimedia University (MMU), Jalan Multimedia, 63100 Cyberjaya

**Dr. Hossein Rajabalipour Cheshmehgaz**

Industrial Modeling and Computing Department, Faculty of Computer Science and Information Systems, Universiti Teknologi Malaysia (UTM) 81310, Skudai, Malaysia

**Dr. Sudhinder Singh Chowhan**

Associate Professor, Institute of Management and Computer Science, NIMS University, Jaipur (Rajasthan), India

**Dr. Neeta Sharma**

Professor & Head, Department of Communication Skills, Technocrat Institute of Technology, Bhopal(M.P.), India

**Dr. Ashish Rastogi**

Associate Professor, Department of CSIT, Guru Ghansi Das University, Bilaspur (C.G.), India

**Dr. Santosh Kumar Nanda**

Professor, Department of Computer Science and Engineering, Eastern Academy of Science and Technology (EAST), Khurda (Orisa), India

**Dr. Hai Shanker Hota**

Associate Professor, Department of CSIT, Guru Ghansi Das University, Bilaspur (C.G.), India

**Dr. Sunil Kumar Singla**

Professor, Department of Electrical and Instrumentation Engineering, Thapar University, Patiala (Punjab), India

**Dr. A. K. Verma**

Professor, Department of Computer Science and Engineering, Thapar University, Patiala (Punjab), India

**Dr. Durgesh Mishra**

Chairman, IEEE Computer Society Chapter Bombay Section, Chairman IEEE MP Subsection, Professor & Dean (R&D), Acropolis Institute of Technology, Indore (M.P.), India

**Dr. Xiaoguang Yue**

Associate Professor, College of Computer and Information, Southwest Forestry University, Kunming (Yunnan), China

**Dr. Veronica Mc Gowan**

Associate Professor, Department of Computer and Business Information Systems, Delaware Valley College, Doylestown, PA, Allman China

**Dr. Mohd. Ali Hussain**

Professor, Department of Computer Science and Engineering, Sri Sai Madhavi Institute of Science & Technology, Rajahmundry (A.P.), India

**Dr. Mohd. Nazri Ismail**

Professor, System and Networking Department, Jalan Sultan Ismail, Kaula Lumpur, MALAYSIA

**Dr. Sunil Mishra**

Associate Professor, Department of Communication Skills (English), Dronacharya College of Engineering, Farrukhnagar, Gurgaon (Haryana), India

**Dr. Labib Francis Gergis Rofaiel**

Associate Professor, Department of Digital Communications and Electronics, Misr Academy for Engineering and Technology, Mansoura City, Egypt

**Dr. Pavol Tanuska**

Associate Professor, Department of Applied Informatics, Automation, and Mathematics, Trnava, Slovakia

**Dr. VS Giridhar Akula**

Professor, Avanthi's Research & Technological Academy, Gunthapally, Hyderabad, Andhra Pradesh, India

**Dr. S. Satyanarayana**

Associate Professor, Department of Computer Science and Engineering, KL University, Guntur, Andhra Pradesh, India

**Dr. Bhupendra Kumar Sharma**

Associate Professor, Department of Mathematics, KL University, BITS, Pilani, India

**Dr. Praveen Agarwal**

Associate Professor & Head, Department of Mathematics, Anand International College of Engineering, Jaipur (Rajasthan), India

**Dr. Manoj Kumar**

Professor, Department of Mathematics, Rashtriya Kishan Post Graduate Degree, College, Shamli, Prabh Nagar, (U.P.), India

**Dr. Shaikh Abdul Hannan**

Associate Professor, Department of Computer Science, Vivekanand Arts Sardar Dalipsing Arts and Science College, Aurangabad (Maharashtra), India

**Dr. K.M. Pandey**

Professor, Department of Mechanical Engineering, National Institute of Technology, Silchar, India

**Prof. Pranav Parashar**

Technical Advisor, International Journal of Soft Computing and Engineering (IJSCE), Bhopal (M.P.), India

**Dr. Biswajit Chakraborty**

MECON Limited, Research and Development Division (A Govt. of India Enterprise), Ranchi-834002, Jharkhand, India

**Dr. D.V. Ashoka**

Professor & Head, Department of Information Science & Engineering, SJB Institute of Technology, Kengeri, Bangalore, India

**Dr. Sasidhar Babu Suvanam**

Professor & Academic Coordinator, Department of Computer Science & Engineering, Sree Narayana Gurukulam College of Engineering, Kadayiruppu, Kolenchery, Kerala, India

**Dr. C. Venkatesh**

Professor & Dean, Faculty of Engineering, EBET Group of Institutions, Kangayam, Erode, Caimbatore (Tamil Nadu), India

**Dr. Nilay Khare**

Assoc. Professor & Head, Department of Computer Science, MANIT, Bhopal (M.P.), India

**Dr. Sandra De Iaco**

Professor, Dip.to Di Scienze Dell'Economia-Sez. Matematico-Statistica, Italy

**Dr. Yaduvir Singh**

Associate Professor, Department of Computer Science & Engineering, Ideal Institute of Technology, Govindpuram Ghaziabad, Lucknow (U.P.), India

**Dr. Angela Amphawan**

Head of Optical Technology, School of Computing, School Of Computing, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

**Dr. Ashwini Kumar Arya**

Associate Professor, Department of Electronics & Communication Engineering, Faculty of Engineering and Technology, Graphic Era University, Dehradun (U.K.), India

**Dr. Yash Pal Singh**

Professor, Department of Electronics & Communication Engg, Director, KLS Institute Of Engg.& Technology, Director, KLSIET, Chandok, Bijnor, (U.P.), India

**Dr. Ashish Jain**

Associate Professor, Department of Computer Science & Engineering, Accurate Institute of Management & Technology, Gr. Noida (U.P.), India

**Dr. Abhay Saxena**

Associate Professor&Head, Department. of Computer Science, Dev Sanskriti University, Haridwar, Uttrakhand, India

**Dr. Judy. M.V**

Associate Professor, Head of the Department CS &IT, Amrita School of Arts and Sciences, Amrita Vishwa Vidyapeetham, Brahmasthanam, Edapally, Cochin, Kerala, India

**Dr. Sangkyun Kim**

Professor, Department of Industrial Engineering, Kangwon National University, Hyoja 2 dong, ChuncheOnsi, Gangwondo, Korea

**Dr. Sanjay M. Gulhane**

Professor, Department of Electronics & Telecommunication Engineering, Jawaharlal Darda Institute of Engineering & Technology, Yavatmal, Maharastra, India

**Dr. K.K. Thyagarajan**

Principal & Professor, Department of Informational Technology, RMK College of Engineering & Technology, RSM Nagar, Thiruyallur, Tamil Nadu, India

**Dr. P. Subashini**

Asso. Professor, Department of Computer Science, Coimbatore, India

**Dr. G. Srinivasrao**

Professor, Department of Mechanical Engineering, RVR & JC, College of Engineering, Chowdavaram, Guntur, India

**Dr. Rajesh Verma**

Professor, Department of Computer Science & Engg. and Deptt. of Information Technology, Kurukshetra Institute of Technology & Management, Bhor Sadian, Pehowa, Kurukshetra (Haryana), India

**Dr. Pawan Kumar Shukla**

Associate Professor, Satya College of Engineering & Technology, Haryana, India

**Dr. U C Srivastava**

Associate Professor, Department of Applied Physics, Amity Institute of Applied Sciences, Amity University, Noida, India

**Dr. Reena Dadhich**

Prof. & Head, Department of Computer Science and Informatics, MBS MArg, Near Kabir Circle, University of Kota, Rajasthan, India

**Dr. Aashis.S.Roy**

Department of Materials Engineering, Indian Institute of Science, Bangalore Karnataka, India

**Dr. Sudhir Nigam**

Professor Department of Civil Engineering, Principal, Lakshmi Narain College of Technology and Science, Raisen, Road, Bhopal, (M.P.), India

**Dr. S.Senthilkumar**

Doctorate, Department of Center for Advanced Image and Information Technology, Division of Computer Science and Engineering, Graduate School of Electronics and Information Engineering, Chon Buk National University Deok Jin-Dong, Jeonju, Chon Buk, 561-756, South Korea Tamilnadu, India

**Dr. Gufran Ahmad Ansari**

Associate Professor, Department of Information Technology, College of Computer, Qassim University, Al-Qassim, Kingdom of Saudi Arabia (KSA)

**Dr. R.Navaneethakrishnan**

Associate Professor, Department of MCA, Bharathiyar College of Engg & Tech, Karaikal Puducherry, India

**Dr. Hossein Rajabalipour Cheshmejjaz**

Industrial Modeling and Computing Department, Faculty of Computer Science and Information Systems, Universiti Teknologi Skudai, Malaysia

**Dr. Veronica McGowan**

Associate Professor, Department of Computer and Business Information Systems, Delaware Valley College, Doylestown, PA, Allman China

**Dr. Sanjay Sharma**

Associate Professor, Department of Mathematics, Bhilai Institute of Technology, Durg, Chhattisgarh, India

**Dr. Taghreed Hashim Al-Noor**

Professor, Department of Chemistry, Ibn-Al-Haitham Education for pure Science College, University of Baghdad, Iraq

**Dr. Madhumita Dash**

Professor, Department of Electronics & Telecommunication, Orissa Engineering College, Bhubaneswar, Odisha, India

**Dr. Anita Sagadevan Ethiraj**

Associate Professor, Department of Centre for Nanotechnology Research (CNR), School of Electronics Engineering (Sense), Vellore Institute of Technology (VIT) University, Tamilnadu, India

**Dr. Sibasis Acharya**

Project Consultant, Department of Metallurgy & Mineral Processing, Midas Tech International, 30 Mukin Street, Jindalee-4074, Queensland, Australia

**Dr. Neelam Ruhil**

Professor, Department of Electronics & Computer Engineering, Dronacharya College of Engineering, Gurgaon, Haryana, India

**Dr. Faizullah Mahar**

Professor, Department of Electrical Engineering, Balochistan University of Engineering and Technology, Pakistan

**Dr. K. Selvaraju**

Head, PG & Research, Department of Physics, Kandaswami Kandars College (Govt. Aided), Velur (PO), Namakkal DT. Tamil Nadu, India

**Dr. M. K. Bhanarkar**

Associate Professor, Department of Electronics, Shivaji University, Kolhapur, Maharashtra, India

**Dr. Sanjay Hari Sawant**

Professor, Department of Mechanical Engineering, Dr. J. J. Magdum College of Engineering, Jaysingpur, India

**Dr. Arindam Ghosal**

Professor, Department of Mechanical Engineering, Dronacharya Group of Institutions, B-27, Part-III, Knowledge Park, Greater Noida, India

**Dr. M. Chithirai Pon Selvan**

Associate Professor, Department of Mechanical Engineering, School of Engineering & Information Technology, Amity University, Dubai, UAE

**Dr. S. Sambhu Prasad**

Professor & Principal, Department of Mechanical Engineering, Pragati College of Engineering, Andhra Pradesh, India.

**Dr. Muhammad Attique Khan Shahid**

Professor of Physics & Chairman, Department of Physics, Advisor (SAAP) at Government Post Graduate College of Science, Faisalabad.

**Dr. Kuldeep Pareta**

Professor & Head, Department of Remote Sensing/GIS & NRM, B-30 Kailash Colony, New Delhi 110 048, India

**Dr. Th. Kiranbala Devi**

Associate Professor, Department of Civil Engineering, Manipur Institute of Technology, Takyelpat, Imphal, Manipur, India

**Dr. Nirmala Mungamuru**

Associate Professor, Department of Computing, School of Engineering, Adama Science and Technology University, Ethiopia

**Dr. Srilalitha Giriya Kumari Sagi**

Associate Professor, Department of Management, Gandhi Institute of Technology and Management, India

**Dr. Vishnu Narayan Mishra**

Associate Professor, Department of Mathematics, Sardar Vallabhbhai National Institute of Technology, Ichchhanath Mahadev Dumas Road, Surat (Gujarat), India

**Dr. Yash Pal Singh**

Director/Principal, Somany (P.G.) Institute of Technology & Management, Garhi Bolni Road, Rewari Haryana, India.

**Dr. Sripada Rama Sree**

Vice Principal, Associate Professor, Department of Computer Science and Engineering, Aditya Engineering College, Surampalem, Andhra Pradesh, India.

**Dr. Rustom Mamlook**

Associate Professor, Department of Electrical and Computer Engineering, Dhofar University, Salalah, Oman. Middle East.

**Dr. Ramzi Raphael Ibraheem Al Barwari**

Assistant Professor, Department of Mechanical Engineering, College of Engineering, Salahaddin University – Hawler (SUH) Erbil – Kurdistan, Erbil Iraq.

**Dr. Kapil Chandra Agarwal**

H.O.D. & Professor, Department of Applied Sciences & Humanities, Radha Govind Engineering College, U. P. Technical University, Jai Bheem Nagar, Meerut, (U.P). India.

**Dr. Anil Kumar Tripathy**

Associate Professor, Department of Environmental Science & Engineering, Ghanashyama Hemalata Institute of Technology and Management, Puri Odisha, India.

**Managing Editor**

**Mr. Jitendra Kumar Sen**

International Journal of Engineering and Advanced Technology (IJEAT)

**Editorial Board**

**Dr. Soni Changlani**

Professor, Department of Electronics & Communication, Lakshmi Narain College of Technology & Science, Bhopal (.M.P.), India

**Dr. M .M. Manyuchi**

Professor, Department Chemical and Process Systems Engineering, Lecturer-Harare Institute of Technology, Zimbabwe

**Dr. John Kaiser S. Calautit**

Professor, Department Civil Engineering, School of Civil Engineering, University of Leeds, LS2 9JT, Leeds, United Kingdom

**Dr. Audai Hussein Al-Abbas**

Deputy Head, Department AL-Musaib Technical College/ Foundation of Technical Education/Babylon, Iraq

**Dr. Şeref Doğuşcan Akbaş**

Professor, Department Civil Engineering, Şehit Muhtar Mah. Öğüt Sok. No:2/37 Beyoğlu Istanbul, Turkey

**Dr. H S Behera**

Associate Professor, Department Computer Science & Engineering, Veer Surendra Sai University of Technology (VSSUT) A Unitary Technical University Established by the Government of Odisha, India

**Dr. Rajeev Tiwari**

Associate Professor, Department Computer Science & Engineering, University of Petroleum & Energy Studies (UPES), Bidholi, Utrakhand, India

**Dr. Piyush Kumar Shukla**

Assoc. Professor, Department of Computer Science and Engineering, University Institute of Technology, RGPV, Bhopal (M.P.), India

**Dr. Piyush Lotia**

Assoc. Professor, Department of Electronics and Instrumentation, Shankaracharya College of Engineering and Technology, Bhilai (C.G.), India

**Dr. Asha Rai**

Assoc. Professor, Department of Communication Skills, Technocrat Institute of Technology, Bhopal (M.P.), India

**Dr. Vahid Nourani**

Assoc. Professor, Department of Civil Engineering, University of Minnesota, USA

**Dr. Hung-Wei Wu**

Assoc. Professor, Department of Computer and Communication, Kun Shan University, Taiwan

**Dr. Vuda Sreenivasarao**

Associate Professor, Department of Computr And Information Technology, Defence University College, Debrezeit Ethiopia, India

**Dr. Sanjay Bhargava**

Assoc. Professor, Department of Computer Science, Banasthali University, Jaipur, India

**Dr. Sanjoy Deb**

Assoc. Professor, Department of ECE, BIT Sathy, Sathyamangalam, Tamilnadu, India

**Dr. Papita Das (Saha)**

Assoc. Professor, Department of Biotechnology, National Institute of Technology, Duragpur, India

**Dr. Waail Mahmud Lafta Al-waely**

Assoc. Professor, Department of Mechatronics Engineering, Al-Mustafa University College – Plastain Street near AL-SAAKKRA square- Baghdad - Iraq

**Dr. P. P. Satya Paul Kumar**

Assoc. Professor, Department of Physical Education & Sports Sciences, University College of Physical Education & Sports Sciences, Guntur

**Dr. Sohrab Mirsaedi**

Associate Professor, Department of Electrical Engineering, Universiti Teknologi Malaysia (UTM), Skudai, Johor, Malaysia

**Dr. Omed Ghareb Abdullah**

Associate Professor, Department of Physics, School of Science, University of Sulaimani, Iraq

**Dr. Khaled Eskaf**

Associate Professor, Department of Computer Engineering, College of Computing and Information Technology, Alexandria, Egypt

**Dr. Nitin W. Ingole**

Associate Professor & Head, Department of Civil Engineering, Prof Ram Meghe Institute of Technology and Research, Badnera Amravati

**Dr. P. K. Gupta**

Associate Professor, Department of Computer Science and Engineering, Jaypee University of Information Technology, P.O. Dumehar Bani, Solan, India

**Dr. P.Ganesh Kumar**

Associate Professor, Department of Electronics & Communication, Sri Krishna College of Engineering and Technology, Linyi Top Network Co Ltd Linyi , Shandong Provience, China

**Dr. Santhosh K V**

Associate Professor, Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal, Karnataka, India

**Dr. Subhendu Kumar Pani**

Assoc. Professor, Department of Computer Science and Engineering, Orissa Engineering College, India

**Dr. Syed Asif Ali**

Professor/ Chairman, Department of Computer Science, SMI University, Karachi, Pakistan

**Dr. Vilas Warudkar**

Assoc. Professor, Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, India

**Dr. S. Chandra Mohan Reddy**

Associate Professor & Head, Department of Electronics & Communication Engineering, JNTUA College of Engineering (Autonomous), Cuddapah, Andhra Pradesh, India

**Dr. V. Chittaranjan Das**

Associate Professor, Department of Mechanical Engineering, R.V.R. & J.C. College of Engineering, Guntur, Andhra Pradesh, India

**Dr. Jamal Fathi Abu Hasna**

Associate Professor, Department of Electrical & Electronics and Computer Engineering, Near East University, TRNC, Turkey

**Dr. S. Deivanayaki**

Associate Professor, Department of Physics, Sri Ramakrishna Engineering College, Tamil Nadu, India

**Dr. Nirvesh S. Mehta**

Professor, Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, South Gujarat, India

**Dr. A.Vijaya Bhasakar Reddy**

Associate Professor, Research Scientist, Department of Chemistry, Sri Venkateswara University, Andhra Pradesh, India

**Dr. C. Jaya Subba Reddy**

Associate Professor, Department of Mathematics, Sri Venkateswara University Tirupathi Andhra Pradesh, India

**Dr. TOFAN Cezarina Adina**

Associate Professor, Department of Sciences Engineering, Spiru Haret University, Arges, Romania

**Dr. Balbir Singh**

Associate Professor, Department of Health Studies, Human Development Area, Administrative Staff College of India, Bella Vista, Andhra Pradesh, India

**Dr. D. RAJU**

Associate Professor, Department of Mathematics, Vidya Jyothi Institute of Technology (VJIT), Aziz Nagar Gate, Hyderabad, India

**Dr. Salim Y. Amdani**

Associate Professor & Head, Department of Computer Science Engineering, B. N. College of Engineering, PUSAD, (M.S.), India

**Dr. K. Kiran Kumar**

Associate Professor, Department of Information Technology, Bapatla Engineering College, Andhra Pradesh, India

**Dr. Md. Abdullah Al Humayun**

Associate Professor, Department of Electrical Systems Engineering, University Malaysia Perlis, Malaysia

**Dr. Vellore Vasu**

Teaching Assistant, Department of Mathematics, S.V. University Tirupati, Andhra Pradesh, India

**Dr. Naveen K. Mehta**

Associate Professor & Head, Department of Communication Skills, Mahakal Institute of Technology, Ujjain, India

**Dr. Gujar Anant kumar Jotiram**

Associate Professor, Department of Mechanical Engineering, Ashokrao Mane Group of Institutions, Vathar, Maharashtra, India

**Dr. Pratibhamoy Das**

Scientist, Department of Mathematics, IMU Berlin Einstein Foundation Fellow Technical University of Berlin, Germany

**Dr. Messaouda AZZOUZI**

Associate Professor, Department of Sciences & Technology, University of Djelfa, Algeria

**Dr. Vandana Swarnkar**

Associate Professor, Department of Chemistry, Jiwaji University Gwalior, India

**Dr. Arvind K. Sharma**

Associate Professor, Department of Computer Science Engineering, University of Kota, Kabir Circle, Rajasthan, India

**Dr. R. Balu**

Associate Professor, Department of Computr Applications, Bharathiar University, Tamilnadu, India

**Dr. S. Suriyanarayanan**

Associate Professor, Department of Water and Health, Jagadguru Sri Shivarathreeswara University, Karnataka, India

**Dr. Dinesh Kumar**

Associate Professor, Department of Mathematics, Pratap University, Jaipur, Rajasthan, India

**Dr. Sandeep N**

Associate Professor, Department of Mathematics, Vellore Institute of Technology, Tamil Nadu, India

**Dr. Dharmpal Singh**

Associate Professor, Department of Computer Science Engineering, JIS College of Engineering, West Bengal, India

**Dr. Farshad Zahedi**

Associate Professor, Department of Mechanical Engineering, University of Texas at Arlington, Tehran, Iran

**Dr. Atishey Mittal**

Associate Professor, Department of Mechanical Engineering, SRM University NCR Campus Meerut Delhi Road Modinagar, Aligarh, India

**Dr. Hussein Togun**

Associate Professor, Department of Mechanical Engineering, University of Thiqr, Iraq

**Dr. Shrikaant Kulkarni**

Associate Professor, Department of Senior faculty V.I.T., Pune (M.S.), India

**Dr. Mukesh Negi**

Project Manager, Department of Computer Science & IT, Mukesh Negi, Project Manager, Noida, India

**Dr. Sachin Madhavrao Kanawade**

Associate Professor, Department Chemical Engineering, Pravara Rural Education Society's, Sir Visvesvaraya Institute of Technology, Nashik, India

**Dr. Ganesh S Sable**

Professor, Department of Electronics and Telecommunication, Maharashtra Institute of Technology Satara Parisar, Aurangabad, Maharashtra, India

**Dr. T.V. Rajini Kanth**

Professor, Department of Computer Science Engineering, Sreenidhi Institute of Science and Technology, Hyderabad, India

**Dr. Anuj Kumar Gupta**

Associate Professor, Department of Computer Science & Engineering, RIMT Institute of Engineering & Technology, NH-1, Mandi Godindgarh, Punjab, India

**Dr. Hasan Ashrafi- Rizi**

Associate Professor, Medical Library and Information Science Department of Health Information Technology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

**Dr. Golam Kibria**

Associate Professor, Department of Mechanical Engineering, Aliah University, Kolkata, India

**Dr. Mohammad Jannati**

Professor, Department of Energy Conversion, UTM-PROTON Future Drive Laboratory, Faculty of Electrical Engineering, Universiti Teknologi Malaysia,

**Dr. Mohammed Saber Mohammed Gad**

Professor, Department of Mechanical Engineering, National Research Centre- El Behoos Street, El Dokki, Giza, Cairo, Egypt,

**Dr. V. Balaji**

Professor, Department of EEE, Sapthagiri College of Engineering Periyannahalli, (P.O) Palacode (Taluk) Dharmapuri,

**Dr. Naveen Beri**

Associate Professor, Department of Mechanical Engineering, Beant College of Engg. & Tech., Gurdaspur - 143 521, Punjab, India

**Dr. Abdel-Baset H. Mekky**

Associate Professor, Department of Physics, Buraydah Colleges Al Qassim / Saudi Arabia

**Dr. T. Abdul Razak**

Associate Professor, Department of Computer Science Jamal Mohamed College (Autonomous), Tiruchirappalli – 620 020 India

**Dr. Preeti Singh Bahadur**

Associate Professor, Department of Applied Physics Amity University, Greater Noida (U.P.) India

**Dr. Ramadan Elaiees**

Associate Professor, Department of Information Studies, Faculty of Arts University of Benghazi, Libya

**Dr. R. Emmaniel**

Professor & Head, Department of Business Administration ST, ANN, College of Engineering & Technology Vetapaliem. Po, Chirala, Prakasam. DT, AP. India

**Dr. C. Phani Ramesh**

Director cum Associate Professor, Department of Computer Science Engineering, PRIST University, Manamai, Chennai Campus, India

**Dr. Rachna Goswami**

Associate Professor, Department of Faculty in Bio-Science, Rajiv Gandhi University of Knowledge Technologies (RGUKT) District-Krishna, Andhra Pradesh, India

**Dr. Sudhakar Singh**

Assoc. Prof. & Head, Department of Physics and Computer Science, Sardar Patel College of Technology, Balaghat (M.P.), India

**Dr. Xiaolin Qin**

Associate Professor & Assistant Director of Laboratory for Automated Reasoning and Programming, Chengdu Institute of Computer Applications, Chinese Academy of Sciences, China

**Dr. Maddila Lakshmi Chaitanya**

Assoc. Prof. Department of Mechanical, Pragati Engineering College 1-378, ADB Road, Surampalem, Near Peddapuram, East Godavari District, A.P., India

**Dr. Jyoti Anand**

Assistant Professor, Department of Mathematics, Dronacharya College of Engineering, Gurgaon, Haryana, India

**Dr. Nasser Fegh-hi Farahmand**

Assoc. Professor, Department of Industrial Management, College of Management, Economy and Accounting, Tabriz Branch, Islamic Azad University, Tabriz, Iran

**Dr. Ravindra Jilte**

Assist. Prof. & Head, Department of Mechanical Engineering, VCET Vasai, University of Mumbai, Thane, Maharashtra 401202, India

**Dr. Sarita Gajbhiye Meshram**

Research Scholar, Department of Water Resources Development & Management Indian Institute of Technology, Roorkee, India

**Dr. G. Komarasamy**

Associate Professor, Senior Grade, Department of Computer Science & Engineering, Bannari Amman Institute of Technology, Sathyamangalam, Tamil Nadu, India

**Dr. P. Raman**

Professor, Department of Management Studies, Panimalar Engineering College Chennai, India

**Dr. M. Anto Bennet**

Professor, Department of Electronics & Communication Engineering, Veltech Engineering College, Chennai, India

**Dr. P. Keerthika**

Associate Professor, Department of Computer Science & Engineering, Kongu Engineering College Perundurai, Tamilnadu, India

**Dr. Santosh Kumar Behera**

Associate Professor, Department of Education, Sidho-Kanho-Birsha University, Ranchi Road, P.O. Sainik School, Dist-Purulia, West Bengal, India

**Dr. P. Suresh**

Associate Professor, Department of Information Technology, Kongu Engineering College Perundurai, Tamilnadu, India

**Dr. Santosh Shivajirao Lomte**

Associate Professor, Department of Computer Science and Information Technology, Radhai Mahavidyalaya, N-2 J sector, opp. Aurangabad Gymkhana, Jalna Road Aurangabad, India

**Dr. Altaf Ali Siyal**

Professor, Department of Land and Water Management, Sindh Agriculture University Tandojam, Pakistan

**Dr. Mohammad Valipour**

Associate Professor, Sari Agricultural Sciences and Natural Resources University, Sari, Iran

**Dr. Prakash H. Patil**

Professor and Head, Department of Electronics and Tele Communication, Indira College of Engineering and Management Pune, India

**Dr. Smolarek Malgorzata**

Associate Professor, Department of Institute of Management and Economics, High School of Humanitas in Sosnowiec, Wyższa Szkoła Humanitas Instytut Zarządzania i Ekonomii ul. Kilińskiego Sosnowiec Poland, India

**Dr. Umakant Vyankatesh Kongre**

Associate Professor, Department of Mechanical Engineering, Jawaharlal Darda Institute of Engineering and Technology, Yavatmal, Maharashtra, India

**Dr. Niranjana S**

Associate Professor, Department of Biomedical Engineering, Manipal Institute of Technology (MIT) Manipal University, Manipal, Karnataka, India

**Dr. Naseema Khatoon**

Associate Professor, Department of Chemistry, Integral University Lucknow (U.P), India

**Dr. P. Samuel**

Associate Professor, Department of English, KSR College of Engineering Tiruchengode – 637 215 Namakkal Dt. Tamilnadu, India

**Dr. Mohammad Sajid**

Associate Professor, Department of Mathematics, College of Engineering Qassim University Buraidah 51452, Al-Qassim Saudi Arabia

**Dr. Sanjay Pachauri**

Associate Professor, Department of Computer Science & Engineering, IMS Unison University Makkawala Greens Dehradun-248009 (UK)

**Dr. S. Kishore Reddy**

Professor, Department of School of Electrical & Computer Engineering, Adama Science & Technology University, Adama

**Dr. Muthukumar Subramanyam**

Professor, Department of Computer Science & Engineering, National Institute of Technology, Puducherry, India

**Dr. Latika Kharb**

Associate Professor, Faculty of Information Technology, Jagan Institute of Management Studies (JIMS), Rohini, Delhi, India

**Dr. Kusum Yadav**

Associate Professor, Department of Information Systems, College of Computer Engineering & Science Salman bin Abdulaziz University, Saudi Arabia

**Dr. Preeti Gera**

Assoc. Professor, Department of Computer Science & Engineering, Savera Group of Institutions, Farrukh Nagar, Gurgaon, India

**Dr. Ajeet Kumar**

Associate Professor, Department of Chemistry and Biomolecular Science, Clarkson University 8 Clarkson Avenue, New York

**Dr. M. Jinnah S Mohamed**

Associate Professor, Department of Mechanical Engineering, National College of Engineering, Maruthakulam.Tirunelveli, Tamil Nadu, India

**Dr. Mostafa Eslami**

Assistant Professor, Department of Mathematics, University of Mazandaran Babolsar, Iran

**Dr. Akram Mohammad Hassan Elentably**

Professor, Department of Economics of Maritime Transport, Faculty of Maritime Studies, Ports & Maritime Transport, King Abdul-Aziz University

**Dr. Ebrahim Nohani**

Associate Professor, Department of Hydraulic Structures, Dezful Branch, Islamic Azad University, Dezful, Iran

**Dr. Aarti Tolia**

Faculty, Prahaldbhai Dalmia Lions College of Commerce & Economics, Mumbai, India

**Dr. Ramachandra C G**

Professor & Head, Department of Marine Engineering, Srinivas Institute of Technology, Valachil, Mangalore-574143, India

**Dr. G. Anandharaj**

Associate Professor, Department of M.C.A, Ganadipathy Tulsi's Jain Engineering College, Chittoor- Cuddalore Road, Kaniyambadi, Vellore, Tamil Nadu, India

S. No	<b>Volume-3 Issue-2, December 2013, ISSN: 2249-8958 (Online)</b> <b>Published By: Blue Eyes Intelligence Engineering &amp; Sciences Publication Pvt. Ltd.</b>		Page No.
1.	<b>Authors:</b>	<b>Parveen Sharma</b>	
	<b>Paper Title:</b>	<b>Wheel Modification of a Wheel Type Stair Climber</b>	
	<p><b>Abstract:</b> This article deals with the designing and manufacturing of a Stair Climber, considering the aspect of wheel modification .Stair climber is the vehicle which can climb stair or move along very rough surface. The technical issues in modification of wheels of this vehicle are the stability and speed of the vehicle while climbing stairs. However, the steepness of the stairs is also the important concern of this study. The uses of this special vehicle are in the frequent lift of goods such as books for library, medicines for hospital, regular mails for any institutes, or transportation of any toxic material for industries and give freedom to the retarded person or paralyzed patients to move anywhere over flat surface as well as stairs. Wheel of Stair Climber is modified on the basis of Different criteria like strength, cost, and mobility etc. using complete product design approach. Different types of Stair Climbers are analysed like Legged Stair climber, Wheeled Stair Climber and tracked Stair Climber .On the basis of different criteria it was find out that wheeled Stair climber is better than other Stair climbers. Pugh chart is used for selection of best concept for different wheel climbers. Using of this vehicle, the labour cost can be reduced as well less power is consumed for lifting of heavy loads. Moreover, considering some drawbacks due to lack of implementation of all techniques during manufacturing phase the test and trial run showed considerably significant and encouraging results that might help the future researchers to incorporate a gear box and steering mechanism to make the vehicle more versatile..</p> <p><b>Keywords:</b> Stair climbing vehicle, Tri Lobe Wheel, Pugh Chart.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Loper: A Quadruped-Hybrid Stair Climbing Robot:- Sam D. Herbert, Andrew Drenner, and Nikolaos Papanikolopoulos ,Department of Computer Science and Engineering University of Minnesota Minneapolis, MN 55455 2008 IEEE International Conference on Robotics and Automation Pasadena, CA, USA, May 19-23, 2008.</li> <li>2. Wheeled robot with hooping mechanism Koki Kikuchi, Naoki Bushida, Keisuke Sakaguchi, Yasuhiro Chiba,Hiroshi Otsuka, Yusuke Saito, Masamitsu Hirano and Shunya Kobayashi, Chiba institute of technology japan</li> <li>3. Octopus : an autonomous wheeled climbing robot M. Lauria , Y. Piguat and R. Siegwart Autonomous Systems Laboratory Swiss Federal Institute of Technology (EPFL) 1015 Lausanne, Switzerland.</li> <li>4. Murray John LAWN Dissertation submitted to the faculty of Mechanical Systems Engineering For the Degree of Doctor of Philosophy Graduate School of Marine Science and Engineering Nagasaki University, Nagasaki City, Japan December 2002</li> <li>5. International Journal of Computer and Electrical Engineering, Vol. 3, No. 3, June 2011 design and implementation of stair climbing robot for rescue application Basil Hamed.</li> <li>6. Trajectory planning for stair climbing in the leg wheel hybrid mobile robot quattroped Shen-Chiang Chen, Ke Jung Huang, Cheng-Hsin Li, and Pei-Chun Lin 2011 IEEE international conference on robotics and automation shanghai international conference center may 9-13, 2011, shanghai, china</li> <li>7. UNIVERSITY OF OKLAHOMA GRADUATE COLLEGE AUTONOMOUS STAIRCLIMBING WITH A MOBILE ROBOT A THESIS SUBMITTED TO THE GRADUATE FACULTY :-In partial fulfillment of the requirements for the Degree of MASTER OF SCIENCE By MICHAEL FAIR Norman, Oklahoma 2000.</li> <li>8. A Fuzzy control based stair climbing service robot :-Ming-Shyan Wang department of electrical engineering , southern Taiwan university, Taiwan, R.O.C.</li> <li>9. Stable Stair Climbing in a Simple Hexapod Robot:- E. Z. Moore and M. Buehler Ambulatory Robotic Lab, Centre for Intelligent Machines, McGill University Montreal, QC, H3A 2A7, CANADA</li> <li>10. Design Modification and Manufacturing of Rover Type Stair Climbing Vehicle DEPARTMENT OF MECHANICAL ENGINEERING MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY DHAKA, BANGLADESH May, 2012.</li> </ol>		1-4
2.	<b>Authors:</b>	<b>A.M.Balaji Venkatesh, Karthik Kalkura, Shriram A.C</b>	
	<b>Paper Title:</b>	<b>Student Locker Protection Using RFID Tag &amp; Reader</b>	
	<p><b>Abstract:</b> Student lockers are something very common and essential in an educational institution. A student keeps all his valuables inside the locker, and the protection of it is an essential aspect in the design of student lockers. A student not only stores his material valuables, but can also keep his intellectual ideas like research prototypes and important project papers. Some the student’s wouldn’t have obtained patent to his work when lost will be a huge loss in his career. These kind of theft can’t be neglected and we have planned a project on the prevention of these thefts. This Project is designed to enable security to student locker in educational institutions using RFID tags and Zigbee protocol to create electronic locks and password protected. The locker can be opened by the authorized individuals. To ensure this, the system uses RFID reader which is placed in the locker and the corresponding tags are given to the authorized individuals. Then using wireless Zigbee protocol the values are compared with the database and the lock is opened using a random password. When someone unauthorised tries to access the locker a message is intimated to the owner</p> <p><b>Keywords:</b> PIC Controller, Random Number Generation algorithm RFID, Zigbee</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ali Mousavi, Mohammad A. Rajabi and Mohammad Akbari. Design and Implementation of a GSM Based Automatic Vehicle Location System[J].Computational Science and Its Applications – ICCSA 2009,Pages 533-542</li> <li>2. Dexter H. Hu and Cho-Li Wang.GPS-Based Location Extraction and Presence Management for Mobile Instant Messenger[M].Lecture Notes in Computer Science, 2007, Volume 4808, Embedded and Ubiquitous Computing, Pages 309-320</li> <li>3. Wang Mingji and Zhu Ailing Design of the Electronic locks controlled cash box on the logistics vehicle based on GPS</li> </ol>		5-7
3.	<b>Authors:</b>	<b>Parveen Kumar, Harsh Raghuvanshi</b>	

	<b>Paper Title:</b> <b>Design &amp; Analysis of a Spur Gear in different Geometric Conditions</b>
	<p><b>Abstract:</b> This paper present the designing of the spur gear on different geometric conditions and finding the effect of these on tooth load like by changing the concentration of SIC in SIC based aluminium gear.Addition of SIC increases the strength of Spur Gear.Effect is also analyzed by changing the modules of the gear and by changing the tooth width. Tooth load is calculated with help of Lewis equation &amp; dynamic tooth load is calculated with help of Buckingham equation. Static analysis of the gear is done to find the Von-mises stress on the tooth of the gear in while meshing.</p> <p><b>Keywords:</b> Buckingham equation, Lewis equation, Module, PTC Creo</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. B.Venkatesh, V.Kamala2, A.M.K. Prasad3Parametric Approach to Analysis of Aluminum alloy Helical gear for High Speed Marine ApplicationsVol.1, Issue1, pp-173-178</li> <li>2. J.A. Wright, et al, Design, development and application of new, high-performance gear steels, Gear technology(2010),pp 46 –53[2]Rao, C.M., and Muthuveerappan G., Finite Element</li> <li>3. Modeling and Stress Analysis of Helical Gear, Teeth, Computers &amp; structures, 49,pp.1095-1106, 1993.</li> <li>4. Marappan, S. and Venkataramana, 2004,ANSYS Reference Guide., CAD CENTRE, India</li> <li>5. PSG, 2008.Design data, KalaikathirAchchagampublishers, Coimbatore, India</li> <li>6. Shigley, J.E. and Uicker,J.J,Theory of machines and mechanisms,McGraw Hill, 1986.</li> <li>7. R.S. KHURMI and J.K. GUPTA,Theory of machine , S. Chand publications, Edition 16 reprint (2008), pp.382-397.</li> <li>8. "Machine Design" by S.Md.Jalaludeen,AnuradhaPublications(2009).</li> <li>9. "Design Data Hand Book for Mechanical Engineers"By K.Mahadevan&amp;K.Balaveera Reddy</li> </ol>
	<b>Authors:</b> <b>Sheeba O., Nikki Vinayan</b>
	<b>Paper Title:</b> <b>Image Segmentation and Analysis in the Case Study of Macular Degeneration Using Labview</b>
<p>4.</p>	<p><b>Abstract:</b> Computer assisted analysis of retinal images to diagnose Age Related MacularDegeneration (AMD) requires the quantification of drusen deposits in human retina. Age-related macular degeneration is a disease associated with aging that gradually destroys sharp, central vision. An increase in the size or number of drusen raises a person's risk of developing advanced AMD. These changes can cause serious vision loss. Incorporation of image processing technologies in the field of ophthalmology presents a wide range of possibilities when there is a demand for improving the quality of medical care. An automated and reliable method for finding the drusen exudates has been developed using retinal image analysis. The retinal images are enhanced and morphological operations done so as to segment drusen areas that differ slightly from the background. The software Vision Assistant of Lab VIEW is used for the automatic detection and mapping of drusen deposits in the retinal images. The result is the display window which helps the doctor to make the accurate diagnosis or get information regarding the efficacy of the treatment very faster during the course of the disease.</p> <p><b>Keywords:</b> Macular Degeneration, Drusen, Image segmentation, Histogram equalization, Mathematical morphology.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Green R.W, Histopathology of age related macular degeneration. (Molec.Vis.27-36, 1999).</li> <li>2. Sheeba.O,Dr.Sukeshkumar.A Image Analysis for the detection of Drusen Deposits on Human Retina. National Conference on Industrial Automation - Emerging Trends 21 &amp; 22 Jan 2005. Easwari Engg.College , Chennai.</li> <li>3. Sheeba.O, Dr.Sukeshkumar.A, Dr.Mahesh.G Processing of Retinal images in Age Related Macular Degeneration. National conference on Bioinformatics Computing (NCBC '05) field 18-19 March 2005. Deemed university, Patiala.</li> <li>4. Dr.Mahesh.G.,Dr A.Giridhar, Sheeba.O, Dr.Sukeshkumar Drusen Segmentation - Validation and Analysis of Fellow Eyes of End stage Wet Age Related Macular Degeneration. First Conference of Ophthalmic Association of South India and Srilanka and 1 32 nd Annual Conference of Kerala Society of ophthalmic surgeons. NOV 25,26,27 2005.</li> <li>5. Otsu Nobuyuki "A threshold Detection Method from gray level histograms",vol.SMC-9,no.1, January 1979.</li> <li>6. Kirkpatrick JNP, Spencer T, Manivannan A., et al., Quantitative image analysis of macular drusen from fundus photographs and scanning laser ophthalmoscope images Eye,9,48-55,1995.</li> <li>7. Morgan WH., Cooper RL. Constable II, Eikelboom RH., Automated extraction and quantification of macular drusen from fundal photographs. Aust NZJ Ophthalmology,22,7-12 (1994).</li> <li>8. Peli E., Lahav M., Drusen measurements from fundus photographsusing computer image analysis, Ophthalmology 1986,93,1575-80 (1986).</li> <li>9. Evans J.R. (2001) Risk factors for age related macular degeneration. Prog. Retin.Eye.Res.20, 227-253.</li> <li>10. Gonzalez R.C.,Woods R.E. "Digital Image Processing", 1993.</li> <li>11. George C Panayi, Alan C Bovik and Umesh Rajasheka "Image Processing for Everyone" www.cns.nyu.edu/~umesh/publications/2000/SP_edu_2000_labview.pdf?</li> </ol>
	<b>Authors:</b> <b>Pankaj Chejara, Urvashi Garg, Gurpreet Singh</b>
	<b>Paper Title:</b> <b>Vulnerability Analysis in Attack Graphs Using Conditional Probability</b>
<p>5.</p>	<p><b>Abstract:</b> Computer networks have become an essential part of almost every organization. These organizations spend a lot of time and money to secure their networks from intruders and attackers. As the need of computers increased, need for network security increased correspondingly. Attackers are always trying to find weakness in network which can be used to break into the network known as vulnerability. So network administrator needs to patch vulnerabilities to thwart attacker from achieving their goal. As new vulnerability are discovered daily, it is very hard to patch every vulnerability in network but if riskier vulnerabilities get patched, risk level can be reduced significantly. Vulnerability score gives insight into the behavior of vulnerability. These scores make security analyst's work easier to some extent. But these scores do not include collective effect of vulnerabilities. A number of vulnerability scanners are available, which provide complete vulnerability details about host. These vulnerability details give analyst a good idea about to which extent the network security can be compromised, but does not give complete view of network vulnerability. Attack graph provides solution to this problem. Attack graph is set of nodes</p>

8-13

14-17

18-21

and edges where node represents attacker's state and edge represent possible transition among attacker's state. This technique gives path that can be followed by attacker to gain network's resources. In the network attack graph depict how vulnerability affect network in conjunction with other vulnerabilities. Some vulnerability may not be riskier alone but when chained with some other, it can compromise the security of network. These attack graphs are important security tools to find out such vulnerabilities also. In this paper, we have developed an technique to provide scores to each path in attack graph so as to analyze, which path is to be patched first to remove the risk of attack. These scores are based on conditional probability method.

**Keywords:** Attack Graphs, Attack Model, Vulnerability Score, Attack Sequence

**References:**

1. Sushil Jajodia and Steven Noel, "Topological Vulnerability Analysis. A Powerful New Approach For Network Attack Prevention, Detection and Response", World Scientific Press, 2007.
2. Nirnay and S K ghosh., " An approach for Security Assessment of Network Configurations Using Attack Graph", IEEE Conference on network and communication , 2009, pp. 283-288.
3. Cynthia Phillips and Laura Painton Swiler. Nspw '98, " Proceedings of the 1998, Workshop on New Security Paradigms", ACM Transaction Program on Language System, 1999.
4. Richard Lippmann, Oleg Sheyner and Somesh Jha, " Automated Generation and Analysis of Attack graph", IEEE Symposium on Security and Privacy , 2002, pp. 273-284.
5. Pavan Vejanjala, Dipankar Dasgupta, Aishwarya Kaushal, and Fernando Nino, "Evolving Gaming Strategies for Attacker-Defender in a Simulated Network Environment", IEEE International Conference on Privacy, Security, Risk and Trust , 2010, pp. 889-896.
6. Wyss, Schriener and T Gaylor, " Probabilistic Logic Modeling of Hybrid Network Architectures" , IEEE Conference on Local Computer Networks, 1996, pp. 404-413.
7. Urvashi Garg, "Attack Graphs for Cyber Warfare", Unpublished master's thesis, Malaviya National Institute of Technology, Jaipur, India.
8. Cve Details, Available: <http://www.cve.mitre.org/>.
9. CVSS, Available: <http://www.first.org/cvss/>.
10. Nessus, Available: <http://www.nessus.org/>.
11. NuSMV, Available: <http://nusmv.fbk.eu/>.
12. NetSPA, Available: <http://dspace.mit.edu/handle/1721.1/29899>.

<b>Authors:</b>	<b>Medhat Awadall, Afaq Ahmad, Samir Al-Busaidi</b>
<b>Paper Title:</b>	<b>Min–min GA Based Task Scheduling In Multiprocessor Systems</b>

**Abstract:** An efficient assignment and scheduling of tasks of a multiprocessor system is one of the key elements in the effective utilization of multiprocessor systems. This problem is extremely hard to solve, consequently several methods have been developed to optimally tackle it which is called NP-hard problem. This paper presents two new approaches, Modified List Scheduling Heuristic (MLSH) and enhanced genetic algorithm by constructing promising chromosomes. Furthermore, this paper proposes three different representations for the chromosomes of the genetic algorithm: Min-min task list, processor list and combination of both. Extensive simulation experiments have been conducted on different random and real-world application graphs such as Gauss-Jordan, LU decomposition, Gaussian elimination and Laplace equation solver problems. Comparisons have been performed with the most related algorithms, LSHs, Bipartite GA (BGA) and Priority based Multi-Chromosome (PMC). The achieved results show that the proposed approaches significantly surpass the other approaches in terms of task makespan and processor efficiency.

**Keywords:** Multiprocessors, Task scheduling, Genetic algorithm, Makespan, Parallel and distributed system, List Scheduling Heuristic

**References:**

1. Garshasbi, M. S. and Mehdi, E., "Tasks Scheduling on Parallel Heterogeneous Multi-processor Systems using Genetic Algorithm", International Journal of Computer Applications, Volume 61 - Number 9, 2013, pp. 23-27
2. Hwang, R., Gen, M., Katayama, H., "A comparison of multiprocessor task scheduling algorithms with communication costs", Computers and Operations Research, Vol. 35, No. 3, pp. 976-993, 2008.
3. Ye Xu, Ling Wang, Shengyao Wang and Min Liu. "An effective immune algorithm based on novel dispatching rules for the flexible flow-shop scheduling problem with multiprocessor tasks". Int J Adv. Manufacturing , 2012
4. Bonyadi M. and Moghaddam, M., "A bipartite genetic algorithm for multi-processor task scheduling", International Journal of Parallel Programming, Vol. 37, No. 5, 2009, pp. 462-487.
5. Orhan Engin, Gül?ad Ceran, Mustafa K. Yilmaz. "An efficient genetic algorithm for hybrid flow shop scheduling with multiprocessor task problems". Applied Soft Computing Volume 11, Issue 3, 2011, PP. 3056-3065.
6. Jasbir, Gurvinder. "Improved Task Scheduling on Parallel System using Genetic Algorithm", International Journal of Computer Applications (0975 - 8887) Volume 39- No. 17, February 2012
7. Oncan T., " A Genetic Algorithm for the Order Batching Problem in Low-Level Picker-to-Part Warehouse Systems", Proceedings of The International MultiConference of Engineers and Computer Scientists 2013, pp. 19-24.
8. Katanosaka, T., Sato H., Oyama S. and Kurihara M., "A Preference Search System Using an Interactive Genetic Algorithm", Proceedings of The International MultiConference of Engineers and Computer Scientists 2013 , pp. 66-69.
9. Dai, M., Tang C., and Chuang C. (2013). "An Energy-Aware Workload Dispatching Simulator for Heterogeneous Clusters", Proceedings of the International MultiConference of Engineers and Computer Scientists 2013 Vol I, IMECS 2013, March 13 - 15, 2013, Hong Kong.
10. Nissanke, N., Leulseged, A., Chillara, S., "Probabilistic performance analysis in multiprocessor scheduling", Journal of Computing and Control Engineering, Vol. 13, No. 4, 2002, pp. 171-179.
11. R., Rahimi Azghadi, M., Hashemi, S., Ebrahimi Moghadam, M., "A hybrid multiprocessor task scheduling method based on immune genetic algorithm" Qshine 2008 Workshop on Artificial Intelligence in Grid Computing 2008.
12. Corbalan, J., Martorell, X., Labarta, J., "Performance-driven processor allocation", IEEE Transactions on Parallel and Distributed Systems, Vol. 16, No. 7, 2005, pp. 599-611.
13. ReaKook H., Mitsuo G. and Hiroshi K., "A Performance Evaluation of Multiprocessor Scheduling with Genetic Algorithm". ReaKook Hwang et al./Asia Pacific Management Review (2006) 11(67-72).
14. Hwang RK, Gen M., "Multiprocessor scheduling using genetic algorithm with priority-based coding", Proceedings of IEEJ conference on electronics, information and systems, 2004
15. Montazeri, F., Salmani-Jelodar, M., Fakhraie, S.N., Fakhraie, S.M., "Evolutionary multiprocessor task scheduling", Proceedings of the

6.

	<p>International Symposium on Parallel Computing in Electrical Engineering (PARELEC'06) 2006.</p> <ol style="list-style-type: none"> <li>16. Kamaljit Kaur, Amit Chhabra and Gurdinder Singh, "Modified Genetic Algorithm for Task Scheduling in Homogeneous Parallel System Using Heuristics", International Journal of Soft Computing, Vol. 5, No. 2, 2010, pp. 42-51.</li> <li>17. Wu, A.S., Yu, H., Jin, S., Lin, K.-C., Schiavone, G., "An incremental genetic algorithm approach to multiprocessor scheduling", IEEE Transactions on Parallel and Distributed Systems, Vol. 15, No. 9, 2004, pp. 824-834.</li> <li>18. G.Padmavathi and S.R.Vijayalakshmi, "Multiprocessor scheduling for tasks with priority using GA", International Journal of Computer Science Issues, IJCSI, Vol. 7, No. 1, 2010, pp. 37-42.</li> <li>19. Moore M., "An accurate parallel genetic algorithm to schedule tasks on a cluster", Parallel and Distributed Systems, Vol. 30, No. 5-6, 2004, pp. 567-583.</li> <li>20. Yao W, You J, Li B., "Main sequences genetic scheduling for multiprocessor systems using task duplication", Microprocessors and Microsystems, Vol. 28, No 2, 2004, pp. 85-94.</li> <li>21. Ceyda O, Ercan M "A genetic algorithm for multiprocessor task scheduling. In: TENCON 2004. IEEE region 10 conference, Vol. 2, 2004, pp. 68-170</li> <li>22. Cheng S, Huang Y "Scheduling multi-processor tasks with resource and timing constraints using genetic algorithm", IEEE international symposium on computational intelligence in robotics and automation, Vol. 2, 2003, pp 624-629.</li> <li>23. Zhong, Y.W., Yang, J.G., "A genetic algorithm for tasks scheduling in parallel multiprocessor systems". In: Proceedings of the Second International Conference on Machine Learning and Cybernetics, 2003, pp. 1785-1790</li> <li>24. Kamaljit Kaur, Amit Chhabra, Gurdinder Singh, "Heuristics Based Genetic Algorithm for Scheduling Static Tasks in Homogeneous Parallel System", International Journal of Computer Science and Security, Vol. 4, No.2, 2010, pp. 149-264</li> <li>25. Fatma A. Omara, Mona M. Arafa, "Genetic algorithms for task scheduling problem", Journal of Parallel and Distributed Computing, Vol. 70, No.1, 2010, pp. 13-22.</li> <li>26. Probir Roy, Md. Mejbah Ul Alam and Nishita Das, "Heuristic based task scheduling in multiprocessor systems with genetic algorithm by choosing the eligible processor", International Journal of Distributed and Parallel Systems (IJDPS) Vol. 3, No. 4, July 2012.</li> <li>27. Amit Bansal and Ravreet Kaur, "Task Graph Scheduling on Multiprocessor System using Genetic Algorithm", International Journal of Engineering Research &amp; Technology (IJERT), ISSN: 2278-0181, Vol. 1 Issue 5, July - 2012.</li> <li>28. Afaq Ahmad, Sayyid Samir Al-Busaidi, Mufeed Juma Al-Musharafi "On Properties of PN Sequences generated by LFSR - a Generalized Study and Simulation Modeling", Indian Journal of Science and Technology (IJST), vol. 6, no. 10, pp. 5351-5358, 2013.</li> <li>29. Ahmad, A. Al-Busaidi, S. S., Al Maashri, A., Awadalla, M., Rizvi, M. A. K., Mohanan, N., (2013) "Computing and Listing of Number of Possible m-Sequence Generators of Order n", Indian Journal of Science and Technology (IJST), vol. 6, no. 10, pp. 5359-5369, 2013</li> <li>30. Ahmad, A., and Bait-Shiginah, F., "A Nonconventional Approach to Generating Efficient Binary Gray Code Sequences", IEEE Potentials, vol. 31, no. 3, pp. 16-19, 2012</li> <li>31. Ahmad, A., Dawood Al-Abri, "Design of an Optimal Test Simulator for Built-In Self Test Environment", Journal of Engineering Research, vol. 7, no. 2, pp. 69 - 79, 2010</li> <li>32. Ahmad, A., and Mohammed M. Bait Suwailam, "A Less Complex Algorithmic Procedure for Computing Gray Codes", The Journal of Engineering Research, vol. 6, no. 2, , pp. 12 -19, 2009</li> <li>33. Ahmad, A., Al-Musharafi, M.J., and Al-Busaidi S., "A new algorithmic procedure to test m-sequences generating feedback connections of stream cipher's LFSRs", Proceedings IEEE conference on electrical and electronic technology (TENCON'01), Singapore, August 19 - 22, 2001, vol. 1, pp. 366 - 369</li> <li>34. Ahmad A., "Achievement of higher testability goals through the modification of shift register in LFSR based testing," International Journal of Electronics (UK), vol. 82, no. 3, pp. 249-260, 1997</li> <li>35. Ahmad A. and Elabdalla A. M., "An efficient method to determine linear feedback connections in shift registers that generate maximal length pseudo-random up and down binary sequences", Computer &amp; Electrical Engineering - An Int'l Journal (USA), vol. 23, no. 1, pp. 33-39, 1997</li> </ol>					
7.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Marek Ondruška</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Architecture Exception Governance Reference Model - Togaf Framework Extension</b></td> </tr> </table> <p><b>Abstract:</b> The paper proposes an extension for architecture framework Togaf. In particular, it addresses on architecture exceptions and their governance. The article covers a reference model for architecture exception governance (AEG RM) and the way how to integrate it with Togaf Framework. As part of AEG RM there is defined an entity called architecture exception with its main attributes. AEG RM defines all the processes necessary for architecture exception governance, roles and responsibilities, principles a procedures and supporting tools. There is one chapter dedicated only for integration of Togaf and AEG RM. As summary, the paper has two main focuses. The first one is to present architecture exception governance reference model. The second is to integrate the reference model with Togaf architecture Framework. The article requires at least basic knowledge in architecture governance and architecture framework Togaf.</p> <p><b>Keywords:</b> Architecture, Exception, Governance, Reference Model, Togaf.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. ISO. IEEE Recommended Practice for Architectural Description of Software-Intensive Systems. 2000. Retrieved from <a href="http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=875998">http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=875998</a></li> <li>2. Marks, E.A. Service-Oriented Architecture Governance for the Services Driven Enterprises, John Wiley &amp; Sons. 2008.</li> <li>3. Oracle. SOA Governance: Framework and Best Practices. Retrieved from <a href="http://www.oracle.com/us/technologies/soa/oracle-soa-governance-best-practice-066427.pdf">http://www.oracle.com/us/technologies/soa/oracle-soa-governance-best-practice-066427.pdf</a></li> <li>4. The Open Group. SOA Governance Framework. 2009. Retrieved from <a href="http://www.opengroup.org/projects/soa-governance/uploads/40/19263/soa_Governance_Architecture_v2.4.pdf">http://www.opengroup.org/projects/soa-governance/uploads/40/19263/soa_Governance_Architecture_v2.4.pdf</a></li> <li>5. The Open Group. TOGAF Version 9.1. The Open Group. Retrieved from <a href="http://pubs.opengroup.org/architecture/togaf9-doc/arch/">http://pubs.opengroup.org/architecture/togaf9-doc/arch/</a></li> <li>6. Weill P., Ross J.W. IT Governance: How Top Performers Manage IT Decision Rights for Superior Results. Harvard Business School Press. 2004.</li> </ol>	<b>Authors:</b>	<b>Marek Ondruška</b>	<b>Paper Title:</b>	<b>Architecture Exception Governance Reference Model - Togaf Framework Extension</b>	32-36
<b>Authors:</b>	<b>Marek Ondruška</b>					
<b>Paper Title:</b>	<b>Architecture Exception Governance Reference Model - Togaf Framework Extension</b>					
8.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Abdolvahab Agharkakli, Digvijay Pradip Wagh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Linear Characterization of Engine Mount and Body Mount for Crash Analysis</b></td> </tr> </table> <p><b>Abstract:</b> This study summarizes the methodology to find the linear mount characteristics with the help of mathematical models and comparison of these results with results from MATLAB simulations. The mounts are treated at the component level, and mathematical models for the same are evaluated to get the required characteristics. The mounts are modelled as spring and damper system subjected to impact loading that occurs during crash events. The approximation of input pulse has been described mathematically, which then serves to find the characteristics of the mounts. The change in the characteristics of mounts with the change in the velocity of impact</p>	<b>Authors:</b>	<b>Abdolvahab Agharkakli, Digvijay Pradip Wagh</b>	<b>Paper Title:</b>	<b>Linear Characterization of Engine Mount and Body Mount for Crash Analysis</b>	37-43
<b>Authors:</b>	<b>Abdolvahab Agharkakli, Digvijay Pradip Wagh</b>					
<b>Paper Title:</b>	<b>Linear Characterization of Engine Mount and Body Mount for Crash Analysis</b>					

	<p>has also been studied.</p> <p><b>Keywords:</b> Engine Mount, Body Mount, Vibration and Harshness (NVH), Crash Pulse Approximation</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. R. C. Puydak and R. S. Auda, A design approach for achieving optimum dynamic properties in elastomeric cab and body mounts. Polymer Labs, Enjay Labs. Div., Esso Res. and Engrg. Co. SAE transactions, paper no. 660439, 1966.</li> <li>2. Matthew Huang, G. P. Lawson, B. K. Powell, J. H. Walker, Characterization of vehicle deceleration time histories in the analysis of impact dynamics. Ford Motor Company. SAE transactions, paper no. 770013, 1977.</li> <li>3. James C. Cheng, Body mount crash characteristics identification test and analysis. Ford motor company. SAE transactions journal of commercial vehicles, paper no. 942255, 1994.</li> <li>4. P. Michel Miller and J. C. Lee, R. Krishna Murthy and James Chen, Role of the body mount on the passenger compartment response of a frame/body structured vehicle in frontal crash. MGA research co. Ford Motor co. SAE transactions, paper no. 980861, 1998.</li> <li>5. Matthew Huang, on body mount crash characteristics. Ford motor company. SAE transactions, paper no. 1999-01-3186, 1999.</li> <li>6. Stephen Kang, Matthew Huang, James Peng, Herbert Yang, Use of body mount stiffness and damping in CAE crash modeling. Ford Motor Company. SAE transactions, paper no. 2000-01-0120, 2000.</li> <li>7. Yijung Chen, Xiaodong Zhang, Tau Tyan and, Omar Faruque, Methodology on the testing of the automobile mount dynamic response. Ford motor company. SAE transactions, paper no. 2001-01-0474, 2001.</li> <li>8. Yijung Chen, Tau Tyan and, Omar Faruque, Dynamic testing and CAE modeling of body mount application in the frontal impact analysis of a body-on-frame vehicle. Ford Motor Company. SAE transactions, paper no. 2003-01-0256, 2003.</li> <li>9. Yijung Chen, Tau Tyan and, Omar Faruque, Dynamic testing and CAE modeling of engine mounts and their application in vehicle crash analysis. Vehicle Crash Safety, Ford Motor Company. SAE transactions, paper no. 2003-01-0257, 2003.</li> <li>10. Vehicle Crash Mechanics, Matthew Huang, SAE International, CRC Press.</li> <li>11. Numerical Methods for Engineers, S. C. Chapra, R. P. Canable. McGraw Hill, 1985.</li> <li>12. Dynamics of Vehicle Collisions, R. H. Macmillan. SAE International, 1983.</li> <li>13. Spring Design and Application, M. F. Spotts. McGraw Hill Co., 1961.</li> </ol>	
<b>Authors:</b>	<b>Farzad Vazinram, Majid Gandomkar, Javad Nikoukar</b>	
<b>Paper Title:</b>	<b>Optimal Active Power Rescheduling of Generators for Congestion Management Based On Big Bang-Big Crunch Optimization Using New Definition of Sensitivity</b>	
9.	<p><b>Abstract:</b> Restructuring of power systems and appearance and development of many electricity markets in all levels of power systems, introduce the congestion challenge of power transmission lines as a critical threat for power systems. Many studies have been attempted to present techniques for congestion management (CM). One of them is active power rescheduling of generators which has two steps. First step is optimum selection of generators on the basis of sensitivities of generator to power flow on congested line/lines. In this paper, the new definition of sensitivity is introduced based on the old definition of sensitivity that consists of cost factor. Next step of CM process is optimum rescheduling of generators power. In this paper, the optimization of rescheduling of generators power is performed based on Big Bang-Big Crunch (BB-BC) algorithm which is improved by Particle Swarm Optimization (PSO) method as Hybrid BB-BC (HBB-BC) optimization for the first time. Effectiveness of the results of proposed method has been tested on the 39-bus New England system and IEEE 30-bus and IEEE 118-bus systems.</p> <p><b>Keywords:</b> Big bang-big crunch algorithm, constraint, generator sensitivity, heuristic optimization, optimal rescheduling, transmission congestion management.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. R.D. Christie, B.F. Wollenberg, I. Wangersten, "Transmission management in the deregulated environment," Proceedings of the IEEE, vol. 88, no. 2, pp. 170-194, 2000.</li> <li>2. M. B. Mokhtari, F. Vazinram, M. Gandomkar, "Dynamic and Stability Analysis of Microgrids with Synchronous Machines in Grid-Connected and Islanded Modes," in: The 16th IEEE MELECON 2012, 25-28 March; 2012, pp. 788-791.</li> <li>3. Ch. Venkaiah, D.M. Vinod Kumar, "Fuzzy adaptive bacterial foraging congestion management using sensitivity based optimal active power re-scheduling of generators," Applied Soft Computing, vol. 11, pp. 4921-4930, 2011.</li> <li>4. Ashwani Kumar, S.C. Srivastava, S.N. Singh, "Congestion management in competitive power market: a bibliographical survey", Electric Power Systems Research, vol. 76, pp. 153-164, 2005.</li> <li>5. Y. H. Song and I-F. Wang, "Operation of Market Oriented Power Systems," New York: Springer, 2003, ch. 6.</li> <li>6. D.M. Vinod Kumar, Ch. Venkaiah, Swarm, "intelligence based security constrained congestion management using SSSC", in: Proceedings of APPEEC 2009, 2009.</li> <li>7. S. Dutta, S.P. Singh, "Optimal rescheduling of generators for congestion management based on particle swarm optimization," IEEE Transactions on Power Systems, vol. 23, no. 4, pp. 1560-1569, 2008.</li> <li>8. RS. Fang, A.K. David, "Transmission congestion management in an electricity market," IEEE Trans Power Syst, vol. 14, no. 3, pp. 877-883, 1999.</li> <li>9. H. Yang, R. Zhou, Y. Zhang, "A study of the curtailment model for bilateral transaction in power market environment," In: IEEE PES on PSCE, 29th October-1st November; 2006. pp. 1663-1667.</li> <li>10. B.K. Panigrahi, V. Ravikumar Pandi, "Congestion management using adaptive bacterial foraging algorithm," Energy Conversion and Management, vol. 50, pp. 1202-1209, 2009.</li> <li>11. M.I. Alomoush, S.M. Shahidehpour, "Contingency-constrained congestion management with a minimum number of adjustments in preferred schedules," Electr Power Energy Syst., vol. 22, 2000, pp. 277-290.</li> <li>12. A.B. Rodrigues, M.G. Da Silva, "Impact of multilateral congestion management on the reliability of power transactions," Electr Power Energy Syst., vol. 25, pp. 113-122, 2003.</li> <li>13. A. J. Conejo, F. Milano, and R. G. Bertrand, "Congestion management ensuring voltage stability," IEEE Trans. Power Syst., vol. 21, no. 1, pp. 357-364, Feb. 2006.</li> <li>14. K. Purchala, Meeus L Belmans R, "Implementation aspects of coordinated auctioning for congestion management," In: IEEE Bologna power tech conference, June 23rd-26th, Bologna, Italy, 2003.</li> <li>15. Ivan. Skokljević, Viktor. Maksimović, "Congestion management utilizing concentric relaxation". Serbian J Electr Eng., vol. 4, no. 2, pp. 189-206, 2007.</li> <li>16. K.L. Lo, Y.S. Yuen, L.A. Snider, "Congestion management in deregulated electricity markets," in: IEEE International Conference on Electric Utility Deregulation and Restructuring and Power Technologies 2000, 2000, pp. 47-52.</li> <li>17. Y.R. Sood, "Evolutionary programming based optimal power flow and its validation for deregulated power system analysis," Electr Power Energy Syst., vol. 29, no. 1, pp. 65-75, 2007.</li> <li>18. R. Gnanadas, N.P. Padhy, T.G. Palanivelu, "A new method for the transaction congestion management in the restructured power market," J Electr Eng, Elekrika, vol. 9, no. 1, pp. 52-58, 2007.</li> </ol>	44-52

	<p>19. T. Niimura, T. Nakashima, "Multiobjective tradeoff analysis of deregulated electricity transactions," <i>Electr Power Energy Syst.</i>, vol. 25, pp. 179–185, 2003.</p> <p>20. G. Granelli, M. Montagna, F. Zanellini, P. Bresesti, R. Vailati, and M. Innorta, "Optimal network reconfiguration for congestion management by deterministic and genetic algorithms," <i>Elect. Power Syst. Res.</i>, vol. 76, pp. 549–556, 2006.</p> <p>21. F. Jian and J. W. Lamont, "A combined framework for service identification and congestion management," <i>IEEE Trans. Power Syst.</i>, vol. 16, no. 1, pp. 56–61, Feb. 2001.</p> <p>22. A. Kumar, S. C. Srivastava, and S. N. Singh, "A zonal congestion management approach using ac transmission congestion distribution factors," <i>Elect. Power Syst. Res.</i>, vol. 72, pp. 85–93, 2004.</p> <p>23. Ashwani Kumar, S.C. Srivastava, S.N. Singh, "A zonal congestion management approach using real and reactive power rescheduling," <i>IEEE Transactions on Power Systems</i>, vol. 19, no. 1, pp. 554–562, 2004.</p> <p>24. G. Yesuratnam and D. Thukaram, "Congestion management in open access based on relative electrical distances using voltage stability criteria," <i>Elect. Power Syst. Res.</i>, vol. 77, pp. 1608–1618, 2007.</p> <p>25. H.Y. Yamina, S.M. Shahidehpour, "Congestion management coordination in the deregulated power market," <i>Electric Power Systems Research</i>, vol. 65, pp. 119–127, 2003.</p> <p>26. F. Capitanescu, T. Van Cutsem, "A unified management of congestions due to voltage instability and thermal overload," <i>Electric Power Systems Research</i>, vol. 77, pp. 1274–1283, 2007.</p> <p>27. J. Kennedy, R. Eberhart, "Particle swarm optimization," in: <i>IEEE Proceedings</i>, pp. 1942–1948, 1995.</p> <p>28. Y. Shi, "Particle swarm optimization," in: <i>IEEE Neural Networks Society</i>, pp. 8–13, 2004.</p> <p>29. Y. del Valle, G.K. Venayagamoorthy, S. Mohagheghi, J.-C. Hernandez, R.G. Harley, "Particle swarm optimization: basic concepts, variants and applications in power systems," <i>IEEE Transactions on Evolutionary Computation</i>, vol. 12, no. 2, pp. 171–195, 2008.</p> <p>30. Z.X. Chen, L.Z. Zhang, J. Shu, "Congestion management based on particle swarm optimization," in: <i>Proceedings of IEEE The 7th International Power Engineering Conference, 2005</i>, vol. 2, 2005, pp. 1019–1023.</p> <p>31. J. Hazra, A.K. Sinha, "Congestion management using multiobjective particle swarm optimization," <i>IEEE Transactions on Power Systems</i>, vol. 22, no. 4, pp. 1726–1734, 2007.</p> <p>32. K.M. Passino, "Biomimicry of bacterial foraging for distributed optimization and control," <i>IEEE Control Systems Magazine</i>, pp. 52–67, 2002.</p> <p>33. M. A. Rahim, I. Musirin, I. Z. Abidin, M. M. Othman, D.Joshi, "Congestion Management Based Optimization Technique Using Bee Colony," in: <i>The 4th International Power Engineering and Optimization Conf. (PEOCO2010)</i>, June 2010.</p> <p>34. B. Alatas, "Uniform Big Bang–Chaotic Big Crunch optimization," <i>Commun Nonlinear Sci Numer Simulat</i>, vol. 16, pp. 3696–3703, 2011.</p> <p>35. O.K. Erol and I. Eksin, "A new optimization method: big bang-big crunch," <i>Adv Eng Softw</i>, vol. 37, pp. 106–111, 2006.</p> <p>36. O. Alsac and B. Stott, "Optimal load flow with steady-state security," <i>IEEE Trans. Power App. Syst.</i>, vol. PAS-93, pp. 745–751, 1974.</p> <p>37. L. L. Freris and A. M. Sasson, "Investigation of the load flow problem," <i>Proc. Inst. Elect. Eng.</i>, vol. 115, no. 10, pp. 1459–1466, 1968.</p> <p>38. B. K. Talukdar, A. K. Sinha, S. Mukhopadhyay, and A. Bose, "A computationally simple method for cost-efficient generation rescheduling and load shedding for congestion management," <i>Int. J. Elect. Power Energy Syst.</i>, vol. 27, no. 5, pp. 379–388, Jun.–Jul. 2005.</p>	
	<b>Authors:</b>	<b>S.M Subramanian, G.Kavya, M.Sujatha U.Santhana Bharathy</b>
	<b>Paper Title:</b>	<b>Moving Object Tracking in Video Scenes Embedded Linux Platform</b>
10.	<p><b>Abstract:</b> Video tracking in real time is one of the most important topic in the field of medical. Detection and tracking of moving objects in the video scenes is the first relevant step in the information extraction in many computer vision applications. This idea can be used for the surveillance purpose, video annotation, traffic monitoring. In this paper, we are discussing about the different methods for the video tracking using Python Opencv software and the implementation of the tracking system on the Beagleboard XM. Background Subtraction method, and color based contour tracking are the different methods using for the tracking. And finally, we concluded that the background subtraction method is most efficient method for tracking all the moving objects in the frames.</p> <p><b>Keywords:</b> Surveillance, python opencv, background Subtraction method, Contour tracking.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Alexander Kolarow And Michael Brauckmann, "Vision –Based Hyper-Real- Time Object Tracker For Robotic Applications" <i>Ieee Conference On Intelligent Robots And Systems Ieee-2012</i>,</li> <li>Afef Salhi And Ameni Yengui Jammoussi, "Objecttracking System Using Camshift, Meanshift And Kalman Filter", <i>World Academy Of Science, Engineering And Technology</i>, 2012</li> <li>Alok K. Watve, <i>Indian Institute Of Technology, Kharagpur</i>, Seminar On "Object Tracking In Video Scenes", 2005.</li> <li>Amir Salarpour And Arezoosalarpour And Mahmoud Fathi And Mirhosseindezfulian, "Vehicle Tracking Using Kalman Filter And features", <i>Signal &amp; Image Processing : An International Journal (Sipij)</i> Vol.2, No.2, June 2011.</li> <li>C. Lakshmi Devasena, R. Revathi, "Video Surveillance System-Asurvey", <i>Ijcsi International Journal Of Computer Science Issues</i>, Vol8, Issue 4, No.1, Jult 2011</li> <li>Flavio B. Vidal And Victor H. Casanova Alcalde (2010). "Object Visual Tracking Using Window-Matching Techniques And Kalman Filtering", <i>Kalman Filter, Vedrankordic (Ed.)</i>, Isbn: 978-953-307-094-0.</li> <li>Greice Martins De Freitas, Clésio Luis Tozzi, "Object Tracking Bymultiple State Management And Eigenbackground Segmentation", <i>International Journal Of Natural Computingresearch</i>, 1(4), 29-36, October-December 2010.</li> <li>Hamidrezarashidykanan And Parastokarimi, "Visual Objecttracking Using Fuzzy-Based Thresholding And Kalman Filter", <i>International Journal Of Modeling And Optimization</i>, Vol. 2, No. 3, June 2012.</li> <li>Jiyan Pan, Bo Hu, And Jianqiu Zhang, "An Efficient Object Tracking Algorithm With Adaptive Prediction Of Initial Searching Point", <i>2006 Ieee Pacific-Rim Symposium On Imageand Video Technology (Psvit'06)</i>, December 2006.</li> <li>Mr. D. W. Chinchkhede &amp; Mr. N. J. Uke, "Image Segmentation Invideo Sequences Using Modified Background Subtraction" <i>International Journal Of Computer Science &amp; Information Technology (Ijcsit)</i> Vol 4, No 1, Feb 2012.</li> <li>Priti P. Kuralkar, Prof. V.T.Gaikwad, "Human Object Trackingusing Background Subtraction And Shadow Removal Techniques", <i>International Journal Of Advanced Research Incomputer Science And Software Engineering</i>, Volume 2, Issue 3, March 2012.</li> <li>R. Revathi, M. Hemalatha, "Certain Approach Of Object Tracking Using Optical Flow Techniques", <i>International Journalof Computer Applications (0975 – 8887)</i> Volume 53– No.8, September 2012.</li> <li>Sa. Vigus, D.R.Bul1, C.N.Canagarajah, "Video Object Trackingusing Region Split And Merge And A Kalman Filter Tracking Algorithm", <i>Ieeeconference On Image Processing</i>, P 650-653, August 2001.</li> </ol>	53-56
11.	<p><b>Authors:</b></p> <p><b>Paper Title:</b></p> <p><b>Abstract:</b> The aging is an effective factor on the quality of standing in healthy subjects. Some neural disorders, degrades the quality of standing, so that the quality of standing in young patient may be as well as the quality of</p>	<p><b>Farshad Samaei, Maryam Daneshfar, Samane Safari Beydokhti</b></p> <p><b>Quantification of the Human Postural Control Using the Nonlinear Analysis of Cop Variations during the Quiet Standing</b></p> <p><b>57-60</b></p>

standing in elderly healthy subject. So in this study, the subjects were divided to five age groups, and the age group the subject belonging to it is the measure to quantify the quality of postural control. The subjects were aged between 25-75 years old. The Center of Pressure (CoP) position variations and Center of Pressure (CoP) position velocity during the quiet standing were analyzed through the RQA (Recurrence Quantification Analysis) method. The extracted nonlinear features were fed to the nonlinear classifiers, and the output of classifiers specified the age group which each subject belongs to it. The SVM, MLP neural network, and RBF neural network were the used classifiers. In this manner, the quality of subject postural control could be quantified between 1 to 5. Results show the SVM classifier with polynomial kernel reached the best performance of 97.44% accuracy.

**Keywords:** Quiet Standing, Quantification, Aging, RQA, Nonlinear classification.

**References:**

1. Popovic, D., Feedback Controller for Regulating the Active Ankle Torque During Quiet Stance. *Ieee transactions on neural systems and rehabilitation engineering*, vol. 15, No. 2, June 2007, 2007.
2. Vette, K.M., Posturographic measures in healthy young adults during quiet sitting in comparison with quiet standing. *Elsevier, Medical Engineering & Physics* 32 (2010) 32–38, 2010
3. Benoit-Seigle, S.R., Dynamical structure of center of pressure fluctuations in elderly people. *Elsevier, Gait & Posture* 30 (2009) 223–226, 2009.
4. Kei Masani, A.H.V., Larger center of pressure minus center of gravity in the elderly induces larger body acceleration during quiet standing. *Elsevier, Neuroscience Letters* 422 (2007) 202–206, 2007
5. Patrick D. Neuls, Usefulness of the Berg Balance Scale to Predict Falls in the Elderly, *Journal of GERIATRIC Physical Therapy*, 2011.
6. Elizabeth T. Hsiao-Weckslera, K.K., Predicting the dynamic postural control response from quiet-stance behavior in elderly adults. *Elsevier, Journal of Biomechanics* 36 (2003) 1327–1333, 2003
7. F.M. Birleanu, C. Gervasio, On The Recurrence Plot Analysis Method Behavior Under Scaling Transform, 2011 IEEE Workshop on Statistical Signal Processing, 2011.
8. Feuerbach and T.M.L.a.J.W. Mark D Grabiner, Converting Chattecx Balance System Vertical Reaction. *Journal of the American Physical Therapy Association*, 1993.
9. D A Winter, human balance and posture control, *Gait & Posture*: 1995; Vol. 3: 193-214, December
10. Helene Corriveau, R.H., Michel Raïche, Postural stability in the elderly: empirical confirmation of a theoretical model. *Elsevier, Archives of Gerontology and Geriatrics* 39 (2004) 163–177, 2004.
11. Katerina Stambolieva, Fractal properties of postural sway during quiet stance with changed visual and proprioceptive inputs, *J Physiol Sci* (2011) 61:123–130.
12. Itshak Melzer a, I.K.a., Lars I.E. Oddsson, A retrospective analysis of balance control parameters in elderly fallers and non-fallers. *Elsevier, Clinical Biomechanics* 25 (2010) 984–988, 2010.
13. J. Griskevicius, E.J., Evaluation of human postural balance in quiet standing by direct measurement of human body center of mass acceleration. *Journal of Vibration Engineering*, 2009.
14. Jacques Vaillant, N.V., Effect of manipulation of the feet and ankles on postural control in elderly adults. *Elsevier, Brain Research Bulletin* 75 (2008) 18–22, 2008.
15. Jeong-Jung Kim, T.-Y.C.a.J.-J.L., Falling Avoidance of Biped Robot using State Classification. *Proceedings of 2008 IEEE International Conference on Mechatronics and Automation*, 2008.
16. Joseph, P. Zbilut, C.L., Recurrence Quantification Analysis. *Wiley Encyclopedia of Biomedical Engineering*, 2006.
17. K.M. Newell, S.M.S., Stochastic processes in postural center-of-pressure profiles. *Springer*, 1997.
18. B.E. Maki, W.E. McLroy, Postural control in the older adult, *Clin. Geriatr. Med.* 12 (1996) 635–658.

**Authors:** Rajeshkumar Gangaram Bhandare, Parshuram M. Sonawane

**Paper Title:** Preparation of Aluminium Matrix Composite by Using Stir Casting Method

**Abstract:** The “composite material” is composed of a discrete reinforcement & distributed in a continuous phase of matrix, In Aluminium matrix composite (AMC) one constitutes is aluminium which forms network i.e. matrix phase and another constitute serve as reinforcement which is generally ceramic or non metallic hard material. The basic reason of metals reinforced with hard ceramic particles or fibers are improved properties than its original material like strength, stiffness etc. Stir casting process is mainly used for manufacturing of particulate reinforced metal matrix composite (PMMC). Manufacturing of aluminum alloy based casting composite by stir casting is one of the most economical method of processing MMC. Properties of these materials depend upon many processing parameters and selection of matrix and reinforcements. This paper presents an overview of stir casting process, process parameter, & preparation of AMC material by using aluminium as matrix form and SiC, Al<sub>2</sub>O<sub>3</sub>, graphite as reinforcement by varying proportion.

**Keywords:** Stir casting process, Aluminum Matrix composite, Reinforcement, Mixing and Agitation.

**References:**

1. M K SURAPPA, “ALUMINIUM MATRIX COMPOSITES: CHALLENGES AND OPPORTUNITIES,”
2. B.C. PAI, R.M.PILLAI AND K.G.SATYANARAYANA “LIGHT METAL MATRIX COMPOSITES - PRESENT STATUS AND FUTURE STRATEGIES”
3. Muhammad Hayat Jokhio, Muhammad Ibrahim Panhwar, And Mukhtiar Ali Unar “MANUFACTURING OF ALUMINUM COMPOSITE MATERIAL USING STIR CASTING PROCESS” *Mehran University Research Journal Of Engineering & Technology*, Volume 30, No. 1, January, 2011 [Issn 0254-7821]
4. M. N. Wahab, A. R. Daud and M. J. Ghazali ” PREPARATION AND CHARACTERIZATION OF STIR CAST-ALUMINUM NITRIDE REINFORCED ALUMINUM METAL MATRIX COMPOSITES” *International Journal of Mechanical and Materials Engineering (IJMME)*, Vol. 4 (2009), No. 2, 115-117
5. J Hashim, L Looney, M.S.J. Hashim “THE ENCHANCEMENT OF WETABILITY SIC PARTICLE IN CAST ALUMINIUM MATRIX COMPOSITE” *Journal of material processing technology* 119(2001) 329- 335
6. Dunia Abdul Saheb “ALUMINUM SILICON CARBIDE AND ALUMINUM GRAPHITE PARTICULATE COMPOSITES” *ARPN Journal of Engineering and Applied Sciences* VOL. 6, NO. 10, OCTOBER 2011 ISSN 1819-6608
7. Pradeep Sharma, Gulshan Chauhan, Neeraj Sharma ”PRODUCTION OF AMC BY STIR CASTING- AN OVERVIEW” *International Journal of Contemporary Practises* Vol.2 Issue1
8. S. Naher, D. Brabazon, L. Looney “SIMULATION OF THE STIR CASTING PROCESS” *Journal of Materials Processing Technology* 143–144 (2003) 567–571
9. G. G. Sozhamannan1\*, S. Balasivanandha Prabu2, V. S. K Venkatagalapathy1 “ EFFECT OF PROCESSING PARAMTERS ON METAL

12.

	<b>Authors:</b> K. Pramod Kumar, P. Anitha, M. C. P Jagdish	
	<b>Paper Title:</b> Built In Self Repair for Embedded Sram Using Selectable Redundancy	
13.	<p><b>Abstract:</b> Built-in self-test (BIST) refers to those testing techniques where additional hardware is added to a design so that testing is accomplished without the aid of external hardware. Usually, a pseudo-random generator is used to apply test vectors to the circuit under test and a data compactor is used to produce a signature. To increase the reliability and yield of embedded memories, many redundancy mechanisms have been proposed. All the redundancy mechanisms bring penalty of area and complexity to embedded memories design. Considered that compiler is used to configure SRAM for different needs, the BISR had better bring no change to other modules in SRAM. To solve the problem, a new redundancy scheme is proposed in this paper. Some normal words in embedded memories can be selected as redundancy instead of adding spare words, spare rows, spare columns or spare blocks. Built-In Self-Repair (BISR) with Redundancy is an effective yield-enhancement strategy for embedded memories. This paper proposes an efficient BISR strategy which consists of a Built-In Self-Test (BIST) module, a Built-In Address-Analysis (BIAA) module and a Multiplexer (MUX) module. The BISR is designed flexible that it can provide four operation modes to SRAM users. Each fault address can be saved only once is the feature of the proposed BISR strategy. In BIAA module, fault addresses and redundant ones form a one-to-one mapping to achieve a high repair speed. Besides, instead of adding spare words, rows, columns or blocks in the SRAMs, users can select normal words as redundancy.</p> <p><b>Keywords:</b> SRAM, (SISR), (BIAA), (MUX), SRAMs.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Semiconductor Industry Association, “International technology roadmap for semiconductors (ITRS), 2003 edition,” Hsinchu, Taiwan, Dec.2003.</li> <li>2. C. Stapper, A. McLaren, and M. Dreckman, “Yield model for Productivity Optimization of VLSI Memory Chips with redundancy and Partially good Product,” IBM Journal of Research and Development, Vol. 24, No. 3, pp. 398-409, May 1980.</li> <li>3. W. K. Huang, Y. H. shen, and F. lombrardi, “New approaches for repairs of memories with redundancy by row/column deletion for yield enhancement,” IEEE Transactions on Computer-Aided Design, vol. 9, No. 3, pp. 323-328, Mar. 1990.</li> <li>4. P. Mazumder and Y. S. Jih, “A new built-in selfrepair approach to VLSI memory yield enhancement by using neuraltype circuits,” IEEE transactions on Computer Aided Design, vol. 12, No. 1, Jan, 1993.</li> <li>5. H. C. Kim, D. S. Yi, J. Y. Park, and C. H. Cho, “A BISR (built-in self- repair) circuit for embedded memory with multiple redundancies,” VLSI and CAD 6th International Conference, pp. 602-605, Oct. 1999.</li> <li>6. Shyue-Kung Lu, Chun-Lin Yang, and Han-Wen Lin, “Efficient BISR Techniques for Word-Oriented Embedded Memories with Hierarchical Redundancy,” IEEE ICIS-COMSAR, pp. 355-360, 2006.</li> <li>7. C. Stroud, A Designer’s Guide to Built-In Self-Test, Kluwer Academic Publishers, 2002.</li> <li>8. Karunaratne. M and Oomann. B, “Yield gain with memory BISR-acase study,” IEEE MWSCAS, pp. 699-702, 2009.</li> <li>9. i. Kang, W. Jeong, and S. Kang, “ High-efficiency memory BISR with two serial RA stages using spare memories,” IET Electron. Lett., vol. 44, no. 8, pp. 515-517, Apr. 2008.</li> <li>10. Heon-cheol Kim, Dong-soon Yi, Jin-young Park, and Chang-hyun Cho, “A BISR (Built-In Self-Repair) circuit for embedded memory with multiple redundancies,” in Proc. Int. Conf. VLSI CAD, Oct. 1999, pp. 602-605.</li> <li>11. M. Sachdev, V. Zieren, and P. Janssen, “ Defect detection with transient current testing and its potential for deep submicron CMOS ICs,” IEEE International Test Conference, pp. 204-213, Oct. 1998.</li> <li>12. Mentor Graohics, MBISTArchitect Process Guide, Software Version 8.2009_3, Aug 2009, pp. 113-116.f</li> <li>13. Pavlov. Andrei and Sachdev. Manoj, CMOS SRAM Circuit Design and Parametric Test in Nano-Scaled</li> </ol>	66-69
14.	<p><b>Authors:</b> Lois Onyere Nwobodo, H.C Inyama</p> <p><b>Paper Title:</b> Modelling a Knowledge Management System for an Electricity Company</p> <p><b>Abstract:</b> Knowledge Management system is a system that will allow employees or users to get the required information they need and at the required time, anytime and anywhere as far as there is a network coverage in that area, this will make them perform their duties well. This system is made up of a program runner which is the PC, this is called the Server, the GSM modem that aids the user's phone to communicate with the Server even when connected, MongoDB is a database System that stores data as JSON-like documents with dynamic schemas, Chrome browser, a software application used to locate, retrieve and also display content on the World Wide Web. AT Command that establishes communication between the Modem and the Server. JavaScript and HTML, Protocol Distribution Unit that also helped in the processes of this Project. The project is suitable for broad range of applications as it can be applied in various areas of human life. It can be customized to fit in any organization. Corporate bodies like Communication Companies, Oil firms, Banks can use a Knowledge Management System to get useful information from experts to keep their jobs moving effectively and also to attend to, and satisfy their customers by providing prompt answers to their queries. Generally, it is a means the organisational intellectual resources and information are within the business environment.</p> <p><b>Keywords:</b> Company, Electricity, Knowledge, Management, Modelling.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. F. Blackler, Knowledge Work and Organizations: An Overview and Interpretation, Organization Studies, 1995.</li> <li>2. Kogut and Zander, Knowledge and the Flow of Information, Cambridge, Cambridge University Press, 1988.</li> <li>3. M. H. Zack, J. H. Grant and D. R. Guyawali, Developing a Knowledge Strategy, California Management Review, Strategic Process Improvement through Organizational Learning, 1996.</li> <li>4. R. E. Bohn, An Informal Note on Knowledge and How to Manage It, Harvard Business School, Publishing Division, Boston, Massachusetts, 1986,1991.</li> </ol>	70-75

	5. J. S. Brown, P. Duguid, T. Davenport, S. Jarvenpaa, and M. Beers, Improving Knowledge Work Processes, Sloan Management Review, 1996.	
	6. Cathy Nutbrown, A student's Guide to Methodology, Super Saver Delivery, 2002, page 9.	
	7. James F. Kurose, Keith W. Ross, Computer Networking: A Top-Down Approach, Addison Wesley Higher Education, 2010.	
15.	<b>Authors:</b>	<b>Asmita Jadhav, Mayank Kachroo, Mahesh Hegde Ruchita Mantri, Harshada Ratnaparkhi</b>
	<b>Paper Title:</b>	<b>Optimization in Design of Rotating Hydraulic Crane</b>
	<p><b>Abstract:</b> This is the paper summarizing and reviewing research in Optimization in Design Of Rotating Hydraulic Workshop Crane Included 1) Brief Introduction to Hydraulics 2)Application &amp; Advantages of Hydraulic Floor Crane 3) Concept generation Detailed Design &amp; Force distribution analysis 4) computer-based models of design processes using CATIA &amp; ANSYS &amp; Manufacturing Process5)A final section is Conclusion by using SWOT Analysis</p> <p><b>Keywords:</b> About four key words or phrases in alphabetical order, separated by commas.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Industrial Fluid Power By S.R. Mujumdar, Tata Mc Graw Hill.</li> <li>2. Textbook Of Manufacturing Processes, Se Mech</li> <li>3. Fluid Power With Application, Anthony Espicto, Pearson Publication, Sixth Edition.</li> <li>4. Machine Design By Khurmi Gupta</li> <li>5. Strength Of Materials, Se Mech.</li> </ol>	
16.	<b>Authors:</b>	<b>Surya J. Khivsara, Minakshi S.</b>
	<b>Paper Title:</b>	<b>Seminar and Project Manager and Resourceful Trainer</b>
	<p><b>Abstract:</b> This paper presents an approach to eradicate all of the confusion which surrounds anyone while preparing for the project and seminar. Also it aims in helping the institution to manage the previous batch's seminars and project. Seminar and project activity mainly deals with effective data searching and keeping pace with emerging technologies. This paper focuses the concepts like keeping data at one place, providing guidance related to Projects and seminars. This paper can represent an application that can be used by anyone for solving queries related to project and seminar.</p> <p><b>Keywords:</b> This paper focuses the concepts like keeping data at one place, providing guidance related to Projects and seminars.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. A K Munns and B F Bjeirmi, "The role of project management in achieving project success", International Journal of Project Management Vol. 14, No. 2, pp. 81-87, 1996 © 1996 Elsevier Science Ltd and IPMA Printed in Great Britain 0263-7863/96</li> <li>2. M.R. Martínez-Torres, S.L. Toral, F. Barrero, F. Cortés, (2010) "The role of Internet in the development of future software projects", Internet Research, Vol. 20 Iss: 1, pp.72 – 86</li> <li>3. Petter Gottschalk, Jan Terje Karlsen, (2005) "A comparison of leadership roles in internal IT projects versus outsourcing projects", Industrial Management &amp; Data Systems, Vol. 105 Iss: 9, pp.1137 – 1149</li> <li>4. Sharon Markless and David Streatfield "Information Management Associates "The Library and Information Commission 2000 Grant Number: LIC/RE/001 ISBN 0-9538432-2-X ISSN 1466-2949E</li> <li>5. Christina M.Finneran,"Flow in computer mediated environments: Promises and challenges", Communication of the association for the Information system(volume 15,2005),82-101</li> <li>6. Neil Selwn," Faceworking: exploring studentds education related use of facebook" DOI 101080/17439880902923622</li> <li>7. Kathleen M. Eisenhardt, "Building theories from case study research", Standford California-94305</li> </ol>	
17.	<b>Authors:</b>	<b>Zakaula, A.R.Anwar Khan, P.G.Mukunda</b>
	<b>Paper Title:</b>	<b>Effect of Reinforcement Coatings on the Dry Sliding Wear Behavior of Al6061/SiC Particles/Gr Powder Hybrid Composites</b>
	<p><b>Abstract:</b> Aluminum matrix composites with Silicon carbide (SiC) and Graphite (Gr) particles are finding increased applications because of improved mechanical and tribological properties. SiC particles are used to increase the hardness of composite while Graphite acts like a solid lubricant. The present investigation deals with Dry sliding wear of an Al6061 reinforced with both Cu coated SiC particles and Cu coated Graphite powder. Copper coating improved the wetting of SiC and Gr by molten aluminum alloy during processing and then dissolved in aluminum matrix to increase the hardness and improve antifricition properties. The wear resistance of hybrid composites having reinforcements coated with Copper is better than that of composites with same content of uncoated reinforcements. Worn surfaces of the pins are analyzed using Scanning Electron Microscope to study the wear mechanisms and to correlate them with the wear test results.</p> <p><b>Keywords:</b> Electroless technique, Hybrid composites, Cu coated SiC, Specific wear rate.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Hybrid composite manufactured with Cu coated reinforcements shows increased wear resistance as compared to the uncoated reinforcements because of improved wettability and possibly formation of Al<sub>2</sub>Cu which hardens the composites.</li> <li>2. Cu coated reinforcements in hybrid composites showed reduced coefficient of friction when compared with that having uncoated reinforcements</li> <li>3. Due to the wetting of SiC particles and graphite powders by copper coating , high interfacial bonding strength was achieved which is a key factor in improving wear behavior .</li> <li>4. SEM observation of wear surfaces of specimens containing Cu coated reinforcements revealed that worn surfaces were smooth and uniform and was incorporated with mechanically mixed layers. REFERENCES</li> <li>5. D.B.Miracle, Metal matrix composites –From science to technological significance, composite science and technology, 65, (2005), 2526-2540.</li> <li>6. T. Zeuner, P. Stojanov, P.R. Saham, H. Ruppert, A. Engels, Developing trends in disc brake technology for rail application, Mater. Sci.</li> </ol>	

Technol. 14 (1998) 857–863.

7. R. Dwivedi, Development of Advanced Reinforced Aluminum Brake Rotors, SAE Technical Paper Series, 950264, Warrendale, USA, 1995, 8 p.
8. T. Miyajima, Y. Iwai; Effects of reinforcements on sliding wear behavior of aluminum matrix composites, *Wear* 255 (2003) 606–616.
9. J.P.Pathak, J.K.singh & S.Mohan, Synthesis and characterization of aluminium-silicon-silicon carbide composites, *Indian journal of Engineering and Material science*, 13,(2006), 238-246.
10. G.B.Veeresh Kumar, C.S.P Rao, N.Selvaraj, Mechanical and Tribological Behavior of particulate reinforced Aluminium metal matrix composites, *Journal of minerals and materials characterization and Engineering*, 10,2011,59-91.
11. Soheli Mahdavi, Farshad Akhlaghi, Effect of SiC content on processing, compaction behavior, and properties of Al6061/SiC/Gr hybrid composites, *Journal of material science*, 46, (2011), 1502-1511.
12. S. Suresha, B.K.Sridhara, Effect of silicon carbide particulates on wear resistance of graphitic aluminium matrix composites, *Materials and Design*, 31, (2010), 4470-4477.
13. S.F.Moustafa, S.A.El-Badry, A.M.Sanad, B.kieback, friction and wear of copper-graphite composites made with Cu-coated and uncoated graphite powders, *wear*, 253, (2002), 699-710.
14. HU Zhong-liang, CHEN Zhen-hua, XIA Jin-tong, JING Guo-yun, Properties of electric brushes made with Cu-coated graphite composites and with copper powders, *Transaction of Non Ferrous Metals of China*, 17, (2007), 1060-1064.
15. Rohatgi PK, Guo R Kim JK, Rao S, Stephenson T, wanner T. Wear and friction of cast Al-SiC-Gr Indianapolis, Indiana: 15-18, 1997, p.205 - 211.
16. Basavarajappa S, Chandramohan G, mahadevan Arjun, Tangavelu mukundan, influence of sliding speed on dry sliding wear behavior and subsurface deformation on hybrid metal matrix composite. *Wear* 262 (2007),1007- 1012.
17. Wang, R.M., Surappa, M.K., Tao, C.H., Li, C.Z., Yan, M.G. Microstructure and interface structure studies of SiCp-reinforced Al6061 metal-matrix composites. *material science and Engineering*, vol. 254,(1998) p. 219-226.
18. Shi, Z., Yang, J.M., Fan, T., Zhang, D., Wu, R. The melt structural characteristics Concerning the interfacial reaction in SiC(p)/Al composites. *Appl Phys A*, vol. 71,(2000) p. 203-209.
19. Lee, J.C., Ahn, J.P., Shim, J.H., Shi, Z., Lee, H.I. Control of the interface in SiC/Al composites. *Scripta Mater*, vol. 41, (1999) p.895-900.
20. Hashim, J., Looney, L., Hashmi, M.S.J. The wettability of SiC particles by molten aluminium alloy, *Jof Mater proc Tech*, vol. 119, (2001) p. 324-328.
21. Hashim, J., Looney, L., Hashmi, M.S.J... The enhancement of wettability of SiC particles in cast aluminium matrix composites. *Jof Mater proc Tech*, vol. 119, (2001) 329-335.
22. Deonath, P.k.Rohatgi, cast aluminium alloy composites containing Copper-coated ground mica particles, *Journal of Material science*, 16,(1981), 1599-1606.
23. A.M.Davidson, D.Regener, A comparison of Aluminium based metal matrix composites reinforced with coated and uncoated particulate silicon carbide, *composite science and Technology*, 60, (2000), 865-869.
24. A. Urena, J. Rams, M. Campo, M. Sánchez, Effect of reinforcement coatings on the dry sliding wear behavior of aluminium/SiC particles/carbon fibres hybrid composites, *wear*, 266,(2009), 1128-1136.

**Authors:** K. Selvam, B. Vishnupriya, M. Maanvizhi

**Paper Title:** Enzymatic Synthesis of Fragrance Ester by Lipase from Marine Actinomycetes for Textile Industry

**Abstract:** The present study was carried out to investigate the enzymatic synthesis of fragrance ester from brewery industry effluent by lipase of *S. acrimycini* NGP 1, *S. albobriseolus* NGP 2 and *S. variabilis* NGP 3 which was isolated from the marine sediments of South Indian coastal region. The maximum conversion percentage of ester by lipase producing *S. variabilis* NGP 3 was 48.72 % and also a strong peak at 1745.21 cm<sup>-1</sup> was observed by fourier transform infrared (FTIR) spectroscopy which indicated the presence of ester (C = O). The synthesized esters were imparted on the knitted fabric by exhaustion and microencapsulation method. In the qualitative evaluation of fragrance test for exhausted and microencapsulated knitted fabric, the judges were rated ‘2’ (indicates poor) and ‘4’ (indicates fair) respectively for the sensorial fragrance emitted from the fabric coated by the ester of *S. variabilis* NGP 3. In the quantitative evaluation, fragrance releasing percentage from exhausted and microencapsulated knitted fabric was found as 31.14 and 39.78 respectively on 48 hrs of treatment. Both qualitative and quantitative evaluation of fragrance test indicated that, the microencapsulated ester of *S. variabilis* NGP 3 on the knitted fabric emitted better fragrance than by exhausted fabric.

**Keywords:** Ester, exhaustion, microencapsulation, knitted fabric.

**References:**

1. Maldonado, L.A., W. Fenical, P.R. Jensen, C.A. Kauffman, T.J. Mincer, A. C. Ward, A.T. Bull and M. Goodfellow, “*Salinospora arenicola* gen sp. nov. and *Salinospora tropica* sp. nov., obligate marine actinomycetes belonging to the family Micromonosporaceae,” *Int J Syst. Evol. Microbiol.*, vol 55, 2005, pp 1759 - 1766.
2. Hill, R.T, “Microbes from marine sponges; a trove of biodiversity of natural products discovery. In *Microbial diversity and Bioprospecting*,” Edited by Bull AT. ASM press., 2004, pp177 - 190.
3. Madrid, V.M., J.Y. Aller, R.C Aller, A.Y. Christoserdov, “High prokaryote diversity and analysis of community structure in mobile mud off French Guiana, identification of two new bacterial candidate divisions,” *FEMS Microbial Ecol.*, vol 37, 2001, pp 197 - 209.
4. Bull, A.T., J.E.M. Stach, A.C. Ward and M. Goodfellow, “Marine actinobacteria: perspectives, challenges, future directions,” *Antonie Van Leeuwenhoek.*, vol 87, 2005, pp 65 - 79.
5. El-Sersy, N. A., H. Abd - Elnaby, G. M. Abou - Elela, A. H. Ibrahim and M. K. El-Toukhy, “Optimization, economization and characterization of cellulase produced by marine *Streptomyces ruber*,” *Afr. J. Biotechnol.*, vol 9, 2010, pp 6355 - 6364.
6. Haritha, R., K. Sivakumar, J. V. Mohan and T. Raman, “Amylolytic and proteolytic actinobacteria isolated from the marine sediments of Bay of Bengal,” *Int. J. of Micr. Res.*, vol 1, 2010, pp 37 - 42.
7. Posorske, L.H, “Industrial scale applications of enzymes to be fats and oil industry,” *J. Am. Oil. Chem. Soc.*, vol 61, 1984, pp 1758 - 1760.
8. Vakhlu, J and A. Kour, “Yeast lipases: enzyme purification, biochemical properties and gene cloning,” *Electric J. Biotechnol.*, vol 9, 2006, pp 15 - 22.
9. Wang, D., X. U. Yan and T. Shan, “Effects of oils and oil related *Rhizopus chinensis* and optimization of the lipase fermentation media,” *Biochemical Eng. J.*, vol 41, 2008, pp 30 - 37.
10. Immanuel, G., P. Esakkiraj, A. Jeladhas, P. Iyapparaj and P. Arunachalam, “Investigation of lipase production by milk isolate *Serratia rubidara*,” *Food technol. Biotechnol.*, vol 46, 2008, pp 60 - 65.
11. Rajesh, E. M., R. Arthe, R. Rajendran, C. Balakumar, N. Pradeepa and S. Anitha, “Investigation of lipase production by *Trichoderma reesei* and optimization of production parameters,” *J. Environ. Agric. Food Chem.*, vol 9, 2010, pp 1177 - 1189.
12. Nadia, N., Z. A. Nehad, A. E. Elsayed, M. A. Essam and M. A. Hanan, “Optimization of lipase synthesis by *Mucor racemosus* production in a triple impeller bioreactor,” *Malays. J. Microbiol.*, vol 6, 2010, pp 7 - 15.
13. Padmapriya, B., T. Rajeswari, E. Noushida, D. G. Sethupalan and C. K. Venil, “Production of lipase enzyme from *Lactobacillus* spp., and its application in the degradation of meat,” *World Appl. Sci. J.*, vol 12, 2011, pp 1798 - 7802.

	<p>14. Sebdani, R. M., M. R. Ardakani, G. R. Ghezalbash and M. Sadrinasab, "Phylogenetic characterization of lipase producing Bacillus strains isolated from Persian Gulf sediments," Aust. J. Basic Appl. Sci., vol 5, 2011, pp 121 - 126.</p> <p>15. Elibol, M and D. Ozer, "Influence of oxygen transfer on lipase production by Rhizopus arrhizus," Proc. Biochem., vol 36, 2010, pp 325 - 329.</p> <p>16. Saxena, R. K., P. K. Ghosh, R. Gupta, W. S. Davidson, S.Bradoo and R. Gulati, Curr. Sci., vol 77, 1999, 101.</p> <p>17. Guvenc, A., N. Kapucu and U. Mehmetoglu, "The production of isoamyl acetate using immobilized lipase in a solvent-free system," Precess Biochem., vol 38, 2002, pp 379 - 386.</p> <p>18. Krishna, S. H., S. Divakar, S. G. Prapulla and N. G. Karanth, "Enzymatic synthesis of isoamyl acetate using immobilizedlipase from Rhizomucor miehei," J. Biotechnol., vol 87, 2001b, pp 193 - 201.</p> <p>19. Majumder, A.B., B. Singh, D. Dutta, S. Sudhukhan and M. N. Gupta, "Lipase catalyzed synthesis of benzyl acetate in solvent free medium using vinyl acetate as asyl donar," Bioorg. Med. Chem. Lett., vol 16, 2006, pp 4041 - 4044.</p> <p>20. Radzi, S. M., W. A. F. Mustafa, S. S. Othman and H. M. Noor, "Green synthesis of Butyl acetate, A pineapple flavour via lipase-catalyzed reaction," World Academy of Science, Eng and Tech., vol 59, 2011, pp 677 - 680.</p> <p>21. Sasi, P., R. Rohit, R. Mehrotra and Mira Debnath, "Esterification reactions catalyzed by surfactant coated Rhizopus lipase," Indian j. Biotechnol., vol 5, 2006, 364 - 367.</p> <p>22. Vasanthakumar, D., N. Boopathi, N. Karthick and P. Ramesh, "Aesthetic finishes for textile materials," Int. J. textile sci., vol 1, 2012, pp 5 - 9.</p> <p>23. Vijyalakshmi, D and T. Ramachandran, "Isolates application of multi-functional finishes in denim garments," Daffodil Int. University J. Sci and Technol., vol 7, 2012, pp 59 - 66.</p> <p>24. Karolia, A and S. Mendapara, "Imparting antimicrobial and fragrance finish on cotton using chitosan with silicon softner," Indian J. Fibre Text. Research., vol 32, 2007, pp 99 - 104.</p> <p>25. Garlapati, V. K and R. Banerjee, "Solvent-Free Synthesis of Flavour Esters through Immobilized Lipase Mediated Transesterification," Enzyme Res., vol 6, 2013.</p> <p>26. Macedo, "Enzymatic synthesis of short chain citronellyl esters by a new lipase from Rhizopus sp.," Electron. J. Biotechn., vol 6, 2003, pp 72-75.</p> <p>27. Jiugao Yu, Jianshe Zhang, Ang Zhao and Xiaofei Ma, "Study of glucose ester synthesis by immobilized lipase from Candida sp.," Catalysis comm., vol 9, 2007, pp 1369 - 1374.</p>											
19.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Wissam Ali Hussain, W. Jeberson, Sanjay T. Singh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Design &amp; Implementation of Student Information Management System for Karbala University</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> We can design web pages site for the companies, foundations and the government offices to spreading the information &amp; details for the offices &amp; foundations to facilitation connecting with it by using the internet in any time, and any place. As well as when we design this pages the customer needs to circulate some information which his needed, such that this information will store at a data base form, for example data base contains at the tools submitted to sales, or a data base contains at the information related of the employs for the specific foundation...ect. This research talk about How to design the web pages site and How to test this site, as well as How to implementation this site.</p> </td> </tr> <tr> <td colspan="2"> <p><b>Keywords:</b> (SIMS , SIS , Karbala , Wissam , SHIATS)</p> </td> </tr> <tr> <td colspan="2"> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Pankaj Sharma, " Introduction to Web Technology ", Fifth Edition, Published by S.K. KATARIA &amp; SONS for publisher of Engineering and Computer books 4760-61/23, Ansari Road, Darya Ganj, New Delhi-110002, 2012.</li> <li>2. Herbert Schildt, "The Complete Reference of Java", Eighth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2012.</li> <li>3. Herbert Schildt, "The Complete Reference of Java", Seventh Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2011.</li> <li>4. Thomas A. Powell, "The Complete Reference of HTML &amp; CSS", Fifth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008, 2012.</li> <li>5. Ivan Bayross, "Web Enabled Commercial Application Development by using HTML, Java Script, DHTML and PHP", Fourth Edition, Published by BPB Publications B-14, Connaught Place, New Delhi – 110001.</li> </ol> </td> </tr> </table>	<b>Authors:</b>	<b>Wissam Ali Hussain, W. Jeberson, Sanjay T. Singh</b>	<b>Paper Title:</b>	<b>Design &amp; Implementation of Student Information Management System for Karbala University</b>	<p><b>Abstract:</b> We can design web pages site for the companies, foundations and the government offices to spreading the information &amp; details for the offices &amp; foundations to facilitation connecting with it by using the internet in any time, and any place. As well as when we design this pages the customer needs to circulate some information which his needed, such that this information will store at a data base form, for example data base contains at the tools submitted to sales, or a data base contains at the information related of the employs for the specific foundation...ect. This research talk about How to design the web pages site and How to test this site, as well as How to implementation this site.</p>		<p><b>Keywords:</b> (SIMS , SIS , Karbala , Wissam , SHIATS)</p>		<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Pankaj Sharma, " Introduction to Web Technology ", Fifth Edition, Published by S.K. KATARIA &amp; SONS for publisher of Engineering and Computer books 4760-61/23, Ansari Road, Darya Ganj, New Delhi-110002, 2012.</li> <li>2. Herbert Schildt, "The Complete Reference of Java", Eighth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2012.</li> <li>3. Herbert Schildt, "The Complete Reference of Java", Seventh Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2011.</li> <li>4. Thomas A. Powell, "The Complete Reference of HTML &amp; CSS", Fifth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008, 2012.</li> <li>5. Ivan Bayross, "Web Enabled Commercial Application Development by using HTML, Java Script, DHTML and PHP", Fourth Edition, Published by BPB Publications B-14, Connaught Place, New Delhi – 110001.</li> </ol>		97-100
<b>Authors:</b>	<b>Wissam Ali Hussain, W. Jeberson, Sanjay T. Singh</b>											
<b>Paper Title:</b>	<b>Design &amp; Implementation of Student Information Management System for Karbala University</b>											
<p><b>Abstract:</b> We can design web pages site for the companies, foundations and the government offices to spreading the information &amp; details for the offices &amp; foundations to facilitation connecting with it by using the internet in any time, and any place. As well as when we design this pages the customer needs to circulate some information which his needed, such that this information will store at a data base form, for example data base contains at the tools submitted to sales, or a data base contains at the information related of the employs for the specific foundation...ect. This research talk about How to design the web pages site and How to test this site, as well as How to implementation this site.</p>												
<p><b>Keywords:</b> (SIMS , SIS , Karbala , Wissam , SHIATS)</p>												
<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Pankaj Sharma, " Introduction to Web Technology ", Fifth Edition, Published by S.K. KATARIA &amp; SONS for publisher of Engineering and Computer books 4760-61/23, Ansari Road, Darya Ganj, New Delhi-110002, 2012.</li> <li>2. Herbert Schildt, "The Complete Reference of Java", Eighth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2012.</li> <li>3. Herbert Schildt, "The Complete Reference of Java", Seventh Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008,2011.</li> <li>4. Thomas A. Powell, "The Complete Reference of HTML &amp; CSS", Fifth Edition, Published by the Tata McGaw-Hill Private Limited , 7 West Patel Nagar, New Delhi-110 008, 2012.</li> <li>5. Ivan Bayross, "Web Enabled Commercial Application Development by using HTML, Java Script, DHTML and PHP", Fourth Edition, Published by BPB Publications B-14, Connaught Place, New Delhi – 110001.</li> </ol>												
20.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Kritika Bawa, Jyoti, Kavita Choudhary</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Digital and Virtual Era: Digital Citizenship</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Digital Citizenship is fruitful for our nation. As we are moving into Digital and virtual ERA, now it is the alarming time for us in this direction. In this paper, we have covered necessity of digital Citizenship and its framework.</p> </td> </tr> <tr> <td colspan="2"> <p><b>Keywords:</b> Digital Citizenship, Internet, E-Commerce.</p> </td> </tr> <tr> <td colspan="2"> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://www.digitalcitizenship.net/">http://www.digitalcitizenship.net/</a></li> <li>2. <a href="http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf">http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf</a></li> <li>3. <a href="http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/">http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/</a></li> <li>4. <a href="https://sites.google.com/site/bhsdigicitizenship/student-blog-posts">https://sites.google.com/site/bhsdigicitizenship/student-blog-posts</a></li> </ol> </td> </tr> </table>	<b>Authors:</b>	<b>Kritika Bawa, Jyoti, Kavita Choudhary</b>	<b>Paper Title:</b>	<b>Digital and Virtual Era: Digital Citizenship</b>	<p><b>Abstract:</b> Digital Citizenship is fruitful for our nation. As we are moving into Digital and virtual ERA, now it is the alarming time for us in this direction. In this paper, we have covered necessity of digital Citizenship and its framework.</p>		<p><b>Keywords:</b> Digital Citizenship, Internet, E-Commerce.</p>		<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://www.digitalcitizenship.net/">http://www.digitalcitizenship.net/</a></li> <li>2. <a href="http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf">http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf</a></li> <li>3. <a href="http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/">http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/</a></li> <li>4. <a href="https://sites.google.com/site/bhsdigicitizenship/student-blog-posts">https://sites.google.com/site/bhsdigicitizenship/student-blog-posts</a></li> </ol>		101-102
<b>Authors:</b>	<b>Kritika Bawa, Jyoti, Kavita Choudhary</b>											
<b>Paper Title:</b>	<b>Digital and Virtual Era: Digital Citizenship</b>											
<p><b>Abstract:</b> Digital Citizenship is fruitful for our nation. As we are moving into Digital and virtual ERA, now it is the alarming time for us in this direction. In this paper, we have covered necessity of digital Citizenship and its framework.</p>												
<p><b>Keywords:</b> Digital Citizenship, Internet, E-Commerce.</p>												
<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://www.digitalcitizenship.net/">http://www.digitalcitizenship.net/</a></li> <li>2. <a href="http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf">http://www.iste.org/docs/excerpts/DIGCI2-excerpt.pdf</a></li> <li>3. <a href="http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/">http://www.teachthought.com/learning/adapting-social-learning- strategy-framework-education/</a></li> <li>4. <a href="https://sites.google.com/site/bhsdigicitizenship/student-blog-posts">https://sites.google.com/site/bhsdigicitizenship/student-blog-posts</a></li> </ol>												
21.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>K.Vidhyalakshmi, S. Md. Zubair, S.Ramprasath</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Power Quality Improvement at the Distribution Side by the Use of Grid Interfaced Inverter</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Renewable energy resources (RES) are being increasingly connected in distribution systems utilizing power electronic converters. This paper presents a novel control strategy for achieving maximum benefits from these grid-interfacing inverters when installed in 3-phase 4-wire distribution systems. The inverter is controlled to perform as a multi-function device by incorporating active power filter functionality. The inverter can thus be utilized as: 1) power converter to inject power generated from RES to the grid, and 2) shunt APF to compensate current unbalance, load current harmonics, load reactive power demand and load neutral current. All of these functions may be accomplished either individually or simultaneously. With such a control, the combination of grid-interfacing inverter and the 3-phase 4-wire linear/non-linear unbalanced load at point of common coupling appears as balanced linear</p> </td> </tr> </table>	<b>Authors:</b>	<b>K.Vidhyalakshmi, S. Md. Zubair, S.Ramprasath</b>	<b>Paper Title:</b>	<b>Power Quality Improvement at the Distribution Side by the Use of Grid Interfaced Inverter</b>	<p><b>Abstract:</b> Renewable energy resources (RES) are being increasingly connected in distribution systems utilizing power electronic converters. This paper presents a novel control strategy for achieving maximum benefits from these grid-interfacing inverters when installed in 3-phase 4-wire distribution systems. The inverter is controlled to perform as a multi-function device by incorporating active power filter functionality. The inverter can thus be utilized as: 1) power converter to inject power generated from RES to the grid, and 2) shunt APF to compensate current unbalance, load current harmonics, load reactive power demand and load neutral current. All of these functions may be accomplished either individually or simultaneously. With such a control, the combination of grid-interfacing inverter and the 3-phase 4-wire linear/non-linear unbalanced load at point of common coupling appears as balanced linear</p>		103-109				
<b>Authors:</b>	<b>K.Vidhyalakshmi, S. Md. Zubair, S.Ramprasath</b>											
<b>Paper Title:</b>	<b>Power Quality Improvement at the Distribution Side by the Use of Grid Interfaced Inverter</b>											
<p><b>Abstract:</b> Renewable energy resources (RES) are being increasingly connected in distribution systems utilizing power electronic converters. This paper presents a novel control strategy for achieving maximum benefits from these grid-interfacing inverters when installed in 3-phase 4-wire distribution systems. The inverter is controlled to perform as a multi-function device by incorporating active power filter functionality. The inverter can thus be utilized as: 1) power converter to inject power generated from RES to the grid, and 2) shunt APF to compensate current unbalance, load current harmonics, load reactive power demand and load neutral current. All of these functions may be accomplished either individually or simultaneously. With such a control, the combination of grid-interfacing inverter and the 3-phase 4-wire linear/non-linear unbalanced load at point of common coupling appears as balanced linear</p>												

	<p>load to the grid. This new control concept is demonstrated with extensive MATLAB/Simulink simulation studies and validated through digital signal processor-based laboratory experimental results.</p> <p><b>Keywords:</b> Active power filter (APF), distributed generation (DG), distribution system, grid interconnection, power quality (PQ).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. J. M. Guerrero, L. G. de Vicuna, J. Matas, M. Castilla, and J. Miret, "A wireless controller to enhance dynamic performance of parallel inverters in distributed generation systems," IEEE Trans. Power Elec- tron., vol. 19, no. 5, pp. 1205-1213, Sep. 2004.</li> <li>2. J. H. R. Enslin and P. J. M. Heskes, "Harmonic interaction between a large number of distributed power inverters and the distribution network," IEEE Trans. Power Electron., vol. 19, no. 6, pp. 1586-1593.</li> <li>3. U. Borup, F. Blaabjerg, and P. N. Enjeti, "Sharing of nonlinear load in parallel-connected three-phase converters," IEEE Trans. Ind. Appl., vol. 37, no. 6, pp. 1817-1823, Nov./Dec. 2001.</li> <li>4. P. Jintakosonwit, H. Fujita, H. Akagi, and S. Ogasawara, "Implemen- tation and performance of cooperative control of shunt active filters for harmonic damping throughout a power distribution system," IEEE Trans. Ind. Appl., vol. 39, no. 2, pp. 556-564, Mar./Apr. 2003.</li> <li>5. J. P. Pinto, R. Pregitzer, L. F. C. Monteiro, and J. L. Afonso, "3-phase 4-wire shunt active power filter with renewable energy interface," presented at the Conf. IEEE Renewable Energy &amp; Power Quality, Seville,Spain, 2007.</li> <li>6. F. Blaabjerg, R. Teodorescu, M. Liserre, and A. V. Timbus, "Overview of control and grid synchronization for distributed power generation systems," IEEE Trans. Ind. Electron., vol. 53, no. 5, pp. 1398-1409, Oct. 2006.</li> <li>7. J. M. Carrasco, L. G. Franquelo, J. T. Bialasiewicz, E. Galván, R. C.P. Guisado, M. Á. M. Prats, J. I. León, and N. M. Alfonso, "Power- electronic systems for the grid integration of renewable energy sources:A survey," IEEE Trans. Ind. Electron., vol. 53, no. 4, pp. 1002-1016, Aug. 2006.</li> <li>8. B. Renders, K. De Gussem, W. R. Ryckaert, K. Stockman, L. Vandeveld, and M. H. J. Bollen, "Distributed generation for mitigating voltage dips in low-voltage distribution grids," IEEE Trans. Power.Del., vol. 23, no. 3, pp. 1581-1588, Jul. 2008.</li> <li>9. V. Khadkikar, A. Chandra, A. O. Barry, and T. D. Nguyen, "Appli- cation of UPQC to protect a sensitiveload on a polluted distribution network," in Proc. Annu. Conf. IEEE Power Eng. Soc. Gen. Meeting,2006, pp. 867-872.</li> <li>10. M. Singh and A. Chandra, "Power maximization and voltage sag/swell ride-through capability of PMSG based variable speed wind energyconversion system," in Proc. IEEE 34th Annu. Conf. Indus. Electron. Soc., 2008, pp. 2206-2211.</li> <li>11. P. Rodríguez, J. Pou, J. Bergas, J. I. Candela, R. P. Burgos, and D.Boroyevich, "Decoupled double synchronous reference frame PLL for power converters control," IEEE Trans. Power Electron, vol. 22, no. 2, pp. 584-592, Mar. 2007.</li> </ol>							
22.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Surendra Kumar Shukla, Vishal Trivedi, Ayush Choukse</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Challenges on Performance Analysis and Enhancement of Multi - Core Architecture, a Solution Parallel Programming Languages</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Performance of computer is major concern in computer architecture. Moore's law has gone now, we can not increase the speed of single processor as it has problem of power requirement. So we need to move on multi core processors. Compiler is a main parameter who can give the detail of parallelism on source code. In this paper we have proposed a scheme where we are utilizing the compiler for detecting and increasing the execution speed of source code.</p> <p><b>Keywords:</b> compiler, performance, multi-core architecture</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing">http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing</a></li> <li>2. Advanced Computer Architecture, parallelism, scalability, programmability, Kai Hwang 2nd ed. McGraw-Hill, 01-Feb-2003</li> <li>3. Bryan Schauer "Multi core Processors – A Necessity" Pro Quest Discovery Guides, September 2008</li> <li>4. Raghavan Raman, "Compiler Support for Work-Stealing Parallel Runtime Systems", Ph.D. dissertation, Dept. Computer Science, Rice University, Houston, Texas, May 2009</li> <li>5. Damian A. Mallon, et. al, "Performance Evaluation of MPI, UPC and OpenMP on Multicore Architectures" in under Project TIN2007-67537-C03-02, Spain.</li> <li>6. Dmitri Perelman, "Exploiting Parallelism of Multi-Core Architectures", Ph.D dissertation, Department of Electrical Engineering, Israel Institute of technology, Haifa Israel September 2012.</li> <li>7. Kakoullie, E. et. al, "Intelligent Hotspot Prediction for Network-on-Chip-Based Multicore Systems" in computer aided Design of Integrated Circuits and Systems, IEEE Transactions on, vol.61 no.3, pp. 418 – 431, 2012.</li> <li>8. Tudor, B.M. And Young Meng Teo, "Understanding Off-Chip Memory Contention of Parallel Programs in Multicore Systems", IEEE Conference in Parallel Processing (ICPP), Taipei, Singapore, 2011, pp. 602 - 611</li> <li>9. Shahrivari, S &amp; Sharifi, M, "Task-Oriented Programming: A Suitable Programming Model for Multicore and Distributed Systems", IEEE Conference in Parallel and Distributed Computing (ISPD), Cluj Napoca, Iran, 2011, pp. 139 - 144.</li> <li>10. Bini, E et. al, Resource Management on Multicore Systems: The ACTORS Approach, published in IEEE Conference in Micro, 2011, pp. 72-81.</li> <li>11. Khan, Samira M, et. al "Improving Multi-Core Performance Using Mixed-Cell Cache Architecture", in High Performance Computer Architecture (HPCA2013), IEEE 19th International Symposium, Shenzhen, China, 2013, pp. 119 - 130</li> <li>12. Ubal, R et.al "Multi2Sim: A Simulation Framework to Evaluate Multicore-Multithreaded Processors", in Computer Architecture and High Performance Computing, 19th International Symposium, Rio Grande do Sul, 2007 pp. 62-68</li> <li>13. Durate, F and Wong, S "Cache-Based Memory Copy Hardware Accelerator for Multicore Systems", Published in Computers, IEEE Transactions, (Volume:59, issue:11), 2010, pp. 1494-1507.</li> <li>14. Magnus Broberg, "Performance prediction and improvement techniques for parallel programs in multi processors", Ph.D dissertation, Department of software Engg. &amp; computer sc., Blekinge institute of technology Sweden, 2002</li> </ol> </td> </tr> </table>	<b>Authors:</b>	<b>Surendra Kumar Shukla, Vishal Trivedi, Ayush Choukse</b>	<b>Paper Title:</b>	<b>Challenges on Performance Analysis and Enhancement of Multi - Core Architecture, a Solution Parallel Programming Languages</b>	<p><b>Abstract:</b> Performance of computer is major concern in computer architecture. Moore's law has gone now, we can not increase the speed of single processor as it has problem of power requirement. So we need to move on multi core processors. Compiler is a main parameter who can give the detail of parallelism on source code. In this paper we have proposed a scheme where we are utilizing the compiler for detecting and increasing the execution speed of source code.</p> <p><b>Keywords:</b> compiler, performance, multi-core architecture</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing">http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing</a></li> <li>2. Advanced Computer Architecture, parallelism, scalability, programmability, Kai Hwang 2nd ed. McGraw-Hill, 01-Feb-2003</li> <li>3. Bryan Schauer "Multi core Processors – A Necessity" Pro Quest Discovery Guides, September 2008</li> <li>4. Raghavan Raman, "Compiler Support for Work-Stealing Parallel Runtime Systems", Ph.D. dissertation, Dept. Computer Science, Rice University, Houston, Texas, May 2009</li> <li>5. Damian A. Mallon, et. al, "Performance Evaluation of MPI, UPC and OpenMP on Multicore Architectures" in under Project TIN2007-67537-C03-02, Spain.</li> <li>6. Dmitri Perelman, "Exploiting Parallelism of Multi-Core Architectures", Ph.D dissertation, Department of Electrical Engineering, Israel Institute of technology, Haifa Israel September 2012.</li> <li>7. Kakoullie, E. et. al, "Intelligent Hotspot Prediction for Network-on-Chip-Based Multicore Systems" in computer aided Design of Integrated Circuits and Systems, IEEE Transactions on, vol.61 no.3, pp. 418 – 431, 2012.</li> <li>8. Tudor, B.M. And Young Meng Teo, "Understanding Off-Chip Memory Contention of Parallel Programs in Multicore Systems", IEEE Conference in Parallel Processing (ICPP), Taipei, Singapore, 2011, pp. 602 - 611</li> <li>9. Shahrivari, S &amp; Sharifi, M, "Task-Oriented Programming: A Suitable Programming Model for Multicore and Distributed Systems", IEEE Conference in Parallel and Distributed Computing (ISPD), Cluj Napoca, Iran, 2011, pp. 139 - 144.</li> <li>10. Bini, E et. al, Resource Management on Multicore Systems: The ACTORS Approach, published in IEEE Conference in Micro, 2011, pp. 72-81.</li> <li>11. Khan, Samira M, et. al "Improving Multi-Core Performance Using Mixed-Cell Cache Architecture", in High Performance Computer Architecture (HPCA2013), IEEE 19th International Symposium, Shenzhen, China, 2013, pp. 119 - 130</li> <li>12. Ubal, R et.al "Multi2Sim: A Simulation Framework to Evaluate Multicore-Multithreaded Processors", in Computer Architecture and High Performance Computing, 19th International Symposium, Rio Grande do Sul, 2007 pp. 62-68</li> <li>13. Durate, F and Wong, S "Cache-Based Memory Copy Hardware Accelerator for Multicore Systems", Published in Computers, IEEE Transactions, (Volume:59, issue:11), 2010, pp. 1494-1507.</li> <li>14. Magnus Broberg, "Performance prediction and improvement techniques for parallel programs in multi processors", Ph.D dissertation, Department of software Engg. &amp; computer sc., Blekinge institute of technology Sweden, 2002</li> </ol>		110-114
<b>Authors:</b>	<b>Surendra Kumar Shukla, Vishal Trivedi, Ayush Choukse</b>							
<b>Paper Title:</b>	<b>Challenges on Performance Analysis and Enhancement of Multi - Core Architecture, a Solution Parallel Programming Languages</b>							
<p><b>Abstract:</b> Performance of computer is major concern in computer architecture. Moore's law has gone now, we can not increase the speed of single processor as it has problem of power requirement. So we need to move on multi core processors. Compiler is a main parameter who can give the detail of parallelism on source code. In this paper we have proposed a scheme where we are utilizing the compiler for detecting and increasing the execution speed of source code.</p> <p><b>Keywords:</b> compiler, performance, multi-core architecture</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing">http://software.intel.com/en-us/blogs/2008/12/31/top-10-challenges-in-parallel-computing</a></li> <li>2. Advanced Computer Architecture, parallelism, scalability, programmability, Kai Hwang 2nd ed. McGraw-Hill, 01-Feb-2003</li> <li>3. Bryan Schauer "Multi core Processors – A Necessity" Pro Quest Discovery Guides, September 2008</li> <li>4. Raghavan Raman, "Compiler Support for Work-Stealing Parallel Runtime Systems", Ph.D. dissertation, Dept. Computer Science, Rice University, Houston, Texas, May 2009</li> <li>5. Damian A. Mallon, et. al, "Performance Evaluation of MPI, UPC and OpenMP on Multicore Architectures" in under Project TIN2007-67537-C03-02, Spain.</li> <li>6. Dmitri Perelman, "Exploiting Parallelism of Multi-Core Architectures", Ph.D dissertation, Department of Electrical Engineering, Israel Institute of technology, Haifa Israel September 2012.</li> <li>7. Kakoullie, E. et. al, "Intelligent Hotspot Prediction for Network-on-Chip-Based Multicore Systems" in computer aided Design of Integrated Circuits and Systems, IEEE Transactions on, vol.61 no.3, pp. 418 – 431, 2012.</li> <li>8. Tudor, B.M. And Young Meng Teo, "Understanding Off-Chip Memory Contention of Parallel Programs in Multicore Systems", IEEE Conference in Parallel Processing (ICPP), Taipei, Singapore, 2011, pp. 602 - 611</li> <li>9. Shahrivari, S &amp; Sharifi, M, "Task-Oriented Programming: A Suitable Programming Model for Multicore and Distributed Systems", IEEE Conference in Parallel and Distributed Computing (ISPD), Cluj Napoca, Iran, 2011, pp. 139 - 144.</li> <li>10. Bini, E et. al, Resource Management on Multicore Systems: The ACTORS Approach, published in IEEE Conference in Micro, 2011, pp. 72-81.</li> <li>11. Khan, Samira M, et. al "Improving Multi-Core Performance Using Mixed-Cell Cache Architecture", in High Performance Computer Architecture (HPCA2013), IEEE 19th International Symposium, Shenzhen, China, 2013, pp. 119 - 130</li> <li>12. Ubal, R et.al "Multi2Sim: A Simulation Framework to Evaluate Multicore-Multithreaded Processors", in Computer Architecture and High Performance Computing, 19th International Symposium, Rio Grande do Sul, 2007 pp. 62-68</li> <li>13. Durate, F and Wong, S "Cache-Based Memory Copy Hardware Accelerator for Multicore Systems", Published in Computers, IEEE Transactions, (Volume:59, issue:11), 2010, pp. 1494-1507.</li> <li>14. Magnus Broberg, "Performance prediction and improvement techniques for parallel programs in multi processors", Ph.D dissertation, Department of software Engg. &amp; computer sc., Blekinge institute of technology Sweden, 2002</li> </ol>								
23.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Somayeh Jashni Arani, Gholamreza Sharifi, Farzaneh Taghian</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>The Effect of Independent and Combined Exercises on Body Composition of Elite Squash Players</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Paper Physical capabilities and ideal body composition are considered as prerequisite for successful performance in sports. Measuring the individual body composition is one of the important, determining and effective factors in athletes' performance in every field of sports matches. Every exercise has its own specific effect on factors of body composition. This quasi-experimental research is aimed to consider the effect of eight weeks of squash exercises on athletes' body composition and compare it with that of combined exercises. Thirty 13 to 17 years old male athletes with at least three years experiences in playing squash were selected and then randomly divided in two 15-member groups. First, the body composition of every group was measured by the INBODY370, the model of JMW140. Then, they started doing exercises for eight weeks. The first group did squash exercises for five sessions a</p> </td> </tr> </table>	<b>Authors:</b>	<b>Somayeh Jashni Arani, Gholamreza Sharifi, Farzaneh Taghian</b>	<b>Paper Title:</b>	<b>The Effect of Independent and Combined Exercises on Body Composition of Elite Squash Players</b>	<p><b>Abstract:</b> Paper Physical capabilities and ideal body composition are considered as prerequisite for successful performance in sports. Measuring the individual body composition is one of the important, determining and effective factors in athletes' performance in every field of sports matches. Every exercise has its own specific effect on factors of body composition. This quasi-experimental research is aimed to consider the effect of eight weeks of squash exercises on athletes' body composition and compare it with that of combined exercises. Thirty 13 to 17 years old male athletes with at least three years experiences in playing squash were selected and then randomly divided in two 15-member groups. First, the body composition of every group was measured by the INBODY370, the model of JMW140. Then, they started doing exercises for eight weeks. The first group did squash exercises for five sessions a</p>		115-118
<b>Authors:</b>	<b>Somayeh Jashni Arani, Gholamreza Sharifi, Farzaneh Taghian</b>							
<b>Paper Title:</b>	<b>The Effect of Independent and Combined Exercises on Body Composition of Elite Squash Players</b>							
<p><b>Abstract:</b> Paper Physical capabilities and ideal body composition are considered as prerequisite for successful performance in sports. Measuring the individual body composition is one of the important, determining and effective factors in athletes' performance in every field of sports matches. Every exercise has its own specific effect on factors of body composition. This quasi-experimental research is aimed to consider the effect of eight weeks of squash exercises on athletes' body composition and compare it with that of combined exercises. Thirty 13 to 17 years old male athletes with at least three years experiences in playing squash were selected and then randomly divided in two 15-member groups. First, the body composition of every group was measured by the INBODY370, the model of JMW140. Then, they started doing exercises for eight weeks. The first group did squash exercises for five sessions a</p>								

week (each one ninety minutes). The second group's exercise program was five sessions a week (each one ninety minutes) including three squash sessions and two sessions of the combined exercises. The combined exercises included one session of resistance-endurance exercise and one session of anaerobic power-agility exercise. The athletes' body composition was reassessed after eight weeks. The correlated t-test was used to compare intragroup characteristics and the independent t-test to compare intergroup characteristics. The data were analyzed by the SPSS software. The findings showed that while eight weeks of squash exercises had no effect on weight, Body Mass Index (BMI) and body fat percentage in squash players, eight weeks of the combined exercises significantly impacted on factors of body composition.

**Keywords:** Squash, body composition, Body Mass Index (BMI), body fat percentage, combined exercises.

**References:**

1. T. W. Rowland. Developmental exercise physiology (A. A. Gaiyini, Trans.). Tehran: Danesh Afrouz (Original Work Published in 1996).
2. Gh. Sharifi. Azmounhaye Azmayeshgahi va Meidani [Laboratory and field researches]. Khouresegan Azad University Publication. (2007).
3. N. Behpour,; B. Yousefi, M. Faramarzi. Ertebate noue peykare bandi va tarkibbandi ba amalkardar olgouhaye harekati paye va ejraye maharathaye payeye football [the relationship of body composition and performance in basic skill of football]. The Journal of Harekat, 2001. 7, 113-135.
4. M. A. Sardar, et al. Taisre faliathaye havazi 8 hafteyi bar ghande khoun, darsade charbi badan, hadeaksare oxigene masrafi va avamele khatarzaye bimarihayeh ghalbi oroooghi dar bimarane marde diabeti noe 1 [The effect of 8 weeks of aerobic exercises on blood glucose, body fat percentage, the maximum of oxygen uptake and detrimental factors of cardiovascular disease in male patients of type 1diabetes, Iranian Journal of endocrinology and Metabolism, 2008, 10 (2), 91-97.
5. M. Shafizadeh. Karborde sanjesh va arzeshyabi dar tarbiyat badani va olume varzeshi, 2005. [The application of assessment in physical education and sports sciences]. Tehran: Bamdade Ketrah Publication Center.
6. E. Alijani, R. Hayatgheybi. Barasiye tasire 8 hafte tamrine havazi va bi havazi bar mizane taghirate hormoune estrogen, LH va darsade charbi daneshjouyane dokhtare gheyre varezshkar daneshgahe Shahid Chmarane Ahvaz [The effect of 8 weeks of aerobic and anaerobic on change rates of Estrogen, LH and fat percentage in female students of Shahid Chamran University in Ahvaz], The Journal of Harekat,2002, 13, 21-30.
7. F. Rahmani Nia, T. Saidi. Asare yek barnameye montakhab ba vazne bar tarkibe badani va charbi zir pousti zanan gheyre varezshkar [The effect of a selected program on female non-athlete body composition and underderm fat]. Olympics,2004, 12 (1), 61-8.
8. A. Jafari, M. R., Moradi, A. Salime, E. Mohammedi. Moghayeseye tasire tedad jalasate peyade ravi dar hafte bar taghirate badani zanan kam taharrok [The study of the number of hiking sessions in a week on body composition of non-active women], Olympics, 2007, 15 (1), 27-36.
9. M. Namjou. Ertebat beyne tipe badani va vigegehaye peykar shenasi ba montakhabi az amdegi jesmani va harekati daneshjouyane dokhtare moaseseye amouzeshe ali va olume ensani va tarbiyat badani Tehran [The relationship between physical characteristics and body composition with a selected exercises of physical fitness in female students in Tehran Institute for Humanities and Physical Education (Unpublished Master's Thesis), Tehran, Tarbiat Moallem University. (1996).
10. S. M. Tayebi, et al. Asare tamrinate volleyball bar tarkibe badan, avamele montakhabe amadegi jesmani va hambastegi miyane anha dar noujavanan [The effect and relationship of volleyball exercises on body composition, factors of physical fitness in inexperienced teenagers]. The Journal of Sport Sciences in Mazandaran University,2009, 5 (9), 41-5.
11. A. Gayini, et al. Tasire 8 hafte faliyate varzeshi montakhab va regime control shode bar avamele khatarzaye ghalbi oroughi va tarkibe badaniye zanan zayeman karde [The effect of 8 weeks of selected exercises and controlled diet on detrimental cardiovascular factors and body composition in women with childbirth], Studies in Sports Sciences,2007, 14, 85-98.
12. R. Malina, C. Bouchard. Growth, maturation and physical activity (Abas Bahram et al., Trans.), Tehran: Omid Danesh (Original work published in 2005).
13. M. Kashef, F. Shalchi. Assessment in physical education. Tehran: Faratahlil Publication. (2006).
14. J. H., Wilmore, D. L. Costill. Physiology of sport and exercise (Z, Moini et al., Trans.). Tehran: Mobtakeran (Original Work Published in 1999).
15. M. Kashefi. Squash. Tehran: Ketab Sara Publication Co. (2003).
16. E. L. Fox, D. K. Mathews. The physiological basics of physical education and athletics (A, Khaledan, Trans.). Tehran: Tehran University Press (Original Work Published in 1993).
17. R. A. Rabegs, S. O. Roberts. Exercise physiology: Exercise, and clinical application (A, Gayini & V. Dehbidi Rowshan, Trans.). Tehran: SAMT (Original Work Published in 2009).
18. L. Potvin, S. Desrosiers, M. Trifonopoulos, N. Leduc, M. Rivard, C. Macaulay, G. Paradis. "Anthropometric Characteristics of Mohawk Children Aged 6 to 11 Years". Journal of the American Dietetic Association, 1999, 99 (8), 955-961.
19. A.L. Toriola, S.A. Adeniran, P.T. Ogunremi. Body composition and anthropometric characteristics of elite male basketball and volleyball players. Journal of Sports Medicine,1987, 27, 235-238.
20. A. Schlemmer, C. Hassayer, J. Haarbo. Direct Measurement of abdominal fat body dual photon absorptiometry, International of obesity,1996, 14, 603 – 611.
21. A. L. Classene. The role of Anthropometric characteristics in modern pentathlon performance in female athletes. Journal of sports science,1994, 12 (13), 382-395.
22. M. Wilkinson, d. Leedale-Brown, E. Winter. Validity of a squash-specific fitness test. International Journal of Sports Physiology and Performance,2009, 29-40.
23. D. Smith. Physiological and performance differences between Canadian national team and university volleyball players. Journal of sports sciences. 1996, 10, 131-138.
24. S. S. Bassuk, J. E. Manson. Physical activity and cardiovascular disease prevention in women: How much is good enough. Exercise & Sport Science Review.2003,31 (4), 176 – 181.
25. L. K.Cox, V. Burke, A. R. Morton, et al. The independent and combined effects of 16 weeks of vigorous exercise and energy restriction on body mass and composition in free – living overweight: A randomized controlled trail, Metabolism,2003, 52 (1), 107 – 115.
26. H. O. Chambliss. Exercise duration and intensity in a weight loss program. JAMA.2003, 10; 290 (10), 1323 – 30.
27. R. Silvestre, W. J. Kreemer, D. A.Chris West, B. A. Judelson, J. L. Spierinig, D. L. Vingren, et al. Body composition and physical performance during a National collegiate athletic association division in men's soccer season. J Strength Cond Res, 2006, 20 (4), 962-970.
28. T. Metaxas, T. Sendelides, N. Koutlianos, K. Mandroukas. Seasonal variation of aerobicperformance in soccer players according to positional role. J Sports Med Phys Fitness,2006, 46, 520-5.
29. M. Chin, k. Steninger. Physiological profiles and sport specific fitness of Asian elite squash players. Br J Sport Med, 1995, 29, 158-164.
30. k. Marrin. Anthropometric and physiological changes in elite female water polo players during a training year, Serbian Journal of Sport Science, 2008, 2, 75-83.

<b>24.</b>	<b>Authors:</b>	<b>K. I. Hwu, Y. T. Yau</b>
	<b>Paper Title:</b>	<b>Gate Driver with Output Having Positive Triple Input Voltage and Negative Double Input Voltage</b>
	<b>Abstract:</b>	This paper presents a gate driver, whose output possesses the positive triple input voltage and the negative double input voltage under only one positive-voltage source required. Such a gate driver can reduce the

	<p>transient period of the gate driver and hence can reduce the corresponding switching loss. In addition, since double the negative input voltage is imposed on the input of the power switch during the turn-off period, not only the error in triggering the switch due to the Miller effect can be reduced, but also the leakage current can be reduced. The detailed operating principles are illustrated and some simulated and experimental results are provided to verify the effectiveness of the proposed scheme.</p> <p><b>Keywords:</b> Gate driver, leakage current, switching loss.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Kaiwei Yao and F. C. Lee, "A novel resonant gate driver for high frequency synchronous buck converter", IEEE Trans. Power Electron., vol. 17, no. 2, 2002, pp. 180-186.</li> <li>2. Yuhui Chen, F. C. Lee, L. Amoroso and Ho-Pu Wu, "A resonant MOSFET gate driver with complete energy recovery", IEEE IPEMC'00, vol. 1, 2000, pp. 402-406.</li> <li>3. Yuhui Chen, F. C. Lee, L. Amoroso and Ho-Pu Wu, "A resonant MOSFET gate driver with efficient energy recovery", IEEE Trans. Power Electron., vol. 19, no. 2, 2004, pp. 470-477.</li> <li>4. I. D. de Vries, "A resonant power MOSFET/IGBT gate driver", IEEE APEC'02, , 2002 pp. 179-185.</li> <li>5. D. M. Van de Sype, A. P. M. Van den Bossche, J. Mases and J. A. Melkebeek, "Gate drive circuit for zero-voltage-switching half- and full-bridge converters", IEEE Trans. Ind. Appl., vol. 38, no. 5, 2002, pp. 1380-1388.</li> <li>6. W. Eberle, Yan-Fei Liu and P. C. Sen, "A new resonant gate-drive circuit with efficient energy recovery and low conduction loss", IEEE Trans. Ind. Electron., vol. 55, no. 5, 2008, pp. 2213-2221.</li> <li>7. Xin Zhou, Zhigang Liang and A. Huang, "A new resonant gate driver for switching loss reduction of high side switch in buck converter", IEEE APEC'10, 2010, pp. 1477-1481.</li> <li>8. LM5110, released by National Semiconductor, 2003.</li> </ol>					
25.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Neha Kohli, Esha Dobhal, Neha Sharma</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Proposed Framework for the Reduction of Web Congestion using Classification</b></td> </tr> </table> <p><b>Abstract:</b> Prefetching is the process of bringing data from the web server into the web cache before it is needed. When the client needs data, then instead of waiting for the responses from the memory, it can directly access the data from the cache. The prefetched data is stored in web cache in the form of web objects for later use. Caching is the technique of storing a copy of the data that has been requested by the client. Web caching is mainly used to reduce access latency, that is, it speeds up the process of data retrieval. It also reduces heavy load on the web server. The paper proposes a framework for reducing web traffic. The data is first extracted from the proxy server and then preprocessing is performed. The preprocessed data is then classified and the patterns to be prefetched are obtained.</p> <p><b>Keywords:</b> Prefetching, classification, proxy server, cache.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Hongjun Lu Rudy Setiono Huan Liu "Effective Data Mining Using Neural Networks" December 1996 Vol. 8, No. 6, pp. 957-961</li> <li>2. Pallis G., A. Vakali and J. Pokorny, (2008) "A clustering-based prefetching scheme on a Web cache environment", Computers and Electrical Engineering 34, Elsevier, pg 309-323</li> <li>3. Podlipnig S. and L. Boszormenyi, "A Survey of Web Cache Replacement Strategies", ACM Computing Surveys, Vol. 35, No. 4, December 2003, pp. 374-398</li> <li>4. Steven W. Norton "Generating Better Decision Trees" Siemens Corporate Research, Inc. 755 College Road East, Princeton, NJ 08540 swn@demon.siemens.com.</li> <li>5. Deborah R. Carvalho "hybrid decision tree/genetic algorithm method for data mining" Universidad Tuiti do Parana (UTP Computer Science Dept, Av. Comendador Franco, 1860. Curitiba-PR 80215-090 Brazil, Alex A. Freitas2 Computing Laborator University of Kent at Canterbury Canterbury, Kent, CT2 7NF, U.K.</li> <li>6. Sharma N. and S. K. Dubey, (2012) "A Hand to Hand Taxonomical Survey on Web Mining", International Journal of Computer Applications (0975 - 8887), Vol. 60, No.3.</li> <li>7. Neha Sharma and Sanjay Kumar Dubey "Fuzzy c-means clustering based prefetching to reduce web traffic", Amity University, Noida (U.P.), 201303, India International Journal of Advances in Engineering &amp; Technology, Mar. 2013. ©IJAET ISSN: 2231-1963</li> <li>8. Lou W., G. Liu, H. Lu, and Q. Yang, (2002) "Cut-and-Pick Transactions for Proxy Log Mining", C.S. Jensen et al. (Eds.): EDBT 2002, LNCS 2287, pp. 88-105, Springer-Verlag Berlin Heidelberg.</li> <li>9. Sathiyamoorthi V. and Dr. M. Bhaskaran, (2011) " Data Preprocessing Techniques for Pre-Fetching and Caching of Web Data through Proxy Server", IJCSNS International Journal of Computer Science and Network Security, Vol.11, No.11.</li> <li>10. Greeshma G. Vijayan and J. S. Jayasudha, (2012) "A survey on web pre-fetching and web caching techniques in a mobile environment" Natarajan Meghanathan, et al. (Eds): ITCS, SIP, JSE-2012, CS &amp; IT 04, pp. 119-136.</li> <li>11. S.V.N. Vishwanathan, M. Narasimha Murty " SSVM : A Simple SVM Algorithm", Dept. of Comp. Sci. and Automation ,Indian Institute of Science, Bangalore 560 012,INDIA</li> <li>12. Svm-http://en.wikipedia.org/wiki/Support_vector_machine.</li> <li>13. Han J. and Kamber M., (2006) "Data Mining: Concepts and Techniques", Second Edition, Morgan Kaufmann Publishers, Elsevier.</li> <li>14. Neha Kohli is currently pursuing Bachelor of Technology in Information Technology from Northern India Engineering College, Guru Gobind Singh Indraprastha University, New Delhi, India.</li> </ol>	<b>Authors:</b>	<b>Neha Kohli, Esha Dobhal, Neha Sharma</b>	<b>Paper Title:</b>	<b>Proposed Framework for the Reduction of Web Congestion using Classification</b>	123-128
<b>Authors:</b>	<b>Neha Kohli, Esha Dobhal, Neha Sharma</b>					
<b>Paper Title:</b>	<b>Proposed Framework for the Reduction of Web Congestion using Classification</b>					
26.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Vinay Divakar</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Design and Implementation of Microcontroller Based Temperature Data Logging System</b></td> </tr> </table> <p><b>Abstract:</b> The term data logger (also sometimes referred to as a data recorder) is commonly used to describe a self-contained, standalone data acquisition system or device. These products are comprised of a number of analog and digital inputs that are monitored, and the results or conditions of these inputs is then stored on some type of local memory. In this paper, a Temperature Data Logging System is designed to record and display temperatures continuously. It uses a temperature sensor to sense the surrounding temperature and displays the temperature on the PC with the help of LPC 2148 ARM7 TDMI processor and the UART (Universal Asynchronous Receiver/Transmitter). The methodology for designing the temperature data logging system is discussed in detail. The code to implement the functionality of the logging system is modeled and simulated using the Software Tool Keilµ4. The characteristics of LM 35 temperature sensor and the hardware required to interface the output of LM 35 to the LPC 2148 is discussed in detail.</p>	<b>Authors:</b>	<b>Vinay Divakar</b>	<b>Paper Title:</b>	<b>Design and Implementation of Microcontroller Based Temperature Data Logging System</b>	129-135
<b>Authors:</b>	<b>Vinay Divakar</b>					
<b>Paper Title:</b>	<b>Design and Implementation of Microcontroller Based Temperature Data Logging System</b>					

	<p><b>Keywords:</b> Temperature data logger, data logger, temperature recorder, temperature display, lm35 sensor, UART, ARM TDMI.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Deepika, Mr. Nirbhovjap Singh (2006), 'Designing a Microcontroller Based Temperature Data Logger' Thapar Institute of Engineering &amp; Technology, July 2006.</li> <li>2. Ž. Nakutis (2009) 'Embedded Systems Power Consumption Measurement Methods Overview' MATAVIMAI, December 18.</li> <li>3. Hla Hla Htay (2011), "Design and Construction of Microcontroller Based Data Logger" Department of Physics, Yadanabon University</li> <li>4. M. Moghavvemi, "Remote Sensing of Relative Humidity", University of Malaya Kuala Lumpur, Malaysia.</li> <li>5. Radek Kuchta, Radimir Vrba, "Wireless and Wired Temperature Data System", Second International Conference on Systems Brno University of Technology, Brno.</li> <li>6. M. Moghavvemi, "A Simple Low Cost Data Acquisition System for Remote Sensing of Relative Humidity and Temperature", Dept. of Electrical Engineering University of Malaya, Kuala Lumpur, Malaysia.</li> <li>7. B. Niharika, Sayara Sultana, B.Prasanna, L.Harika "Data Logging To Collect And Display Temperature With Time And Day",Gokaraju Rangaraju Institute of Engineering &amp; Technology.</li> <li>8. Theophilus Wellem (2012) "A Microcontroller- based Room Temperature Monitoring System",International Journal of Computer Applications (0975 – 8887) Volume 53– No.1, September.</li> <li>9. Cytron Technologies (2008) "Temperature Control System using LM35",Cytron Technologies Sdn Bhd, January.</li> <li>10. BiPOM Electronics (2006) "Microcontroller to Sensor Interfacing Techniques",Document Revision: 1.01, February.</li> </ol>					
27.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>S.Premalatha, R. Vinodha</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Performance Analysis of Variable Weight multiple length QC-CHPC for On-Off keying optical CDMA</b></td> </tr> </table> <p><b>Abstract:</b> The concept of a multiwavelength Quadratic Congruence Carrier Hopping prime code (QCCHPC) was recently introduced in order to support a large number of simultaneous users in optical code division multiple access (OCDMA). To support multimedia services with different bit rate requirements multiple length and variable weight QCCHPC is constructed and the performance is analyzed. In QCCHPC with zero autocorrelation side lobes, cross correlation values of at most two. Our analysis shows that code weight is important factor than code length in determining the code performance.</p> <p><b>Keywords:</b> Optical code division multiple access (OCDMA), Variable weight, Variable length, Wavelength-time code.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. P.R.Pruncnal, Ed., optical Code Division Multiple Accesses: Fundamentals and Applications. New York: Taylor &amp; Francis Books, 2005.</li> <li>2. V.J.Hernandez, W.Cong, J.Hu, C.Yang, N.K.Fontaine, R.P. Scott, D.Zhi, B.H.Kolner, J.P.Heritabe, and S.J.B Yoo, "A 320-Gb/s capacity (32-user x 10Gb/s) SPECTS O-CDMA Network testbed with enhanced spectral efficiency through forward error correction," J.Lightwave Technol., vol.25, no.1, pp. 79-86, Jan.2007.</li> <li>3. J.Cao, R.G.Broeke, N.K.Fontaine, C.Ji, Y.Du, N.Chubun, K.Aihara, A-V.Pham, F.Olsson, S.Lourdudoss, and S.J.B.Yoo, "Demonstration of spectral phase O-CDMA encoding and decoding in monolithically integrated arrayed-waveguide-grating-based encoder," IEEE Photon. Technol.Lett., Vol.18, no.24, pp. 2602-2604, Dec.2006.</li> <li>4. G.C.Yang, Variable –weight optical orthogonal codes for CDMA network with multiple performance requirements,IEEE Trans,commun,vol 44, no 1,pp 476-55,Jan.1996</li> <li>5. M.Azizoglu, J.A.Salehi, and Y.Li, "Optical CDMA via temporal codes," IEEE Trans. Commun., vol.40, no.7, pp.1162-1170, July 1992.</li> <li>6. C.Y.Chang, G.C.Yang, and W.C.K.Wong, "Wavelength –time codes with maximum cross- correlation function of two for multicode – keying optical CDMA," J.Lighthwave Technol., vol.24. no.3, pp.1093-1100, Mar.2006.</li> <li>7. G.C.Yang and W.C.Kwong, "Prime codes with application to CDMA Optical and Wireless Networks", Artech Hoad,Norwood, May.2002.</li> <li>8. Cheng-Yuan Chang, Hung-Tachen, Guu-Chang Yang Wing, C.K.Kwong "Spectral Efficiency Study of QC-CHPC in multirate optical CDMA system "IEEE Journal,vol 25, no 9 ,Dec.2007 .</li> <li>9. Nasaruddin and Tetsuo Tsujioka Design of Reconfigurable Multiweight Wavelength-Time Optical codes for secure multimedia optical CDMA Networks ICC2008 proceedings</li> <li>10. Wing c.Kwong,Cheng-Yuan Chang Quadratic Congruence Carrier Hopping Prime code for Multicode Keying optical CDMA ICC2007 proceedings</li> </ol>	<b>Authors:</b>	<b>S.Premalatha, R. Vinodha</b>	<b>Paper Title:</b>	<b>Performance Analysis of Variable Weight multiple length QC-CHPC for On-Off keying optical CDMA</b>	136-138
<b>Authors:</b>	<b>S.Premalatha, R. Vinodha</b>					
<b>Paper Title:</b>	<b>Performance Analysis of Variable Weight multiple length QC-CHPC for On-Off keying optical CDMA</b>					
28.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Mehdi Shekarzadeh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Effect of Ratio Mandrel Radius to Sheet Thickness on the Spring-Back in Bending Steel and Aluminum Sheets</b></td> </tr> </table> <p><b>Abstract:</b> Forming and forging processes are among the oldest and most important of materials-related technologies. Today, industry must continuously evaluate the costs of competitive materials and the operations necessary for converting each material into finished products. Manufacturing economy with no sacrifice in quality is paramount. Therefore, "precision" forming methods, net and near-net shape processing, and modern statistical and computer-based process design and control techniques are more important than ever.</p> <p>Bending is one of the important methods for manufacturing sheet metal components that is extensively applied in automotive industry and electronic devices. Spring-Back is an unavoidable phenomenon in sheet metal forming that occurs in the end of stamping process because of releasing elastic stress that results changing the final dimensions of sheet. So, Prediction of spring-back is essential for dimensional control of parts in the end of stamping process. In this project a finite element model is presented for simulation of U-bending process and also calculating the amount of spring-back. Comparison between finite element , numeral and experimental results is done for validating the finite element method.</p> <p><b>Keywords:</b> Aluminum, Bending, Forging, Spring-back, Steel.</p> <p><b>References:</b></p>	<b>Authors:</b>	<b>Mehdi Shekarzadeh</b>	<b>Paper Title:</b>	<b>Effect of Ratio Mandrel Radius to Sheet Thickness on the Spring-Back in Bending Steel and Aluminum Sheets</b>	139-141
<b>Authors:</b>	<b>Mehdi Shekarzadeh</b>					
<b>Paper Title:</b>	<b>Effect of Ratio Mandrel Radius to Sheet Thickness on the Spring-Back in Bending Steel and Aluminum Sheets</b>					

	<ol style="list-style-type: none"> <li>1. Thanki, S.J., Raval, H.K., and Dave, A.K., Prediction of the Punch Reversal Position under V-plate Bending using Real Material (power-law) Behavior, <i>Processing Technology</i>, 114, 2001, pp. 227-232.</li> <li>2. Hill, R., A Theory of the Yielding and Plastic Flow of Anisotropic Metals, <i>Proc. Roy. Soc. London</i>, 193, 1948, pp. 281-297.</li> <li>3. Leu, D.K., A Simplified Approach for Evaluating Bendability and Springback in Plastic Bending of Anisotropic Sheet Metal, <i>Journal of Materials Processing Technology</i>, 66, 1997, pp. 9-17.</li> <li>4. Narasimhan, N., and Lovell, M.R., Predicting Springback in Sheet Metal Forming: an Explicit to Implicit Sequential Solution Procedure, <i>Numeric. Meth. Des. Anal</i>, 33, 1999, pp. 29-42.</li> <li>5. Samuel, M., Raval, Experimental and Numerical Prediction of Springback and Side Wall Curl in U-Bending of Anisotropic Sheet Metals, <i>Journal of Materials Processing Technology</i>, 105, 2000, pp. 382-393.</li> </ol>					
29.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Mehdi Hamdam, Ardeshir Arash, Alireza Pilpayeh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Optimizing Hydro and Thermal Power Plants Using Genetic Algorithm</b></td> </tr> </table> <p><b>Abstract:</b> In recent years, various studies have been conducted on optimization of hydro and thermal power plants; however, due to the complexity of this problem, optimal operation of power systems consisting of hydro-thermal power plants with multi-purpose reservoirs, which is mostly resulting from their uncertain, non-convex, non-linear and dynamic nature, numerous simplifications and approximations have been applied in modeling these systems in order to provide the possibility of their analysis using mathematical methods. But, the result of these simplifications and approximations is distancing of the obtained models from practical operational realities of the system which limits application of their results. With progress of computational technology and advent of effective algorithms, more practical aspects of the system's real productivity can be used in optimization models. Considering the importance of this issue in the present work, a new method was presented for simultaneous long-term operational optimization of the system consisting of hydro-thermal power plants, in which main system parameters including water inflow to reservoirs of hydro power plants and energy demand of the system were uncertainly considered. In this paper, optimization of hydroelectric and thermal power plants was done using the algorithm and instructions of optimal operation were extracted.</p> <p><b>Keywords:</b> Hydrothermal power plant, Indefinite scheduling, Genetic algorithm, Optimization.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Chao, L. Ruiyan, Z. Jingyan, Z. 1990, Stochastic optimization of interconnected multi-reservoir power systems, <i>IEEE Trans. On Power systems</i>, Vol. 5, No. 4.</li> <li>2. Escudero, LF. 1996, Hydropower Generation Management Under Uncertainty Via Scenario Analysis and Parallel Computation, <i>IEEE Trans. On power systems</i>, Vol. 11, No.</li> <li>3. Ruey-Hsun, L. 2000, A Noise Annealing Neural Network for Hydroelectric Generation Scheduling with Pumped-Storage Units, <i>IEEE Trans. On power systems</i>, Vol.15, No. 3.</li> <li>4. Teegavarpu, R. Simonovic, S.P. 2000, Short-Term Operation Model for Coupled Hydropower Reservoirs, <i>ASCE J. of Water Resources Planning and Management</i>, Vol. 126, No. 2.</li> <li>5. Mousavi, H. Ramamurthy, A.S. 2002, Multi-Reservoir design using Pontryagin Principle, Elsevier, <i>Advances in Water Resources</i> 25.</li> <li>6. González, J.A. Nabona, N. 1994, Long-Term Hydrothermal Coordination with Natural Inflows Modeled through a PDF and Simulation Results, <i>Sociedad de Estadística e Investigación Operativa Top</i>, Vol. 2, No. 1, pp 59–84.</li> <li>7. Mohammad, Z. Meybodi, A. 2001, A Simulation Approach to Probabilistic Production Planning, Indiana, Kokomo, School of Business.</li> </ol>	<b>Authors:</b>	<b>Mehdi Hamdam, Ardeshir Arash, Alireza Pilpayeh</b>	<b>Paper Title:</b>	<b>Optimizing Hydro and Thermal Power Plants Using Genetic Algorithm</b>	142-145
<b>Authors:</b>	<b>Mehdi Hamdam, Ardeshir Arash, Alireza Pilpayeh</b>					
<b>Paper Title:</b>	<b>Optimizing Hydro and Thermal Power Plants Using Genetic Algorithm</b>					
30.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Md About Kadhim, Hazim Salah, Abdulsatar, Tahseen Flaish Hasan</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Design of Fixed WiMAX Transceiver on SUI Channels Based Wavelet Signals</b></td> </tr> </table> <p><b>Abstract:</b> As the application for wireless communications increases, even in wideband and fast fading channels, there is always a need to develop systems that are more efficient and robust. The work done in this paper is our effort in this direction. Based on the wavelet transform, we develop an OFDM WiMAX system with good performance for Stanford University Interim (SUI) channels rich in multipath. As of fundamental wavelet transform characteristics and expressing the temporal and frequency information in two independent dimensions, delay and scale, we develop a theoretical system model for SUI channels. Considering the computational complexity, the models are designed using the Haar wavelet transform. Using the wavelet transform to calculate the channel delay information is the core component of the system. It is found that proposed wavelet design to attain much lower bit error rates, increases signal to noise power ratio (SNR), and can be used as an alternative to the conventional OFDM WiMAX. The proposed OFDM system was modelled tested, and its performance was found under different SUI channel models. This paper performs a new approach to the adaptation of the Fixed WiMAX IEEE802.16d base band, OFDM based on wavelet (DWT-OFDM) in SUI channel.</p> <p><b>Keywords:</b> WiMAX, SUI, OFDM, DWT, IDWT, FFT, IFFT.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. B. Farhang- Boroujeny, "Multicarrier modulation with blind detection capability using cosine modulated filter banks," <i>IEEE Transactions on Communications</i>, vol. 51, Dec 2003.</li> <li>2. J. A. C. Bingham, "Multicarrier modulation for data transmission: An idea whose time has come," <i>IEEE Communications Magazine</i>, vol. 28, May 1990.</li> <li>3. A. Goldsmith, <i>Wireless Communications</i>. Cambridge University Press, 2005.</li> <li>4. M. Vetterli, "Perfect transmultiplexers," <i>Proc. ICASSP86</i>, vol. 4, 1986.</li> <li>5. M. A. T. S. D. Sandberg, "Overlapped discrete multitone modulation for high speed copper wire communications," <i>IEEE Journal on Selected Areas in Communications</i>, pp. 1571–1585, December 1995.</li> <li>6. R. K. Young, <i>Wavelet Theory and Its Applications</i>. Kluwer Academic Publishers, 1993.</li> <li>7. F. J. N. Albert Boggess, <i>a First Course in Wavelets with Fourier Analysis</i>. Prentice Hall, NJ:Upper Saddle River, 2001</li> <li>8. C. K. Chui, <i>Wavelets: A tutorial in Theory and Application</i>. Academic Press, INC, 1992.</li> <li>9. G. G. Walter, <i>Wavelets and Other Orthogonal Systems With Applications</i>. CRC Press, 1994.</li> <li>10. V. S. Gracías, "Correspondence, an equalization algorithm for wavelet packet based modulation schemes," <i>IEEE Transactions on Signal Processing</i>, pp. 3082–3087, November 1998.</li> </ol>	<b>Authors:</b>	<b>Md About Kadhim, Hazim Salah, Abdulsatar, Tahseen Flaish Hasan</b>	<b>Paper Title:</b>	<b>Design of Fixed WiMAX Transceiver on SUI Channels Based Wavelet Signals</b>	146-150
<b>Authors:</b>	<b>Md About Kadhim, Hazim Salah, Abdulsatar, Tahseen Flaish Hasan</b>					
<b>Paper Title:</b>	<b>Design of Fixed WiMAX Transceiver on SUI Channels Based Wavelet Signals</b>					

	<ol style="list-style-type: none"> <li>11. M. C. T. M. A. Tzannes, "Bit-by-bit channel coding using wavelets," Global Telecommunications Conference, vol. 2, December 1992.</li> <li>12. D. X. Xiaofei Zhang, "Wavelet analysis of signal through space-time channel," Wireless Communications, Networking and Mobile Computing Proceedings, pp. 517–520, September 2005.</li> <li>13. R. C. Dong Guo, Xiaodong Wang, "Wavelet-based sequential monte-carlo blind receivers in fading channels with unknown channel statistics," IEEE TRANSACTIONS ON SIGNAL PROCESSING, vol. 52, JANUARY 2004.</li> <li>14. M. Martone, "Wavelet-based separating kernels for array processing of cellular ds/cdma signals in fast fading," IEEE Transaction on Communications, pp. 979–995, June 2000.</li> <li>15. Mohammed About Kadhim and Widad Ismail (2010) Analysis of MISO WiMAX IEEE802.16d in SUI Multipath Fading Channels, JOURNAL OF TELECOMMUNICATIONS, VOLUME 3, ISSUE 2, JULY 2010</li> <li>16. Mohammed About Kadhim and Widad Ismail (2010) Implementation of WiMAX IEEE802.16d Baseband Transceiver Based Wavelet OFDM on a Multi- Core Software-Defined Radio Platform, European Journal of Scientific Research, 42, 303-3</li> <li>17. IEEE STD 802.16E &amp; 802.16D, I. S. 2006. IEEE Standard for Local and Metropolitan Area Networks Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands and Corrigendum 1.</li> <li>18. Jeffrey G. Andrews, Ph.D., Arunabha Ghosh, Ph.D., Rias Muhamed., ed, Fundamentals of WiMAX Understanding Broadband Wireless Networking, Theodore S. Rappaport, Series Editor, ed. P.H.C.E.a.E.T. Series. 2007.</li> </ol>					
<b>31.</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Harsh Raghuvanshi, N.S. Ramnaveen, Puneet Malhotra, Rakshit, Anurag Khatri</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Innovative Design of an All-Terrain Vehicle (ATV)</b></td> </tr> </table> <p><b>Abstract:</b> This study aims to design of an All-Terrain Vehicle (ATV) in accordance with the SAE BAJA 2014 rule book. A detailed designing of components is carried out like Roll cage, Suspensions &amp; Braking mechanism. The main focus of our was on Safety of driver &amp; Stability of vehicle. Roll cage of our vehicle is designed in such a way that in case of rolling of vehicle (mostly occurs in high speed turns &amp; off roading) that it will provide double the strength to the roll cage with also considering the Aesthetic of the cage. International standards are followed by us where ever possible and an extensive market survey is also done. Finite Element Analysis is carried out on roll cage &amp; braking mechanism for optimum safety &amp; reliability of the vehicle. Engine the heart of an automobile is installed in such a way that it can perform well for an extensive time on any terrain.</p> <p><b>Keywords:</b> Cooling duct, Ergonomics, Finite element Analysis &amp; Von misses stress.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Fundamentals Of Vehicle Dynamics – Thomas D. Gillespie</li> <li>2. Race Car Vehicle Dynamics – Millikan</li> <li>3. Dr.N.K.Giri "Automobile Mechanics" By Printed On 2004.</li> <li>4. Heinz Heisler "Advanced Vehicle Technology 2nd Edition"</li> <li>5. Srinivasan, "Automotive Mechanics" "Tata Mcgraw-Hill Publications-New Delhi" Year 2006</li> <li>6. Richard Stone And Jeffrey.K.Ball "Automotive Engineering Fundamentals" Sae International.</li> <li>7. Ellis.J.R, Vehicle Dynamics, Business Books Ltd., London, 1991</li> <li>8. Www.Carbible.Com</li> </ol>	<b>Authors:</b>	<b>Harsh Raghuvanshi, N.S. Ramnaveen, Puneet Malhotra, Rakshit, Anurag Khatri</b>	<b>Paper Title:</b>	<b>Innovative Design of an All-Terrain Vehicle (ATV)</b>	<b>151-157</b>
<b>Authors:</b>	<b>Harsh Raghuvanshi, N.S. Ramnaveen, Puneet Malhotra, Rakshit, Anurag Khatri</b>					
<b>Paper Title:</b>	<b>Innovative Design of an All-Terrain Vehicle (ATV)</b>					
<b>32.</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Shahin Shaikh, Manjusha Deshmukh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Modulation of Watermark Using JND Parameter in DCT Domain</b></td> </tr> </table> <p><b>Abstract:</b> Digital Image watermarking is the process that embeds data called watermark in to multimedia object such that the watermark can be extracted or detected to make an assertion about the object. Watermarking is either "visible" or "invisible".</p> <p>The growth of high speed computer networks and internets, in particular, explore the means of new business, scientific, entertainment and social opportunities. Ironically the cause for the growth is also of the apprehension use of digital formatted data. The ease with which the digital information can be duplicated and distributed has led to need for effective copyright tools. Various software products have been recently introduced in attempt to address these concerns. It is done by hiding data within digital audio, image and video files. Digital image watermarking is one of the way of data hiding techniques.</p> <p>Watermarking can be done in spatial and transform domain. The basic problem in watermarking in spatial domain is that the watermark is more fragile i.e., more susceptible to attacks than transform domain. The reason for choosing the transform domain (DCT and DFT is that the characteristics of human vision system(HVS) are better captured by spectral coefficients. For eg. Low frequency coefficients are perceptually significant, which means alterations to those components might cause significant distortion to original image On the other hand, high frequency coefficients are considered insignificant: thus ,processing techniques such as compression tend to remove high frequency coefficients aggressively.</p> <p><b>Keywords:</b> Copyright protection, digital image watermarking, spatial domain, transform domain, Discrete Cosine Transform(DCT), Discrete Fourier Transform(DFT , Peak Signal to Noise ratio(PSNR), Correlation, Just Noticeable Distortion (JND), SSIM (Structural Similarity)</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Saraju P. Mohanty, "Digital Image Watermarking: A Tutorial Review".</li> <li>2. Aravind Kumar Parthasarathy et al., "An Improved Method Of Content based Image Watermarking", IEEE June 2007.</li> <li>3. Emir Ganic,Scott D.Dexter, "Embedding multiple Watermarks in the DFT Domen using low and high frequency bands"</li> <li>4. Pooya Monshizadeh Naini, "Digital Watermarking on MATLAB"</li> <li>5. Mahmoud El-Gayyar, "Watermarking techniques in spatial domain".May 2006.</li> <li>6. Amit Joshi,Vivekanand Mishra, "Real time implementation of digital watermarking algorithm For image and video application".</li> <li>7. Rafael C. Gonzalez, Richard E. Woods,"Digital Image Processing using MATLAB"</li> <li>8. Zhou Wang,Alan Conrad Bovik , "Image Quality Assessment : From Error Visibility to Structural Similarity."IEEE transactions APRIL2004</li> </ol>	<b>Authors:</b>	<b>Shahin Shaikh, Manjusha Deshmukh</b>	<b>Paper Title:</b>	<b>Modulation of Watermark Using JND Parameter in DCT Domain</b>	<b>158-161</b>
<b>Authors:</b>	<b>Shahin Shaikh, Manjusha Deshmukh</b>					
<b>Paper Title:</b>	<b>Modulation of Watermark Using JND Parameter in DCT Domain</b>					
<b>33.</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Hazim Salah Abdulsatar, Kareem Jabbar Tijil, Ali Hashim Jryian</b></td> </tr> </table>	<b>Authors:</b>	<b>Hazim Salah Abdulsatar, Kareem Jabbar Tijil, Ali Hashim Jryian</b>			
<b>Authors:</b>	<b>Hazim Salah Abdulsatar, Kareem Jabbar Tijil, Ali Hashim Jryian</b>					

	<b>Paper Title:</b> <b>Low power Transceiver Structure for Wireless and Mobile Systems Based SDR Technology Using MATLAB and System Generator</b>
	<p><b>Abstract:</b> This paper presents the design and implementation of Software Defined Radio (SDR) transceiver based 16-QAM as one of the key techniques in structure of wireless and mobile communication system. The widely used of QAM in adaptive modulation due to efficient power and bandwidth force the researchers to found better and easy design by use the available software like MATLAB in order to advance the idea of software defined radio. The setting of parameter for random generator, QAM modulation and demodulation, AWGN wireless channel are provided. The Error rates of QAM system against the signal-to-noise ratio are used to evaluate the QAM system. The implementation results shows the system capability to transmit and receive intermediate frequency of 40 MHz keeping the power under limited FPGA Slices and look up table (LUT).</p> <p><b>Keywords:</b> SDR, QAM, MATLAB SIMULINK, Wireless and Mobile System, FPGA.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Pedro and Nuno, "Multi-Mode Receiver for Software Defined Radio", Institute of Telecommunication – University of Aveiro – Portugal, online available: <a href="http://www.anacom.pt/render.jsp?contentId=761239">http://www.anacom.pt/render.jsp?contentId=761239</a>, 2008.</li> <li>Pallavi, "Frame Work for the Design and Implementation of Software Defined Radio based Wireless Communication System", M.Sc. thesis, University of Akron: <a href="http://etd.ohiolink.edu/view.cgi/Mannar%20Manna">http://etd.ohiolink.edu/view.cgi/Mannar%20Manna</a>, 2005.</li> <li>Sun, "A Generalized Quadrature Bandpass Sampling in Radio Receivers", 0-7803-8736, IEEE Explore: pp.1288-1291, 2006</li> <li>Shi and Ismail, "Data Converters for Wireless Standards", Springer, Kluwer Academic Publishers, ISBN-10: 0792376234, 2002</li> <li>Tony, "RF and Digital Signal Processing for Software-Defined Radio", Elsevier, ISBN 978-0-7506-8210-7, UK, pp. 319, 2009</li> <li>Avnet Memec, Inc. "Virtex-4 MB Development Board User's Guide", Ver. 3.0, Phoenix, Arizona, USA, pp1-42, Citing Internet sources URL: <a href="http://www.files.em.avnet.com/files/177/v4mb_user_guide_3_0.pdf">http://www.files.em.avnet.com/files/177/v4mb_user_guide_3_0.pdf</a>, 2005</li> <li>Altera, "Understanding CIC compensation filters", application note 455, pp.1-17, Availabel: <a href="http://www.altera.com/literature/an/an455.pdf">http://www.altera.com/literature/an/an455.pdf</a>, 2007</li> <li>Avnet, Inc. "P240 Analog Module User Guide", Rev. 1.0, Phoenix, Arizona, USA, pp. 1-25. Citing Internet sources URL: Error! Hyperlink reference not valid, 2006</li> <li>Amico, Matteis and Baschiroto, "A 6.4mW, 4.9nV/√Hz, 24dBm IIP3 VGA for a multi-standard (WLAN, UMTS, GSM and Bluetooth) receiver", 1-4244-0303, IEEE, pp. 82-85, 2006</li> <li>Changrui, Kong, Xie Shige and Huizhil, "Design and FPGA Implementation of Flexible and Efficiency Digital Down Converter", 978-1-4244-5900- IEEE, PP.438-441, 2010</li> <li>Chan, Tsui, Yeung, and Yuk, "Design and Complexity Optimization of a New Digital IF for Software Radio Receivers With Prescribed Output Accuracy" IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—I: REGULAR PAPERS, VOL. 54, NO. 2, pp 351-366, 2007</li> <li>Texas Instrument, Inc., "ADS5500: 14-bit, 125 Msps, A Analog-to-Digital Converter Data Sheet". Rev. G, Dallas, T Texas, USA, pp. 1-29. Citing Internet sources URL: <a href="http://focus.ti.com/lit/ds/symlink/ads5500.pdf">http://focus.ti.com/lit/ds/symlink/ads5500.pdf</a>, 2007</li> <li>Texas Instrument, Inc., "DAC5687: 16-bit, 500 Msps, 2x-8x Interpolation Dual-Channel Digital-to-Analog Converter Data Sheet". Rev. B, Dallas, Texas, USA, pp. 1-70. Citing Internet sources URL:</li> <li>Xilinx, Inc., "System Generator for DSP User Guide", Release 9.2.01, San Jose, California, USA, pp. 1-346, 2007</li> <li>Xilinx, Inc., "DSP Design Flows in FPGA Tutorial Slides". San Jose, California, USA, pp. 1-82, 2003</li> <li>Xilinx Inc., "System Generator for DSP": User Guide, Release 10.1, Snn Jose, Clifornia, USA, PP.1-40: <a href="http://www.xilinx.com">www.xilinx.com</a>, 2008</li> <li>Xilinx, Inc., "Xilinx ISE 9.2i Software Manuals: Constraints Guide, and Development System Reference Guide". San Jose, California, USA, pp. 1-844, 2007</li> <li>Xilinx, Inc., "Virtex-II Pro and Virtex-II Pro X FPGA User Guide", Ver. 4.2, San Jose, California, USA, pp. 1-559. Citing Internet sources URL: <a href="http://www.xilinx.com/support/documentation/user_guides/ug012.pdf">http://www.xilinx.com/support/documentation/user_guides/ug012.pdf</a>, 2003</li> <li>Xilinx, Inc., "Spartan-3 FPGA Family Data Sheet", Ver. 2.5, San Jose, California, USA, pp. 1-217. Citing Internet sources URL: <a href="http://www.xilinx.com/support/documentation/data_sheets/ds099.pdf">http://www.xilinx.com/support/documentation/data_sheets/ds099.pdf</a>, 2006</li> <li>Xilinx, Inc., "Timing constraints User Guide", Ver. 11.1.1, san Jose California, USA, pp. 1-137, Citing Internet sources URL: 2009. <a href="http://www.xilinx.com/support_ort/documentation/sw_manuals/xilinx11/ug612.pdf">http://www.xilinx.com/support_ort/documentation/sw_manuals/xilinx11/ug612.pdf</a> A</li> </ol>
34.	<b>Authors:</b> <b>Ferferidoon Owfi, Hodeis Abbasi Ghadikolaei, Mahnaz Rabbaniha, Maryam Abbasi Ghadikolaei</b>
	<b>Paper Title:</b> <b>The first Record and Reports of Nettastomatidae Identification in Iranian Museums of the Persian Gulf and Oman Sea's Waters</b>
	<p><b>Abstract:</b> Nettastomatidae from Anguilliformes order was a part of fish fauna in the Persian Gulf and Oman Sea. It has commercial and nourishing value. This research revising the samples classification and systematic specimens of Nettastomatidae in south coast of Iran such as: Bushehr, Chabahar, Bandar Abbas, Bandar lengeh and the rest from museums, Universities and Research centers in Iran form 2007-2008. The whole Ichthyology valid published references in this area (Fishing area 51) were considered. The result showed that: Among 27 eel's samples one sample is in Nettastomatidae family's <i>Hoplunis diomedianus</i> (Good &amp; Bean, 1896) was record and reported for the first time in the Persian Gulf and Oman Sea's of Iranian waters.</p> <p><b>Keywords:</b> Nettastomatidae, systematic review, Persian Gulf, Oman Sea</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>AL-Abdesalaam, T.Z, 1995. Marine species of the sultanate of Oman Marine science and fisheries center, oman.p234-236,246-247.</li> <li>Belgvad and Loppenthin, 1937. Volum on the fishes of the Iranian Gulf (1944). part III of Danish Scientific Investigation in Iranian Gulf, 12 col. pls. copenhagen.</li> <li>Biswas, s.p., 1993. Manual of methods in fish biology. South Asia. Publishers' pvt. Ltd. Newdelhi, 195p.</li> <li>Bianchi, G. 1995. Field guide to the commercial marine and brackish water of Pakistan. FAO. Rome. p15-18</li> <li>Coad, W. B, 1992. Check list &amp; Bibliography in Persian Gulf fish,</li> <li>Carpenter, K.E., F.kurp p, O.A.Jones and Zajonz, 1997. Living marine resource of Kuwait, Stern Saudi Arabia, Bahrain, Qatar and United Arab Emirates. Rome. P106-109.</li> <li>Dehghani, N., and Asadi, 1996. Persian Gulf and Oman Sea fishes published from Iranian Scientific &amp; Research organization, Tehran. pp.350.</li> <li>FAO, 1986. Review of the fish stated of the world fishery resources; Marine fisheries. Western Indian Ocean (FAO Statistical Area 51), Rome. Italy</li> <li>FAO, 1997. FAO fisheries circular No.920 FIRM/C920. ISSN0429-9329. (FAO Statistical Area 51) Rome.</li> <li>Fischer, W. and Bianchi, G., 1984. FAO species Identification sheets for fishery purposes western Indian ocean (fishing area 51), volum 1. Rome. p 6-7.</li> </ol>

	<ol style="list-style-type: none"> <li>11. Fish Base, 2013. Available from: <a href="http://www.fishbase.com/July2013">www.fishbase.com/July2013</a>.</li> <li>12. Froese Rainer and Pauly Daniel, 2013. Available from: <a href="http://Searounds.org/Researcher/Dpauly.pdf">Searounds.org/ Researcher/Dpauly.pdf</a></li> <li>13. Hoseinzadeh, H. and Kamali, E. 2003; Ornamental fishes of the Persian gulf published from Iranian fisheries science &amp; Research organization, Tehran. 65p.</li> <li>14. Javid Mohammad Pour, Owfi, F. 2001. The reviews and defect of systematic, Taxonomy of Persian Gulf &amp; Oman sea's bony fish classification in International Natural History Museum of Iran, Tehran. MSc. Thesis, Tarbiat Modares University, Noor.</li> <li>15. Kuronuma, K. and Abe, Y. 1986. Fishes of the Bahrain Gulf, Kuwait institute for scientific research. p 45-46.</li> <li>16. Kuronuma, K. and Abe, Y. 1972. Fishes of Kuwait, Kuwait. xiv, 123pp. 20 plts. Boards, d/j.</li> <li>17. Owfi, F. 2005a. Check list and species diversity of the Persian Gulf &amp; Oman Sea, Anguilliformes IFRO/ /UNCC Geneva, Suisse. p185.</li> <li>18. Owfi, F. 2005b. Anguilliformes Fishes Diversity IFRO/ /UNCC Geneva, Suisse. p185.</li> <li>19. Owfi, F. and Rabbaniha, M. 2007. Environmental management of Iranian coastal zone (marine fish fauna research) Volume 5; Iranian port and navigate organization, Tehran. P 1-12.</li> <li>20. Reef Base.com. Available from: <a href="http://www.reefbase.com/july2013">www.reefbase.com/july2013</a>.</li> <li>21. Smith, J.L.B. and Smith, M.M. 1963. The fishes of Seychelles. Rhodes University, Grahamstown. 215p.</li> <li>22. Smith, M. &amp; Heemstra, P.C. 1986. Smith's Sea Fishes. Springer – Verlag.</li> <li>23. Vander laan, R., Fricke, R. and Eschmeyer, W.N. 2013. Fish catalogue of life electronic version accessed dd mmm.</li> </ol>					
35.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Shadeeda Nalakath, Sreeja Rajesh</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Ranking Spatial Data by Quality Preferences</b></td> </tr> </table> <p><b>Abstract:</b> The objects in real world can be ranked based on the features in their spatial neighborhood using a preference based top-k special query. In this paper, a two purpose query structure for satisfying the user requirements is implemented. For example, a user who wishes to find a hotel with 3 star categories that serves sea food which provides the nearest airport facility. This concept can be obtained by developing a system that takes a particular query as the input and displays a ranked set of top k best objects that satisfy user requirements. For that, an indexing technique R-tree and a search method BB algorithm for efficiently processing top-k spatial preference query is used. R-tree (Real-tree), a data structure is the first index specifically designed to handle multidimensional extended objects and branch and bound (BB) algorithm that makes searching easier, faster and accurate. The key idea is to compute upper bound scores for non-leaf entries in the object tree, and prunes those that cannot lead to better results. The advantage of using this algorithm is that it can reduce the number of steps to be examined.</p> <p><b>Keywords:</b> Query processing, spatial databases, R-tree.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. M.L. Yiu, X. Dai, N. Mamoulis, and M. Vaitis, "Top-k Spatial Preference Queries," in ICDE, 2007.</li> <li>2. K.S. Beyer, J. Goldstein, R. Ramakrishnan, and U. Shaft, "When is "nearest neighbor" meaningful?" in ICDT, 1999.</li> <li>3. Y. Chen and J.M. Patel, "Efficient Evaluation of All-Nearest-Neighbor Queries," in ICDE, 2007.</li> <li>4. Jinzeng Zhang, Dongqi Liu, Xiaofeng Meng, "Preference Based Top-k Spatial Keyword Queries," in ACM, 2011.</li> <li>5. Y-Y. Chen, T. Suel, and A. Markowetz, "Efficient Query Processing in Geographic Web Search Engines," in SIGMOD, 2006.</li> <li>6. E. Dellis, B. Seeger, and A. Vlachou, "Nearest Neighbour Search on Vertically Partitioned High-Dimensional Data," in DaWaK, 2005.</li> <li>7. A. Guttman, "R-Trees: A Dynamic Index Structure for Spatial Searching," in SIGMOD, 1984.</li> <li>8. S. Hong, B. Moon, and S. Lee, "Efficient Execution of Range Top-k Queries in Aggregate R-Trees," IEICE Transactions, 2005.</li> <li>9. I.F. Ilyas, W.G. Aref, and A. Elmagarmid, "Supporting Top-k Join Queries in Relational Databases," in VLDB, 2003.</li> </ol>	<b>Authors:</b>	<b>Shadeeda Nalakath, Sreeja Rajesh</b>	<b>Paper Title:</b>	<b>Ranking Spatial Data by Quality Preferences</b>	172-176
<b>Authors:</b>	<b>Shadeeda Nalakath, Sreeja Rajesh</b>					
<b>Paper Title:</b>	<b>Ranking Spatial Data by Quality Preferences</b>					
36.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>S. D. More, C. M. Kale, A.B. Shinde, K. M. Jadhav</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Role of Cr<sup>3+</sup> Substitution on Electrical and Dielectric Behavior of Cu-ferrite Nanoparticles</b></td> </tr> </table> <p><b>Abstract:</b> Chromium substituted copper ferrite nano particles with generic formula Cu<sub>x</sub>Cr<sub>1-x</sub>Fe<sub>2</sub>O<sub>4</sub> (x = 0.0, 0.2, 0.4, 0.6, 0.8, 1.0) have been synthesized successfully in nano-crystalline form by wet chemical co-precipitation method. The as prepared powder of CuFe<sub>2</sub>-xCr<sub>x</sub>O<sub>4</sub> was sintered at 800 °C for 12 h. X-ray diffraction (XRD) technique was employed to investigate the structural properties and to check the phase purity of the prepared samples. The analysis of XRD patterns revealed the formation of single phase cubic spinel structure for all samples. The average crystallite size of all samples was estimated using Scherrer's formula and it is in the order of 30-40 nm. The lattice parameter obtained by using XRD data decreases with chromium substitution. The temperature dependence of d. c. electrical resistivity of all samples was studied by using two probe methods. The resistivity increases with increase in chromium substitution and as temperature increases resistivity decreases. The dielectric properties were investigated as a function of frequency at room temperature using LCR-Q meter. The dielectric constant (ε'), dielectric loss (ε'') and dielectric loss tangent (tanδ) decreases with increase in frequency.</p> <p><b>Keywords:</b> Resistivity, Spinel ferrite, Nano-crystalline, X-ray diffraction.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Devan R.S., Kolekar Y.D., Chougul B.K. J. Phys. Cond. Mat. 18(2006)9809</li> <li>2. Elshora A.I., Elhiti M.A., El Nimr MK, Ahmed M.A., El Hasab A.M., J. Magn. Magn. Mater. 204(1999)20</li> <li>3. El-Sayed AM. Mater. Chem. Phys. 82(2003)583</li> <li>4. Bhosale A.G., Chougale B. K., J. Mater. Chem. Phys., 97(2006)273</li> <li>5. Souad Ammar, Arnaud Helfel, J. Mater. Chem. 11 (2001)186</li> <li>6. Hamada IM. J Magn Magn Mater 271 (2004)318</li> <li>7. Ladgoankar B.P., Kolekar C.B., Vasamberkar P.N., and Vaingankar A.S., Ind. J. Eng. Matt. Sci. 7 (2000)419</li> <li>8. Mazen S.A., Al-Falaky A., Hashem H.A. App Phys A 25(1995)559</li> <li>9. Patil S.A., Mahajan V.C., Ghatge A.K., Lotke S.D. Phase Trans. 63(1996)21</li> <li>10. Lipare A.Y., Vasambekar P.N., Vaingankar A. S. Mater. Chem. Phys. 81(2003)108</li> <li>11. Ch. Venkateshwarlu, Ravinder D., J. Alloys. Compd. 426(2006)4</li> <li>12. Y. Qj, Y. Yangg, X. Zhro, X. Liu., P. Wu, F. Zhang, S. Xu, Particology 8 (2010)207.</li> <li>13. M. Drogenik, M. Kristi, D. Makovec, Z. Jaglicic, D. Hanzel, Mater. Manuf. Process, 23 (2008) 603</li> <li>14. V. Vasilenko, K.S. Gavrilenko, J. E. Kotenko, O. Kador, L. Quahab, and V. U. Pavlishchuk. Theoretical and experimental chemistry, vol., 43 (2007) 5.</li> <li>15. U. Jeong, X. Teng, Y. Wang, et al., Adv. Mater, 19 (2007) 33.</li> </ol>	<b>Authors:</b>	<b>S. D. More, C. M. Kale, A.B. Shinde, K. M. Jadhav</b>	<b>Paper Title:</b>	<b>Role of Cr<sup>3+</sup> Substitution on Electrical and Dielectric Behavior of Cu-ferrite Nanoparticles</b>	177-180
<b>Authors:</b>	<b>S. D. More, C. M. Kale, A.B. Shinde, K. M. Jadhav</b>					
<b>Paper Title:</b>	<b>Role of Cr<sup>3+</sup> Substitution on Electrical and Dielectric Behavior of Cu-ferrite Nanoparticles</b>					

	<p>16. E. Veena Gopalan, K.A. Malini, S. Saravanan, D. Sakthi Kumar, Yasuhiko Yoshida and M. R. Anantharaman. J. Phys. D: Appl. Phys. 41 (2008) 185005</p> <p>17. Klug H.P., Alexander L.E., J. Appl. Crystallogra. 8(1975) 575</p> <p>18. Amitkumar, Yadav K.L., Mater. Sci. and Engg. B. 176 (2011) 2272</p> <p>19. Ahmed M.A., Ateia. E., Salem F.M., J. Mater. Sci. 42 (2007) 3651</p> <p>20. Rao K.H., Raju S.B., Aggarwal K., Mendiratta R.G., J. Appl. Phys 52(1981)1376</p> <p>21. Shikh A.D., Mathe V.L. J. Mater. Sci. 43 (2008)2018</p> <p>22. Ravinder D and Latha K. Mater. Lett. 41(1999)247</p> <p>23. J. C. Maxwell,</p> <p>24. Wagner K.W. Am. Phys.40 (1973)817</p> <p>25. Koop C.G. Phys. Rev.83 (1951)121</p> <p>26. Iwauchi K. Jpn. J. Appl. Phys.10 (1971)1520</p>					
37.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Nejin Keshavarznia, Rahim Sarvar, Masud Mahdavi</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Environmental Impacts of Second Home Development on Damash Village in Gilan Province, Iran</b></td> </tr> </table> <p><b>Abstract:</b> One of the most important issues which have received particular attention from geographers is examining the effects of spending times on taking vacation and tourism. This issue has led to development of second homes in rural and urban areas. Emphasizing the environmental effects of second home expansion, this research is aimed at studying the impact of such holiday homes on rural areas of Damash Village in Gilan Province, Iran. Present applied study was conducted based on descriptive- analytical methodology; also, the required data were gathered through two questionnaires, one designed for rural people (170 families) and the other for nonnative owners of second homes (60 families). The findings showed that second home development had by far much more negative impacts on rural communities were than the positive ones.</p> <p><b>Keywords:</b> Environmental Impact, Second home, Damash, Gilan,</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. M. R. Rezavani . The analysis of formation and development of second homes in Tehran rural areas, Researches in Geography, 2003 45, 56-69.</li> <li>2. P. Fesharaki. Rural geography. Tehran: Azad University Publication Center.1994.</li> <li>3. F. N. Aligholizadeh. Tourism impacts on rural areas (Unpublished Doctoral Dissertation). Tehran University, Tehran, Iran. 2008.</li> <li>4. G. H. Rostami, &amp; L. Ramazanzadeh. Tourism and development. Noor Elm Publication Ind. 2011.</li> <li>5. May V Tourism, environment and development: Values, sustainability and stewardship, Tourism Management, Volume 12, Issue 2, June 1991, Pages 112-118.</li> <li>6. D. Fennel. Ecotourism an introduction, Rutledge, London. 1999.</li> <li>7. R. J. Johnston. Dictionary of Human Geography. Second Edition. Oxford: Blackwell.1988.</li> <li>8. Z. Ghaderi. Principles of sustainable development planning in rural areas. Tehran: The Organization for Iranian Municipalities. 2004.</li> <li>9. Z. Salehinasab. Tourism of second homes and their impacts on rural areas (Unpublished Master's Thesis). Tehran University, Tehran, Iran. 2005.</li> <li>10. S. Benjamin &amp; Weagraff. The Contribution of Second Homes to Rural Economies. A thesis in Agricultural, Environmental, and Regional Economics Master of Science the Pennsylvania State University. 2004.</li> <li>11. Economic Research. Spotlight CREDIT SUISSE. Second Homes and Vacation Homes in Switzerland. www.credit-suisse.com/ research. Available: <a href="http://www.halcyon.com/pub/journals/21ps03-vidmar.2005">http://www.halcyon.com/pub/journals/21ps03-vidmar.2005</a>.</li> </ol>	<b>Authors:</b>	<b>Nejin Keshavarznia, Rahim Sarvar, Masud Mahdavi</b>	<b>Paper Title:</b>	<b>Environmental Impacts of Second Home Development on Damash Village in Gilan Province, Iran</b>	181-184
<b>Authors:</b>	<b>Nejin Keshavarznia, Rahim Sarvar, Masud Mahdavi</b>					
<b>Paper Title:</b>	<b>Environmental Impacts of Second Home Development on Damash Village in Gilan Province, Iran</b>					
38.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Anjana Bhardwaj, Swati Gupta</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Design and Comparative Analysis of Conventional Adder and Pipelined Adder</b></td> </tr> </table> <p><b>Abstract:</b> Adding two binary numbers is a basic operation in binary electronic processing system. Pipelining digital systems has been shown to provide significant performance gains over non-pipelined systems and remains a standard in microprocessor design. The desire for increased performance has seen a push for pipelines. Pipelining is considered to be a good technique for increasing the circuit speed. In this paper, 4-bit conventional adder and 4-bit pipelined adder has been implemented using Cadence virtuoso tool and simulation was performed using the generic 0.18 <math>\mu\text{m}</math> CMOS Technology at 5V. For comparison purposes, various parameters such as delay time, rise time and fall time has been compared which shows that pipelined adders are more efficient in terms of speed, power and throughput.</p> <p><b>Keywords:</b> Pipelining, Full Adder, Binary Adder.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Vishal D. Jaiswal, Saroj V. Bakale ,Sonal S. Bhopale, "Implementation And Comparatively Analysis Of Low Power Adder Circuit", International Journal of Advanced Technology &amp; Engineering Research (IJATER) , Vol. 2, NO. 2, M ay 2013, pp. 2250-3536 .</li> <li>2. N. M. Chore, and R. N. Mandavgane, "A Survey of Low Power High Speed 1 Bit Full Adder", Proceeding of the 12th International Conference on Networking, VLSI and Signal Processing, pp. 302-307, 2010.</li> <li>3. James Levy, JabulaniNyathi, and Jos'e Delgado , "High-Performance Parallel Addition Using Hybrid Wave-Pipelining",2005 IEEE Journal of electronic circuit designs,vol. 40, NO. 2, May 2005, pp. 7803-9197.</li> <li>4. V. Sukumar, D. Pan, K. Buck, H. Hess, H. Li, D. Cox and M. M. Mojarradi, "Design of a pipelined Adder Using Skew Tolerant Domino Logic in a 0.35 <math>\mu\text{m}</math> TSMC Process," 2004 IEEE Workshop on Microelectronics and Electron Devices, September 2004, pp. 55-59.</li> <li>5. C-H. Huang, J-S.Wang, C. Yeh and C-J.Fang, "The CMOS Carry- Forward Adders," IEEE Journal of Solid-State Circuits, Vol. 39, NO. 2, February 2004, pp. 327-336.</li> <li>6. Y. Kim and L-S Kim, "64-bit carry-select adder with reduced area," Electronics Letters,Vol. 37, Issue 10, May 10, 2001, pp. 614-615.</li> <li>7. N. West and K. Eshraghian, "Principles of CMOS VLSI Design: A System Perspective", 2nd ed., Addison Wesley, NY. 1992, pp. 513-536.</li> <li>8. P. K. Chan, M. D. F. Schlag, C. D. Thomborson, and V. G. Oklobdzija,"Delay Optimization of Carry-Skip Adders and Block Carry- Lookahead Adders," 10th IEEE Proceedings on Computer Arithmetic, June 26-28, 1991, pp.154-164.</li> </ol>	<b>Authors:</b>	<b>Anjana Bhardwaj, Swati Gupta</b>	<b>Paper Title:</b>	<b>Design and Comparative Analysis of Conventional Adder and Pipelined Adder</b>	185-188
<b>Authors:</b>	<b>Anjana Bhardwaj, Swati Gupta</b>					
<b>Paper Title:</b>	<b>Design and Comparative Analysis of Conventional Adder and Pipelined Adder</b>					
39.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>K. Vijay Kumar, R.Rajeshwara Rao</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Online Handwritten Character Recognition for Telugu Language Using Support Vector Machines</b></td> </tr> </table> <p><b>Abstract:</b> A system for recognition of online handwritten telugu characters has been presented for Indian writing</p>	<b>Authors:</b>	<b>K. Vijay Kumar, R.Rajeshwara Rao</b>	<b>Paper Title:</b>	<b>Online Handwritten Character Recognition for Telugu Language Using Support Vector Machines</b>	189-192
<b>Authors:</b>	<b>K. Vijay Kumar, R.Rajeshwara Rao</b>					
<b>Paper Title:</b>	<b>Online Handwritten Character Recognition for Telugu Language Using Support Vector Machines</b>					

systems. A handwritten character is represented as a sequence of strokes whose features are extracted and classified. Support vector machines have been used for constructing the stroke recognition engine. The results have been presented after testing the system on Telugu scripts.

**Keywords:** Online Handwritten Character, Recognition, Stroke, feature extraction, Support Vector Machine.

**References:**

1. G.E.M.D.C. Bandara, S.D. Pathirana, R.M. Ranawana, "Use of fuzzy feature descriptions to recognize handwritten alphanumeric characters," in 1st Conference on Fuzzy Systems and Knowledge Discovery, Singapore, 2002.
2. Paul D. Gader, James M. Keller, Raghu Krishnapuram, Jung-Hsien Chiang, Magdi A. Mohamed, "Neural and fuzzy methods in handwriting recognition," Computer, vol.30, no. 2, pp. 79-86, Feb., 1997.
3. Batuwita, K.B.M.R.; Bandara, G.E.M.D.C.; Fuzzy Recognition of Off-line Handwritten Numeric Characters Cybernetics and Intelligent Systems, 2006 IEEE Conference on 7-9 June 2006 Page(s): 1 – 5.
4. Arica, Nafiz; Yarman-Vural Fatos T; An Overview of Character Recognition Focused on Off-Line Handwriting; IEEE Transactions on Systems, Man, and Cybernetics- PartC: Applications and Reviews, Vol. 31, No. 2, may 2001.
5. Ba-karait, N.O.S. Particle Swarm Optimization (PSO)-Based Clustering Algorithm for Handwritten Digits Recognition. MSc Thesis. Universiti Teknologi Malaysia, 2007.
6. N. Otsu, A threshold selection method from gray-level histograms, IEEE Trans. Systems Man Cybernet. 9 (1) (1979) 62–66.
7. B. Sankur and M. Sezgin, "A survey over image thresholding techniques and quantitative performance evaluation," Journal of Electronic Imaging, 2004.
8. O.D. Trier, A.K. Jain, Goal-directed evaluation of binarization methods, IEEE Trans. Pattern Anal. Mach.Intell. 17 (12) (1995) 1191–1201.
9. N. R. Pal and S. A Pal, "Review on image segmentation techniques," Pattern Recognition, Vol. 26, pp. 1277–1294, 1993.
10. P.K. Sahoo, S. Soltani, A.K.C. Wong, and Y.C. Chen, "A survey of thresholding techniques," Comput. Vis. Graph. Image Process., Vol. 41, pp. 233–260, 1988.
11. Liju Dong; Ge Yu; An optimization-based approach to image binarization. Computer and Information Technology, 2004. CIT '04. The Fourth International Conference on 14- 16 Sept. 2004 Page(s):165 – 170.
12. A. Rosenfeld, A.C. Kak, Digital Picture Processing, second ed., Academic Press, New York, 1982.
13. J. Kittler, J. Illingworth, On threshold selection using clustering criteria, IEEE Trans. Systems Man Cybernet. 15 (1985) 652–655.
14. A.D. Brink, Thresholding of digital images using twodimensional entropies, Pattern Recognition 25 (8) (1992) 803–808.
15. H. Yan, Unified formulation of a class of image thresholding techniques, Pattern Recognition 29 (12) (1996) 2025–2032.
16. Gatos, B., Pratikakis, I. and Perantonis, S.J. (2005). Adaptive Degraded Document Image Binarization. Pattern Recognition. 39: 317 – 327.
17. Gupta, M. R., Jacobson, N. P. and Garcia, E. K. (2006). OCR Binarization and Image Preprocessing for Searching Historical Documents. Pattern Recognition. 40:389 – 397.
18. J.R. Parker, C. Jennings, A.G. Salkauskas, Thresholding using an illumination model, ICDAR'93, 1993, pp. 270–273.
19. Cheriet, M., Kharma, N., Liu, C-L., Suen. CY. (2007) Character Recognition Systems : a Guide for Student and Practitioners. John Wiley & Sons, Inc. United States of America.
20. H.Yamada, K.Yamamoto, T.Saito: "A Non-linear Normalization Method for Handprinted Kanji Character Recognition – Line Density Equalization," Pattern Recognition, vol.23, no.9, pp.1023-1029, (1990).
21. Davies, E.R., and Plummer, A.P.N. Thinning algorithm, a critique and a new methodology. Pattern Recognition 14, 1 (1981), 53-63.
22. Pfaltz, J.L., and Rosenfeld, A. Computer representation of planar regions by their skeletons. Commun. ACM 10, 2 (February 1967). 119-125.
23. Paul Kwok. A thinning algorithm by contour generation. Source Communications of the ACM archive Volume 31, Issue 11 (November 1988). Pages: 1314 – 1324.
24. N. Arica; Yarman-Vural, F.T.; Optical character recognition for cursive handwriting Pattern Analysis and Machine Intelligence, IEEE Transactions on Volume 24, Issue 6, June 2002 Page(s):801 – 813.
25. Changming Sun; Deyi Si; Skew and slant correction for document images using gradient direction. Document Analysis and Recognition, 1997., Proceedings of the Fourth International Conference on Volume 1, 18-20 Aug. 1997 Page(s):142 - 146 vol.1.
26. Yimei Ding; Ohyama, W.; Kimura, F.; Shridhar, M.; Local slant estimation for handwritten English words Frontiers in Handwriting Recognition, 2004. IWFHR-9 2004. Ninth International Workshop on 26-29 Oct. 2004 Page(s):328 -333.

**Authors:** Omer Khalil Ahmed, Ahmed Hassan Ahmed, Khalil Ibrahim Mohammad

**Paper Title:** Experimental Investigation for the Performance of Simple Solar Still in Iraqi North

**Abstract:** The aims of this research to present the possibility of using simple solar still to distillation of saline water in the northern areas of Iraq as well as to verify the reliability of research results published in the past to reach the standard adopted in determining the operational variables which affecting on the performance of solar still. A series of tests to demonstrate the effect of the thickness of water in the basin on the productivity of solar still, the study showed productivity distilled rely mainly on the thick layer of water and it was also noted that the presence of local wind reduces the performance of solar still, but slightly. The presence of dye in the water was reduced the productivity of still and therefore, this option is not desirable to reach an improvement in the still productivity, except in the case of the use of special pigments to absorb large quantities of solar radiation, which imported materials and increase the cost of distillation. It also increased the salinity of the water in the basin of still leading to reduction in productivity and this reduction increased with the increased concentration of salt.

**Keywords:** Effect of operational variables, Solar still, Performance of,

**References:**

1. Malik et. al, (1982)" Solar distillation", Pergamon press, United Kingdom.
2. Rajvanshi, A.K.(1981)"Effect of various dyes on solar distillation", Solar energy, Vol.27,pp. 51-65.
3. Akash,B.A and Mohsen, M.S (2000), "Experimental study of the basin type solar still under local climate conditions", Energy management & conversion, Vol 41, pp. 883-889.
4. Tripathi. and Tiwari. (2005). "Thermal Modeling of Passive and Active Solar Stills for Different Depths of Water by Using the Concept of Solar Fraction," Solar Energy, 80, Delhi, pp. 1-3.
5. H. Tanaka and Y. Nakatake, Theoretical analysis of a basin type solar still with internal and external reflectors, Desalination, 186 (2006) 280–299.
6. Dinesh Kumar et. al, (2013), " Performance Analysis of Single Slope Solar Still", International Journal of Emerging Technology and Advanced Engineering, Volume 3, Issue 3, pp 66-72.
7. Ehssan M.R. Nassef et .al, "Study of the performance of solar still", 2nd International Conference on Energy Systems and Technologies, 18 – 21 Feb, 2013, Cairo, Egypt.
8. S. Nijmeh, S. Odeh, B. Akash, "Experimental and theoretical study of a single-basin solar still in Jordan", International Communications in

40.

193-198

**Authors:** G.N.Lokesh, M.Ramachandra, K.V.Mahendra**Paper Title:** Production of Al-4.5% Cu Alloy Reinforced Fly Ash and SiC Hybrid Composite by Direct Squeeze Casting

**Abstract:** Today the use of composites will be a clear choice in many instances especially in automobile and aerospace sector. Material selection in others will depend on factors such as working life span necessities, number of items to be produced, convolution of product shape, possible savings in assembly costs and on the experience & skills of the designer in drumming the optimum potential of composites. Composites produced using waste as reinforcements helps not only clearing environmental issues but also helps in increasing mechanical properties of the composites. One of the inexpensively available and also coming as waste form thermal power plant is fly ash. In the present investigation fly ash and SiC reinforced Al-4.5% Cu composites containing 2% fly ash with 2,4,6% SiC and 4% fly ash with 2,4,6% SiC fabricated by direct squeeze casting technique. The composites was analysed by measuring the hardness, tensile, compression, impact and wear behaviour. Microstructure of the composites was observed by scanning electron microscope (SEM). The results indicate that the hardness, tensile, compression, impact and wear resistance increases with increase in percentage of fly ash and SiC. Microstructure shows better bonding between matrix particle interface and no fracture observed.

**Keywords:** Squeeze Casting, Fly Ash, Tensile Strength, Compression Strength, Wear.

**References:**

1. I.A. Ibrahim, F.A. Mohamed and E.J. Lavernia, Particulate reinforced metal matrix composites a review, *Journal of Materials Science* 26 (1991), pp.1137-1156.
2. S.C. Tjong, K.C. Lau, Properties and abrasive wear of TiB<sub>2</sub>/Al-4%Cu composites produced by hot isostatic pressing, *Composites Science and Technology* 59 (1999), pp. 2005–2013.
3. Young-Ho Seo, Chung-Gil Kang, The effect of applied pressure on particle-dispersion characteristics and mechanical properties in melt-stirring squeeze-cast SiCp/Al composites, *Journal of Materials Processing Technology* 55 (1995), pp. 370-379.
4. I. C. Stone and P. Tsakirooulos, The effect of the spatial distribution of reinforcement on the fabrication and heat treatment of (Al-4wt.%Cu)-SiC particle metal matrix composites, *Materials & Science and Engineering, A* 189 (1994), pp. 285-290.
5. T.R. Vijayaram, S. Sulaiman, A.M.S. Hamouda, M.H.M. Ahmad, Fabrication of fiber reinforced metal matrix composites by squeeze casting technology, *Journal of Materials Processing Technology* 178 (2006), pp. 34–38.
6. T.P.D. Rajan, R.M. Pillai, B.C. Pai, K.G. Satyanarayana, P.K. Rohatgi, Fabrication and characterisation of Al-7Si-0.35Mg/fly ash metal matrix composites processed by different stir casting routes, *Composites Science and Technology* 67 (2007), pp. 3369–3377.
7. M.R. Ghomashchi, A. Vikhrov, Squeeze casting: an overview, *Journal of Materials Processing Technology* 101 (2000), pp.1-9.
8. P. K. Rohatgi, N. Gupta, Simon Alaraj, Thermal Expansion of Aluminum-Fly Ash Cenosphere Composites Synthesized by Pressure Infiltration Technique, *Journal of composite materials*, Vol. 40, No. 13 (2006), pp.1163-1174.
9. Young-Ho Seo, Chung-Gil Kang, The effect of applied pressure on particle-dispersion characteristics and mechanical properties in melt-stirring squeeze-cast SiCp/Al composites, *Journal of Materials Processing Technology*, 55 (1995), pp. 370-379.
10. Adem Onat, Mechanical and dry sliding wear properties of silicon carbide particulate reinforced aluminium-copper alloy matrix composites produced by direct squeeze casting method, *Journal of Alloys and Compounds*, 489 (2010), pp. 119–124.
11. Cevdet Kaynak, Suha Boylu, Effects of SiC particulates on the fatigue behaviour of an Al-alloy matrix composite, *Materials and Design*, 27 (2006), pp. 776–782.
12. Olivier Beffort, Siyuan Long, Cyril Cayron, Jakob Kuebler, Philippe-Andre Buffat, Alloying effects on microstructure and mechanical properties of high volume fraction SiC-particle reinforced Al-MMCs made by squeeze casting infiltration, *Composites Science and Technology* 67 (2007), pp. 737–745.
13. Garios Itkos, P.K.Rohatgi, A. Moutsatsou, C.Vasilatos, John.D. Defow, Nikolas Koukouzas, Pressure Infiltration Technique for the Synthesis of A356 Al/fly Ash Composites: Microstructure and Tribological Performance, *World of Coal Ash (WOCA) Conference - May 9-12, 2011, in Denver, CO, USA*.
14. J. Bienia, M. Walczak, B. Surowska, J. Sobczaka, Microstructure And Corrosion Behaviour Of Aluminum Fly Ash Composites, *Journal of Optoelectronics and Advanced Materials*, Vol. 5, No. 2, June 2003, pp. 493-502.
15. P. Shanmugasundaram, R. Subramanian and G. Prabhu, Some Studies on Aluminium – Fly Ash Composites Fabricated by Two Step Stir Casting Method, *European Journal of Scientific Research*, ISSN 1450-216X Vol.63 No.2 (2011), pp.204-218.
16. Sudarshan, M.K. Surappa, Synthesis of fly ash particle reinforced A356 Al composites and their characterization, *Materials Science and Engineering, A* 480 (2008), pp. 117–124.
17. K.V. Mahendra, K. Radhakrishna, Fabrication of Al-4.5% Cu alloy with fly ash metal matrix composites and its characterization, *Materials Science-Poland*, Vol. 25, No. 1(2007), pp.57-68.
18. M. Ramachandra, K. Radhakrishna, Effect of reinforcement of fly ash on sliding wear, slurry erosive wear and corrosive behavior of aluminium matrix composite, *Wear* 262 (2007), pp. 1450–1462.
19. Adem Onat, Hatem Akbulut, Fevzi Yilmaz, Production and characterization of silicon carbide particulate reinforced aluminium-copper alloy matrix composites by direct squeeze casting method, *Journal of Alloys and Compounds*, 436 (2007), pp. 375–382.
20. N.E. Bekheeta, R.M. Gadelrabb, M.F. Salah, A.N. Abd El-Azim, The effects of aging on the hardness and fatigue behavior of 2024 Al alloy/SiC composites, *Materials and Design*, 23 (2002), pp. 153-159.
21. S. Long, O. Beffort, C. Cayron and C. Bonjour, Microstructure and mechanical properties of a high volume fraction SiC particle reinforced AlCu4MgAg squeeze casting, *Materials Science and Engineering, A* 269 (1999), pp.175–185.
22. Jung-Moo Lee, Sang-Kwan Lee, Sung-Jin Hong, Yong-Nam Kwon, Microstructures and thermal properties of A356/SiCp composites fabricated by liquid pressing method, *Materials & Design*, Volume 37, May 2012, pp. 313-316.
23. Y.Q. Wang, A.M. Afsar, J.H. Jang, K.S. Han, J.I. Songa, Room temperature dry and lubricant wear behaviors of Al<sub>2</sub>O<sub>3</sub>/SiCp/Al hybrid metal matrix composites, *Wear* 268 (2010), pp. 863–870.
24. Cevdet Kaynak, Suha Boylu, Effects of SiC particulates on the fatigue behaviour of an Al-alloy matrix composite, *Materials and Design* 27 (2006), pp.776–782.
25. Jae-Ho Jang, Dae-Geun Nam, Yong-Ho Park, Ik-Min Park, Effect of solution treatment and artificial aging on microstructure and mechanical properties of Al-Cu alloy, *Transactions of Nonferrous Metals Society of China*, Volume 23, Issue 3, March 2013, Pages 631-635.
26. K.V.Mahendra, K.Radhakrishna, Characterization of Stir Cast Al-Cu-(fly ash + SiC) Hybrid Metal Matrix Composites, *Journal of Composite Materials*, Vol 44, April(2010), pp.989-1005.
27. A.K. Banerjee, P.K. Rohatgi, W. Reif, in: *Proceedings of the Eighth Symposium in Advanced Material Research and Development for Transport-Composites*, 1985, Strausbourg, France, November 1985.
28. Suresh N, Venkateswaran S, Seetharamu S, Influence of Cenospheres of fly ash on the mechanical properties and wear of permanent moulded eutectic Al-Si alloys, *Materials Science-Poland*, Vol.28, No.1,(2010), pp.55-65.
29. LI Run-Xia, LI Rong-de, Bai Yan-hua, QU Ying-dong, Yuan Xiao-guang, *Transaction of nonferrous metals society of china*, 20 (2010),

	pp.59-63.	
	<b>Authors:</b>	<b>S.Tamilselvan, S. Savitha, D. Prabakar</b>
	<b>Paper Title:</b>	<b>An Efficient Spectrum Sharing and Interference Reduction for Cellular Network</b>
42.	<p><b>Abstract:</b> To utilize spectrum resource more efficiently in a cellular network is very difficult. So to improve the resources, adhoc device to device communication was introduced. Interference management is a major component in designing these spectrum sharing schemes and it is critical that the licensed users maintain their QoS. A distributed dynamic spectrum protocol is proposed in which device to device users can communicate directly with each other and access the spectrum more efficiently. Network information is distributed by route discovery packet in a random access manner to establish the single hop or multihop link between D2D users. The discovery packet which contains network information will decrease the failure rate of the route discovery and also reduces the number of transmissions to find the route. The Performance metrics such as the route discovery failure probability and the number of transmission necessary to discover a route to the destination are to be analyzed. Finally using the found route, the simulation result shows that two D2D users can communicate with a low probability of outage and also reduces harmful interference to the macro users. The proposed protocol can be significantly achieved power saving using D2D route rather than connecting to the cellular base station. So spectrum resources are shared more efficiently between the macro user and device to device user.</p> <p><b>Keywords:</b> Device-to-device, spectrum sharing, power control, interference management, route discovery.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Brett Kaufman, T. Jorma Lilleberg, S. Behnaam Aazhang, "Spectrum Sharing Scheme between Cellular Users and Ad-hoc Device-to-Device Users" IEEE Transactions on Wireless Communications, Vol. 12, No.3, March 2013.</li> <li>2. G. B. Middleton, K. Hooli, A. Tolli, and J. Lilleberg, "Inter-operator spectrum sharing in a broadband cellular network," in IEEE International Symposium. Spread Spectrum Techniques Application, 2006.</li> <li>3. S.Jha, M.Rashid, and V.Bhargava, "Medium access control in distributed cognitive radio networks,"IEEE Wireless Communication., vol. 18, no. 4, pp. 41–51, August 2011.</li> <li>4. S.Y. Lien, Y.-Y. Lin, and K.-C. Chen,"Cognitive and game-theoretical radio resource management for autonomous femtocells with QoS guarantees," IEEE transaction on Wireless Communication., July 2011.</li> <li>5. G. B. Middleton and J. Lilleberg, "An algorithm for efficient resource allocation in realistic wide area cellular networks," in International Symposium. Wireless Personal Multimedia Communication, 2007.</li> <li>6. D. P. Satapathy and J. M. Peha, "Spectrum sharing without licensing: opportunities and dangers," in Interconnection Internet: Sel. Papers Telecommunication. Policy Research Conference, 1996.</li> <li>7. B. Kaufman, B. Aazhang, and J. Lilleberg, "Interference aware link discovery for device to device communication," in Asilomar Conference Signals, System, Computing, 2009.</li> <li>8. K. Doppler, C.-H. Yu, C. Ribeiro, and P. Jänis, "Mode selection for device-to-device communication underlying an LTE-advanced network," in IEEE Wireless Communications and Networking Conference 2010.</li> <li>9. K.Doppler, Rinne, P. Jänis, C. Ribeiro, and K. Hugl, "Deviceto- device communications; functional prospects for LTE-advanced networks," in International Workshop LTE Evolution IEEE International Conference on Communications,2009.</li> <li>10. P. Jänis, C.-H. Yu, K. Doppler, C. Ribeiro, C. Wijting, K. Hugl, O.Tirkkonen, and V.Koivunen,"Device-to-device communication underlying cellular communication systems," Int. J. Communications and Networking System . Science. vol. 2, no. 3, pp. 169–178, June 2009.</li> <li>11. N.Jindal, J. Andrews, and S. Weber, "Optimizing the SINR operating point of spatial networks," in Information and Theory Application Workshop, 2007.</li> <li>12. T.Wysocki and A.Jamalipour, "Spectrum management in cognitive radio:applications of ortfolio theory in wireless communications," IEEE Wireless Communication., vol. 18, no. 4, August 2011.</li> <li>13. T.Kamakaris, D. Kivanc-Tureli, and U. Tureli, "Interference model for cognitive coexistence in cellular systems," in Proceeding IEEE Global Communication, pp. 4175–4179. 2007.</li> <li>14. B.Kaufman, "Spectrum sharing techniques for next generation cellular networks," Master's thesis, Rice University, Houston, Texas, May 2009.</li> <li>15. B.Kaufman and B. Aazhang, "Cellular networks with an overlaid device to device network," in Asilomar Conference Signals, and System. Computing.2008.</li> <li>16. K.Doppler, M.Rinne, C.Wijting, C. Ribeiro, and K. Hugl, "Device to- device communication as an underlay to LTE-advanced networks," IEEE Communication. Magazine., vol. 47, no. 12, pp. 42–49, December 2009.</li> <li>17. H. Luo, X. Meng, R. Ramjee, P. Sinha, and L. Li, "The design and evaluation of unified cellular and ad-hoc networks," IEEE transaction on Mobile Computing., vol. 6, no. 9, pp. 1060–1074, September 2007.</li> </ol>	204-210
43.	<p><b>Authors:</b></p> <p><b>Paper Title:</b></p> <p><b>Abstract:</b> Cooperative relaying is a promising technique for Long Term Evolution Advanced (LTE-A) networks to satisfy high throughput demand and support heterogeneous communication services with diverse quality-of-service (QoS) requirements. Optimal relay selection, power allocation and sub carrier assignment scheme under a total power constrain is proposed for a Qos aware resource allocation for multi user cooperative OFDMA network. The relay selection, power allocation and subcarrier assignment problem are formulated as a joint optimization problem with the objective of maximizing system throughput. User at the cell edge and shadowing degrade the signal quality, hence cooperative relaying is very promising solution to provide better throughput and coverage extension. Combining OFDMA and cooperative relaying assures high throughput enhancement for user at cell edge .Throughput enhancement problem is solved by two level dual composition and sub gradient method. To further reduce the computational cost, low complexity suboptimal schemes are also proposed in this work. Simulation result indicates that the proposed scheme will guarantee the users Qos requirement and maximize the system throughput.</p> <p><b>Keywords:</b> OFDMA network, cooperative relaying, relay selection, resource allocation, joint optimization, QoS, LTE-A.</p>	<p><b>S. Tamilselvan, R. Gajalakshmi, D. Prabakar</b></p> <p><b>Cooperative Relay Based Resource Allocation for OFDMA Network</b></p> <p>211-218</p>

	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. MdShamsulAlam , Jon W. Mark and Xuemin(Sherman) Shen, "Relay Selection and Resource Allocation for Multi-User Cooperative OFDMA Networks", IEEE transactions on wireless communications, vol. 12, no. 5, May 2013.</li> <li>2. 3GPP, TS-25.101 v6.4.0, "Technical specification group radio accessnetwork; User Equipment (UE) radio transmission and reception," pp.1-272, Mar. 2004.</li> <li>3. 3GPP, TR-36.913 v8.0.1, "Requirements for further advancements for E-UTRA," pp. 1-17, Mar. 2009.</li> <li>4. IEEE Std 802.16m-2011, "IEEE standard for local and metropolitan area networks part 16: air interface for broadband wireless access systems amendment 3: advanced air interface," pp. 1-1112, June 2011.</li> <li>5. Stephan Scheduler* and Volker Kühn "Resource allocation for the multiple-access relay channels and OFDMA", IEEE Journal on Advances in Signal Processing, vol 9 Jan 2013.</li> <li>6. Yuwen Pan, Andrew Nix and Mark Beach, "Efficient Power and Subcarrier Allocation for OFDMA-Based Relay Networks," IEEE Communication Magazine, vol.72, no. 7, pp. 54-71, Feb 2011.</li> <li>7. Ian C. Wong, Nuking Shen, Brian L. Evans, and Jeffrey G. Andrews "A Low Complexity Algorithm for Proportional Resource Allocation in OFDMA Systems "IEEE Communication Magazine, vol.88, no. 7, pp. 54-71, F 2012</li> <li>8. W. Zhuang and M. Ismail, "Cooperation in wireless communication networks," IEEE Wireless Commun., vol. 19, no. 2, pp. 10-20, Apr.2012</li> <li>9. S. Kadloor and R. Adve, "Relay selection and power allocation in cooperative cellular networks, "IEEE Transactions Wireless Communication, vol. 9,no. 5, pp. 1676-1685, May 2010.</li> <li>10. K. Sung, Y. P. Hong, and C. Chao, "Resource allocation and partner selection for cooperative multicarrier systems," IEEE Trans. Veh. Technol., vol. 60, no. 7, pp. 3228-3240, Sept. 2011.</li> <li>11. Ian C. Wong, Zukang Shen, Brian L. Evans, and Jeffrey G. Andrews "A Low Complexity Algorithm for Proportional Resource Allocation in OFDMA Systems" ,IEEE journal on wireless network and communication vol.46 Jan 2013.</li> <li>12. P. Thulasiraman and X. Shen, "Interference aware resource allocation for hybrid hierarchical wireless networks," Computer Netw., vol. 54, pp.2271-2280, Sept. 2010.</li> <li>13. M. Awad, V. Mahinthan, M. Mehrjoo, X. Shen, and J. Mark, "A dual-decomposition-based resource allocation for OFDMA networks with imperfect CSI," IEEE Transactions Vehicular Technology, vol. 59, no. 5, pp. 2394-2403, June 2010</li> <li>14. C.-N. Hsu, H.-J. Su, and P.-H. Lin, "Joint subcarrier pairing and power allocation for OFDM transmission with decode-and-forward relay, "IEEE Trans. Signal Process., vol. 59, no. 1, pp399-414, Jan. 2011.</li> <li>15. W. Dang, M. Tao, H. Mu, and J. Huang, "Subcarrier-pair based resource allocation for cooperative multi-relay OFDM systems," IEEE Trans.Wireless Commun., vol. 9, no. 5, pp. 1640-1649, May 2010.</li> <li>16. X. Zhang, S. Chen, and W. Wang, "Multiuser radio resource allocation for multiservice transmission in OFDMA-based cooperative relay networks, EURASIP J. Wireless Commun. Newt. vol. 2009, pp. 1-13, 2009.</li> <li>17. M. Hajiaghayi, M. Dong, and B. Liang, "Optimal channel assignment and power allocation for dual-hop multi-channel multi-user relaying, "in Proc. 2011 IEEE International Conf. Compute. Commun., pp. 76-80.</li> <li>18. Y. Li, W. Wang, J. Kong, W. Hong, X. Zhang, and M. Peng, "Power allocation and subcarrier pairing in OFDM-based relaying networks," inProc. 2008 IEEE International Conf. Commun., pp. 2602-L. Vandendorpe, R. Duran, J. Louveaux, and A. Zaidi, "Power allocation For OFDM transmission with DF relaying," in Proc. 2008 IEEE International Conf. Commun., pp. 3795-3800.2606.</li> <li>19. Anxin Li, Satoshi Nagata, Atsushi Harada and Hirohito Suda "A novel type II relay-assisted retransmission scheme for uplink of LTE-advanced system "IEEE Journal on Advances in Signal Processing vol. 66, no.9 Jan 2013.</li> <li>20. AbdallahBou Saleh, Simone Redana, Bernhard Raaf " Performance of Amplify-and-Forward and Decode and-Forward Relays in LTE-Advanced " IEEE Journal on Advances in vol. 66, no.9 Jan 2013.</li> <li>21. mikiolwamura , hideakitakaharshi , satoshinagata "relay technology in LTE -Advanced" NTT DOCOMO technical journal vol. 12, no 2 sep 2013.</li> <li>22. K. Sung, Y. P. Hong, and C. Chao, "Resource allocation and partner selection for cooperative multicarrier systems," IEEE Transactions Vehicular Technology, vol. 60, no. 7, pp. 3228-3240, Sept. 2011.</li> </ol>		
44.	<p><b>Authors:</b></p>	<p><b>Jinang M.Patel, Krunal J.Patel,Vatsal V.Patel, Kalpesh V.Vaghela</b></p>	
	<p><b>Paper Title:</b></p>	<p><b>Performance studies of Tire Pyrolysis Oil blends with Diesel Fuel</b></p>	
	<p><b>Abstract:</b> The present rate of consumption of gasoline would lead to severe shortage of it within next few decades. An urgency of finding an alternative fuel in its place has led to several researches around the world. In this study oil obtained from pyrolysis of waste tire was studied upon for its suitability to be used with diesel fuel. A study was carried out to evaluate the use of various tire pyrolysis oil (TPO) blends with diesel fuel. Performance and emission characteristics of TPO blends with diesel on a 4 cylinder direct injection engine are presented in this study. In the initial stage the test were conducted on four stroke single cylinder diesel engine by using diesel and base line data was generated .A constant speed off 1500rpm was maintained throughout the experiment. Then commercially available TPO was blended with diesel fuel at the volumetric ratios of 5 %( D5), 10% (D10) and15 %( D15).The results showed that brake thermal efficiency of the engine was maximum for D10 blend than diesel at same loading conditions. The BSFC was also found to be less for D10 blend compared to diesel. There was no significant increase in exhaust gas temperature for the blends as compared to diesel.</p>		219-221
	<p><b>Keywords:</b> Compression ignition engine, Tire pyrolysis oil, Performance Characteristics, Brake thermal efficiency, Brake specific fuel consumption</p>		
	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. C. Roy, B. Labrecque, B. De Caumia, Recycling of scrap tires to oil and carbon black by vacuum pyrolysis. Resource, Conservation and Recycling 4(1990) 203-213.</li> <li>2. S.Murugan, M.C.Ramaswamy, G.Nagarajan, "The Use of Tire Pyrolysis Oil in Diesel Engines". Waste Management, Volume 28, Issue 12, December 2008, Pages 2743-2749</li> <li>3. M.Mani ,C.subash,G.Nagarajan "performance Emission and Combustion Characteristics of a DI Diesel Engine Using Waste Plastic Oil" Applied Thermal Engineering, volume 29, Issue 13, September 2009, Pages 2738-2744</li> <li>4. International Journal of Engineering Research &amp; Technology (IJERT) Vol. 1 Issue 4, June - 2012 Mr.Tushar Patel 1Student, L.D.R.P engineering college, Gandhinagar</li> </ol>		
45.	<p><b>Authors:</b></p>	<p><b>Talebzadegan Mohsen, Abodi Ali, Riazi Iman</b></p>	
	<p><b>Paper Title:</b></p>	<p><b>Feasibility of Using Impressed Current Cathodic Protection Systems by Solar Energy for Buried Oil and Gas Pips</b></p>	
	<p><b>Abstract:</b> Cathodic protection mostly used to protect buried structures of oil and gas pipes in oil and gas industries from corrosion. Cathodic protection by impressed current method includes the formation of an electrolyzed system in which anode and cathode is obtained by direct current generator. installing one or more anodes of cast iron adjacent</p>		222-225

		<p>to a structure and the structure and the anode(s) are connected respectively to negative and positive poles of the supply. In the present study, by collecting actual soil data of the region, mechanical specifications of oil transfer pipes and their coating in Ahwaz region and also using available calculations and manuals regarding types of anodes and solar panels and batteries in the market a region-specified solar Cathodic protection method was designed. By calculations, the best type of solar panel (AT-50), number of panels and their voltage and produced current were obtained 42, , 52.2V and 40.04 A, respectively. The proposed battery is sealed lead acid type with number, voltage and current of 4, 48V and 250 A, respectively.</p> <p><b>Keywords:</b> Cathodic protection-impressed Current-buried pipe</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. B.Laoun, K.Niboucha , L.Serir ," Cathodic Protection of a buried pipeline by solar energy" Scientific and Technical Research Center on Control and Welding ,Cheraga,Algeria,2009</li> <li>2. R.Benathmane," study and Simulation of Cathodic Protection by Impressed current Protection of Buried Work" ,Memoire de fin d Etudes,Department de Chimie Industrielle,Universite Saad Dahleb,Blida,2003</li> <li>3. B.Laovn, K.Nibooucha, L.Serir" Cathodic Protection of a buried pipeline by solar energy" Scientific and Technical Research Center on Control and Welding,Cheraga ,Algeria ,28 Mars 2009</li> <li>4. Hashemi Majd,sayed ali," Buried Pipe Cathodic Protection" mashad,iran,2007</li> <li>5. W.Von Baeckmann,W.Schwenk and Wprinz,"Hand book of Cathodic Corrosion Protection" Third Edition ,Elsevier Science,1997</li> <li>6. B.Khalilzadeh,I.Esari,"Buried pipe cathodic Protection by Solar Energy" Pars Oil and Gas Co.,Azad University,Iran,2010</li> </ol>	
46.	<p><b>Authors:</b> Hazim Salah Abdulsatar</p> <p><b>Paper Title:</b> Simulation and Implementation of Orthogonal Frequency Division Multiplexing (OFDM) Model Based SDR</p>	<p><b>Abstract:</b> An OFDM transceiver based on software defined radio (SDR) techniques is modeled by MATLAB in this paper. The modulated input data using orthogonal subsidiary companies , with carrier frequency 70MHz. After contaminating the signal with noise , and re- sampling - the received signal and convert it to a digital system to extract the original information . Results obtained tend to increase in the signal to noise ratio , and improve the planned constellation of the received signal and bit error rate (BER) of the system decreases to zero when the S / N ratio greater than 12dB. FPGA to implement a complete SIMULINK model first and then generate HDL code and DSP design tool from XILINX, and the results will be obtained from MATLAB and FPGA be approximately equal .</p> <p><b>Keywords:</b> OFDM, Software Defined Radio, MATLAB- SIMULINK.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. R. Prasad, OFDM for wireless communications systems. Artech House, Inc.,2004.</li> <li>2. J.A.C. Bingham, ADSL,VDSL, and multicarrier modulation , New York, USA: John and Sons Inc.,2000.</li> <li>3. Institute of Electronics and Electrical Engineers, "Wireless LAN medium access control(MAC) and physical layer(PHY) specifications: high speed physical layer in 5 GHz band," IEEE Standard 802.11a, nov.1999.</li> <li>4. "Wireless LAN medium access control(MAC) and physical layer (PHY) specifications: further higher speed physical layer extension in 2.4 GHz . IEEE standard 802.11g, June 2003.</li> <li>5. "Air interface fixed broadband wireless access systems, medium access control modifications and additional physical layer specifications for 2.11 GHz" IEEE 802.16a, June 2004.</li> <li>6. L.J Cimini Jr., "Analysis and simulation of a digital mobile channel using orthogonal frequency division multiplexing,." IEEE Trans.commun.,vol.33,pp. 665-675, June 2004.</li> <li>7. T. Pollet, M. Van Bladel and M.Moeneclaey, BER Sensitivity of OFDM systems to carrier frequency offset And wiener phase noise.</li> <li>8. Richard van Nee and Ramjee Prasad, 2000, OFDM for Wireless Multimedia Communications.</li> <li>9. Xilinx ISE 9.2i Software Manuals: Constraints Guide, and Development System Reference Guide, Xilinx, Inc., 2007.</li> <li>10. Virtex-4 MB Development Board User's Guide, Ver. 3.0, Avent Memec.. [Online]. Available: <a href="http://www.Files.em.avent.com/files/177/v4mb_use_r_guide_3_0.Pdf">http://www Files.em.avent.com/files/177/v4mb_use_r_guide_3_0.Pdf</a>.2008.</li> <li>11. Synplicity FPGA Synthesis Reference Manual,Synplicity, Inc., 2007.</li> <li>12. Nasreen Mev ---Prof. Brig.R.M. Khaire , " Implementati-on of OFDM Transmitter and Receiver Using FPGA, "International Journal of Soft Computing &amp; Engineering,Volume: 3 Issue: 3 Pages: 199-202, Year: 2013.</li> <li>13. Mohamed, M. A. " FPGA Synthesis of VHDL OFDM System , " Wireless Personal Communications , Volume: 70 Issue: 4 Pages: 1885-1909 Provider: Springer DOI: 10.1007/s11277-012-0786-0, Year: 2013.</li> </ol>	226-229
47.	<p><b>Authors:</b> Basim Khalaf Jarullah, Izz Kadhum Abboud, Kareem Jabbar Tijil</p> <p><b>Paper Title:</b> Simulation of Speech Denoising based on Voiced/ Unvoiced Decision by Using DWP</p>	<p><b>Abstract:</b> In this paper, a speech denoising system using wavelet packet thresholding algorithm is investigated. This method is based on thresholding the wavelet coefficients that depend on voiced/unvoiced detection. Wavelet threshold can be done by a standard deviation method for each frame by level dependent thresholding using semisoft threshold in the additive Gaussian noise channel. The results of simulation indicate that using Discrete Wavelet Packet (DWP) in speech denoising application provides a quality better than Discrete Wavelet Thresholding (DWT) and voiced/unvoiced detection enhanced the performance of the system.</p> <p><b>Keywords:</b> DWP, DWT, Matlab.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Yasser Ghanbari and Mohammed Reza Karami,"A Modified Speech Enhancement System Based on the Thresholding of the wavelet Packets", 13th ICCE2005, Vol. 4, Zanjan, Iran, May 10-12, 2005.</li> <li>2. Y. Ghanbari, M. Karami, B. Amelifard, "Improved Multi-band Spectral Subtraction Method for Speech Enhancement", Proc. Of the 6th IASTED Int. Conf. on Signal and Image Processing, USA, pp. 225-230, August 2004.</li> <li>3. H. Sameti, H. Sheikhzadeh, Li Deng, R. L. Bernnan, "HMM-Based Strategies for Enhancement of Speech Signals Embedded in Nonstationary Noise", IEEE Transactions on Speech and Audio Processing, Vol. 6, No.5, September 1998.</li> <li>4. M. Klein and P. Kabal, "Signal Subspace Speech Enhancement with Perceptual Post-filtering", Proc. IEEE Int. Conf. Acoustics, Speech, Signal Processing, Orlando, FL, May 2002, pp. I-537-I-540.</li> </ol>	230-233

	<ol style="list-style-type: none"> <li>5. Ahmed K. Hassan, "Speech Denoising Based Wavelet Transform", M. Sc. Thesis , Mustansiria University, 2005.</li> <li>6. Jong Kwan Lee and Chang D. Yoo, "Wavelet Speech Enhancement based on Voiced/ Unvoiced Decision", The 32nd International Congress and Exposition on Noise Control Engineering Jeju International Convention Center, Seogwipo, Korea, August 25-28, 2003.</li> <li>7. Yousef M. Hawwar, Ali M. Reza and Robert D. Turney , "Filtering (Denoising) in the Wavelet Transform Domain", University of Wisconsin-Milwaukee, Department of Electrical Engineering and Computer Science ,2000.</li> <li>8. David L. Donoho and Iain M. Johnstone, "Adapting to Unknown Smoothness via Wavelet Shrinkage", Stanford Univesity, Division of Biostatistics, Technical Report No. 161, June 1993.</li> <li>9. James F. Scholl, Jonathan R. Agre, Loren P. Clare, and Martin C. Gill, "A low Power Impulse Signal Classifier Using The Haar Wavelet Transform", Proc. SPIE, Sensors,C31, V.3577,pp. 136-145, 1999.</li> <li>10. Xiaolong Yuan, B.S.E.E., "Auditory Model Based Bionic Wavelet Transform for Speech Enhancement", MSc. Thesis, Marquette University, May 2003.</li> <li>11. Fadhil S. Hasan, "Performance of Discrete Wavelet Transform (DWT) based Speech denoising in Impulsive and Gaussian Noise", Engineering Journal in Mustansiriyah University ,2005.</li> </ol>	
48.	<b>Authors:</b> <b>Hutashani B. Rayate, Vidya V. Deshmukh</b> <b>Paper Title:</b> <b>Prediction of Acute Hypotension Episode</b>	<b>Abstract:</b> Acute hypotensive episodes (AHE) are serious clinical events in intensive care unit. It causes damage of irreversible organ and may lead to death. When occurrence of an Acute Hypotension Episode (AHE) is predicted in advance, an appropriate intervention can reduces the risk for patient. The prediction is to be made using two groups of ICU patient records from the MIMIC II Database from the Physionet. The physionet challenge is divided into two parts. The first part is to distinguish between patients who have experienced acute hypotension episodes and patients who do not. The second part of this challenge is to predict acute hypotension episodes. We here present an algorithm for prediction of AHE using mean arterial blood pressure (MAP). We then used information divergence (or Kullback-Liebler divergence) between two distributions to identify the most discriminative features. The objective of this work is to describe an automated statistical method that produces an automated method to predict AHE using the least data possible.  <b>Keywords:</b> Hypotension Prediction, Information Diversion, K-L Diversion theorem, Mean Arterial Blood Pressure.  <b>References:</b> <ol style="list-style-type: none"> <li>1. Moody GB, Lehman LH. "Predicting acute hypotensive episodes" the 10th annual PhysioNet/Computers in Cardiology Challenge. Computers in Cardiology 2009; 36.</li> <li>2. The MIMIC II Project database via the Physionet website. <a href="http://www.physionet.org/physiobank/database/mimic2db/">http://www.physionet.org/physiobank/database/mimic2db/</a></li> <li>3. Fayyaz A. Afsar Prediction of Acute Hypotension Episodes in Patients Taking Pressor Medication Using Modeling of Arterial Blood Pressure Waveforms. IEEEconference 2010.</li> <li>4. P Langley, ST King, D Zheng, EJ Bowers,K Wang, JAllen, "Predicting Acute Hypotensive Episodes fromMean Arterial Pressure" Computers in Cardiology 2009; 36:553-556.</li> <li>5. PA Fournier, JF Roy. "Acute Hypotension Episode Prediction Using Information Divergence for Feature Selection and Non-Parametric Methods for Classification" Computers in Cardiology 2009; 36:625-628.</li> <li>6. Kullback S, Leibler R. On information and sufficiency. Ann Math Statics 1951;22:79-86</li> <li>7. Hastie, Tibshirani R,Friedman J. The elements of Stastical learning . New York,NY: Springer,2001</li> <li>8. Vapnik V. The nature of statistical learning Theory New York,NY: Sringer-Verlag,1996.</li> <li>9. Bellman R. Adaptive Control Processes. Princeton UniHolland P.W., R. E.Welsch. Robust Regression Uing Iteratively Reweighted Least-Squares. Communications. in Statistics: Theory and Methods, A6, 1977, pp. 813-8270</li> </ol>
49.	<b>Authors:</b> <b>Akhmad Azis, Hamzah Yusuf, Sugiarto Badaruddin</b> <b>Paper Title:</b> <b>The Effectiveness of Sand Column Utilization in Recharge Reservoir as Seawater Intrusion Barrier</b>	<b>Abstract:</b> Excessive groundwater exploitation may cause groundwater decline and induce the landward movement of seawater in coastal aquifer and generate sea water intrusion. One of the efforts to overcome sea water intrusion is groundwater recharge using recharge reservoir. In this research, a recharge reservoir is built on an area with permeability coefficient less than 10-5 cm/sec, analyzed using sand column model and put on the recharge reservoir base which is directly connected to the aquifer layer. The objective of this research is to explore the utilization of sand column subject to the amount of groundwater recharge obtained. This research is an experimental laboratory study that includes the main recharge reservoir model with and without sand column. The data resulted from the research consists of recharge rate entering the aquifer within various parameters: head level differences, sand column or soil layer thickness, and sand column density. Each parameter consists of three variables. Results of the research showed that the maximum debit obtained was 62.41 cm <sup>3</sup> /sec with 0.00157 of sand column density, 37.4 cm of head difference and sand column height is 30 cm. It is expected that results of this study are applicable and can be implemented in the field scale to cope with the problem of sea water intrusion.  <b>Keywords:</b> Recharge reservoir, sand column, sea water intrusion.  <b>References:</b> <ol style="list-style-type: none"> <li>1. Azis, A. 2013. Study On the Use of Sand Columns at Recharge Reservoir to Over come the Problems of Ground Water Recharge. Dissertation. Post Graduate of Civil Engineering, Hasanuddin University, Makassar</li> <li>2. Ashriyanti, H. 2011. Vulnerability Assessment in sea water intruded area in Jakarta. Unpublished thesis. Geography Faculty PPS UI, Depok.</li> <li>3. Bloetscher, F., Muniz, A., Witt, G. M. 2005. Groundwater Injection Modelling, Risk and Regulation.The Mac Graw-Hill Companies, USA.</li> <li>4. Broto, S., Susanto, H. 2008. Designing effective Estimation Recharge Reservoir at Bogor City on Groundwater Optimation. Journal Engineering 29 : 220 - 227.</li> <li>5. Das, B.M.1995. Soil Mechanics, Parts 1 and 2. Erlangga Publisher, Jakarta</li> <li>6. Kodoatie,R.J., Sjarief,R. 2008. Water resourches management. Andi, Yogyakarta</li> <li>7. Kusnaedi. 2011. Infiltration well for urban settlements. Swadaya. Jakarta.</li> <li>8. Nyer, E. K. 2009. Groundwater Treatment Technology. John Wiley &amp; Sons, Inc., Hoboken, New Jersey, Canada</li> <li>9. Sunjoto. 2012. Subsurface Hydrology. Post Graduate Program Department of Civil Engineering Faculty of Engineering Gadjah Mada University, Yogyakarta</li> <li>10. Pramono, R. 1999. Groundwater problems in urban area and People's behavior. Studies Development Community and Environment Journal</li> </ol>

	3 : 39-45	11. Putranto, T., Kusuma. 2009. Groundwater problems in urban area. Journal of Engineering, 30 : 48 – 56 12. Sen, Z., Al-Suba'i, K. 2009. Hydrological Considerations For Dam Siting In Arid Regions : A Saudi Arabian Study. Hydrological Sciences Journal, 47:2 , 173-186 13. Setiawan, B. I., Fukuda, T., Nakano, Y. 2003. Developing Procedures for Optimation of Tank Models Parameters. Journal of Scientific Research and Development, Manuscript L W 01 006 14. Teague, N. F. 2010. Near Surface Infiltration Measurements And The Implications For Artificial Recharge, A Thesis, No Publish, USA, Faculty Of Geological Sciences San Diego State University 15. Tresnadi, H. 2007. Impact Damages Due To Excessive Groundwater Decision. Natural Journal, 12 : 76 – 81 16. Zekai. 2002. Drawdown Distribution around Large Diameter Well in Double Porosity Medium. Journal Of Hydrologic Engineering, 1084 : 90 – 96	
--	-----------	--	--

	<b>Authors:</b>	<b>Ishwarya M.V, K.Ramesh Kumar</b>	
	<b>Paper Title:</b>	<b>Secure Anonymization for Privacy Measure</b>	
50.	<p><b>Abstract:</b> In this paper we are going to discuss about the privacy preservation of Patients details in a medical centre. The medical centre may have various login for various people like Administrator, Doctor, Analyst and Receptionist. We design a model such that the patients entire details are not known to everyone who logins with their id. It is available in a suppressed form to each and everyone who logs in. All the patients data are being split using Slicing algorithm and shuffled and stored in different databases in encryption side. The data are realigned and deshuffled and the original data are retrieved in the decryption side.</p> <p><b>Keywords:</b> Privacy preservation, Authentication, Security, Slicing, Shuffling</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. C. Aggarwal, "On k-Anonymity and the Curse of Dimensionality," Proc. Int'l Conf. Very Large Data Bases (VLDB), pp. 901-909, 2005.</li> <li>2. G. Aggarwal, T. Feder, K. Kenthapadi, S. Khuller, R. Panigrahy, D. Thomas, and A. Zhu, "Achieving Anonymity via Clustering," Proc. ACM Symp. Principles of Database Systems (PODS), pp. 153- 162, 2006.</li> <li>3. R.K. Ahuja, T.L. Magnanti, and J.B. Orlin, Network Flows: Theory, Algorithms, and Applications. Prentice-Hall, Inc., 1993.</li> <li>4. R.J. Bayardo and R. Agrawal, "Data Privacy through Optimal k- Anonymization," Proc. Int'l Conf. Data Eng. (ICDE), pp. 217-228, 2005.</li> <li>5. F. Bacchus, A. Grove, J.Y. Halpern, and D. Koller, "From Statistics to Beliefs," Proc. Nat'l Conf. Artificial Intelligence (AAAI), pp. 602-608, 1992.</li> <li>6. J.-W. Byun, Y. Sohn, E. Bertino, and N. Li, "Secure Anonymization for Incremental Datasets," Proc. VLDB Workshop Secure Data Management (SDM), pp. 48-63, 2006.</li> <li>7. B.-C. Chen, K. LeFevre, and R. Ramakrishnan, "Privacy Skyline: Privacy with Multidimensional Adversarial Knowledge," Proc. Int'l Conf. Very Large Data Bases (VLDB), pp. 770- 781, 2007.</li> <li>8. G.T. Duncan and D. Lambert, "Disclosure-Limited Data Dissemination," J. Am. Statistical Assoc., vol. 81, pp. 10-28, 1986. LI ET AL.: CLOSENESS: A NEW PRIVACY MEASURE FOR DATA PUBLISHING 955</li> <li>9. B.C.M. Fung, K. Wang, and P.S. Yu, "Top-Down Specialization for Information and Privacy Preservation," Proc. Int'l Conf. Data Eng. (ICDE), pp. 205-216, 2005.</li> <li>10. C.R. Givens and R.M. Shortt, "A Class of Wasserstein Metrics for Probability Distributions," Michigan Math J., vol. 31, pp. 231-240, 1984.</li> <li>11. V.S. Iyengar, "Transforming Data to Satisfy Privacy Constraints," Proc. ACM SIGKDD, pp. 279-288, 2002.</li> <li>12. D. Kifer and J. Gehrke, "Injecting Utility into Anonymized Datasets," Proc. ACM SIGMOD, pp. 217-228, 2006.</li> <li>13. N. Koudas, D. Srivastava, T. Yu, and Q. Zhang, "Aggregate Query Answering on Anonymized Tables," Proc. Int'l Conf. Data Eng. (ICDE), pp. 116-125, 2007.</li> <li>14. S.L. Kullback and R.A. Leibler, "On Information and Sufficiency," Annals of Math. Statistics, vol. 22, pp. 79-86, 1951.</li> <li>15. D. Lambert, "Measures of Disclosure Risk and Harm," J. Official Statistics, vol. 9, pp. 313-331, 1993.</li> </ol>		241-242

	<b>Authors:</b>	<b>Ishwarya M.V, K.Ramesh Kumar</b>	
	<b>Paper Title:</b>	<b>Literature Survey for Secure Anonymization</b>	
51.	<p><b>Abstract:</b> In this paper we are going to discuss about the privacy preservation of Patients details in a medical centre. The medical centre may have various login for various people like Administrator, Doctor, Analyst and Receptionist. We design a model such that the patients entire details are not known to everyone who logins with their id. It is available in a suppressed form to each and everyone who logs in. All the patients data are being split using Slicing algorithm and shuffled and stored in different databases in encryption side. The data are realigned and deshuffled and the original data are retrieved in the decryption side.</p> <p><b>Keywords:</b> Privacy preservation, Authentication, Security, Slicing, Shuffling.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. C. Aggarwal, "On k-Anonymity and the Curse of Dimensionality," Proc. Int'l Conf. Very Large Data Bases (VLDB), pp. 901-909, 2005.</li> <li>2. G. Aggarwal, T. Feder, K. Kenthapadi, S. Khuller, R. Panigrahy, D. Thomas, and A. Zhu, "Achieving Anonymity via Clustering," Proc. ACM Symp. Principles of Database Systems (PODS), pp. 153- 162, 2006.</li> <li>3. R.K. Ahuja, T.L. Magnanti, and J.B. Orlin, Network Flows: Theory, Algorithms, and Applications. Prentice-Hall, Inc., 1993.</li> <li>4. R.J. Bayardo and R. Agrawal, "Data Privacy through Optimal k- Anonymization," Proc. Int'l Conf. Data Eng. (ICDE), pp. 217-228, 2005.</li> <li>5. F. Bacchus, A. Grove, J.Y. Halpern, and D. Koller, "From Statistics to Beliefs," Proc. Nat'l Conf. Artificial Intelligence (AAAI), pp. 602-608, 1992.</li> <li>6. J.-W. Byun, Y. Sohn, E. Bertino, and N. Li, "Secure Anonymization for Incremental Datasets," Proc. VLDB Workshop Secure Data Management (SDM), pp. 48-63, 2006.</li> <li>7. B.-C. Chen, K. LeFevre, and R. Ramakrishnan, "Privacy Skyline: Privacy with Multidimensional Adversarial Knowledge," Proc. Int'l Conf. Very Large Data Bases (VLDB), pp. 770- 781, 2007.</li> <li>8. G.T. Duncan and D. Lambert, "Disclosure-Limited Data Dissemination," J. Am. Statistical Assoc., vol. 81, pp. 10-28, 1986. LI ET AL.: CLOSENESS: A NEW PRIVACY MEASURE FOR DATA PUBLISHING 955</li> <li>9. B.C.M. Fung, K. Wang, and P.S. Yu, "Top-Down Specialization for Information and Privacy Preservation," Proc. Int'l Conf. Data Eng. (ICDE), pp. 205-216, 2005.</li> <li>10. C.R. Givens and R.M. Shortt, "A Class of Wasserstein Metrics for Probability Distributions," Michigan Math J., vol. 31, pp. 231-240, 1984.</li> <li>11. V.S. Iyengar, "Transforming Data to Satisfy Privacy Constraints," Proc. ACM SIGKDD, pp. 279-288, 2002.</li> <li>12. D. Kifer and J. Gehrke, "Injecting Utility into Anonymized Datasets," Proc. ACM SIGMOD, pp. 217-228, 2006.</li> <li>13. N. Koudas, D. Srivastava, T. Yu, and Q. Zhang, "Aggregate Query Answering on Anonymized Tables," Proc. Int'l Conf. Data Eng. (ICDE),</li> </ol>		243-244

	pp. 116-125, 2007. 14. S.L. Kullback and R.A. Leibler, "On Information and Sufficiency," Annals of Math. Statistics, vol. 22, pp. 79-86, 1951. 15. D. Lambert, "Measures of Disclosure Risk and Harm," J. Official Statistics, vol. 9, pp. 313-331, 1993.	
	<b>Authors:</b> <b>Arushi Jain, Aakansha Bansal, Palak Jain, Neha Sharma</b>	
	<b>Paper Title:</b> <b>Importance and Quality Evaluation of Metadata</b>	
52.	<p><b>Abstract:</b> Metadata usually called data about data represents information about data to be stored in a data warehouse. Importance of metadata arises from the fact that it is needed to map data from source systems to data warehouse with the help of Extraction Transformation Loading (ETL) tools. Metadata helps in developing consistency in data collection and usage and moreover provides the foundation for Data Change Management. It facilitates user to have faster and more accurate access to the data that is needed. Metadata also plays an important role in real world environment as seen in case of legal system nowadays that focuses on preservation of data about its records i.e. metadata so that the validity and admissibility of evidences can be ensured. This paper intends to find a better and more efficient way to determine the importance of metadata in the data warehouse and thus performs its quality evaluation.</p> <p><b>Keywords:</b> Consistency, Data Change Management, ETL, Metadata.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Cory Doctorow, "Metacrap: Putting the torch to seven straw-men of the meta-utopia", version 1.3: 26 August, 2001.</li> <li>2. Richard J Kachur, "Data warehouse Management Handbook", prentice Hall, 2000, pp-348.</li> <li>3. Kai M. Hüner, Borris Otto and Hubert Österle, "Collaborative management of business metadata", International Journal of Information Management, volume 31 issue 4, August, 2011, pp.366-373.</li> <li>4. Eric Klovning, "Metadata management in the support of data warehouse development", University of Wisconsin-Stout, July, 2008.</li> <li>5. Martin Staudt, Anca Vaduva and Thomas Vetterli, "The role of metadata for data warehousing", Technical Report, University of Zurich, 1999.</li> <li>6. Arun Sen, "Metadata management: past, present and future", Decision Support Systems, volume 37 issue 1, April 2004, pp. 151-173.</li> <li>7. Thanh N. Huynh, Oscar MangiSengi and A Min Tjoa, "Metadata for object-relational data warehouse", Data Mining and Data Warehousing 2000:3.</li> <li>8. Pete Johnston, "Metadata sharing and XML", NOF-digitise Technical Advisory Service Information Paper, January, 2001,</li> <li>9. Jane Hunter, "Working towards MetaUtopia- a survey of current metadata research", Library Trends, Organizing the internet, 52(2), fall 2003.</li> <li>10. Markus H'anse, Min-Yen Kan and Achem P. Karduck, "Kairos: proactive harvesting of research paper metadata from scientific conference web sites", ICADL'10 Proceedings of the role of digital libraries in a time of global change, and 12th international conference on Asia-Pacific digital libraries, pp.226-235.</li> <li>11. Gad Kother, "Metadata for End-Users-A crucial part of your Data Warehouse quality policy", SAS Institute, January 2008.</li> <li>12. Hao Fan and Alexandra Poulouvassilis, "Using AutoMed Metadata in data Warehousing environment", DOLAP '03 Proceedings of the 6th ACM international workshop on Data warehousing and OLAP, New York, NY, USA, 2003, pp. 86-93.</li> <li>13. Nayem Rahman, Jessica Marz and Shameen Akhter, "An ETL Metadata Model for data warehousing", Journal of Computing and Information Technology, volume 20, Number 2, 2012, pp. 95-111.</li> </ol>	245-249
	<b>Authors:</b> <b>Falah Hasan</b>	
	<b>Paper Title:</b> <b>Programmable Decimation Filter Design For Multi-Standards Software Defined Radio (SDR) Reciever</b>	
53.	<p><b>Abstract:</b> This Paper Investigates The Design Of Programmable Decimation Filters To Be Used In The Channelizer Of Multi-Standard Software Defined Radios Receivers. The Technique Of New Algorithms For Reducing The Passband Ripple Of Linear Phase Fir Digital Filters Which Minimizes The Passband Deviation In The Decimation Block Is Introduced And Is Used To Implement A Multistage, Multi-Standard Decimating Filter. The Design Will Enhanced Different Communications Standards And Is Thus Ideal For Use In Systems Which Support Dynamic Reconfiguration. Results Obtained Shows An Important Reduction In The Passband Ripple In The Decimation Part From 0.03 Db To 0.012 Db And High Reconfigurability In The Filtration Requirements.</p> <p><b>Keywords:</b> FIR, SDR, Digital down-converter, GSM, Equiripple FIR, passband ripple, adjacent band rejection, blocker requirements.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Tjerk Bijlsma, "An Optimal Architecture for a DDC" University of Twente, Department of EEMCS, Netherlands, 1-4244-0054-6/06/\$20.00 ©2006 IEEE</li> <li>2. Ze Tao and S. Signell, 2006 "Multi-standard delta-sigma decimation filter design", IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2006), Singapore, pp. 1212-1215.</li> <li>3. Tianqi Wang, Cheng Li, 2006, "Sample Rate Conversion Technology in Software Defined Radio" Student Mumber, IEEE, Memorial University of Newfoundland St. John's, Newfoundland and Labrador, Canada, 1-4244-0038-4 2006, IEEE CCECE/CCGEI, Ottawa, pp.1355-1358</li> <li>4. Ricardo A. Losada, 2009, "practical FIR filter design In matlab", The Math Works inc. Revision 1.1 , USA: PP. 5, 26-27</li> <li>5. Shahana T. K, 2009, "Decimation Filter Design Toolbox for Multi- Standard Wireless Transceivers using MATLAB" University of Science and Technology, Kochi, Kerala, India, International Journal of Signal Processing, 5;2 PP. 154-163</li> <li>6. Texas Instruments , 2009 "GC4016 MULTI-STANDARD QUAD DDC CHIP DATA SHEET," data manual Revision 1.0: PP. 70-90Mitra, Kaiser (1993). Handbook for Digital Signal Processing, John Wiley &amp; Sons.Table 4.84.</li> <li>7. Rabiner LR, McClellan JH, Parks TW (1975). "FIR digital filter design techniques using weighted Chebyshev approximation", Proc. IEEE, 63, pp.595-610.</li> <li>8. Ricardo A. Losada, 2004, "practical FIR filter design In matlab", The Math Works inc. Revision 1.1 , USA: PP. 5, 26-27</li> <li>9. Texas Instruments., 2001, "GC4016 MULTI-STANDARD QUAD DDC CHIP DATA SHEET," Revision 1.0: PP. 60-90.</li> <li>10. Sven Johansson, 2004, "Applied Signal Processing ETB006 FIR Filter Design" Chapter-1 pp.1-5</li> <li>11. S. C. Chan, K. M. Tsui, K. S. Yeung, and T. I. Yuk, 2007, " Design and Complexity Optimization of a New Digital IF for Software Radio Receivers With Prescribed Output Accuracy" IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—I: REGULAR PAPERS, VOL. 54, NO. 2, pp 351-366</li> <li>12. Mitra, Kaiser, 1993, "Handbook for Digital Signal Processing", John Wiley &amp; Sons, 1993, Table 4.84</li> <li>13. Rudi Vuerinckx, 1998, "Design of High-Order Chebyshev FIR Filters in the Complex Domain Under Magnitude Constraints", IEEE</li> </ol>	250-255

54.	<b>Authors:</b>	<b>Komal Gandle, Pallavi Kulkarni</b>	256-259
	<b>Paper Title:</b>	<b>Intrusion Detection System Based On Improved One versus All Data Stream Classification</b>	
55.	<p><b>Abstract:</b> With the marvelous development of information Technology &amp; Network Security the Intrusion Detection (ID) has rapidly become a crucial component of any network defense strategy. Data Stream Classification is the superlative method for revealing of Intrusion Detection (ID). Improved One Versus All (OVA) is one of the multiclass classification techniques On the basis of this we propose the system on Network Intrusion Detection (NID) for security in network as well as computer. In this paper, improved one versus all decision tree algorithms identifies the behavioral attacks actions and newly arising attacks of intrusions. This paper addresses the excellent advantages of Improved OVA data stream classification such as Low error correlation and concept change. Also propose a new learning algorithm for illuminating of network intrusion Detection.</p> <p><b>Keywords:</b> Improved OVA decision tree, Intrusion Detection (ID)</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Hashemi, S.; Ying Yang; Mirzamomen, Z.; Kangavari, M.; "Adapted One-versus-All Decision Trees for Data Stream Classification," Knowledge and Data Engineering, IEEE Transactions on ,vol.21,no.5,pp.624-637,May 2009 doi: 10.1109/TKDE.2008.181</li> <li>2. Wenke Lee and Salvatore J. Stolfo Data Mining Approaches for Intrusion Detection Computer Science Department Columbia University 500 West 120th Street, New York, NY 10027 {wenke,sal}@cs.columbia.edu</li> <li>3. Theodoros Lappas and Konstantinos Pelechrinis;" Data Mining Techniques for (Network) Intrusion Detection Systems" Department of Computer Science and Engineering UC Riverside, Riverside CA 92521</li> <li>4. Ruoming Jin;" Efficient Decision Tree Construction on Streaming Data", Ohio State University, Columbus OH 43210jinr@cis.ohiostate.edu</li> <li>5. L. Breiman, J. H. Friedman, R. A. Olshen and C.J. Stone, "Classification and Regression Trees," Statistics probability series, Wadsworth, Belmont, 1984.</li> <li>6. J. R. Quinlan, "Induction of Decision Tree," Machine Learning Vol. 1,pp. 81-106, 1986</li> <li>7. Barbara, Daniel, Couto, Julia, Jajodia, Sushil, Popyack, Leonard, Wu,and Ningning, "ADAM: Detecting intrusion by data mining," IEEEWorkshop on Information Assurance and Security, West Point, New York, June 5-6, 2001.</li> <li>8. W. Lee, S.J. Stolfo, "Data mining approaches for intrusion detection," In</li> <li>9. Proc. of the 7th USENIX Security Symposium (SECURITY-98),Berkeley, CA, USAedwdf, 1998, pp. 79-94.</li> <li>10. J.E. Dickerson, J.A. Dickerson, "Fuzzy network profiling for intrusion detection," In Proc. of the 19th International Conference of the NorthAmerican Fuzzy Information Processing Society (NAFIPS), Atlanta,GA, 2000, pp. 301-306</li> <li>11. M. Ramadas, S.O.B. Tjaden, "Detecting anomalous network traffic with</li> <li>12. self-organizing maps," In Proc. of the 6th International Symposium onRecent Advances in Intrusion Detection, Pittsburgh, PA, USA, 2003, pp.36-54.</li> <li>13. The KDD Archive KDD99 cup dataset, 1999 <a href="http://kdd.ics.uci.edu/databases/kddcup99/kddcup99.html">http://kdd.ics.uci.edu/databases/kddcup99/kddcup99.html</a></li> <li>14. John Shafer, Rakesh Agarwal, and Manish Mehta, SPRINT: A Scalable Parallel Classifier for Data Maining," in Proceedings of the VLDB conference, Bombay, India, September 1996.</li> <li>15. J. R. Quinlan, "C4.5: Programs for Machine Learning," MorganKauffmann Publishers, San Mateo, CA, 1993.</li> <li>16. Srinivas Mukkamala, Andrew Sung and Ajith Abraham;" Designing Intrusion Detection Systems: Architectures, Challenges and Perspectives", Department of Computer Science, New Mexico Tech, USA</li> <li>17. Mark Last," Improving Stability of Decision Trees", Department of Information Systems Engineering, Ben-Gurion University of the Negev, Beer-Sheva 84105, Israel</li> </ol>		260-264
	<b>Authors:</b>	<b>Siddeeq Y. Ameen, Shayma Wail Nourildean</b>	
<b>Paper Title:</b>	<b>Wireless Local Area Network VLAN Investigation and Enhancement Using Routing Algorithms</b>		260-264
55.	<p><b>Abstract:</b> Wireless LANs, WLANs, are vulnerable and witnessed numerous types of threats. These can be avoided via several security technologies such as WEP, 802.11i and WPA. These technologies have draw backs on performance and an alternative approaches that might have less impact on performance is the Virtual Local Area Network (VLAN). The paper introduces the integration of VLAN into WLAN system. The use of VLAN will provide the security to the system by isolating the access and grouped in such away that avoid any group from accessing unauthorized station in other group. OPNET Modeler (14.5) was used as a simulation program for this study. In the investigation, the effect of VLAN technology on decreasing the traffic in the system of the WLAN has been investigated. In the investigation also the delay, throughput, traffic sent and received with Email and Web browsing applications have been computed and compared with the conventional case of no VLAN. The results show that use of VLAN greatly reduces the throughput. This problem has been resolved via the use of routing algorithms, AODV, OLSR and DSR. The results of employment of routing algorithms with VLAN over WLAN have been investigated the enhancement in throughput has been achieved.</p> <p><b>Keywords:</b> WLAN, VLAN, AODV, OLSR, DSR.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Y. B. ChoiG. Eason, J. Muller, C. V. Kopek and J. M. Makarsky, "Corporate wireless LAN security: threats and an effective security assessment framework for wireless information," Int. J. Mobile Communications, Vol. 4, No. 3, pp. 266-289, 2006.</li> <li>2. W. Huang and F. Kong , "The Research of VPN on WLAN" , International Conference on Computational and Information Sciences pp. 250 – 253, 2010.</li> <li>3. S. K. Sarkar , C. Puttamadappa , and T. G Basavaraju "Ad Hoc Mobile Wireless Networks Principles, Protocols and Applications", Auerbach Publications, pp. 1-36, 2007.</li> <li>4. A. M. Al Naamany , A. Al Shidhani and H. Bourdoucen, "IEEE 802.11 Wireless LAN Security Overview", IJCSNS International Journal of Computer Science and Network Security, Vol.6 No.5B, pp. 138 – 156, May 2006.</li> <li>5. K. Okayama, N. Yamai, N. ; T. Miyashita, T. ; K. Kawano, K. ; T. Okamoto", A Method of Dynamic Interconnection of VLANs for Large Scale VLAN Environment", Proceedings. 6th Asia-Pacific Symposium on Information and Telecommunication Technologies, 2005. APSITT 2005.</li> <li>6. S. A. Jaro Alabady, "Design and Implementation of a Network Security Model using Static VLAN and AAA Server", 3rd International Conference on Information and Communication Technologies: From Theory to Application, pp. 1-6, 2008.</li> <li>7. T. Wang and C. Yeh, "A Secure VLAN Construction Protocol in Wireless AD-HOC Networks", Information Technology: Research and</li> </ol>		

	<p>8. Education. 3rd International Conference on ISBN: 0780389328, pp. 68-72, 2005.</p> <p>8. S. Y. Ameen and I. A. Ibrahim, "MANET Routing Protocols Performance Evaluation with TCP Tahoe, Reno and New-Reno", International Journal of International Journal of uuuu---- and e an e and e---- Service, Science and Technology Service, Science and Technology Service, Science and Technology Vol. 4, No. 1, March 2011.</p> <p>9. G. Jayakumar and G. Gopinath, "Ad Hoc Mobile Wireless Networks Routing Protocols - A Review," Journal of Computer Science, Volume 3, Issue 8, 2007.</p>	
56.	<p><b>Authors:</b> Pannani Nanak J., Verma A.K., Bhatt Darshana R.</p> <p><b>Paper Title:</b> Comparision between Mechanical Properties of M30 Grade Self Compacting Concrete For Conventional Water Immersion and Few Non-Waterbased Curing Techniques</p> <p><b>Abstract:</b> Self-Compacting Concrete (SCC) is highly workable concrete with high strength and high performance that can flow under its own weight through restricted sections without segregation and bleeding. SCC is achieved by reducing the volume ratio of aggregate to cementitious materials, increasing the paste volume and using various viscosity enhancing admixtures and superplasticizers. It is observed that the behaviour of the design concrete mix is significantly affected by variation in humidity and temperature both in fresh and hardened state. In this paper effect of three non-water-based curing techniques on mechanical properties such as compressive strength, split tensile strength, flexural strength and shear strength of M30 grade self-compacting concrete (SCC) is discussed. For compressive strength it is observed that immersion method for curing gives maximum compressive strength while the lowest compressive strength is for no curing. Polyethylene film curing gives second highest strength at 28 days. Similarly for split tensile strength, flexural strength &amp; shear strength, the maximum strength is also with immersion method of curing. For split tensile strength curing compound gives almost at par with immersion method while no curing has least strength. Polyethylene film curing gives good results for flexural strength. For shear strength Polyethylene film gives about 82% of immersion strength. It is concluded that although pond immersion method is best for curing, Polyethylene film and curing compound can deliver more than 90% compressive and other strengths compared to immersion method.</p> <p><b>Keywords:</b> Self compacting concrete, immersion curing, Polyethylene film wrap, curing compound, curing period, compressive strength, split tensile strength, flexural strength, shear strength.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Agullo L., et al., "Fluidity of cement pastes with mineral admixtures and superplasticizer - A study based on the Marsh cone test", Materials in Structures 1999, 32 (221) 479- 485.</li> <li>2. Al-Feel J.R. &amp; Al-Saffar N.S., "Properties of Self Compacting Concrete at Different Curing Condition and their Comparison with properties of Normal Concrete", Al-Rafidain Engineering, 2009, Vol.17, No.3, pp. 30-38.</li> <li>3. Bairagi N. K. and Modhera C.D., "Shear Strength of Fibre Reinforced Concrete", 2001, ICI Journal, Vol. 1[4].</li> <li>4. Cement Concrete &amp; Aggregates Australia (CCAA), "Curing of Concrete - A data sheet", 2006.</li> <li>5. EFNARC (2002) (European Federation of Producers and Applicators of Specialist Products for Structures), Specification and Guidelines for Self-Compacting concrete.</li> <li>6. Hueste M.B.D, Chomprea P, Trejo D, Cline DBH, Keating PB., "Mechanical properties of high-strength concrete for prestressed members", ACI Structural Journal, 2004, 101(4) pp. 457-65.</li> <li>7. IS 456-2000, "Plain &amp; Reinforced concrete-Code of Practice", Bureau of Indian Standards, New-Delhi, India, 4th revision, page 27.</li> <li>8. IS: 516-1959, "Methods of tests for strength of concrete", Bureau of Indian Standards, New-Delhi, India.</li> <li>9. IS-5816-1999, "Method of test for Splitting tesile strength of concrete", Bureau of Indian Standards, New-Delhi, India.</li> <li>10. Jagannadha Kumar M.V., Srikanth M., Dr. Rao K. Jagannadha, "Strength characteristics of self-curing concrete", International Journal of Research Engineering &amp; Technology (IJRET), 2012, pp. 51-57.</li> <li>11. Khayat, K.H., Hu, C. and Monty, H., "Stability of Self-Consolidating Concrete, Advantages, and Potential Applications", Proceedings of First International RILEM, Symposium on Self-Compacting Concrete, 1999, pp. 143-152.</li> <li>12. Kumbhar P.D., Rajaramnagar, and Mural P., "Effect of Humidity and Temperature on Properties of High Performance Concrete", NBM Construction Information, 2011, New Delhi, India.</li> <li>13. Md. Safiuddin et al., "Effect of Different Curing Methods on the Properties of Microsilica Concrete", Australian Journal of Basic and Applied Sciences, 2007, ISSN 1991-8178, 1(2): pp. 87-95.</li> <li>14. Patel Priti A., et al., "Improvement of Shear Strength using Triangular Shape Fibre in Concrete", NBM&amp;CW magazine, India, August, 2010.</li> <li>15. Qureshi L. A., Bukhari I. A, M.J. Munir, "Effect of Different Curing Techniques on Compressive Strength of High Strength Self Compacting Concrete", Bahaudin Zakriya University, 2010, Multan Pakistan.</li> <li>16. Shetty M.S., Text book, "Concrete Technology- Theory &amp; Practice", S. Chand &amp; Company, New Delhi, India, 2005, Chapter 7, Strength of Concrete.</li> <li>17. Stegmaier Michael, "Heat curing of self-compacting concrete", Otto-Graf-Journal, 2005, Vol. 16, pp. 167-183.</li> <li>18. Vijai K., Kumutha R. and Vishnuram B. G., "Effect of types of curing on strength of geopolymer concrete", International Journal of the Physical Sciences, 2010, Vol. 5(9).</li> <li>19. Yun Wang Choi et al., "An experimental research on the fluidity and mechanical properties of high-strength lightweight self-compacting concrete", Cement and Concrete Research, 2004, vol. 36, pp 1595- 1602.</li> </ol>	265-272
57.	<p><b>Authors:</b> Ajayi Adebawale, Idowu S.A, Otusile Oluwabukola</p> <p><b>Paper Title:</b> An Overview of Database Centred Intrusion Detection Systems</p> <p><b>Abstract:</b> Intrusion detection systems have become a major component of network security infrastructures. Modern day intrusion detection systems are to be reliable, extensible, adaptive to the flow of network traffic and to have a low cost of maintenance. Over the years researchers have looked upon data mining as a means of enhancing the adaptability of an intrusion detection system, as it enables the IDS to discover patterns of intrusions and define valid bounds of network traffic. Despite the effectiveness of data mining based IDS it is riddled with challenges; instrumenting components such as data transformations, model deployment, and cooperative distributed detection remain a labor intensive and complex engineering endeavor. This has lead to research efforts into integrating this technology with traditional database systems. This paper gives an overview of database centered intrusion detection systems.</p> <p><b>Keywords:</b> Database systems, Data mining, Intrusion detection systems, Network security.</p>	273-275

	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. D. Barbara, R. Goel, and S. Jajodia, Mining malicious data corruption with hidden markov models. in Research Directions in Data and Applications Security, 2002.</li> <li>2. M. Campos and B. Milenova, Creation and Deployment of Data Mining-Based Intrusion Detection Systems in Oracle Database 10g. 2005</li> <li>3. D. Carter and A. Katz, Computer Crime: An Emerging Challenge for Law Enforcement. FBI Law Enforcement Bulletin, 1997: p. 1-8.</li> <li>4. C. Chung, M. Gertz, and K. Levitt, DEMIDS: A Misuse Detection System for Database Systems. In Third Annual IFIP TC-11 WG 11.5 Working Conference on Integrity and Internal Control in Information Systems, 1999.</li> <li>5. C. Chung, M. Gertz, and K. Levitt, Misuse Detection in Database Systems Through User Profiling.</li> <li>6. B. Elisa, et al., Intrusion Detection in RBAC-administered Databases, in Proceedings of the 21st Annual Computer Security Applications Conference. 2005, IEEE Computer Society.</li> <li>7. J. Fonseca, M. Vieira and H. Madeira, Monitoring Database Application Behavior for Intrusion Detection. 12th Pacific Rim International Symposium on Dependable Computing, 2006.</li> <li>8. A. Honig, A. Howard, E. Eskin and S. Stolfo, Adaptive Model Generation, an Architecture for the Deployment of Data Mining-Based Intrusion Detection Systems, In D. Barbarà and S. Jajodia (eds.), Applications of Data Mining in Computer Security, Kluwer Academic Publishers, Boston, MA, 2002, pp. 154-191.</li> <li>9. Y. Hu and B. Panda, A Data Mining Approach for Database Intrusion Detection. ACM Symposium on Applied Computing, 2004.</li> <li>10. Y. Hu, and B. Panda, Identification of Malicious Transactions in Database Systems. Proceedings of the Seventh International Database Engineering and Applications Symposium (IDEAS'03), 2003.</li> <li>11. X. Jin and S. Osborn, Architecture for Data Collection in Database Intrusion Detection Systems. 2007.</li> <li>12. W. Lee and S. Stolfo, A Framework for Constructing Features and Models for Intrusion Detection Systems, ACM Transactions on Information and System Security, 3(4), 2000, pp. 227-261.</li> <li>13. V. Lee, J. Stankovic and S. Son, Intrusion Detection in Real-time Database Systems Via Time Signatures. In Proceedings of the Sixth IEEE Real Time Technology and Applications Symposium, 2000.</li> <li>14. W. Low, J. Lee, and P. Teoh: detecting intrusions in databases through fingerprinting transactions.</li> <li>15. U. MATTSSON, A Practical Implementation of a Real-time Intrusion Prevention System for Commercial Enterprise Databases.</li> <li>16. P. Ramasubramanian, and A. Kannan, Intelligent Multi-agent Based Database Hybrid Intrusion Prevention System. 2004.</li> <li>17. F. Rietta, Application Layer Intrusion Detection for SQL Injection. ACM Symposium on Applied Computing, 2006</li> <li>18. A. Spalka, And J. Lehnhardt, A Comprehensive Approach to Anomaly Detection in Relational Databases. 2005.</li> <li>19. Srivastava, S. Sural, and A. Majumdar, Weighted Intra-transactional Rule Mining for Database Intrusion Detection. 2006.</li> <li>20. Srivastava, S. Sural, and A. Majumdar, Database Intrusion Detection using Weighted Sequence Mining. JOURNAL OF COMPUTERS, 2006. 1(4).</li> <li>21. Y. Zhong, and X. Qin, Database Intrusion Detection Based on User Query Frequent Itemsets Mining with Item Constraints. Conference InfoSecu04, 2004.</li> <li>22. Y. ZHONG, and X. QIN, Research On Algorithm Of User Query Frequent Itemsets Mining. Proceedings of the Third International Conference on Machine Learning and Cybernetics, Shanghai, 2004.</li> </ol>		
58.	<p><b>Authors:</b></p>	<p><b>Shital S. Chopade, Pradhuman Verma, Prashant Verma</b></p>	276-279
<p><b>Paper Title:</b></p>	<p><b>Simulation of Boiler Control using PLC &amp; SCADA</b></p>		
<p><b>Abstract:</b> The purpose of this paper is to present a programmable logic controller (PLC) control system that is applied to the water tube boiler which will increase high quality and greater efficiency. This system monitors boiler's temperature and pressure and volume via different sensors which provide input to PLC. The output of PLC controls the boiler temperature and pressure and gives out the user required volume of steam. All pressure and temperature variations are shown on SCADA screen and are controlled through SCADA. Different automated check valves are used to release pressure and to inform the concerned authority through alarm in case of an emergency.</p> <p><b>Keywords:</b> (PLC) SCADA.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ezell, Barry, "Supervisory Control and Data Acquisition Systems for Water Supply and Its Vulnerability to Cyber Risks" available on the internet at: <a href="http://watt.seas.virginia.edu/~bce4k/home.html">http://watt.seas.virginia.edu/~bce4k/home.html</a>.</li> <li>2. INDUSTRIAL AUTOMATION BY USING BLUETOOTH</li> <li>3. Rockwell Automation SCADA System Selection guide Allen-Bradley, Publication AG-2.1.</li> <li>4. Knight. U. "The Power System and its Operational and Control Infrastructure in emergencies" from contingency planning to crisis management.</li> <li>5. Analysis of Fault-Tolerant systems, "IEEE transactions on Computers", vol.38, No.6,</li> <li>6. Hillenbrand, Cary, Expert Three, Technical expert specializing in the planning and design of SCADA based and Distributed control system.</li> </ol>			
59.	<p><b>Authors:</b></p>	<p><b>Sibarama Panigrahi, H. S. Behera</b></p>	280-285
<p><b>Paper Title:</b></p>	<p><b>Effect of Normalization Techniques on Univariate Time Series Forecasting using Evolutionary Higher Order Neural Network</b></p>		
<p><b>Abstract:</b> Over the last few decades, application of higher order neural networks (HONNs) to time series forecasting have shown some promise compared to statistical approaches and traditional neural network (NN) models. However, due to several factors, to date, a consistent HONN performance over different studies has not been achieved. One such factor is preprocessing of time series before it is fed into HONN models. Normalization is one of the important pre-processing strategies which have a significant impact on forecast accuracy. Despite its great importance, there has been no general consensus on how to normalize the time series data for HONN models. This paper investigates how to better normalize the univariate time series for HONN models especially, the Pi-Sigma network (PSN). For this five different normalization technique (Min-Max, Decimal Scaling, Median, Vector and Z-Score) are used to normalize four univariate time series and corresponding forecast accuracy are measured using an evolutionary Pi-Sigma network. Results show that forecast accuracy using HONN models depends on the normalization technique being used. It is also noted that with PSNs, decimal scaling and vector normalization techniques provide statistically meritorious results compared to other normalization techniques.</p> <p><b>Keywords:</b> Normalization, Higher Order Neural Networks, Pi-Sigma Network, Differential Evolution, Time Series</p>			

	<p>Forecasting.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Y. Shin, and J. Ghosh, "The pi-sigma network: An efficient higher-order neural network for pattern classification and function approximation," In: Neural Networks, IJCNN-91-Seattle International Joint Conference on Neural Networks; pp. 8-14, 1991.</li> <li>2. D. S. Huang, H. H. S. Ip, K. C. K. Law, and Z. Chi, "Zeroing polynomials using modified constrained neural network approach," IEEE Transactions on Neural Networks, vol. 16, no. 3, pp. 721-732, 2005.</li> <li>3. S. Perantonis, N. Ampazis, S. Varoufakis, and G. Antoniou, "Constrained learning in neural networks: Application to stable factorization of 2-d polynomials," Neural Processing Letter, vol.7, no. 1, pp. 5-14, 1998.</li> <li>4. C. Voutriaridis, Y. S. Boutalis, and G. Mertzios, "Ridge polynomial networks in pattern recognition," EC-VIP-MC 2003, 4th EURASIP Conference focused on Video / Image Processing and Multimedia Communications, vol. 2, pp. 519-524, 2003.</li> <li>5. P. Liatsis, and A. J. Hussain, "Nonlinear one-dimensional DPCM image prediction using polynomial neural networks," In Proc. SPIE: Applications of Artificial Neural Networks in Image Processing IV San Jose, California, pp. 58-68, 1999.</li> <li>6. A. Hussain, A. Knowles, P. Lisboa, W. El-Dereby, and D. Al-Jumeily, "Polynomial pipelined neural network and its application to financial time series prediction," Lecture Notes in Artificial Intelligence 4304, pp. 597-606, 2006.</li> <li>7. Y. Shin, and J. Ghosh, "Ridge Polynomial Networks," IEEE Transactions on Neural Networks, vol. 6, no. 3, pp. 610-622, 1995.</li> <li>8. Y. L. Karnavas, and D.P. Papadopoulos, "Excitation control of a synchronous machine using polynomial neural networks," Journal of Electrical Engineering, vol. 55, no. 7, pp. 169-179, 2004.</li> <li>9. M. G. Epitropakis, V. P. Plagianakos, and M. N. Vrahatis, "Hardware-friendly Higher-Order Neural Network Training using Distributed Evolutionary Algorithms," Applied Soft Computing, vol. 10, no 2, pp. 398-408, 2010.</li> <li>10. K. K. Sahu, S. Panigrahi, and H. S. Behera, "A Novel Chemical Reaction Optimization Algorithm for Higher Order Neural Network Training", Journal of Theoretical and Applied Information Technology, vol. 53, no. 3, pp. 402-409.</li> <li>11. R. Storn, and K. Price, "Differential evolution-A simple and efficient heuristic for global optimization over continuous spaces," Journal of Global Optimization, vol. 11, no. 4, pp. 341-359, 1997.</li> <li>12. D. Goldberg, "Genetic Algorithms in Search," Optimization and Machine Learning Reading, MA:Addison-Wesley, 1989.</li> <li>13. J. Kennedy, R. C. Eberhart, and Y. Shi, "Swarm intelligence," San Francisco CA:Morgan Kaufmann, 2001.</li> <li>14. K. Socha, and M. Dorigo, "Ant colony optimization for continuous domains," European Journal of Operation Research, vol. 185, no. 3, pp. 1155-1173, 2008.</li> <li>15. D. T. Pham, A. Ghanbarzadeh, E. Koc, S. Otri, S. Rahim, and M. Zaidi, "The bees algorithm-A novel tool for complex optimization problems," in IPROMS Oxford, U.K.: Elsevier,2006.</li> <li>16. H. G. Beyer, and H. P. Schwefel, "Evolutionary Strategies: A Comprehensive introduction", Natural Computing, vol. 1, no. 1, pp. 3-52, 2002.</li> <li>17. K. H. Han, and J. H. Kim, "Quantum-inspired evolutionary algorithm for a class of combinatorial optimization," IEEE Transactions on Evolutionary Computation, vol. 6, pp. 580-593, 2002.</li> <li>18. A. Y. S. Lam, and V. O. K. Li, "Chemical-Reaction-inspired metaheuristic for optimization," IEEE Transaction on Evolutionary Computation, vol. 14, no.3, pp. 381-399, 2010.</li> <li>19. A.Y.S. Lam, "Real-Coded Chemical Reaction Optimization," IEEE Transaction on Evolutionary Computation, vol. 16, no. 3, pp. 339-353, 2012.</li> <li>20. A. Y. S. Lam, and V. O. K. Li, "Chemical Reaction Optimization: a tutorial," Memetic Computing, vol. 4, no. 1, pp. 3-17, 2012.</li> <li>21. J. Ghosh, and Y. Shin, "Efficient higher-order neural networks for classification and function approximation," in: International Journal on Neural Systems, vol. 3, pp. 323-350, 1992.</li> <li>22. Y. Shin, and J. Ghosh, "Realization of Boolean functions using binary pi-sigma networks," in: Proceedings of Conference on Artificial Neural Networks in Engineering, 1991.</li> <li>23. S. Das, A. Abraham, U. K. Chakraborty, and A. Konar, "Differential evolution using a neighbourhood based mutation operator," IEEE Transaction on Evolutionary Computation, vol. 13, no.3, pp. 526-553, 2009.</li> <li>24. S. Rahnamayan, H. R. Tizhoosh, and M. A. Salama, "Opposition based differential evolution", IEEE Transaction on Evolutionary Computation, vol. 12, no.1, pp. 64-79, 2008.</li> <li>25. S. Das, and P. N. Suganthan, "Differential Evolution: A Survey of the state-of-the-Art," IEEE Transaction on Evolutionary Computation, vol. 15, no.1, pp. 4-31, 2011.</li> <li>26. K. Price, R. Storn, and J. Lampinen, "Differential Evolution-A Practical Approach to Global Optimization," Berlin, Germany: Springer, 2005.</li> <li>27. K. V. Price, "An introduction to differential evolution," in: New Ideas in Optimization, U.K.: McGraw-Hill, pp. 79-108, 1999.</li> <li>28. S. M. Islam, S. Das, S. Ghosh, S. Roy, and P. N. Suganthan, "An Adaptive Differential Evolution Algorithm with Novel Mutation and Cross Over Strategy for Global Numerical Optimization," IEEE Transaction on System, Man, and Cybernetics-PART B: Cybernetics, Vol. 42, No.2, pp.482-500, 2012.</li> <li>29. J.J.Q. Yu, A.Y.S. Lam, and V.O.K. Li, "Evolutionary Artificial Neural Network based on chemical reaction optimization", IEEE Congress on Evolutionary Computation, pp. 2083-2090, 2011.</li> </ol>							
60.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>S. H. Rahangdale, A. K. Mittra</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Vibroarthrographic Signals De-Noiseing Using Wavelet Subband Thresholding</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Externally recorded knee-joint vibroarthrographic (VAG) signals bear diagnostic information related to degenerative conditions of cartilage disorders in a knee. The VAG technique is passive and can be used for long term monitoring. In order to improve the diagnostic capabilities of VAG, robust signal processing techniques are needed for de-noising of the signals. Traditional de-noising techniques apply a linear filter to remove the noise and interference from the VAG signals. These methods have certain limitations for the non-stationary VAG signals. In this paper, an improved technique for de-noising of VAG signals is presented. The acquired VAG signals are decomposed, de-noised and reconstructed by utilizing matlab wavelet transform toolbox. The proposed approach improves the signal to noise ratio (SNR) of these signals. The presented technique can be used in pre-processing stage of all VAG based knee joint monitoring and screening of articular cartilage pathology.</p> <p><b>Keywords:</b> Wavelets, de-noising, vibroarthrographic signal, knee-joint.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. G.E. McCoy, J.D. Mccrea, D.E. Beverland, W.G. Kernohen, R.A.B. Mollan, "Vibration arthrography as a diagnostic aid in diseases of the knee", The Journal Bone and Joint Surgery, vol. 69-B (2), pp.288-293, 1987.</li> <li>2. M.L. Chu, I.A. Gradisar, R. Mostardi, "A noninvasive electroacoustical evaluation technique of cartilage in pathological knee joints", Medical and Biological Engineering and Computing, vol. 16, pp. 437-442, 1978.</li> <li>3. R.M. Rangayyan, C.B. Frank, G.D. Bell, R. Smith, "Analysis of knee joint sounds signals : Invited paper", IEEE Engineering in medicine &amp; Biology Society 10th Annual International Conference,1988, 712-713.</li> <li>4. S. Krishnan, R. M. Rangayyan, "Automatic de-noising of knee-joint vibration signals using adaptive time-frequency representations,"</li> </ol> </td> </tr> </table>	<b>Authors:</b>	<b>S. H. Rahangdale, A. K. Mittra</b>	<b>Paper Title:</b>	<b>Vibroarthrographic Signals De-Noiseing Using Wavelet Subband Thresholding</b>	<p><b>Abstract:</b> Externally recorded knee-joint vibroarthrographic (VAG) signals bear diagnostic information related to degenerative conditions of cartilage disorders in a knee. The VAG technique is passive and can be used for long term monitoring. In order to improve the diagnostic capabilities of VAG, robust signal processing techniques are needed for de-noising of the signals. Traditional de-noising techniques apply a linear filter to remove the noise and interference from the VAG signals. These methods have certain limitations for the non-stationary VAG signals. In this paper, an improved technique for de-noising of VAG signals is presented. The acquired VAG signals are decomposed, de-noised and reconstructed by utilizing matlab wavelet transform toolbox. The proposed approach improves the signal to noise ratio (SNR) of these signals. The presented technique can be used in pre-processing stage of all VAG based knee joint monitoring and screening of articular cartilage pathology.</p> <p><b>Keywords:</b> Wavelets, de-noising, vibroarthrographic signal, knee-joint.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. G.E. McCoy, J.D. Mccrea, D.E. Beverland, W.G. Kernohen, R.A.B. Mollan, "Vibration arthrography as a diagnostic aid in diseases of the knee", The Journal Bone and Joint Surgery, vol. 69-B (2), pp.288-293, 1987.</li> <li>2. M.L. Chu, I.A. Gradisar, R. Mostardi, "A noninvasive electroacoustical evaluation technique of cartilage in pathological knee joints", Medical and Biological Engineering and Computing, vol. 16, pp. 437-442, 1978.</li> <li>3. R.M. Rangayyan, C.B. Frank, G.D. Bell, R. Smith, "Analysis of knee joint sounds signals : Invited paper", IEEE Engineering in medicine &amp; Biology Society 10th Annual International Conference,1988, 712-713.</li> <li>4. S. Krishnan, R. M. Rangayyan, "Automatic de-noising of knee-joint vibration signals using adaptive time-frequency representations,"</li> </ol>		286-289
<b>Authors:</b>	<b>S. H. Rahangdale, A. K. Mittra</b>							
<b>Paper Title:</b>	<b>Vibroarthrographic Signals De-Noiseing Using Wavelet Subband Thresholding</b>							
<p><b>Abstract:</b> Externally recorded knee-joint vibroarthrographic (VAG) signals bear diagnostic information related to degenerative conditions of cartilage disorders in a knee. The VAG technique is passive and can be used for long term monitoring. In order to improve the diagnostic capabilities of VAG, robust signal processing techniques are needed for de-noising of the signals. Traditional de-noising techniques apply a linear filter to remove the noise and interference from the VAG signals. These methods have certain limitations for the non-stationary VAG signals. In this paper, an improved technique for de-noising of VAG signals is presented. The acquired VAG signals are decomposed, de-noised and reconstructed by utilizing matlab wavelet transform toolbox. The proposed approach improves the signal to noise ratio (SNR) of these signals. The presented technique can be used in pre-processing stage of all VAG based knee joint monitoring and screening of articular cartilage pathology.</p> <p><b>Keywords:</b> Wavelets, de-noising, vibroarthrographic signal, knee-joint.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. G.E. McCoy, J.D. Mccrea, D.E. Beverland, W.G. Kernohen, R.A.B. Mollan, "Vibration arthrography as a diagnostic aid in diseases of the knee", The Journal Bone and Joint Surgery, vol. 69-B (2), pp.288-293, 1987.</li> <li>2. M.L. Chu, I.A. Gradisar, R. Mostardi, "A noninvasive electroacoustical evaluation technique of cartilage in pathological knee joints", Medical and Biological Engineering and Computing, vol. 16, pp. 437-442, 1978.</li> <li>3. R.M. Rangayyan, C.B. Frank, G.D. Bell, R. Smith, "Analysis of knee joint sounds signals : Invited paper", IEEE Engineering in medicine &amp; Biology Society 10th Annual International Conference,1988, 712-713.</li> <li>4. S. Krishnan, R. M. Rangayyan, "Automatic de-noising of knee-joint vibration signals using adaptive time-frequency representations,"</li> </ol>								

Medical and Biological Engineering and Computing, vol. 38, no.1, pp. 2-8, 2000.

5. S. Krishnan, R.M. Rangayyan, "Denosing knee joint vibration signals using adaptive time-frequency representations", Proc. IEEE Canadian Conference on Electrical and Computer Engineering, Edmonton, Canada, 9-12 May 1999, pp 1495-1500.
6. V.S. Chourasia, A. K. Tiwari, "Most suitable wavelet for fetal phonocardiographic signal analysis", Journal of Future Engineering & Technology, vol. 4, no. 3, pp. 23-29, Feb-Apr 2009.
7. M.S. Hossain, N. Amin, "ECG Compression using subband thresholding of the wavelet coefficients", Australian Journal of Basic and Applied Sciences, pp 739-749, 2011.
8. X. Yang, P. Li, Z. Xin, Z. Bian, B. Wang, "De-Noising of the Doppler Fetal Heart Rate Signal with Wavelet Threshold Filtering Based on Spatial Correlation," The 1st International Conference of the IEEE on Bioinformatics and Biomedical Engineering, ICBBE 2007, pp. 928 – 931, 6-8 July 2007.
9. M. R. Raghuvver, A. S. Bopardikar, "Wavelet Transforms: Introduction to Theory and Applications," Pearson Education (Singapore) Pte. Ltd., Indian Branch, third edition, pp. 25-50, 2002.
10. I. Daubechies, "Ten Lectures on Wavelets," Society for Industrial and Applied Mathematics (SIAM), New York, 1992.
11. S.G. Mallat, "A Wavelet Tour of Signal Processing," Academic Press, 2nd Edition, 1999.
12. S.G. Mallat, "A Theory of Multiresolution Signal Decomposition: The Wavelet Representation," IEEE Transactions on Pattern Analysis and Machine Intelligence", vol. 11, no. 7, pp. 674-693, July 1989.
13. P.S. Kumar, R. Sivakumar, C. Vimal, "Removal of Ocular artifacts in the ECG through Wavelet Transform without using an EOG Reference Channel" Int. J. Open Problems Compt. Math., vol.1, no.3, pp.188-200, 2008
14. V. S. Chourasia, A. K. Tiwari, R. Gangopadhyay, "Time-frequency characterization of fetal phonocardiographic signals using wavelet scalogram", Journal of Mechanics in Medicine and Biology, vol. 11, no. 2, pp. 391-406, 2011.
15. R. Adelino, Ferreira da Silva, "Wavelet denoising with evolutionary algorithms," Digital Signal Processing, vol. 15, pp382-399, 2005.
16. Donoho, D.L., "De-noising by soft-thresholding," IEEE Trans. Inf. Theory vol.41 (3), pp613-627,1995.
17. Q. Zhang, R.A. Rossel, P. Choi, "Denosing of gamma-ray signals by interval-dependent thresholds of wavelet analysis", Measurement Science and Technology, pp. 732-735, 2006.
18. M. C. E. Rosas-Orea, M. Hernandez-Diaz, V. Alarcon-Aquino, L. G. Guerrero-Ojeda, "A Comparative Simulation Study of Wavelet Based Denoising Algorithm," Proceedings. 15th International Conference of the IEEE on Electronics, Communications and Computers, CONIELECOMP 2005, pp. 125-130, 28-02 Feb. 2005.

**Authors:** Mohamed R. Afify, Noha M. Soliman

**Paper Title:** Feasibility of Using Lightweight Artificial Course Aggregates in the Manufacture of R. C. Elements

**Abstract:** In recent years lightweight concrete is considered as one of the most important materials in the special concrete groups. It has extensive applications in the architect and insulation work. Lightweight aggregates and chemical admixtures play an important role in the production of lightweight concrete. New artificial course aggregate has been recently developed and has the attention of the researchers to be used in the manufacture of lightweight concrete. This research was conducted to determine the feasibility of lightweight aggregate type commercially available in the Egyptian market in the concrete industry. Plan concrete specimens as well as reinforced concrete beams and slabs cast with concrete containing such lightweight aggregate were cast and tested in the research. The main variable taken into consideration were the aggregate type, cement and water content as well as the chemical and mineralogical admixtures content. The percentage of reinforcement of the beams and slabs tested were also taken in to consideration. The mechanical properties of fifteen concrete mixes were determined. The structure behavior of the tested beams and slabs were investigation with special attention to their deflections, longitudinal strain and cracking under different stages of loading as well as the ultimate loads and modes of failure.

**Keywords:** Lightweight concrete, lightweight aggregate, foam, new artificial course aggregate, compressive strength, R. C. Beams and R. C. Slabs

**References:**

1. (ACI 211.2-98-2004)" Standard Practice for Selecting Proportions for Structural Lightweight Concrete" (Reapproved 2004).
2. Carrasquillo RL and Nilson AH. " Micro cracking and engineering properties of high strength concrete" research report, No. 80-1, Department of Structural Engineering, Cornell University, Ithaca;1980.p.254-260.
3. Norlia Mohamad Ibrahim , Shamshinar Salehuddin, Roshazita Che Amat, Nur Liza Rahim and Tengku Nuraiti Tengku Izhar," Performance of Lightweight Foamed Concrete with Waste Clay Brick as Coarse Aggregate" APCBEE Procedia 5 ( 2013 ) 497 – 501.
4. Tsai CH. "Study on the properties of sintered lightweight aggregate concrete" B.A. Thesis, National University of Science and Technology, Department of Construction Engineering, Taipei, Taiwan, 2001.
5. M.N. Haque, H. Al-Khaiat and O. Kayali "Strength and durability of lightweight concrete" Cement & Concrete Composites 26 (2004) 307–314.
6. Yuwadee Zaetang, Ampol Wongsa, Vanchai Sata, Prinya Chindaprasirt" Use of lightweight aggregates in pervious concrete " Construction and Building Materials 48 (2013) 585–591.
7. H. Z. Cui, Tommy Yiu Lo, Shazim Ali Memon and Weiting Xu" Effect of lightweight aggregates on the mechanical properties and rittleness of lightweight aggregate concrete" Construction and Building Materials 35 (2012) 149–158.
8. Gao Yingli, Cheng Ling, Gao Zheming and Guo Shiyang " Effects of different mineral admixtures on carbonation resistance of lightweight aggregate concrete" Construction and Building Materials 43 (2013) 506–510.
9. Siong Kang Lim , Cher Siang Tan, Ooi Yuan Lim and Yee Ling Lee" Fresh and hardened properties of lightweight foamed concrete with palm oil fuel ash as filler" Construction and Building Materials 46 (2013) 39–47.
10. Amor Ben Fraj, Mohamed Kismi and Pierre Mounanga " Valorization of coarse rigid polyurethane foam waste in lightweight aggregate concrete" Construction and Building Materials 24 (2010) 1069–1077.
11. H.Y. Wang and K.C. Tsai "Engineering properties of lightweight aggregate concrete made from dredged silt" Cement & Concrete Composites 28 (2006) 481–485.
12. Mahmoud Hassanpour, Payam Shafigh, Hilmi Bin Mahmud "Lightweight aggregate concrete fiber reinforcement – A review" Construction and Building Materials 37 (2012) 452–461
13. Jones MR and McCarthy A. "Utilizing unprocessed low-lime coal ash in foamed concrete. Fuel 2005; 84:1398–409.
14. Nambiar EKK and Ramamurthy K. "Fresh state characteristics of foam concrete" ASCE J Mater Civil Eng 2008; 20:111–117.
15. Ramamurthy K, Nambiar EKK and Ranjani GIS. "A classification of studies on properties of foamed concrete" Cement Compos 2009;31(6):388–396.
16. Awal ASM and Hussin MW. "Some aspects of durability performances of concrete incorporating palm oil fuel ash" Proceeding of 5th International conference on structural failure, durability and retrofitting, Singapore; 1997. p. 210-217.
17. Tangchirapat W, Saeting T, Jaturapitakul C, Kiattikomol K and Siripanchgorn A. "Use of waste ash from palm oil industry in concrete. Waste Manage 2007;27:81–88.
18. L. Gqndqz and I. Ug'ur "The effects of different fine and coarse pumice aggregate/cement ratios on the structural concrete properties without using any admixtures" Cement and Concrete Research 35 (2005) 1859– 1864.

	<p>19. Norlia Mohamad Ibrahim, Shamshinar Salehuddin, Roshazita Che Amat, Nur Liza Rahim and Tengku Nuraiti Tengku Izhar, "Performance of Lightweight Foamed Concrete with Waste Clay Brick as Coarse Aggregate" APCBEE Procedia 5 (2013) 497 – 501.</p> <p>20. Nambiar EKK and Ramamurthy K. "Sorption characteristics of foam concrete" Cement Concr Res 2007; 37:1341–7.</p> <p>21. Mehta PK. "Properties of blended cements made from rice-husk ash" ACI J 1977; 74:440–442.</p> <p>22. Udoyo FF. and Dashibil PU. "Sawdust ash as concrete material" ASCE J Mater Civil Eng 2002; 14(2):173–176.</p> <p>23. E.C.P. 203/2007, 2007, Egyptian Code of Practice: Design and Construction for Reinforced Concrete Structures, Research Centre for Houses Building and Physical Planning, Cairo, Egypt.</p> <p>24. E.S.S. 1109/2008, 2008, Egyptian Standard Specification for Aggregates, Egypt.</p> <p>25. ASTM C 33, 2003, American Society for Testing and Materials: Aggregates, Philadelphia, USA.</p> <p>26. E.S.S. 4756 1/2009, 2009, Egyptian Standard Specification for Ordinary Portland Cement, Egypt.</p> <p>27. ASTM C 494-03, 2003, American Society for Testing and Materials: Chemical Admixtures, Philadelphia, USA.</p> <p>28. E.S.S. 262 /2011, 2011, Egyptian Standard Specification for Steel Bars, Egypt.</p> <p>29. ACI Committee 363. (2007) "State-of-the-Art Report on high strength concrete (ACI 363R-07)". American Concrete Institute, Detroit.</p> <p>30. Sung-woo Shin, Satyendra K. Ghosh, and Jaime Moreno, "Flexural Ductility of Ultra-High-Strength Concrete Members [J]". ACI Structural Journal. No.4 (1989) pp. 394-400.</p>					
62.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Authors:</b></td> <td><b>Henny Pratiwi Adi, Moh Faiqun Ni'am</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Identifying Essential Skills Requirement in Indonesian Construction Sector</b></td> </tr> </table> <p><b>Abstract:</b> Labors is one of important element in construction projects implementation. Labors should have a good basic skills to be able to use the skills on the field work effectively, this capability is referred as essential skills. This study aims to identify essential skills needed to work on the construction sector in Indonesia, on the job of carpenters, bricklayers, plumbers and painters building. Data was collected through interviews and distributing questionnaires to users of Indonesian construction labors in Indonesia. Respondents were asked to provide an assessment of the essential skills required by their importance for the construction project. Determination of essential skills ranking were analyzed with the Relative Importance Index (RII). The results showed that the essential skills needed on the job of carpenters, bricklayers, plumbers and painters are numeracy, thinking, working with others and continuous learning.</p> <p><b>Keywords:</b> essential skills, construction labors.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Barker, M., Hipkins, R. and Bartholomew, R., (2004), Reframing the Essentials Skills: Implications for and from the Science Curriculum, A commissioned research report for the Ministry of Education, Wellington, New Zealand.</li> <li>Enshassi, A., Mohamed, S. and Ekarri, A., (2009), Essential Skills and Training Provisions for Building Project Stakeholders in Palestine, Journal of Construction in Developing Countries, 14 (1), pp 31–50.</li> <li>Farooqui, R., (2008). Assessment of Critical Skills for Project Managers in Pakistani Construction Industry, Proceeding of Conference on Construction in Developing Countries, August 4-5, Karachi, Pakistan.</li> <li>Gushgari, S. K., Francis, P.A., and Saklou, J.H, (1997), Skills Critical to Long Term Profitability of Engineering Firms, Journal of Management Engineering, 13 (2), pp 46–56.</li> <li>Keputusan Menteri Pekerjaan Umum No 340, 2007. Penetapan Standar Kompetensi Kerja Tenaga Terampil dan Tenaga Ahli, Departemen Pekerjaan Umum.</li> <li>Liimatainen, M. R., (2002). Training and Skills Acquisition in the Informal Sector, International Labour Office, Geneva.</li> <li>Nova Scotia Construction Sector Council, (2005), Essential Skills-Construction Related, Human Resources and Skills Development Canada (HRSDC).</li> <li>Nursyirwan, Iwan, 2006. Tenaga Kerja Konstruksi Indonesia Perlu Pengakuan, Buletin BPKSDM, Departemen Pekerjaan Umum, Vol 3.</li> <li>Odusami, K.T., Oyediran, O.S. and Oseni, A.O, (2007). Training Needs of Construction Site Managers, Emirates Journal for Engineering Research, 12 (1), pp 73–81.</li> <li>Odusami, K.T., (2002). Perception of Professionals Concerning Important Skills of Effective Project Leader, Journal of Management in Engineering, 18 (2), pp 61–67.</li> <li>Overtom, C. G., (2000), Project Build : Integrating Technical and Employability Skills in Construction Industry, Information Analysis, Ohio State University.</li> <li>Pritz, S. G., (1995). Building Essential Skills for The Ohio Building and Construction Industry, Final Report Center on education and Training for Employment The Ohio State University &amp; Ohio State and Construction Trade Council.</li> <li>Tong, L. F., (2003), Identifying Essential Learning Skills in Student's Engineering Education, The Higher Education Research and Development Society of Australasia (HERDSA), Conference Proceeding.</li> </ol>	<b>Authors:</b>	<b>Henny Pratiwi Adi, Moh Faiqun Ni'am</b>	<b>Paper Title:</b>	<b>Identifying Essential Skills Requirement in Indonesian Construction Sector</b>	307-309
<b>Authors:</b>	<b>Henny Pratiwi Adi, Moh Faiqun Ni'am</b>					
<b>Paper Title:</b>	<b>Identifying Essential Skills Requirement in Indonesian Construction Sector</b>					
63.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Authors:</b></td> <td><b>Komal Sachdeva</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Public Key Cryptography with Knapsack Systems</b></td> </tr> </table> <p><b>Abstract:</b> The Paper Public Key Cryptography with Knapsack Systems involves the introduction to the Conventional Cryptography describing the concept of Plain Text, Cipher Text, Encryption, Decryption, Keys, Substitution, Transposition, Symmetric Key and Asymmetric Key Systems. The main focus is on Public Key Cryptography and one such technique for the encryption and decryption of the message, Knapsack Systems is discussed in the paper with the mathematical description.</p> <p><b>Keywords:</b> Knapsack Systems is discussed in the paper with the mathematical description.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>L.M. Adleman. On breaking the iterated Merkle-Hellman Public Key Cryptosystem, pp. 303-308 in Advances in Cryptology: Proceedings of Crypto 82, D.Chaum, R.L.Rivest and, A.T. Sherman, eds, Plenum Press, 1983</li> <li>"Network Security Essentials", Applications and Standards -Third Edition, -William Stallings.</li> <li>"Security in Computing" Fourth Edition - Charles P. Pfleeger, Shari Lawrence Pfleeger</li> <li><a href="http://en.wikipedia.org/wiki/Merkle%E2%80%93Hellman_knapsack_cryptosystem">http://en.wikipedia.org/wiki/Merkle%E2%80%93Hellman_knapsack_cryptosystem</a></li> <li><a href="http://userpages.umbc.edu/~rcampbel/NumbThy/Class/BasicNumbThy.html">http://userpages.umbc.edu/~rcampbel/NumbThy/Class/BasicNumbThy.html</a></li> <li>"Advance Cryptography Algorithm For Improving Data Security", Volume 2, Issue 1, January 2012, ISSN: 2277 128 X, International Journal of Advanced Research in Computer Science and Software Engineering. - Vishwa Gupta, Gajendra Singh, Ravindra Gupta.</li> <li>"Frame Based Symmetric Key Cryptography", Volume 02, Issue: 04, Pages 762-769(2011), Int. J. Advanced Networking and Applications.- Uttam Kr. Mondal, Satyendra Nath Mandal, J. PalChoudhart, J.K.Mandal</li> </ol>	<b>Authors:</b>	<b>Komal Sachdeva</b>	<b>Paper Title:</b>	<b>Public Key Cryptography with Knapsack Systems</b>	310-311
<b>Authors:</b>	<b>Komal Sachdeva</b>					
<b>Paper Title:</b>	<b>Public Key Cryptography with Knapsack Systems</b>					

64.	<b>Authors:</b>	<b>D.Devasena, P.Lakshana, A.Poovizhiarasi, D.Velvizhi</b>
	<b>Paper Title:</b>	<b>Controlling Of Electronic Equipment Using Gesture Recognition</b>
<p><b>Abstract:</b> Gesture recognition is a technology which is aimed at interpreting human gestures with the help of mathematical algorithms. In general, consumer electronic equipment use remote control for user interfaces. Replacing the remote control system by means of hand gestures is an innovative user interface that resolves the complications in usage of remote control for domestic appliances. The proposed model deals with using hand gesture to perform the basic controls in electronic equipment like TV and laptop. This type of user interface using gesture has advantages of ease of access and human machine interaction. Gestures are a natural form of communication and are easy to learn. However using gestures to control electronic equipment requires gesture recognition algorithm and adequate hardware relating to it.</p> <p><b>Keywords:</b> Gestures, Gesture Control, Gesture recognition, Laptop control, LabVIEW.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. SoonmookJeong, Jungdong Jin, Taehoun Song, Keyho Kwon, Jae WookJeon, (2012) ‘Single Camera Dedicated Television Control System using Gesture Drawing’, IEEE Transactions on Consumer Electronics, Vol. 58, no. 4, pp. 1129 -1137.</li> <li>2. K. K. Cheong, I. S. Kim, S. K. Park, and Y. J. Park, (2011) ‘User performance measures for evaluating interactive TV pointing devices’, IEEE Trans. Consumer Electronics, Vol. 57, no. 3, pp. 1236-1244.</li> <li>3. N. Henze, A. Locken, S. Boll, T. Hesselmann, and M. Pielot, (2010) ‘Free-hand gestures for music playback: deriving gestures with a user-centered process’, Proceedings of the 9th International Conference on Mobile and Ubiquitous Multimedia, no. 16.</li> <li>4. Y. M. Han, (2010) ‘A low-cost visual motion data glove as an input device to interpret human hand gestures’, IEEE Trans. Consumer Electronics, Vol.56, no. 2, pp. 501-509.</li> <li>5. D. W. Lee, J. M. Lim, S. W. John, I. Y. Cho, and C. H. Lee, (2009) ‘Actual remote control: a universal remote control using hand motions on a virtual menu’, IEEE Trans. Consumer Electronics, Vol. 55, no. 3, pp.1439-1446.</li> <li>6. A. Wilson, and N. Oliver, (2003) ‘GWindows: robust stereo vision for gesture based control of windows’, ICMI 03, pp. 211-218.</li> <li>7. M. Moyle, and A. Cockburn, (2003) ‘The design and evaluation of a flick gesture for ‘back’ and ‘forward’ in web browsers’, Proceedings of the4th Australasian User Interface Conference on User Interfaces, Vol. 18,pp. 39-46.</li> </ol>	312-315	
65.		<b>Authors:</b>
	<b>Paper Title:</b>	<b>Estimation of the Influence of Fertilizer Nutrients Consumption on the Wheat Crop yield in India- a Data mining Approach</b>
<p><b>Abstract:</b> The forecasting of agricultural yields is a challenging and desirable task for every nation. In Indian economy agriculture sector has a major role. In the total India rural population above seventy percent of the population depends on the agriculture to lead their lives. In the index of the Indian exports, agriculture exports stood at the fifth place. Today agriculture farmers are not only producing yields but also producing the agriculture data. This data can be collected, stored and analyzed for the useful information. In the present paper an attempt is made to apply the data mining techniques to extract useful information from the agriculture dataset of the annual measurements of the fertilizer nutrients consumed and wheat crop yields in India. The present experiment is based on the data collected from the sources like the Department of Agriculture and Statistics, Government of India and Department of Agriculture and Co operation, Government of India. The results of the present paper proved that the fertilizer nutrients consumed are the most influential factors of the wheat crop yield in India.</p> <p><b>Keywords:</b> Yield estimation, Data mining, precision agriculture, regression and regression analysis</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. “Data mining Techniques for Predicting Crop Productivity – A review article” S.Veenadhari, Dr.Bharat Misra, Dr. CD Singh IJCST Vol. 2, Issue 1, March 2011.</li> <li>2. Chengquan Huang, Limin Yang, Bruce Wylie, and Collin Homer. “A strategy for estimating tree Canopy density using landsat 7 etm+ and high resolution images over large areas”. In the proceedings of the Third International Conference on Geospatial Information in Agriculture and Forestry, 2001.</li> <li>3. Georg Ruß, Rudolf Kruse, Peter Wagner, and Martin Schneider. “Data mining with neural networks for wheat yield prediction. In Petra Perner, editor, Advances in Data Mining (Proc. ICDM 2008)”, pages 47–56, Berlin, Heidelberg, July 2008, Springer Verlag.</li> <li>4. R S Deshpande “An Analysis Of The Results Of Crop Cutting Experiments,Agricultural Development and Rural Transformation Unit” Institute for Social and Economic Change February 2003.</li> <li>5. Georg Ruß “Data Mining of Agricultural Yield Data: A Comparison of Regression Models, ICDM’09”. Leipzig, Germany, July 2009.</li> <li>6. V. Ramesh and K. Ramr “Classification of agricultural land soils: A data mining approach”, International Journal on Computer Science and Engineering (IJCSE) ISSN: 0975-3397 Vol. 3 No. 1 Jan 2011, 379.</li> <li>7. Anup K. Prasad a, Lim Chai b, Ramesh P. Singh a, b*, Menas Kafatos b (2006). “Crop yield estimation model for Iowa using remote sensing and surface parameters”. International Journal of Applied Earth Observation and Geoinformation 8 (2006) 26-33.</li> <li>8. B. Lalic, L. Pankovic, D. T. Mihailovic, M. Malesevic, I. Arsenic: “Crop models and its use in vegetation dynamic forecasting”. In Proc. Of Institute of Field and Vegetable Crops, Vol. 44, pp. 317-323, 2007.</li> <li>9. B . Marinković, J. Crnobarac, D. Marinković, G. Jačimović, D.V. Mircov, “Weather conditions in the function of optimal corn yield in Serbia and the Vojvodina province”, in Proceeding of the 1st Scientific Agronomic Days, pp. 15-19, 2008.</li> <li>10. D. Pokrajac, T. Fiez, D. Obradovic, S. Kwek, Z. Obradovic, “Distribution comparison for site-specific regression modeling in agriculture”, in Proc. 12th International Joint Conference on Neural Networks (IJCNN), pp. 3937-3941, 1999.</li> <li>11. Groten, S. M. E. (1993). “NDVI - crop monitoring and early yield assessment of Burkina Faso”. International Journal of Remote Sensing, 14(8), 1495-1515.</li> <li>12. Hayes, M.J., Decker, W.L., 1996. “Using NOAA AVHRR data to estimate maize production in the United States” Corn Belt. Int. J.Remote Sense. 17, 3189-3200.</li> <li>13. Jorgensen, S.E., 1994. “Models as instruments for combination of ecological theory and environmental practice”. Ecol. Model. 75-76,5-20.</li> <li>14. Mass, S. J., 1988. “Use of remotely-sensed information in agricultural crop growth models”. Ecological Modelling. 41,247-268</li> <li>15. Moa,*, S. Liua, Z. Lina, Y. Xub, Y. Xianga, T.R. McVicare (2005). “Prediction of crop yield, water consumption and water use efficiency with a SVAT-crop growth model using remotely sensed data on the North China Plain. Ecological Modelling” 183 301-322</li> <li>16. Monteith, J.L., 1972. “Solar radiation and productivity in tropical ecosystems”. J.Appl. Ecol. 9,747-766.</li> <li>17. Monteith, J.L., 1977. “Climate and the efficiency of crop production Britain”. Phil. Trans.Roy.Soc.Lond. B 281,277-294.</li> <li>18. Reynolds, M. Yittayew, D. C(2000).Slack, “Estimation of crop yields and production by integrating the FAO Crop Speci. C Water Balance</li> </ol>	316-320	

	<p>model with real-time satellite data and ground-based ancillary data". Int.g. remote sensing, 2000, vol,21, no.18,3487-3508</p> <p>19. M. Becker, K. H. Diekmann, J. K. Ladha, S. K. De Datta, J. C. G. Ottow, "Effect of NPK on growth and nitrogen fixation of Sesbania rostrata as a green manure for lowland rice (Oryza sativa L.)" Plant and Soil, April 1991, Volume 132, Issue 1, pp 149-158</p> <p>20. Suzuki.M, Kamekawa.k, Sekiya.S and Shiga.H in the paper titled "Effect of continuous application of organic or inorganic fertilizer for sixty years on soil fertility and rice yield in paddy field" Trans.14th Int.congr. soil sci. 4:14-19, Vol.4</p>	
	<p><b>Authors:</b> <b>Rajeshwari.S, Malathi.K, Regina.B</b></p>	
	<p><b>Paper Title:</b> <b>A Survey on Characterization of Defense Mechanisms in DDOS Attacks</b></p>	
66.	<p><b>Abstract:</b> Distributed Denial of Service (DDoS) Attack is a poisonous threat to our security professionals. DDoS Attack is defined as the attack which targets one or more systems using multiple systems which are compromised usually by Trojan Horse at the same instance of time. DDoS Attack does not allow legitimate users to access their resource and their services by taking advantage of the system vulnerability .DDoS Attack is independent of the protocols used .The goals of DDoS Attack is Twofold. First it overloads the server which may lead to crash and the second goal is to acquire and steal the bandwidth by generating a large scale of traffic.The attack is set up by a Master called as BotMaster by controlling armies of system to attack which is injected by malware called as Botnets. Effective and Collaborative Defense Mechanisms for DDoS Attack in Wired Network Systems is the main Scope of Intrusion Detection.</p> <p>Exploration of defense mechanisms for DDoS Flooding Attack in Wired Network Systems along with their classification and study of various structures of Botnets is discussed in this paper. We also highlight all the techniques already used before the attack, during the attack and after the attack. As application level attacks are common and stealthier when compared to network /transport level attacks we focus more on http DDoS flooding attacks.</p> <p><b>Keywords:</b> DDoS (Distributed denial of service) Attacks ,TrojanHorse ,BotMaster, Collaborative Defense Mechanisms, Http DDoS flooding attacks, Intrusion Detection, application level attacks.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>[online] <a href="http://techcrunch.com/2010/11/28/wikileaks-ddos-attack/">http://techcrunch.com/2010/11/28/wikileaks-ddos-attack/</a></li> <li>[online] <a href="http://isc.sans.edu/diary.html?storyid=6622">http://isc.sans.edu/diary.html?storyid=6622</a></li> <li>Yahoo on Trail of Site Hackers, Wired.com, Feb. 8, 2000, [online] <a href="http://www.wired.com/news/business/0,1367,34221,00.html">http://www.wired.com/news/business/0,1367,34221,00.html</a></li> <li>Powerful Attack Cripples Internet, Oct. 23, 2002, [online]<a href="http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msgid=00A7G7">http://www.greenspun.com/bboard/q-and-a-fetch-msg.tcl?msgid=00A7G7</a></li> <li>Mydoom lesson: Take proactive steps to prevent DDoS attacks, Feb. 6, 2004, [online]</li> <li>Lazy Hacker and Little Worm Set Off Cyberwar Frenzy, July 8,2009,[online] <a href="http://www.wired.com/threatlevel/2009/07/mydoom/">http://www.wired.com/threatlevel/2009/07/mydoom/</a></li> <li>New "cyber attacks" hit S Korea, July 9, 2009,[online]<a href="http://news.bbc.co.uk/2/hi/asia-pacific/8142282.stm">http://news.bbc.co.uk/2/hi/asia-pacific/8142282.stm</a></li> <li>Operation Payback cripples MasterCard site in revenge for WikiLeaks ban,Dec.8,2010, [online]<a href="http://www.guardian.co.uk/media/2010/dec/08/operation-payback-mastercard-website-wikileaks">http://www.guardian.co.uk/media/2010/dec/08/operation-payback-mastercard-website-wikileaks</a></li> <li>T. Kitten, DDoS: Lessons from Phase 2 Attacks, Jan. 14, 2013, [online]<a href="http://www.bankinfosecurity.com/ddos-attacks-lessons-from-phase-2-a-5420/op-1">http://www.bankinfosecurity.com/ddos-attacks-lessons-from-phase-2-a-5420/op-1</a></li> <li>Worldwide Infrastructure Security Report: Volume VI, 2011 Report, Arbor Networks, Feb. 1st, 2011, [online] <a href="http://www.arbornetworks.com/report">http://www.arbornetworks.com/report</a></li> <li>Prolexic Technologies, [online] <a href="http://www.prolexic.com/index.phpknowledge-center/frequently-ask-ed-questions/index.html">http://www.prolexic.com/index.phpknowledge-center/frequently-ask-ed-questions/index.html</a></li> <li>J. Mirkovic and P. Reiher, A taxonomy of DDoS attack and DDoS defense mechanisms, ACM SIGCOMM Computer Communications Review, vol. 34, no. 2, pp. 39-53, April 2004.</li> <li>T.Peng, C.Leckie, and K.Ramamohanarao, Survey of network-based defense mechanisms countering the DoS and DDoS problems, ACM Comput. Surv. 39, 1, Article 3, April 2007.</li> <li>RioRey, Inc. 2009-2012, RioRey Taxonomy of DDoS Attacks, RioReyTaxonomyRev2.32012,2012. [online]<a href="http://www.riorey.com/xresources/2012/RioRey%20Taxonomy%20DDoS%20Attacks%202012.eps">http://www.riorey.com/xresources/2012/RioRey Taxonomy DDoS Attacks 2012.eps</a></li> <li>"C. Douligeris, and A. Mitrokotsa, DDoS attacks and defense mechanisms: classification and state-of-the-art, Computer Networks, Vol. 44, No. 5, pp. 643-666, April 2004."</li> <li>"S. Ranjan, R. Swaminathan, M. Uysal, A. Nucci, and E. Knightly, DDoS-Shield: DDoS-Resilient Scheduling to Counter Application Layer attacks, IEEE/ACM Trans. Netw., Vol. 17, No. 1, pp. 2639, February 2009."</li> <li>Arbor Application Brief: The Growing Threat of Application-LayerDDoS Attacks, Arbor Networks, Feb. 28, 2011, [online]<a href="http://www.arbornetworks.com/component/docman/doc_download/467-the-growing-threat-of-application-layer-ddos-attacks?Itemid=442">http://www.arbornetworks.com/component/docman/doc_download/467-the-growing-threat-of-application-layer-ddos-attacks?Itemid=442</a>.</li> <li>BreakingPoint Labs, Application-Layer DDoS Attacks Are Growing: Three to Watch Out For, Oct. 4, 2011, [online]<a href="http://www.breakingpointsystems.com/resources/blog/application-layer-ddos-attacks-growing/">http://www.breakingpointsystems.com/resources/blog/application-layer-ddos-attacks-growing/</a></li> <li>S. Shekhan, Are you ready for slow reading?, Jan. 5, 2012, [online]<a href="https://community.qualys.com/blogs/securitylabs/2012/01/05/slow-ad">https://community.qualys.com/blogs/securitylabs/2012/01/05/slow-ad</a></li> <li>J. Lo et al., An IRC Tutorial, April, 2003, irchelp.com 1997, [online]<a href="http://www.irchelp.org/irchelp/irctutorial.html#part1">http://www.irchelp.org/irchelp/irctutorial.html#part1</a></li> <li>"B. Hancock, Trinity v3, a DDoS tool, hits the streets, Computers &amp; Security, Vol. 19, no. 7, pp. 574-574, Nov., 2000."</li> <li>Bysin, knight.c sourcecode, 2001, [online]<a href="http://packetstormsecurity.org/distributed/knight.c">http://packetstormsecurity.org/distributed/knight.c</a>.</li> <li>Team-cymru Inc., A Taste of HTTP Botnets, July, 2008, [online]<a href="http://www.teamcymru.com/ReadingRoom/Whitepapers/2008/httpbotnets.Eps">http://www.teamcymru.com/ReadingRoom/Whitepapers/2008/httpbotnets.Eps</a></li> <li>J. Nazario, BlackEnergy DDoS Bot Analysis, Arbor Networks, 2007, [online]<a href="http://atlaspublic.ec2.arbor.net/docs/BlackEnergy+DDoS+Bot+Analysis.eps">http://atlaspublic.ec2.arbor.net/docs/BlackEnergy+DDoS+Bot+Analysis.eps</a></li> <li>C. Wilson , DDoS and Security Reports: The Arbor Networks Security Blog, Arbor Networks, 2011, [online]<a href="http://ddos.arbornetworks.com/2012/02/ddos-tools/">http://ddos.arbornetworks.com/2012/02/ddos-tools/</a>.</li> <li>"A Survey of Defense Mechanisms Against Distributed Denial of Service (DDoS) Flooding AttacksSaman Taghavi Zargar, Member, IEEE, James Joshi, Member, IEEE, and David Tipper, Senior Member, IEEE" [online] <a href="http://infosecislnd.com/blogview/12395-DDoS-Attack-Utilizes-Self-Destructing-Botnet.html">http://infosecislnd.com/blogview/12395-DDoS-Attack-Utilizes-Self-Destructing-Botnet.html</a></li> <li>"L. C. Chen, T. A. Longstaff, and K. M. Carley, Characterization of defense mechanisms against distributed denial of service attacks, Computers &amp; Security, vol. 23, no. 8, pp. 665-678, December 2004"</li> <li>"U. Tariq, M. Hong, and K. Lhee, A Comprehensive Categorization ofDDoS Attack and DDoS Defense Techniques, ADMA LNAI 4093, pp. 1025-1036, 2006"</li> </ol>	321-324
67.	<p><b>Authors:</b> <b>Sabbar Insaif Jasim</b></p> <p><b>Paper Title:</b> <b>Jamming Attacks Impact on the Performance of Mobile Ad-Hoc Network and Improvement Using MANET Routing Protocols</b></p> <p><b>Abstract:</b> Security in MANET has been a challenging task ever since the wireless networks came into existence. A number of works have been developed to accomplish this task. Jamming attacks can severely interfere with the</p>	325-330

	<p>normal operation of wireless networks and, consequently, mechanisms are needed that can cope with jamming attacks. This paper introduced the effect of jammer in Mobile Ad Hoc Network and presented how routing protocols can improve the performance of network in terms of some parameters. MANET Routing protocols taken in this study are OLSR ( Proactive routing protocol), DSR (Reactive routing protocol), TORA and GRP (Hybrid Routing Protocol). This study was done using OPNET Modeler (v14.5) in terms of number of scenarios' parameters for HTTP application such as (Delay, Throughput, Data dropped, traffic received and sent). The results showed that Jammers would reduce the performance by increasing delay and data dropped and decreasing throughput. MANET routing protocols could improve system performance by increasing throughput and data dropped at the expense of increasing delay.</p> <p><b>Keywords:</b> MANET, OPNET, Routing Protocols, Jammers, attacks.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Harminder S. Bindra1, Sunil K. Maakar and A. L. Sangal, "Performance Evaluation of Two Reactive Routing Protocols of MANET using Group Mobility Model", IJCSI International Journal of Computer Science Issues, Vol. 7, Issue 3, No 10, May 2010, pp38-44.</li> <li>Wenyuan Xu, Wade Trappe, Yanyong Zhang and Timothy Wood, "The Feasibility of Launching and Detecting Jamming Attacks in Wireless Networks", MobiHoc'05, UrbanaChampaign, Illinois, USA., ACM 1595930043/ 05/0005 , May 25–27, 2005.</li> <li>Tajinderjit Kaur, Sangeeta Sharma, "Mitigating the Impact of Jamming Attack by Using Antenna Patterns in MANET", VSRD International Journal of CS &amp; IT Vol. 2 (6), 2012, pp. 437-445.</li> <li>Abhay Kumar Rai, Rajiv Ranjan Tewari, Saurabh Kant Upadhyay, "Different Types of Attacks on Integrated MANET-Internet Communication", International Journal of Computer Science and Security (IJCSS) Volume (4): Issue (3), 2010, pp.265-274.</li> <li>Chanchal Aghil, Chander Diwaker, "Black hole attack in AODV routing protocol: A Review", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 3, Issue 4, April 2013, pp.820-823.</li> <li>Kannhavong, B. , Nakayama H., Nemoto Y., Kato N, Jamalipour A., "A survey of routing attacks in mobile ad hoc networks", IEEE Wireless Communications, Volume: 14, Issue: 5, 2007, pp.85-91.</li> <li>Ali Hamieh, Jalel Ben-Othman, "Detection of Jamming Attacks in Wireless Ad Hoc Networks using Error Distribution", IEEE International Conference on Communications, 2009, pp.1-9.</li> <li>Gagandeep, Aashima, Pawan Kumar, "Analysis of Different Security Attacks in MANETs on Protocol Stack A-Review", International Journal of Engineering and Advanced Technology (IJEAT), Volume-1, Issue-5, June 2012, pp.269-275.</li> <li>Kwangsung Ju and Kwangsue Chung, "Jamming Attack Detection and Rate Adaptation Scheme for IEEE 802.11 Multi-hop Tactical Networks", International Journal of Security and Its Applications Vol. 6, No. 2, April, 2012, pp.149-154.</li> <li>Rajeshwar Singh, Dharmendra K Singh, Lalan Kumar, "Performance Evaluation of DSR and DSDV Routing Protocols for Wireless Ad Hoc Networks", International Journal of Advanced Networking and Applications Vol. 02, Issue: 04, 2011, pp. 732-737.</li> <li>Anuj K., Dr. Harsh S., Dr. Anil K., "Performance analysis of AODV, DSR &amp; TORA Routing Protocols", IACSIT International Journal of Engineering and Technology, Vol.2, No.2, April 2010, pp. 226-231.</li> <li>Kirti Aniruddha Adoni and Radhika D. Joshi, "Optimization of Energy Consumption for OLSR Routing Protocol in MANET", International Journal of Wireless &amp; Mobile Networks (IJWMN) Vol. 4, No. 1, February 2012, pp. 251-262.</li> <li>Chang Wook Ahn, "Gathering-based routing protocol in mobile ad hoc networks", Computer Communications 30 (2006) 202–206.</li> <li>OPNET official website www.opnet.com</li> </ol>	
--	---	--

<b>Authors:</b>	<b>Sneha .P. Meshram, Rushi Longadge, Latesh Malik</b>
<b>Paper Title:</b>	<b>An Analysis on Biometric Template Protection Schemes</b>

68.	<p><b>Abstract:</b> A biometric authentication system operates by acquiring raw biometric data from a subject e.g., fingerprint and iris images. This paper summarizes the various aspects of biometric system security. It broadly categorizes the various factors that cause biometric system failure and identify the effects of such failures. In this system, biometric templates are stored in central database. Preserving the privacy of this digital biometric template has become very important. The main focus of this paper is on Biometric template security. It also provides a high-level classification of the attacks on biometric templates and a detail overview of different template protection approaches that have been proposed in the literature.</p> <p><b>Keywords:</b> Authentication, Biometric templates, Steganography, Watermarking.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>Arun Ross and Asem Othman, "Visual Cryptography for Biometric Privacy", IEEE Transaction on Information Forensic and Security, vol. 6, no. 1, March 2011.</li> <li>A. K. Jain, A. Ross, and S. Pankanti, "Biometrics: a tool for information security," IEEE Transactions on Information Forensics and Security, vol. 1, no. 2, pp. 125–143, 2006.</li> <li>D. Maltoni, D. Maio, A. K. Jain, and S. Prabhakar, Handbook of Fingerprint Recognition. Springer-Verlag, 2003.</li> <li>U. Uludag and A. K. Jain, "Attacks on biometric systems: a case study in fingerprints," in Proc. SPIE, Security, Seganography and Watermarking of Multimedia.</li> <li>N. Ratha, J. H. Connell, and R. M. Bolle, "An analysis of minutiae matching strength," in Proc. Audio and Video-based Biometric Person Authentication (AVBPA), pp. 223–228, (Halmstad, Sweden), June 2001.</li> <li>A. Adler, "Can images be regenerated from biometric templates?," in Biometrics Consortium Conference, (Arlington, VA), September 2003.</li> <li>C. J. Hill, "Risk of masquerade arising from the storage of biometrics," B.S. Thesis, Australian National University, November 2001, <a href="http://chris.fornax.net/biometrics.html">http://chris.fornax.net/biometrics.html</a>.</li> <li>Ross, J. Shah, and A. K. Jain, "Towards reconstructing fingerprints from minutiae points," in Proc. SPIE, Biometric Technology for Human Identification II, vol. 5779, pp. 68–80, (Orlando, FL), March 2005.</li> <li>R. Cappelli, R. Erol, D. Maio, and D. Maltoni, "Synthetic fingerprint-image generation," in Proc. Int'l. Conf. Pattern Recognition (ICPR), vol. 3, pp. 475–478, (Barcelona, Spain), September 2000.</li> <li>Soutar, "Biometric system security," White Paper, Bioscrypt, <a href="http://www.bioscrypt.com">http://www.bioscrypt.com</a>.</li> <li>A. Adler, "Images can be regenerated from quantized biometric match score data," in Proc. Canadian Conf. Electrical Computer Eng., pp. 469–472, (Niagara Falls, Canada), May 2004.</li> <li>M. Yeung and S. Pankanti, "Verification watermarks on fingerprint recognition and retrieval," in Proc. SPIE, Security and Watermarking of Multimedia Contents, vol. 3657, pp. 66–78, (San Jose, USA), January 1999.</li> <li>A. K. Jain and U. Uludag, "Hiding biometric data," IEEE Trans. Pattern Anal. Mach. Intelligence, vol. 25, no. 11, pp. 1493–1498, 2003.</li> <li>L. C. Ferri, A. Mayerhofer, M. Frank, C. Vielhauer, and R. Steinmetz, "Biometric authentication for ID cards with hologram watermarks," in Proc. SPIE, Security and Watermarking of Multimedia Contents IV, vol. 4675, pp. 629–640, (Bellingham, WA), January 2002.</li> </ol>	331-335
-----	--	---------

	<p>15. N. Ratha, J. Connell, and R. bolle, "Enhancing security and privacy in biometrics-based authentication systems," IBM Systems Journal, vol. 40, no. 3, pp. 614–634, 2001.</p> <p>16. U. Uludag, S. Pankanti, S. Prabhakar, and A. K. Jain, "Biometric cryptosystems: issues and challenges," Proceedings of the IEEE, vol. 92, no. 6, pp. 948–960, 2004.</p> <p>17. U. Uludag, S. Pankanti, and A. K. Jain, "Fuzzy vault for fingerprints," To appear in Proc. Audio- and Videobased Biometric Person Authentication (AVBPA), (Rye Brook, NY), July 2005.</p> <p>18. J. Dong and T. Tan, "Effects of watermarking on iris recognition performance," in Proc. 10th Int. Conf. Control, Automation, Robotics and Vision, 2008 (ICARCV 2008), 2008, pp. 1156–1161.</p> <p>19. N. Agrawal and M. Savvides, "Biometric data hiding: A 3 factor authentication approach to verify identity with a single image using steganography, encryption and matching," in Proc. Computer Vision and Pattern Recognition Workshop, 2009, vol. 0, pp. 85–92.</p> <p>20. A. Jain, K. Nandakumar, and A. Nagar, "Biometric template security," EURASIP J. Advances Signal Process., pp. 1–17, 2008.</p> <p>21. Naor .M and Shamir .A, "Visual cryptography," in Proc. EUROCRYPT, 1994, pp. 1–12. [22] Maltoni.D, Maio.D, Jain .A, and Prabhakar .S, Handbook of Fingerprint Recognition. Secaucus, NJ: Springer-Verlag New York, Inc.,2003.</p>	
69.	<p><b>Authors:</b> Ruchire Eranga Henry Wijesinghe, Nam Hyun Cho, Kibeom Park, Yongseung Shin, Jeehyun Kim</p> <p><b>Paper Title:</b> Wavelength-Filter Based Spectral Calibrated Wave number - Linearization in 1.3 mm Spectral Domain Optical Coherence</p> <p><b>Abstract:</b> In this study, we demonstrate the enhanced spectral calibration method for 1.3 μm spectral-domain optical coherence tomography (SD-OCT). The calibration method using wavelength-filter simplifies the SD-OCT system, and also the axial resolution and the entire speed of the OCT system can be dramatically improved as well. An externally connected wavelength-filter is utilized to obtain the information of the wavenumber and the pixel position. During the calibration process the wavelength-filter is placed after a broadband source by connecting through an optical circulator. The filtered spectrum with a narrow line width of 0.5 nm is detected by using a line-scan camera. The method does not require a filter or a software recalibration algorithm for imaging as it simply resamples the OCT signal from the detector array without employing rescaling or interpolation methods. One of the main drawbacks of SD-OCT is the broadened point spread functions (PSFs) with increasing imaging depth can be compensated by increasing the wavenumber-linearization order. The sensitivity of our system was measured at 99.8 dB at an imaging depth of 2.1 mm compared with the uncompensated case.</p> <p><b>Keywords:</b> SD-OCT,Wavelength-filter,wavenumber-linearization.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. D. Huang, E.A. Swanson, C.. Lin, J.S. Schuman, W.G. Stinson, W. Chang, M.R. Hee, T. Flotte, K. Gregory, C.A. Puliafito, and J.G. Fujimoto, "Optical coherence tomography," Science, vol. 254, no. 5035, pp.1178-1181, 1991.</li> <li>2. A. F. Fercher, "Optical coherence tomography," J. Biomed. Opt. 1, pp.157-173, 1996.</li> <li>3. A. F. Fercher, W. Drexler, C. K. Hitzenberger, and T. Lasser, " Optical coherence tomography-principles and applications," Rep. prog. Phys, pp.66, 239-303, 2003.</li> <li>4. Z.Yaqoob, J. Wu, and C. Yang, "spectral domain optical coherence tomography a better OCT imaging strategy," Bio techniques 39:S6-S13, doi 10.2144/000112090, December 2005.</li> <li>5. B. Cense, N.A. Nassif, T. C. Chen, M. C. Pierce, S.-H. Yun,B. H. Park, B. E. Bouma, G. J. Tearney, and J.F. de Boer, "Ultrahigh-resolution high-speed retinal imaging using spectral-domain Optical coherence tomography,"Opt. Express 12, pp.2435-2447,2004.</li> <li>6. Jeehyun.K, T.E. Milner, "Real-time retinal imaging with a parallel optical coherence tomography using a cmos smart array detector,"Journal of the Korean physical society, Vol.51, No.5, pp.1787-1791, November 2007.</li> <li>7. NH Cho, U. Jung, S. Kim, W. Jung, J. Oh, HW Kang, J. Kim, "High Speed SD-OCT System Using GPU Accelerated Mode for in vivo Human Eye Imaging" Journal of the Optical Society of Korea, vol. 17, no. 1, pp. 68-72, 2013</li> <li>8. M. Mujat, B. H. Park, B. Cense, T. C. Chen, and J. F. de Boer, "Auto calibration of spectral-domain optical coherence tomography spectrometers for in vivo quantitative retinal nerve fiber layer birefringence determination," J. Biomed. Opt. 12,041205, 2007.</li> <li>9. Z. Wang, Z. Yuan, H. Wang, and Y. Pan, "Increasing the imaging depth of spectral-domain OCT by using interpixel shift technique," Opt. Express 14, pp.7014–7023, 2006.</li> <li>10. T. Bajraszewski, M. Wojtkowski, M. Szkulmowski, A. Szkulmowska, R. Huber, and A. Kowalczyk, "Improved spectral optical coherence tomography using optical frequency comb," Opt. Express 16, pp.4163–4176, 2008.</li> <li>11. V. M. Gelikonov, G. V. Gelikonov, and P. A. Shilyagin, "Linear-wavenumber spectrometer for high-speed spectral-domain optical coherence tomography," Opt. Spectrosc. 106, pp.459–465, 2009.</li> <li>12. Z.Hu and A.M. Rollins,"Fourier domain optical coherence tomography with a linear-in-wavenumber spectrometer, "Opt. Lett.32, pp.3525-3527, 2007</li> </ol>	336-340
70.	<p><b>Authors:</b> Poonam M. Bhagat, Prasad S. Halgaonkar, Vijay M. Wadhai</p> <p><b>Paper Title:</b> Review of Clustering Algorithm for Categorical Data</p> <p><b>Abstract:</b> Clustering is a partition of data into a group of similar or dissimilar data points and each group is a set of data points called clusters. Clustering is an unsupervised learning with no predefined class label for the data points. Clustering is considered an important tool for data mining. Clustering has many applications such as pattern recognition, image processing, market analysis, World Wide Web and many others. Categorical data are groups of categories and each value represents some category. The problem of clustering categorical data is solved by the use of the cluster ensemble approach, but this technique generates a final data partition with imperfect information. The ensemble-information matrix that is the binary cluster association matrix content presents only cluster-data point relations with many entries being left unknown and which decrease the quality of the whole data partition. To avoid the degradation of the final data partition, a new approach of link-based is presented which includes the refined cluster association matrix. It maintains cluster to cluster relation and helps to improve quality of the final data partition result by determining the unknown entries through measuring similarity between clusters in an ensemble. The cluster ensemble combines multiple data partitions from different clustering algorithms into a single clustering solution to improve the robustness, accuracy and quality of the clustering result.</p> <p><b>Keywords:</b> Clustering, categorical, link-based, ensemble</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Z. He, X. Xu, and S. Deng, "A Cluster Ensemble Method for Clustering Categorical Data", Information Fusion, vol. 6, no. 2, pp. 143-151,</li> </ol>	341-345

2005

2. A. Strehl and J. Ghosh, "Cluster Ensembles: A Knowledge Reuse Framework for Combining Multiple Partitions", J. Machine Learning Research, vol. 3, pp. 583- 617, 2002
3. N. Nguyen and R. Caruana, "Consensus Clusterings," Proc. IEEE Int'l Conf. Data Mining (ICDM), pp. 607-612, 2007.
4. S. Monti, P. Tamayo, J.P. Mesirov, and T.R. Golub, "Consensus Clustering: A Resampling-Based Method for Class Discovery and Visualization of Gene Expression Microarray Data", Machine Learning, vol. 52, nos. 1/2, pp. 91-118, 2003
5. Natthakan Iam-On, Tossapon Boongoen, Simon Garrett, and Chris Price "A Link-Based Cluster Ensemble Approach for Categorical Data Clustering", IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 24, NO. 3, MARCH 2012
6. M. Al-Razgan, C. Domeniconi, and D. Barbara, "Random Subspace Ensembles for Clustering Categorical Data," Supervised and Unsupervised Ensemble Methods and Their Applications, pp. 31-48, Springer, 2008.
7. P. Reuther and B. Walter, "Survey on Test Collections and Techniques for Personal Name Matching", Intl J. Metadata, Semantics and Ontologies, vol. 1, no. 2, pp. 89-99, 2006
8. L.A. Adamic and E. Adar, "Friends and Neighbors on the Web", Social Networks, vol. 25, no. 3, pp. 211-230, 2003 90
9. Eugenio Cesario, Giuseppe Manco, and Riccardo Ortale, "Top-Down Parameter-Free Clustering of High-Dimensional Categorical Data", IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, VOL. 19, NO. 12, DECEMBER 2007
10. S. Guha, R. Rastogi, and K. Shim," ROCK: A Robust Clustering Algorithm for Categorical Attributes", 15th International Conference on Data Engineering, pp. 512-521, 2000

**Authors:** K.Velayutham, U.Arumugham, B.Kumaragurubaran, P.Gopal

**Paper Title:** Evaluation of the Anti- Corrosive Coating on Railway Bogie Components

**Abstract:** The objective of this project is to study the corrosion that occurs in Railway coach's bogie components, causes of corrosion, steps taken to prevent corrosion, suggestions to minimize this problem. This paper contains new suggestions to minimize the problems: more emphasis has been laid on Polytetrafluoroethylene (Teflon) coating to be suggested instead of black enamel or epoxy coating for bogie frame and bogie components of equalising rod and brake beam. The under mentioned components are the most affected parts due to corrosion near the bottom of lavatory. Another reason for bogie frame corrosion is easy peeling off coating surfaces due to scratch or dent marks produced by striking of ballast when trains are running. The corrosion prevention behavior of commercially available epoxy coated surfaces and Teflon coated surfaces on structural steel were evaluated using various methods such as 3.5 wt. % NaCl solution salt spray test, 25% (v/v) sulphuric acid immersion test and loss of weight. Two different systems of coatings were selected for evaluation. The test panels same as of bogie component material composition were prepared and subjected to specific test as per experimental procedure. Optical microscope image were recorded on completion of corrosion test. We observed that after 504 hrs. exposure in atmospheric, Teflon coatings are still good in resisting abrasion and can withstand against corrosion more effective than other coatings.

**Keywords:** Bogie components, Corrosion, Epoxy coating, Teflon coating.

**References:**

1. Sunil Kumar B. "Methods for making alloy 600 resistant to sensitization and intergranular corrosion "- [http:// dx.doi.org/ 10.1016/j.corsci .2012.12.021](http://dx.doi.org/10.1016/j.corsci.2012.12.021).
2. S.G. Acharyyaa, "Surface working of 304L stainless steel: Impact on microstructure, electrochemical behavior and SCC resistance " - doi:10.1016/j.matchar.2012.07.008.
3. S. Roychowdhury "Understanding the effect of nitrogen in austenitic stainless steel on the intergranular stress corrosion crack growth rate in high temperature pure water" - doi:10.1016/j.actamat.2011.09.053
4. Peter Maa B "Corrosion and Corrosion Protection" - ISBN: 978-3-527-32324-1
5. K. Chandra "Failure of 2.25Cr-1Mo steel superheater tubes in a fluidized bed combustor due to fireside corrosion" doi:10.1016/j.matchar.2010.10.012\
6. Swati Ghosh "Role of residual stresses induced by industrial fabrication on stress corrosion cracking susceptibility of austenitic stainless steel" doi:10.1016/j.matdes.2011.03.012
7. Swati Ghosh "Microstructural changes in AISI 304L stainless steel due to surface machining: Effect on its susceptibility to chloride stress corrosion cracking:" doi: 10.1016/ j.jnucmat.2010.05.028
8. Geogy J. "Effect of hydrazine and formaldehyde on the corrosion of SS 304L in hot nitric acid environment doi:10.1016/ j.jnucmat.2009.12.006
9. Aditya Jaya, "Corrosion treatments and the fatigue of aerospace structural joints" doi:10.1016/j.proeng.2010.03.164
10. YanWang, "Effect of substrate material on the corrosion of TiN-coated stainless steels in simulated anode and cathode environments of proton exchange membrane fuel cells "doi:10.1016/j.jpowsour.2009.02.029.
11. Damián A. "Multilayer silica-methacrylate hybrid coatings prepared by sol-gel on stainless steel 316L: Electrochemical evaluation" doi:10.1016/j.surfcoat.2007.09.007.
12. F. Presuel " Corrosion-resistant metallic coatings "ISSN:1369 7021 © Elsevier Ltd 2008
13. Yueyu Ma, "Optimization of the electrolytic plasma oxidation processes for corrosion protection of magnesium alloy AM50 using the Taguchi method "doi: 10.1016/ j.jmatprotec. 2006.07.007
14. Josefina Ballarre "Protective hybrid sol-gel coatings containing bioactive particles on surgical grade stainless steel: Surface characterization" doi: 10.1016/j.apsusc. 2007. 03. 007.
15. Damian Kowalski "The effect of counter anions on corrosion resistance of steel covered by bi-layered polypyrrole film"
16. Damian Kowalski "The effect of ultrasonic irradiation during electro polymerization of polypyrrole on corrosion prevention of the coated steel "doi:10.1016/j.corsci.2007.05.027.
17. Damian Kowalski "Corrosion protection of steel by bi-layered polypyrrole doped with molybdophosphate and naphthalenedisulfonate anions " doi:10.1016/j.corsci.2006.08.018
18. Jianhui Xie., "The role of heat treatment on the erosion-corrosion behavior of AISI 52100 steel "doi:10.1016/j.msea.2004.09.045.
19. Pedro Montes "Influence of calcium nitrite inhibitor and crack width on corrosion of steel in high performance concrete subjected to a simulated marine environment" doi: 10. 1016/ S0958-9465 (03)00043-X
20. N.Q. Wua "Failure detection of thermal barrier coatings using impedance spectroscopy "doi: 10.1016/j.tsf.2003.10.009.

**Authors:** Chrispus Sifuma Ndinyo, Zachary Abiero Gariy, Stephen M.Mulei

**Paper Title:** Suitability of Reclaimed Asphalt Concrete as a Cold Mix Surfacing Material for Low Volume Roads

**Abstract:** Increase in the number of high volume roads constructed to bitumen standards in the past five years in Kenya has led to a strain in the supply of scarce natural resource aggregates. Some of the existing roads have

71.

346-353

72.

354-360

undergone reconstruction which involved removal of top asphalt concrete surfacing layer to accommodate new layers underneath. The disposal of the old asphalt concrete surfacing layer in the open spaces has led to environmental degradation. Lack of sufficient funds has led to low volume roads being left in a deplorable state. The main objective of the study was to evaluate the suitability of a mix of reclaimed asphalt concrete, virgin aggregates and a cationic emulsion as a surfacing material for the construction of low volume roads. The research involved laboratory investigations and a design process. Reclaimed asphalt concrete, virgin aggregates and a cationic emulsion were evaluated to determine their engineering properties. A combined aggregate gradation for reclaimed asphalt concrete aggregates and virgin aggregates was determined which was used in the determination of the percent emulsion demand for the combined aggregates based on the suggested empirical formula and there after designing an optimal mix according to the modified Marshall mix design method. The optimal gradation envelope from the combined aggregates coupled with emulsion demand that provided a specimen with the desired workability and posing no evidence of surface flushing or bleeding was taken as an ideal mix. The ideal mix provided an optimal stability value of 6900N and a residual binder of 5.2%. The study indicates that the stability values obtained for the designed cold mix were greater than the minimum specified of 3336N for medium traffic surfacing (Asphalt Institute Design Manual, 1994). Cost of producing a unit of reclaimed asphalt concrete cold mix was Kenya shillings 8,445 cheaper than the production costs of conventional asphalt concrete cold mixes in Kenya. The study concludes that reclaimed asphalt concrete cold mix is a suitable surfacing material for the construction of low volume roads. It's therefore recommended as an economical and environmentally friendly surfacing material.

**Keywords:** cost, conventional, environmental, modified, optimal.

**References:**

1. Anastasias Mouratidis, Grigorios Papageorgiou. (2010) A rational approach for optimization of road upgrading. Canadian journal of civil Engineering, 37 (11):1462-1470, 10.1139/L10. 7)
2. Anderson DA, Kennedy RW. (1999) Development of SHRP binder Specification. The journal of the Association of Asphalt Paving Technologists 61:481-507
3. Aravind Krishna. (2009) optimal proportioning for hot recycled mix design under super pave mix design consideration .Canadian journal of civil engineering, 36(9):1470-1477, 10.1139/L096.
4. Aravind K, Das A. 2009) A preliminary constituent proportioning for central plant hot mix asphalt. Journal of materials in Civil Engineering 19(9):740-745 cross Ref.ISI7)
5. Austroads (2000): Framework Specifications for asphalt recycling.Austrroads Technical report AP-T07/00, Sydney, Australia.
6. Central Public Works Department. (2002) Delhi schedule of rates. Central Public Works Department (CPWD) Nirman Bhavan, New Delhi, India
7. Felpeng Xiao, V.S.Punith, Serji N. Amirkhani, Bradley J. Putman. (2013) Rheological and chemical characteristics of warm mix asphalt binders at intermediate and low temperature performances .Canadian journal of Civil Engineering 10.1139/cjce-2012-0363. 9)
8. Flynn, L. (1992) Three states OK more RAP in recycling specs: asphalt recycling and reclaiming. Roads and Bridges (October issue).Scranton Gillette Communications, Inc Arlington Heights, III10)
9. Huang, B, Kingery, W.R.III, and Zhang, Z. (2004) Laboratory study of fatigue characteristics of HMA mixtures containing RAP. International Symposium on Design and Construction of long lasting Asphalt Pavements, Auburn, Ala.pp.501-522. 11)
10. Kandhal, P.S., Rao, S.S., Watson, D.E, and Young, B. (1995) Performance of recycled hot mix asphalt mixtures. CAT report NO.95-1, National Center for Asphalt Technology, Auburn University, Auburn, Ala.
11. Karlsson R, Issacson V. (2005) Material-related aspects of asphalt recycling-state-of -the-art. Journal of materials in civil Engineering 18(1):81-92 crossRef.ISI
12. Kennedy T.W.Tam WO, Solaimanian M. (1999) Optimizing use of reclaimed asphalt pavement with the super paves system. Journal of the Association of Asphalt Paving Technologists 67:311-325a
13. McDaniel R.Soleymani, H.Anderson, R.M.Turner, P. and Peterson. (2000) Recommended use of reclaimed asphalt Pavement in the super pave mix design method NOHRP Web Document 30.TRB,National Research Council,Washington,D.C.
14. South Africa Bitumen Association manual 10 (1992). Appropriate standards for bituminous surfacing for low volume roads. South African Bitumen and Tar Association, Cape Town.

**Authors:** Kotikalapudi Raviteja, Arun K Gupta, Maya D Bhat, Chandrajit Prasad

**Paper Title:** Knowledge Based Brain Tumor Segmentation Graphical User Interface

**Abstract:** This paper describes a knowledge based brain tumor segmentation system (KBBTS) using histogram interpretations for predicting brain tumor area from trans-axial Magnetic Resonance Imaging (MRI). A graphical user interface (GUI) was developed for the segmentation of brain tumor images. This system showed significant improvements over traditional threshold-based tumor segmentation methods. Although KBBTS is not designed to work in real time, it serves as potential research advancement for real time brain tumor segmentation using computer-aided systems with high performance.

**Keywords:** Glioma, graphical user interface (GUI), histogram, knowledge based brain tumor segmentation (KBBTS), trans-axial magnetic resonance imaging (MRI)

**References:**

1. Anthony K Akobeng. Understanding diagnostic tests 1: sensitivity, specificity and predictive values. Acta paediatrica, 96(3):338-341, 2007.
2. Mohd Ali Balafar, Abdul Rahman Ramli, M Iqbal Saripan, and Syamsiah Mashohor. Review of brain mri image segmentation methods. Artificial Intelligence Review, 33(3):261-274, 2010.
3. Samir Kumar Bandhyopadhyay and Tuhin Utsab Paul. Segmentation of brain mri image-a review. International Journal, 2(3), 2012.
4. Matthew C Clark, Lawrence O Hall, Dmitry B Goldgof, Robert Velthuizen, F Reed Murtagh, and Martin S. Silbiger. Automatic tumor segmentation using knowledge-based techniques. Medical Imaging, IEEE Transactions on, 17(2):187-201, 1998.
5. Michael R. Kaus, Simon K. War\_eld, Arya Nabavi, Peter M. Black, Ferenc A. Jolesz, and Ron Kikinis. Automated segmentation of mr images of brain tumors. Radiology, 218(2):586-591, 2001. PMID: 11161183.
6. Manoj K Kowar and Sourabh Yadav. Brain tumor detection and segmentation using histogram thresholding. IJEAT ISSN, pages 2249-8958, 2012.
7. Rajul Parikh, Annie Mathai, Shefali Parikh, G Chandra Sekhar, and Ravi Thomas. Understanding and using sensitivity, specificity and predictive values. Indian journal of ophthalmology, 56(1):45, 2008.
8. Wilburn E Reddick, John O Glass, Edwin N Cook, T David Elkin, and Russell J Deaton. Automated segmentation and classification of

multispectral magnetic resonance images of brain using artificial neural networks. Medical Imaging, IEEE Transactions on, 16(6):911-918, 1997.

9. Jainy Sachdeva, Vinod Kumar, Indra Gupta, Niranjana Khandelwal, and Chirag Kamal Ahuja. A novel content-based active contour model for brain tumor segmentation. Magnetic resonance imaging, 30(5):694-715, 2012.
10. Tao Wang, Irene Cheng, and Anup Basu. Fluid vector flow and applications in brain tumor segmentation. Biomedical Engineering, IEEE Transactions on, 56(3):781-789, 2009.
11. Xianghua Xie and Majid Mirmehdi. Mac: Magnetostatic active contour model. Pattern Analysis and Machine Intelligence, IEEE Transactions on, 30(4):632-646, 2008.
12. Chenyang Xu and Jerry L Prince. Gradient vector Flow: A new external force for snakes. In Computer Vision and Pattern Recognition, 1997. Proceedings., 1997 IEEE Computer Society Conference on, pages 66-71. IEEE, 1997.
13. Jianguo Zhang, Kai-Kuang Ma, Meng-Hwa Er, Vincent Chong, et al. Tumor segmentation from magnetic resonance imaging by learning via one-class support vector machine. In International Workshop on Advanced Image Technology (IWAIT'04), pages 207-211, 2004.
14. J Zhou, KL Chan, VFH Chong, and SM Krishnan. Extraction of brain tumor from mr images using one-class support vector machine. In Engineering in Medicine and Biology Society, 2005. IEEE-EMBS 2005. 27th Annual International Conference of the, pages 6411-6414. IEEE, 2006.
15. Burger PC, Vogel FS. The brain: tumors In: Burger PC, Vogel FS, eds. Surgical pathology of the central nervous system and its coverings. New York, NY: Wiley, pages 223-266, 1982.
16. Pathology and genetics of tumours of the nervous system. In: World Health Organization Classification of Tumours of the Nervous System, Editorial and Consensus Conference Working Group. Kleihues, P, Cavenee, WK (Eds), IARC Press, Lyon, France 2000.
17. Ohgaki, Hiroko, and Paul Kleihues. Epidemiology and etiology of gliomas. Acta neuropathologica 109(1): 93-108, 2005.

**Authors:** Moumita Bhoumik

**Paper Title:** Electrical Characteristics of GaAs Nano- HEMT

**Abstract:** In today's world, there is a demand for high frequency devices & circuits. And Nano technology can enhance the speed of devices & circuits due to reduction of its carrier transit time. Previously research work has been done regarding electrical characteristics of high frequency devices made up of semiconductor materials such as – MESFETs & HEMTs which included current-voltage characteristics and also Noise Power Spectral Density Analysis using various substrate materials like SiC, GaAs etc. [1] with gate length Lg in μm range. Now emphasis is given on electrical characteristics analysis on GaAs Nano-HEMT by reducing the gate length Lg in nm range.

**Keywords:** Gallium Arsenide, Nano-HEMT, Noise PSD, 1/f Noise.

**References:**

1. Moumita Bhoumik, "Electrical Characteristics of MESFETs and HEMTs", Document Nr. V262118, ISBN - 978-3-656-53521-8, Grin Publishing, Germany, November, 2013, Available: <http://www.grin.com/e-book/262118/>
2. J. C. Bean, "Materials and Technologies," in High-Speed Semiconductor Devices, S. M. Sze, Editor, John Wiley & Sons, New York, 1990.
3. J. C. M. Hwang, A. Kastalsky, H. L. Stormer, and V. G. Kermidas, "Transport properties of Selectively Doped GaAs-(AlGa)As Heterostructures Grown by Molecular Beam Epitaxy," Applied Physics Letters, vol. 44, pp. 802-804, April 15, 1988.
4. T. Sugeta, A. Majerfeld, A. K. Saxera, P. N. Robson, and G. Hill, "High Field Transport Properties of Gal-xAlxAs," Proceedings of the IEEE/Cornell Conference on Microwave Devices, Cornell University, Ithaca, New York, pp. 45, 1977.
5. H. Morkoc, W. F. Kopp, T. J. Drummond, S. L. Su, R. E. Thorne, and R. Fisher, "Submicron gate GaAs/Al<sub>0.3</sub>Ga<sub>0.7</sub>As MESFETs with Extremely Sharp Interface (40 Angstroms)," IEEE Transactions on Electron Devices, vol. ED-29, no. 6, pp. 1013-1018, 1982.
6. R. Fisher, T. Masselink, Y. L. Sun, T. J. Drummond, Y. C. Chang, M. V. Klein, and H. Morkoc, "Improvement of the Inverted GaAs/AlGaAs Heterointerface," Journal of Vacuum Science and Technology, vol. B-2, pp. 170-174, April 1984.
7. K. H. G. Duh, W. F. Kopp, P. Ho, P-C. Chao, M-Y. Ko, P. M. Smith, J.M. Ballingall, J. J. Bautista, and G. G. Ortiz, "32-GHz Cryogenically Cooled HEMT Low-Noise Amplifiers," IEEE Transactions on Electron Devices, vol. 36, no. 8, pp. 1528-1535, August 1989.
8. H. Lee, Growth of Optimization GaAs/(Al,Ga)As Modulation-Doped Heterostructures by MBE for FET Applications, Ph.D. Thesis, Cornell University, Ithaca, New York, 1985.
9. M. Hueschen, N. Moll, E. Gowen, and J. Miller, "Pulse Doped MODFETs," IEEE IEDM Technical Digest, pp. 348-351, San Francisco, California, 1984.
10. R. T. Kemerley, H. B. Wallace, and M. N. Yoder, "Impact of wide bandgap microwave devices on DoD systems," Proceedings of the IEEE, vol. 90, pp. 1059-1064, June 2002.
11. L. M. Tolbert, B. Ozpineci, S. K. Islam, and M. S. Chinthavali, "Wide bandgap semiconductors for utility applications," in Proc. Power and Energy Systems. ACTA Press, USA, Feb. 2003.
12. R. J. Trew, "SiC and GaAs transistors - Is there one winner for microwave power applications?" Proceedings of the IEEE, vol. 90, pp. 1032-1047, June 2002.
13. M.C.J.C.M. Krämer, "Gallium Nitride-based Microwave High-Power Heterostructure Field-Effect Transistors design, Technology, and Characterization", Eindhoven: Technische Universiteit Eindhoven, 2006.
14. M.E. Levinshtein, "Investigation of Low Frequency Noise Properties of Wide Gap Semiconductors, SiC and GaAs, And the Main Properties of the SiC Based Power Devices, Diodes and Thyristors", European Research Office of the U.S. Army, London, England, November, 2000.
15. Siva Prasad Devireddy, "1/f Noise in Hafnium Based High-k Gate Dielectric Mosfets and A Review of Modeling", University of Texas, Arlington, August, 2007.
16. Martin von Haartman, "Low-Frequency Noise Characterization, Evaluation and Modeling of Advanced Si- and SiGe-Based CMOS Transistors", Stockholm, Sweden, 2006.
17. I. K. Han and J. I. Lee, J. Brini and A. Chovet, "Low Frequency Noise in HEMT Structure", Journal of the Korean Physical Society, Vol. 39, pp. S322\_S326, December 2001.
18. Guoli Qu, "Characterising Intermodulation in High Electron Mobility Transistors", Macquarie University, Australia, February 23, 1999.
19. Moumita Bhoumik, Damayanti Ghosh and Maitrayee Ray Kanjilal, "Noise Power Spectral Density Analysis on MESFET with Si, GaAs and SiC as substrate", First National Seminar on Recent Trends in Condensed Matter Physics Including Laser Application, Department of Physics, The University of Burdwan, 6th March, 2012.
20. I. K. Han and J. I. Lee, J. Brini and A. Chovet, "Low Frequency Noise in HEMT Structure", Journal of the Korean Physical Society, Vol. 39, pp. S322\_S326, December 2001.

**Authors:** Wail N Al-Rifaie, Azad Ahmed

**Paper Title:** Experimental Investigation on Thin Ferro cement Dome Structures

**Abstract:** The paper describes an experimental study for the effect of both skeletal reinforcement and thickness on the strength capacity and behaviour of thin ferrocement dome structures under uniformly distributed load. Four ferrocement domes of 4000 mm covered span were constructed and tested up to ultimate stage. It has been concluded that the construction technique developed in the present investigation reflects the most economic approach, which reduces the nominal cost of such complex structures during construction.

**74.** 367-372

**75.** 373-377

	<p><b>Keywords:</b> ferrocement, shell, dome, folded plate.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Das Gupta, N.C., Paramasivan, P., and Lee, S.L., "A Ferrocement Hyperbolic Paraboloid Shell", Journal of Ferrocement, Vol.10, No.4, October 1980, pp.273-282.</li> <li>2. Elongovan, S., and Santha Kumar, A.R., "Behaviour of Room Size Ferrocement Funicular Shell", Journal of Ferrocement, Vol.14, No.4, October 1984, pp.323-328.</li> <li>3. Kalita, U.C., Nambiar, M.K.C., Borthakur, B.C., and Baruah, P., "Ferrocement Roof for Low-Cost Housing", Indian Concrete Journal July 1986, pp.177-181.</li> <li>4. Singh, P.K., "Experimental Investigation into an Optimum Precast Ferrocement Roofing Shell Panel", Indian Concrete Journal, September 1989, pp.452-456.</li> <li>5. Habib, Alamgir, Seng, and Lai Joo, "Prefabrication Construction for Inverted Umbrella Shell Roofs", Journal of Ferrocement, Vol.23, No.4, Oct.1993, pp.309-317.</li> <li>6. Dajun, and Ding, "Application of Ferrocement in Bridge Engineering-China, "Concrete International, Design and Application, Vol.16, No.4, April 1994, pp.40-43.</li> <li>7. Al-Rifaie, W.N., and Alihmedawi, A.N., "Structural Behaviour of Ferrocement Shell Roofs". Journal of Ferrocement, Vol. 30, No. 1, Jan. 2000, pp. 85-103.</li> <li>8. Al-Rifaie, W.N., and Manasrah, A.A., "Ferrocement Segmented Shell Structures". Journal of Ferrocement, Vol. 31, No. 1, January 2001.</li> </ol>							
76.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Rosnani Affandi, Mohd Ruddin Ab Ghani, Chin Kim Gan, Jano, Zanariah</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>A Review of Concentrating Solar Power (CSP) In Malaysian Environment</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> Malaysia has an abundance of solar energy. While the magnitude for average daily solar irradiations in Malaysia is around 4.21–5.56 kWhm<sup>-2</sup>, the sunshine duration is more than 2,200 hours per year. However, the focus on solar energy in Malaysia is mainly on the Photovoltaic (PV) panel to generate electricity. There is still lack of thorough investigation in implementing the solar thermal, such as the Concentrating Solar Power (CSP) in Malaysian environment. This paper reviews the CSP technology and the potential of developing CSP plant in the Malaysian environment by taking into account the Direct Normal Irradiance (DNI) and a few geographical aspects.</p> <p><b>Keywords:</b> Concentrating Solar Power (CSP), Direct Normal Irradiance (DNI), Photovoltaic (PV).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ministry of Energy, Green Technology and Water, <a href="http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs">http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs</a> (Accessed 25 September 2012).</li> <li>2. U.S Department of Energy of Sciences, <a href="http://web.anl.gov/solar/primer/primer1.html">http://web.anl.gov/solar/primer/primer1.html</a> (Accessed 25 September 2012).</li> <li>3. <a href="http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf">http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf</a> (Accessed 26 September 2012).</li> <li>4. Muzathik, A. M., Wan Nik, W. B., Samo, K. B. &amp; Ibrahim, M. Z, Hourly Global Solar radiation Estimates on The Horizontal Plane, Journal of Physical Science, Vol.21(2),51-66,2010.</li> <li>5. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>6. Q. Liu, G. Yu, and J.J. Liu, Solar Radiation as Large-Scale Resource for Energy, Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>7. Nafisa Noor and Sadid Muneer, Concentrating Solar Power (CSP) and Its Prospect in Bangladesh, 2009.</li> <li>8. Pawel Szczygielski &amp; Leonard Wagner (Mac 2009), Research Report CSP : Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research</li> <li>9. <a href="http://www.brightsourceenergy.com/faq.htm">http://www.brightsourceenergy.com/faq.htm</a> (Accessed 27 September 2012).</li> <li>10. <a href="http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html">http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html</a> (Accessed 27 September 2012).</li> <li>11. Rosli A.Bakar, Development Assesment of Solar Concentrating Power System For Green Generation, 2010.</li> <li>12. N. and J. W. Kulichenko, Concentrating Solar Power in Developing Countries Regulatory and Financial Incentives for Scaling Up. Washington, DC: The World Bank, 2012, pp. 1–153.</li> <li>13. Laura Esmeralda, Garcia Moreno, Concentrated Solar Power (CSP) in DESERTEC-Analysis of Technologies to Secure and Affordable Energy Supply, IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: technology and Applications, 2011.</li> <li>14. REN21, "Renewables Global Status Report: 2009 Update", Renewable Energy Policy Network for the 21 st Century (REN21), 2009: Available at <a href="http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf">http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf</a> (access on the 02/02/2010).</li> <li>15. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>16. Van Voorthuysen, The promising Perspective of Concentrating Solar Power (CSP), 2005.</li> <li>17. S. Janjai, J.Laksanaboonsong, T.Seesaard, Potential application Of Concentrating Solar Power Systems For The Generation Of Electricity In Thailand, Applied Energy 88 (2011) 4960-4967.</li> <li>18. Franz Trieb, Christoph Schillings, marlene O'Sullivan, Thomas pregger, carsten Hoyer-Klick, Global Potential Of Concentrating Solar Power, SolarPaces Conference, Berlin, September 2009.</li> <li>19. Pawel Szczygielski &amp; Leonard Wagner, Research Report CSP:Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research, 2009.</li> <li>20. Q. Liu, G. Yu, and J.J. Liu, "Solar Radiation as Large-Scale Resource for Energy", Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>21. Volker Quaschnig, Technical and Economical System Comparison of Photovoltaic and Concentrating Solar thermal Power Systems Depending on Annual Global irradiation, Solar Energy 77 (2004) 171-178.</li> </ol> </td> </tr> </table>	<b>Authors:</b>	<b>Rosnani Affandi, Mohd Ruddin Ab Ghani, Chin Kim Gan, Jano, Zanariah</b>	<b>Paper Title:</b>	<b>A Review of Concentrating Solar Power (CSP) In Malaysian Environment</b>	<p><b>Abstract:</b> Malaysia has an abundance of solar energy. While the magnitude for average daily solar irradiations in Malaysia is around 4.21–5.56 kWhm<sup>-2</sup>, the sunshine duration is more than 2,200 hours per year. However, the focus on solar energy in Malaysia is mainly on the Photovoltaic (PV) panel to generate electricity. There is still lack of thorough investigation in implementing the solar thermal, such as the Concentrating Solar Power (CSP) in Malaysian environment. This paper reviews the CSP technology and the potential of developing CSP plant in the Malaysian environment by taking into account the Direct Normal Irradiance (DNI) and a few geographical aspects.</p> <p><b>Keywords:</b> Concentrating Solar Power (CSP), Direct Normal Irradiance (DNI), Photovoltaic (PV).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ministry of Energy, Green Technology and Water, <a href="http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs">http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs</a> (Accessed 25 September 2012).</li> <li>2. U.S Department of Energy of Sciences, <a href="http://web.anl.gov/solar/primer/primer1.html">http://web.anl.gov/solar/primer/primer1.html</a> (Accessed 25 September 2012).</li> <li>3. <a href="http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf">http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf</a> (Accessed 26 September 2012).</li> <li>4. Muzathik, A. M., Wan Nik, W. B., Samo, K. B. &amp; Ibrahim, M. Z, Hourly Global Solar radiation Estimates on The Horizontal Plane, Journal of Physical Science, Vol.21(2),51-66,2010.</li> <li>5. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>6. Q. Liu, G. Yu, and J.J. Liu, Solar Radiation as Large-Scale Resource for Energy, Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>7. Nafisa Noor and Sadid Muneer, Concentrating Solar Power (CSP) and Its Prospect in Bangladesh, 2009.</li> <li>8. Pawel Szczygielski &amp; Leonard Wagner (Mac 2009), Research Report CSP : Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research</li> <li>9. <a href="http://www.brightsourceenergy.com/faq.htm">http://www.brightsourceenergy.com/faq.htm</a> (Accessed 27 September 2012).</li> <li>10. <a href="http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html">http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html</a> (Accessed 27 September 2012).</li> <li>11. Rosli A.Bakar, Development Assesment of Solar Concentrating Power System For Green Generation, 2010.</li> <li>12. N. and J. W. Kulichenko, Concentrating Solar Power in Developing Countries Regulatory and Financial Incentives for Scaling Up. Washington, DC: The World Bank, 2012, pp. 1–153.</li> <li>13. Laura Esmeralda, Garcia Moreno, Concentrated Solar Power (CSP) in DESERTEC-Analysis of Technologies to Secure and Affordable Energy Supply, IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: technology and Applications, 2011.</li> <li>14. REN21, "Renewables Global Status Report: 2009 Update", Renewable Energy Policy Network for the 21 st Century (REN21), 2009: Available at <a href="http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf">http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf</a> (access on the 02/02/2010).</li> <li>15. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>16. Van Voorthuysen, The promising Perspective of Concentrating Solar Power (CSP), 2005.</li> <li>17. S. Janjai, J.Laksanaboonsong, T.Seesaard, Potential application Of Concentrating Solar Power Systems For The Generation Of Electricity In Thailand, Applied Energy 88 (2011) 4960-4967.</li> <li>18. Franz Trieb, Christoph Schillings, marlene O'Sullivan, Thomas pregger, carsten Hoyer-Klick, Global Potential Of Concentrating Solar Power, SolarPaces Conference, Berlin, September 2009.</li> <li>19. Pawel Szczygielski &amp; Leonard Wagner, Research Report CSP:Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research, 2009.</li> <li>20. Q. Liu, G. Yu, and J.J. Liu, "Solar Radiation as Large-Scale Resource for Energy", Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>21. Volker Quaschnig, Technical and Economical System Comparison of Photovoltaic and Concentrating Solar thermal Power Systems Depending on Annual Global irradiation, Solar Energy 77 (2004) 171-178.</li> </ol>		378-382
<b>Authors:</b>	<b>Rosnani Affandi, Mohd Ruddin Ab Ghani, Chin Kim Gan, Jano, Zanariah</b>							
<b>Paper Title:</b>	<b>A Review of Concentrating Solar Power (CSP) In Malaysian Environment</b>							
<p><b>Abstract:</b> Malaysia has an abundance of solar energy. While the magnitude for average daily solar irradiations in Malaysia is around 4.21–5.56 kWhm<sup>-2</sup>, the sunshine duration is more than 2,200 hours per year. However, the focus on solar energy in Malaysia is mainly on the Photovoltaic (PV) panel to generate electricity. There is still lack of thorough investigation in implementing the solar thermal, such as the Concentrating Solar Power (CSP) in Malaysian environment. This paper reviews the CSP technology and the potential of developing CSP plant in the Malaysian environment by taking into account the Direct Normal Irradiance (DNI) and a few geographical aspects.</p> <p><b>Keywords:</b> Concentrating Solar Power (CSP), Direct Normal Irradiance (DNI), Photovoltaic (PV).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Ministry of Energy, Green Technology and Water, <a href="http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs">http://www.saveenergy.gov.my/conserves-energy-and-reduce-costs</a> (Accessed 25 September 2012).</li> <li>2. U.S Department of Energy of Sciences, <a href="http://web.anl.gov/solar/primer/primer1.html">http://web.anl.gov/solar/primer/primer1.html</a> (Accessed 25 September 2012).</li> <li>3. <a href="http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf">http://etp.pemandu.gov.my/upload/etp_handbook_chapter_6_oil_gas_and_energy.pdf</a> (Accessed 26 September 2012).</li> <li>4. Muzathik, A. M., Wan Nik, W. B., Samo, K. B. &amp; Ibrahim, M. Z, Hourly Global Solar radiation Estimates on The Horizontal Plane, Journal of Physical Science, Vol.21(2),51-66,2010.</li> <li>5. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>6. Q. Liu, G. Yu, and J.J. Liu, Solar Radiation as Large-Scale Resource for Energy, Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>7. Nafisa Noor and Sadid Muneer, Concentrating Solar Power (CSP) and Its Prospect in Bangladesh, 2009.</li> <li>8. Pawel Szczygielski &amp; Leonard Wagner (Mac 2009), Research Report CSP : Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research</li> <li>9. <a href="http://www.brightsourceenergy.com/faq.htm">http://www.brightsourceenergy.com/faq.htm</a> (Accessed 27 September 2012).</li> <li>10. <a href="http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html">http://www.eere.energy.gov/basics/renewable_energy/linear_concentrator.html</a> (Accessed 27 September 2012).</li> <li>11. Rosli A.Bakar, Development Assesment of Solar Concentrating Power System For Green Generation, 2010.</li> <li>12. N. and J. W. Kulichenko, Concentrating Solar Power in Developing Countries Regulatory and Financial Incentives for Scaling Up. Washington, DC: The World Bank, 2012, pp. 1–153.</li> <li>13. Laura Esmeralda, Garcia Moreno, Concentrated Solar Power (CSP) in DESERTEC-Analysis of Technologies to Secure and Affordable Energy Supply, IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: technology and Applications, 2011.</li> <li>14. REN21, "Renewables Global Status Report: 2009 Update", Renewable Energy Policy Network for the 21 st Century (REN21), 2009: Available at <a href="http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf">http://www.ren21.net/pdf/RE_GSR_2009_Update.pdf</a> (access on the 02/02/2010).</li> <li>15. R. Winston, J.C. Minano and P. Benitez, "Nonimaging Optics", Elsevier Academic Press, pp. 1217, (2005).</li> <li>16. Van Voorthuysen, The promising Perspective of Concentrating Solar Power (CSP), 2005.</li> <li>17. S. Janjai, J.Laksanaboonsong, T.Seesaard, Potential application Of Concentrating Solar Power Systems For The Generation Of Electricity In Thailand, Applied Energy 88 (2011) 4960-4967.</li> <li>18. Franz Trieb, Christoph Schillings, marlene O'Sullivan, Thomas pregger, carsten Hoyer-Klick, Global Potential Of Concentrating Solar Power, SolarPaces Conference, Berlin, September 2009.</li> <li>19. Pawel Szczygielski &amp; Leonard Wagner, Research Report CSP:Concentrated Solar Power Large Scale Alternatives to Traditional Solar PV, Mora Associates, Internal research, 2009.</li> <li>20. Q. Liu, G. Yu, and J.J. Liu, "Solar Radiation as Large-Scale Resource for Energy", Short World Energy &amp; Environment, 20(3): 319-329, 2009.</li> <li>21. Volker Quaschnig, Technical and Economical System Comparison of Photovoltaic and Concentrating Solar thermal Power Systems Depending on Annual Global irradiation, Solar Energy 77 (2004) 171-178.</li> </ol>								
77.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Abinash Singh, Balwinder Singh Surjan</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Power Quality Improvement Using FACTS Devices: A Review</b></td> </tr> <tr> <td colspan="2"> <p><b>Abstract:</b> During the design of modern power systems for efficient operation and continuous power supply to various load centers one has to consider the growth in the use of power electronics that has caused a greater awareness of power quality. Voltage sags, swells, harmonics etc are the various power quality problems that can cause equipment to fail, or shut down, blown up fuses or tripping of breakers due to large current imbalances. FACTS devices can be used to overcome these effects which can otherwise be very harmful for the residential as well as industrial customer, hampering their work production due to faults and equipment damage. This is a review paper to analyze the current trends in FACTS to improve the power system performance. It contains work which has been carried out by various researchers in the field of FACTS.</p> </td> </tr> </table>	<b>Authors:</b>	<b>Abinash Singh, Balwinder Singh Surjan</b>	<b>Paper Title:</b>	<b>Power Quality Improvement Using FACTS Devices: A Review</b>	<p><b>Abstract:</b> During the design of modern power systems for efficient operation and continuous power supply to various load centers one has to consider the growth in the use of power electronics that has caused a greater awareness of power quality. Voltage sags, swells, harmonics etc are the various power quality problems that can cause equipment to fail, or shut down, blown up fuses or tripping of breakers due to large current imbalances. FACTS devices can be used to overcome these effects which can otherwise be very harmful for the residential as well as industrial customer, hampering their work production due to faults and equipment damage. This is a review paper to analyze the current trends in FACTS to improve the power system performance. It contains work which has been carried out by various researchers in the field of FACTS.</p>		383-390
<b>Authors:</b>	<b>Abinash Singh, Balwinder Singh Surjan</b>							
<b>Paper Title:</b>	<b>Power Quality Improvement Using FACTS Devices: A Review</b>							
<p><b>Abstract:</b> During the design of modern power systems for efficient operation and continuous power supply to various load centers one has to consider the growth in the use of power electronics that has caused a greater awareness of power quality. Voltage sags, swells, harmonics etc are the various power quality problems that can cause equipment to fail, or shut down, blown up fuses or tripping of breakers due to large current imbalances. FACTS devices can be used to overcome these effects which can otherwise be very harmful for the residential as well as industrial customer, hampering their work production due to faults and equipment damage. This is a review paper to analyze the current trends in FACTS to improve the power system performance. It contains work which has been carried out by various researchers in the field of FACTS.</p>								

**Keywords:** FACTS , STATCOM , DVR, SSC, DSTATCOM, TCSC, IPFC, UPFC.

**References:**

1. A.Kusko, M.T.Thompson, "Power quality in electrical system" ,third edition, McGraw-Hill,2007.
2. D.M.Vilathgamuwa, H.M.Wijekoon and S.S.Choi, "Investigation of Resonance Phenomena in a DVR Protecting a Load with PF Correction Capacitor", IEEE Power Electronics and Drives Systems Conference, vol.1, Nov. 2003, pp.811 – 815.
3. F.A.LJowder "Design and analysis of dynamic voltage restorer for deep voltage sag and harmonic compensation", Published in IET Generation, Transmission & Distribution, vol. 3, June 2009, pp. 547-560.
4. M.Tümay , A.Teke , K.Ç. Bayındır ,M.U.Cuma , "Simulation and modeling of a dynamic voltage restorer" Adana, Turkey,vol.3,2002 ,pp.31-35.
5. G.V.N.Kumar D.D. Chowdary, "DVR with Sliding Mode Control to alleviate Voltage Sags on a Distribution System for Three Phase Short Circuit Fault" , IEEE Region 10 Colloquium and the Third International Conference on Industrial and Information Systems, Dec.2008, pp.1-4.
6. Narain G. Hingorani, Laszlo Gyugyi "Understanding FACTS: Concepts and Technology of Flexible AC Transmission Systems" Wiley-IEEE Press, December 1999.
7. K.R.Padiyar,"FACTS: Controllers in Power Transmission and Distribution", New Age, 2007.
8. B. Fardanesh, B. Shperling, E.Uzunovic,S. Zelingher, "Multi-Converter FACTS Devices: The Generalized Unified Power Flow Controller (GUPFC)", Power Engineering Society Summer Meeting, IEEE , vol. 2, 2000,pp. 1020 – 1025.
9. Kalyan K Sen, "STATCOM - STATic synchronous Compensator: Theory, Modeling, and Applications" , Power Engineering Society 1999 Winter Meeting, IEEE, vol.2 ,1999, pp. 1177 – 1183.
10. Pradeep Kumar, "Simulation of Custom Power Electronic Device D-STATCOM –A Case Study", IEEE, International Conference on Power Electronics, India, 2011,pp. 1-4.
11. Alka Singh, Suman Bhowmick, Kapil Shukla, " Load Compensation with DSTATCOM and BESS", IEEE 5th India International Conference on Power Electronics (IICPE), 2012,pp.1-6.
12. Bhim Singh, P.Jayaprakash, Sunil Kumar, D.P Kothari , " Implementation of Neural-Network-Controlled Three-Leg VSC and a Transformer as Three-Phase Four-Wire DSTATCOM",IEEE Transactions on Industry Applications, vol. 47, no. 4, july/august 2011
13. M.G. Molina, P.E.Mercado ," Dynamic Modeling and Control Design of DSTATCOM with Ultra-Capacitor Energy Storage for Power Quality Improvements ",Transmission and Distribution Conference and Exposition: Latin America ,IEEE, Aug. 2008, pp. 1-8.
14. Bishnu P. Muni, S. Eswar Rao, and JVR Vithal, "SVPWM Switched DSTATCOM for Power Factor and Voltage Sag Compensation "International conference on Power Electronics, Drives and Energy Systems, IEEE, 2006, pp. 1-6.
15. Bhim Singh, A. Adya, A.P.Mittal, J.R.P.Gupta and B.N.Singh," Application of DSTATCOM for Mitigation of Voltage Sag for Motor Loads in Isolated Distribution Systems", IEEE ISIE, Montreal, Quebec, Canada, July 9-12, 2006.
16. S. H. Hosseini, A. Nazarloo and E. Babaei, "Application of D-STATCOM to Improve Distribution System Performance with Balanced and Unbalanced Fault Conditions", Electrical Power & Energy Conference ,Electric Power and Energy Conference, IEEE, 2010,pp. 1-6.
17. Bhim Singh, A.Adya, A.P.mittal and J.R.P Gupta," Modeling and Control of DSTATCOM for Three-Phase, Four-Wire Distribution Systems", Industry Application Conference, IEEE, Vol. 4,2005,pp. 2428 – 2434.
18. Yubin Wang, Jiwen Li, Yan Lv and Xuelian Liu," Modeling and Controller Design of Distribution Static Synchronous Compensator", International Conference on Power System Technology, 2006.
19. Zhang Dongliang, Li Guoxin, Wang Chonglin, Tang Jiejie, Cao Weiwei, "Modeling and Simulation of DSTATCOM Based On Switch Function", IEEE Conference on Industrial Electronics and Applications, 2009,pp. 2297-2301.
20. Bhim Singh, Alka Adya, A.P.Mittal, and J.R.P. Gupta, "Modeling, Design and Analysis of Different Controllers for DSTATCOM", Power System Technology and IEEE Power India Conference, 2008, pp.1-8.
21. Dinesh Kumar, Rajesh, " Modelling, Analysis and Performance of a DSTATCOM for Unbalanced and Non-Linear Load", IEEE/PES Transmission and Distribution Conference & Exhibition, China , 2005.
22. Xiao-ping Yang, Hai-bin Hao, Yan-ru Zhong, "The State-Space Modeling and Nonlinear Control Strategies of Multilevel DSTATCOM", IEEE Power and Engineering Conference, 2010, pp. 1-4.
23. Bahadur Singh Pali, Suman Bhowmick, Narendra Kumar, "Power Flow Models of Static VAR Compensator and Static Synchronous Compensator", IEEE Power India Conference , 2012, pp. 1-5.
24. J.G.Nielsen, M.Newman, H.Nielsen, and F.Blaabjerg "Control and Testing of a Dynamic Voltage Restorer (DVR) at Medium Voltage Level", IEEE transactions on power electronics, vol. 19, no. 3, ,May 2004, pp.1248 – 1253
25. H.Zhou, T.Z.We, Y.Zhao, Z.P.Qi , "Study on Dynamic Matrix Predictive Control of single-phase DVR", Electric Utility Deregulation and Restructuring and Power Technologies, DRPT, April.2008, pp. 2136 - 2140
26. B.W.Kennedy, "Power Quality Primer", second edition , McGraw- Hill ,2000
27. D.M.Vilathgamuwa and H.M.Wijekoon, "Mitigating Zero Sequence Effects in Dynamic Voltage Restorers", IEEE ,Power Electronics Specialists Conference, 2007, pp.3079 – 3085.
28. Usha Rani P., Sudha R., Dr. S. Rama Reddy," Voltage Sag/Swell Compensation in an Interline Dynamic Voltage Restorer", Proceedings of ICETECT, IEEE, 2011, pp. 309-314.
29. Yan Zhang and Jovica V. Milanovic," Global Voltage Sag Mitigation With FACTS-Based Devices", IEEE Transactions on Power Delivery, vol. 25, no. 4, October 2010, pp.2842-2850.
30. H.M. Wijekoon, D.M. Vilathgamuwa and S.S. Choi," Interline dynamic voltage restorer: an economical way to improve interline power quality", IEE Proceedings on Generation Transmission and Distribution., Vol. 150, No. 5, September 2003, pp.513-520.
31. U.Yolac, T. Yalcinoz, "Comparison of Fuzzy logic and Pid Controllers for Tcsc using Matlab",Universities Power Engineering Conference, vol. 1,Sep. 2004, pp. 438-442.
32. Sidhartha Panda and Narayana Prasad Padhy "MATLAB/SIMULINK Based Model of Single-Machine Infinite-Bus with TCSC for Stability Studies and Tuning Employing GA", International Journal of Electrical and Electronics Engineering ,2007
33. Vasundhara Mahajan," Thyristor Controlled Series Compensator", IEEE International Conference on Industrial Technology, 2006, pp. 182-187.
34. Brian K. Perkins, M.R. Iravani, " Dynamic Modeling of a TCSC with Application to SSR Analysis", IEEE Transactions on Power Systems, Vol. 12, No. 4, November 1997, pp. 1619-1625.
35. Abdel Moamen M. A. Narayana Prasad Padhy, "Newton-Raphson TCSC Model for Power Flow Solution of Practical Power Networks", Power Engineering Society Summer Meeting, IEEE, 2002, pp. 1488-1493.
36. Laszlo Gyugyi, Kalyan K.Sen, Colin D.Schauder, " The Interline Power Flow Controller Concept: A New Approach To Power Flow Management In Transmission Sytems", IEEE Transactions on Power Delivery, Vol. 14, No.3 , July 1999,pp.1115-1125.
37. Akhilesh A. Nimje , Chinmoy Kumar Panigrahi , Ajaya Kumar Mohanty," Interline Power Flow Controller: Review Paper", International Electrical Engineering Journal (IEEJ) Vol. 2 , No. 3,,2011, pp. 550-554.
38. V.Diez-Valencia,U.D.Annakkage,D.Jacobson, "Interline Power Flow Controller (Ipfc) Steady State Operation", Proceedings of the IEEE Canadian Conference on Electrical & Computer Engineering, vol.1,2002, pp.280-284.
39. R.L. Vasquez-Arnez F.A. Moreira," The Interline Power Flow Controller: Further Aspects Related to its Operation and Main Limitations", IEEE Transmission and Distribution Conference and Exposition, 2008, pp. 1-6.
40. A.V.Naresh Babu and S.Sivanagaraju", Mathematical Modelling, Analysis and Effects of Interline Power Flow Controller (IPFC) Parameters in Power Flow Studies", IEEE International conference on Power Electronics, 2011, pp. 1-7.
41. Alireza.Dehghanpour , S.M.H. Hosseini and N.Talebi," Power Flow Management by IPFC in transmission system", IEEE Control and System Graduate Research Colloquium, 2011,pp. 32-36.
42. D. Menniti, A. Pinnarelli, N. Sorrentino," A fuzzy logic controller for Interline Power Flow Controller model implemented by ATP-

EMTP", IEEE International Conference on Power System Technology, vol. 3, 2002, pp.1898-1903.

43. S. Mishra, P. K. Dash, P. K. Hota, and M. Tripathy, "Genetically Optimized Neuro-Fuzzy IPFC for Damping Modal Oscillations of Power System", IEEE transactions on power systems, vol. 17, no. 4, November, 2002, pp. 1140-1147.
44. Alivelu M. Parimi, Irraivan Elamvazuthi and Nordin Saad, "Interline Power Flow Controller (IPFC) Based Damping Controllers for Damping Low Frequency Oscillations in a Power System", IEEE International Conference on Sustainable Energy Technologies, 2008, pp. 334-339.
45. Jitendar Veeramalla, Sreerama Kumar.R, "Application of Interline Power Flow Controller (IPFC) for Damping Low Frequency Oscillations in Power Systems" Modern Electric Power Systems Proceedings of International Symposium, Poland, 2010, pp. 1-6.
46. A.livelu M.Parimi,N.C.Sahoo, I. Elamvazuthi, and Nordin Saad, "Transient Stability Enhancement and Power Flow Control in a Multi-Machine Power System Using Interline Power Flow Controller",IEEE International Conference on Energy Automation and Signals,2011, pp. 1-6.
47. V. Diez-Valencia, U.D. Annakkage, A.M Gole, P. Demchenko, D. Jacobson, "Interline Power Flow Controller (Ipfc) Steady State Operation", Proceedings of the IEEE Canadian Conference on Electrical & Computer Engineering, 2002,pp. 280-284.
48. Valentin Azbe, Rafael Mihalic, "The Control Strategy for an IPFC Based on the Energy Function", IEEE Transactions on Power Systems, vol. 23, no. 4, November 2008, pp. 1662-1669.
49. F. R. Segundo, A. R. Messina, "Modeling and Simulation of Interline Power Flow Controllers: Application to Enhance System Damping", North American Power Symposium, USA, 2009, pp. 1-6.
50. V.Gomathi, V.Ramachandran, C.Venkatesh Kumar, "Simulation and State Estimation of Power System with Interline Power Flow Controller", Universities Power Engineering Conference, 2010, pp. 1-6.
51. T.Nireekshana, Dr.G.Kesava Rao, .S.Siva Naga Raju, "Incorporation of Unified Power Flow Controller Model for Optimal Placement using Particle Swarm Optimization Technique", IEEE International Conference on Electronics Computer Technology, 2011, pp. 209-214.
52. A.J.F.Keri, A.S.Mehraban, X.Lombard, A.Elriachy, A.A. Edris, "Unified Power Flow Controller (UPFC): Modeling and Analysis", IEEE Transactions on Power Delivery, Vol. 14, No. 2, April 1999, pp. 648-654.
53. Xiao-Ping Zhang and Keith R Godfrey, "Advanced Unified Power Flow Controller Model for Power System Steady State Control", IEEE International Conference on Electric Utility Deregulation, Restructuring and Power Technologies, Hong Kong, vol. 1, 2004, pp. 228-233.
54. I. Papic, P. Zunko, D. Povh, M. Weinhold, "Basic Control of Unified Power Flow Controller", IEEE Transactions on Power Systems, Vol. 12, No. 4, November, 1997, pp. 1734-1739.
55. HaiFeng Wang, "A Unified Model for the Analysis of FACTS Devices in Damping Power System Oscillations—Part III: Unified Power Flow Controller", IEEE transactions on power delivery, vol. 15, no. 3, July, 2000, pp. 978-983.
56. Xia Jiang, Xinghao Fang, Joe H. Chow, Abdel-Aty Edris, Edvina Uzunovic, Michael Parisi, and Liana Hopkins, "A Novel Approach for Modeling Voltage-Sourced Converter-Based FACTS Controllers", IEEE Transactions on Power Delivery, vol. 23, no. 4, October 2008, pp. 2591-2598.
57. P.Kannan and S. Chentur Pandian, "Case Study on Power Quality Improvement of Thirty Bus System with UPFC", International Journal of Computer and Electrical Engineering, Vol. 3, No. 3, June 2011.
58. H. V. Hitzeroth, D. Braisch, G. Herold, D. Povh, "Compensation, Stability and Losses in the Presence of Wheeling Transactions with use of FACTS Devices", IEEE International Conference on Electric Power Engineering, Sep. 1999.
59. M. Z. EL-S'adek, A. Ahmed, H. E.Zidan, "Comparison Of Unified Power Flow Controller Models For Power Flow Studies", IEEE International Middle East Power System Conference, 2006, pp. 189-196.
60. Shan Jiang, Ani M. Gole, Udaya D. Annakkage, "Damping Performance Analysis of IPFC and UPFC Controllers Using Validated Small-Signal Models", IEEE Transactions on Power Delivery, vol. 26, no. 1, January 2011
61. K.S.Smith, L. Ran, J. Penman, "Dynamic modelling of a unified power flow controller", IEE Proceedings on Generation Transmission and Distribution, Vol. 144, No. 1, January 1997, pp. 7-12.
62. Yasuo Morioka, Yasuhiro Mishima, Yoshiaki Nakachi, "Implementation of Unified Power Flow Controller and Verification for Transmission Capability Improvement", IEEE Transactions on Power Systems, Vol. 14, No. 2, May 1999, pp. 575-581.
63. Eskandar Gholipour and Shahrokh Saadate, "Improving of Transient Stability of Power Systems Using UPFC", IEEE Transactions on Power Delivery, vol. 20, no. 2, April 2005, pp. 1677-1682.
64. Ashwin Kumar Sahoo, S.S. Dash, T. Thyagarajan, "Modeling Of Statcom And Upfc For Power System Steady State Operation And Control", IET-UK International Conference on Information and Communication Technology in Electrical Sciences (ICTES), 2007, pp.458-463.
65. N.K.Sharma, P.P.Jagtap, "Modelling and application of Unified Power Flow Controller (UPFC)", Third International Conference on Emerging Trends in Engineering and Technology, IEEE, 2010, pp. 350-355.
66. A.M. Vural, M. Tumay, "Steady State Analysis of Unified Power Flow Controller: Mathematical Modeling and Simulation Studies", IEEE Bologna Power Tech Conference, vol.4, Italy, 2003.
67. Wenjin Dai, Zhihong Liu, "Study on Modeling of Unified Power Flow Controller", Proceedings of the IEEE International Conference on Automation and Logistics, China, August, 2007, pp. 373-377.
68. Rakhmad Syafutra Lubis, Sasongko Pramono Hadi, and Tumiran, "Modeling of the Generalized Unified Power Flow Controller for Optimal Power Flow", International Conference on Electrical Engineering and Informatics, Bandung, Indonesia, July 2011, pp. 1-6.
69. Lin Sun, Shengwei Mei, Qiang Lu and Jin Ma, "Application of GUPFC in China's Sichuan Power Grid - Modeling, Control Strategy and Case Study", IEEE Power Engineering Society General Meeting, vol. 1, 2003, pp. 175-181.
70. X.-P. Zhang, "Modelling of the interline power flow controller and the generalised unified power flow controller in Newton power flow", IEE Proceedings on Generation Transmission and Distribution, vol. 150, 2003, pp. 268-274.

<b>78.</b>	<b>Authors:</b>	<b>DeGui Sun, Qi Zheng, Peng Liu, Trevor J. Hall</b>
	<b>Paper Title:</b>	<b>Experimental Comparison of Optical Loss between the Silicon-on-Insulator Waveguide Corner Mirrors and Curves</b>
	<p><b>Abstract:</b> Based on our previous work in modeling and numerical simulations that shows the transfer efficiency of a silicon-on-insulator (SOI) waveguide corner mirror (WCM) structure can achieve 95%, this paper experimentally demonstrates the optical loss advantage of SOI WCMs over waveguide curves. Both the numerical simulations and FDTD simulations further confirm the sustainable results of more than 94% and then the manufactured devices give a 0.30dB average optical loss in experiments. In contrary, the testing results of waveguide curves show that the optical propagation loss rates of 30 and 10dB/cm require the bending radii to be 0.5 and 2.0mm, respectively.</p> <p><b>Keywords:</b> Silicon-on-insulator waveguide, waveguide corner mirror, waveguide curve, optical loss.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. B. Jalali and S. Fathpour, "Silicon photonics," J. Lightw. Technol., vol. 24, Jun. 2006, pp. 4600-4615.</li> <li>2. L. Chen, K. Preston, S. Manipatruni, and M. Lipson, "Integrated GHz silicon photonic interconnect with micrometer-scale modulators and detectors," Opt. Exp. Vol. 17, 2009, pp. 15248-15256.</li> <li>3. T. Maruyama, T. Okumura, S. Sakamoto, K. Miura, Y. Nishimoto, and S. Arai, "GaInAsP/InP membrane BH-DFB lasers directly bonded on SOI substrate," Opt. Exp. vol. 14, 2006, pp. 8184-8188.</li> <li>4. J. Niehusmann, A. Vorckel, P. H. Bolivar, T. Wahlbrink, and W. Henschel, "Ultrahigh-quality-factor silicon-on-insulator microring resonator," Opt. Lett. vol. 29, 2006, pp. 2861-2863.</li> </ol>	

5. J. V. Campenhout, W. M. J. Green, S. Assefa, and Y. A. Vlasov, "Low-power, 2x2 silicon electro-optic switch with 100-nm bandwidth for broadband reconfigurable optical networks," *Opt. Exp.* Vol. 17, 2007, pp. 24020-24029.
6. A. Liu, R. Jones, L. Liao, D. Samara-Rubio, D. Rubin, O. Cochen, R. Nicolaescu, and M. Paniccia, "A high-speed silicon optical modulator based on a metal-oxide-semiconductor capacitor," *Nature* vol. 427, 2004, pp. 615-618.
7. R. Chen, T.-T. D. Tran, K. W. Ng, W. S. Ko, L. C. Chuang, F. G. Sedgwick, and C. Chang-Hasnain, "Nanolasers grown on silicon," *Nat. Photon.* vol. 5, no. 1, 2011, pp. 170-175.
8. T. Yin, R. Cochen, M. M. Morse, G. Sarid, Y. Chetrit, D. Rubin, and M. J. Paniccia, 2007. "31-GHz Ge n-i-p waveguide-photodetectors in silicon-on-insulator substrate," *Opt. Exp.* vol. 15, 2007, pp. 13965-13971.
9. K. Ogusu, "Transmission characteristics of optical waveguide corners," *Opt. Commun.* Vol. 55, 1985, pp. 149-153.
10. Y. Chung and N. Dagli, "Analysis of integrated optical corner reflectors using a finite-difference beam propagation method," *IEEE Photon. Technol. Lett.* vol. 3, 1991, pp.150-152.
11. R. U. Ahamd, F. Pizzuto, G. S. Camarda, R. L. Espinola, H. Rao, and R. M. Osgood, "Ultracompact corner-mirrors and T-branches in silicon-on-insulator," *IEEE Photon. Technol. Lett.* vol. 14, 2002, pp. 65-67.
12. W. M. J. Green, M. J. Rooks, L. Sekaric, and Y. A. Vlasov, "Ultra-compact, low RF power, 10Gbps silicon Mach-Zehnder modulator," *Opt. Exp.* vol. 15, 2007, pp. 17106-17113.
13. S. Ladenois, D. Pascal, L. Vivien, E. Cassan, S. Laval, R. Orobtohouk, M. Heitzmann, N. Bouzaida, and L. Mollard, "Low-loss submicrometer silicon-on-insulator rib waveguides and corner mirrors," *Opt. Lett.* vol. 28, 2003, pp. 1150-1152.
14. Y. Qian, S. Kim, J. Song, and G. P. Nordin, "Compact and low loss silicon-on-insulator rib waveguide 90° bend," *Opt. Exp.* vol. 14, 2006, pp. 6020-6028.
15. D.-G. Sun, X. Li, D. Wong, Y. Hu, F. Luo, and t. J. Hall, "Modeling and numerical analysis for silicon-on-insulator rib waveguide corners," *J. Lightw. Technol.* vol. 27, no. 20, 2009, pp.4610-4618.

<b>Authors:</b>	<b>R.Naresh, J.M.Babu, Gowthaman, Mariappan</b>
<b>Paper Title:</b>	<b>Electro Hydro Dynamic Enhancement of Heat Transfer by Different Working Fluids in a Forced Convection Loop</b>
<p><b>Abstract:</b> The flow in channel occupies an important place among the several heating systems. At the same time there is a great need of maintaining and running the system effectively. There are several ways of improvement in thermal efficiency of a system, One of the ways by which we can improve thermal efficiency of the system is to take the advantage of electric field. In the present work the effect of electric field in combination with flow and temperature fields is studied experimentally in a vertical annulus, uniformly heated on the outer wall, a dielectric liquid is allowed to flow in the forced convection loop by using centrifugal pump in a channel. Sharp points are added perpendicular to the inner wire electrode and voltages are applied to it, while the outer wall is grounded. Experimental apparatus is fabricated to conduct the experiments with heat input, voltage supplied and mass flow rate of working fluid as the independent parameters. Flow and temperature distributions are affected by the supplied voltage at the wire electrodes, and effect is more when the fluid is flowing with low Reynolds number. Because of the advantage of considerable dielectric strength of the fluid and comparatively cheaper than silicone based dielectric fluids, transformer oil is selected as working fluid. It is seen from the experiments that the heat transfer coefficient in the presence of electric field increases in relation with the supplied voltage, but decreases with the Reynolds number. From the literature survey it can be concluded that there is a significant enhancement in the heat transfer from the heated surface to the working fluid.</p> <p><b>Keywords:</b> Sharp points are added perpendicular to the inner wire electrode and voltages are applied to it, while the outer wall is grounded.</p>	

79.

**References:**

1. P.H. G. ALLEN and T. G. KARAYIANNIS, ELECTROHYDRODYNAMIC ENHANCEMENT OF HEAT TRANSFER AND FLUID FLOW, REVIEW PAPER, 0890-4332(94)00055-7.
2. Walter Grassi, DanieleTesti, Mario Saputelli, Heat transfer enhancement in a vertical annulus by electrophoretic forces acting on a dielectric liquid, *International Journal of Thermal Sciences* 44 (2005) 1072–1077.
3. N. Kasayapanand, Numerical study of electrode bank enhanced heat transfer, *Applied Thermal Engineering* 26 (2006) 1471–1480.
4. J.S.Paschkewitz, D.M.Pratt, The influence of fluid properties on electro hydrodynamic heat transfer enhancement in liquids under viscous and electrically dominated flow conditions, *Experimental Thermal and Fluid Science* 21 (2000) 187-197.
5. N.Kasayapanand, T.Kiatsirirot , Numerical modeling of the electrohydrodynamic effect to natural convection in vertical channels, *International Communications in Heat and Mass Transfer* 34 (2007) 162–175
6. Nat Kasayapanand, Numerical modeling of the effect of number of electrodes on natural convection in an EHD fluid, *Journal of Electrostatics* 65 (2007) 465–474.
7. Enhancement of convective heat transfer in the developing region of circular tubes using corona wind Majid Molki \*, Kanthi Latha Bhamidipati 1
8. Electrohydrodynamic enhancement of in-tube convective condensation heat transfer H. Sadek a, A.J. Robinson a, J.S. Cotton b, C.Y. Ching a, M. Shoukri a
9. A computational fluid dynamics modeling of natural convection in finned enclosure under electric fieldN. Kasayapanand \*
10. Electrode arrangement effect on natural convection Nat Kasayapanand \*
11. Numerical modeling of the electrohydrodynamic effect to natural convection in vertical channels ☆N. Kasayapanand a, T. Kiatsirirotab
12. Heat Transfer Enhancement by EHD-Induced Oscillatory Flows
13. F. C. Lai1, J. Mathew2The effect of electrode polarity on EHD enhancement of boiling heat transfer in a vertical tube Yongqi Liu, Ruiyang Li \*, Fagang Wang, Hongling Yu
14. Some observations of the frost formation in free Convection: with and without the presence of electric field Chi-Chuan Wang a\*, Ren-Tsung Huang a,b, Wen-Jenn Sheu b, Yu-Juei Changa
15. Heat transfer enhancement in a vertical annulus by electrophoretic forces acting on a dielectric liquid Walter Grassi \*, Daniele Testi, Mario Saputelli
16. Enhancement of external forced convection by ionic wind David B. Go, Raul A. Maturana, Timothy S. Fisher, Suresh V. Garimella

396-399

<b>Authors:</b>	<b>Mahavir Singh Naruka, D. S. Chauhan S. N. Singh</b>
<b>Paper Title:</b>	<b>Power Quality Improvement in Switched Reluctance Motor Drive Using Zeta Converter</b>
<b>Abstract:</b>	This present paper deal with the power quality improvement using a Zeta ac-dc boost converter in the mid-point converter based Switched Reluctance Motor drive (SRM).Using a simple bridge rectifier the mid-point converter based SRM drive shows low power factor at ac mains and produces very high harmonics content. The proposed Zeta ac-dc boost converter in continuous conduction mode (CCM) with mid-point converter fed SRM drive

80.

400-404

which helps to improve the input power factor, reduces total harmonic distortion of ac mains current (THDi), provides constant dc link voltage and balanced capacitor voltages for static operation. The SRM drive with input Zeta converter is modeled and the performance is simulated in MATLAB environment for 230V and 50Hz. Here the Zeta converter performance is compared with a conventional bridge topology for the SRM drive.

**Keywords:** Power quality, Power factor correction (PFC), SRM, Mid-point converter, Zeta ac-dc boost converter, continuous conduction mode (CCM.)

**References:**

1. S. Vukosavic and V.R. Stefanovic, "SRM Inverter Topologies: A Comparative evaluation", IEEE Trans. on Industry. Applications, vol. 27, no. 6, pp 1034-1047, Nov/Dec. 1991.
2. Pollock and B. W. Williams, "Power converter circuits for switched reluctance motors with the minimum number of switches," in Proc. Inst. Elect. Eng., vol. 137, pt. B, no. 6, 1990, pp. 73–384.
3. Y. Liu and P. Pillay, "A startup control algorithm for the split link converter for a switched reluctance motor drive," IEEE Trans. on Industrial Electronics, vol.46, no.3, pp.665-667, Jun1999.
4. T.J.E. Miller, Switched Reluctance Motor and Their Control. Oxford, U.K. Oxford University Press, 1993.
5. Srivastava Ashish Bhim Singh "Improved power quality based high brightness LED lamp driver" International Journal of Engineering Science and Technology, Vol-4, No-1, 2012, pp 135-141.

<b>Authors:</b>	<b>Sudhir Nigam, Rashmi Nigam, Sangeeta Kapoor</b>
-----------------	--

<b>Paper Title:</b>	<b>Modelling and Simulation of Ambient Carbon Monoxide</b>
---------------------	--

**Abstract:** Air pollution affects both the health and environment of living organisms. In large urban cities the emissions of carbon monoxide (CO) gas from the transport sector pose unprecedented risks being a silent and lethal killer. In order to eradicate the adverse impact of CO pollution, there exists a need for an early warning system, which may be of immense help to manage and regulate ambient CO concentrations. CO emission and its dispersion is a non-linear problem which can be vividly expressed using artificial neural network (ANN) computations. In this paper an attempt is made to simulate concentration of CO gas based on historical data using ANN. Eleven years (1996-2006), morning time (06.00hrs-14.00hrs) CO emission data from ITO square of Delhi has been employed for modelling and simulation. The ANN are regarded as an efficient and optimised architectures for capturing the inherited codes of processes and technique for estimation as compare traditional statistical techniques. The modelling result shows comparable matching with the measured ambient values of CO.

**Keywords:** Simulation, Modelling, Concentration, Artificial Neural Network (ANN), Real time analysis

**References:**

1. Faiz, A., Sturm, P.J., 2000. New Directions: Air Pollution and Road Traffic in Developing Countries, Atmos. Environ. 34, 4745-4746.
2. Kiely, G., 1997. Environmental Engineering, 97-115, McGraw-Hill, Berkshire, England.
3. Davis, M.L., Cornwell, D.A., 1998. Introduction to Environmental Engineering, 3rd edition, 471-475, WCB/McGraw-Hill, New York.
4. Sotiris Vardoulakis, Bernard E.A. Fisher, Koulis Pericleous, Norbert Gonzalez-Flesca. (2003) Modelling Air quality In Street Canyons : A Review, Atmospheric Environment, No 37, 155-182.
5. NRC, 2003. Managing Carbon Monoxide Pollution in Meteorological and Topographical Problem Areas, National Research Council, U.S., Report published by The National Academic Press downloaded from the site <http://www.nap.edu/catalog/10689.html> on 16.06.2008.
6. Tanaka, K., Sarso, M., Watanabe, H., 1992. Identification and Analysis of Fuzzy Model for Air Pollution—an approach for selflearning control of CO concentration. IEEE, 261-266.
7. Tanaka, M., Kamiura, T., Warashina, M., Maeda, W., Uno, I., Wakamatsu, S., 1995. Vertical Distribution of Ambient Hydrocarbon and Carbon Monoxide Concentrations Measured Aloft over Kansai Area, Environ. Sci., 8, 387–396.
8. Moseholm, L., Silva, J., Larson, T., 1996. Forecasting Carbon Monoxide Concentration near a Sheltered Intersection using Video Surveillance and Neural Networks. Transportation Research D 1:15–28.
9. Drozdowicz, B, Benz, S.J., Santa Cruz, A.S.M., Scenna, N.J., 1997. A Neural Network based Model for the Analysis of Carbon Monoxide Contamination in the Urban Area of Rosario. In:Fift International Conference on Air Pollution Modelling, Monitoring and Management. Air Pollution V. Boston: Computational Mechanics Publications, 677-684.
10. Gardner, M.,—Dorling, S.,1999. Neural Network Modelling and Prediction of Hourly NOx and NO2 Concentrations in Urban Air in London, Atmospheric Environment, 33 ,5.
11. Schlink, U., Dorling, S., Pelikan, E., Nunnari, G., Cawley, G., Junninen, H., Greig, A., Foxall,R., Eben, K., Chatterton, T., Richter, M., Dostal, M., Kolehmainen, M., Doyle, M., 2003. A Rigorous Inter-Comparison of Ground-Level Ozone Predictions, Atmos Environ 37:3237–3253.
12. Kukkonen, J., Pratanen, L., Karppinen, A., Ruuskanen, J., Junninen, H., Kolehmainen, M., Niska, H., Dorling, S., Chatterton, T., Foxall, R., Cawley, G., 2003. Extensive Evaluation of Neural Network Models for the Prediction of NO2 and PM10 Concentrations, Compared with a Deterministic Modelling System and Measurements in Central Helsinki, Atmospheric Environment 37, 4539-4550.
13. Nagendra, S.M.S., Khare, M., 2002. Line Source Emission Modeling, Atmospheric Environment, 36: 2083-2098.
14. Zhang Shaoman, Sheng Yizhi, Li Bingji, Zhu Yunzhou, 2004. Method for Vehicle Speed Detection Based on Virtual Loop Motion Estimation, Journal of Huazhong University of Science and Technology (Nature Science Edition), 32(1): 76-78.
15. Grivas, G., Chaloulakou, A., Artificial Neural Network Models for Prediction of PM10 Hourly Concentrations, in the Greater Area of Athens, Greece, Atmospheric Environment, 40 (2006), 7, pp. 1216-1229
16. Pelliccioni, A., Tirabassi, T., Air Dispersion Model and Neural Network: A New Perspective for Integrated Models in the Simulation of Complex Situations, Environmental Modelling & Software, 21(2006), 4, pp. 539-546
17. Yang, Z., Miao, G., Wang, L., 2007. Model for Predicting Roadside Concentration of Traffic Pollutants, Tsinghua Science and Technology, ISSN 1007-0214, 07/14, 12, 2, 178-183
18. Tiittanen P., Timonen K. L., Ruuskanen J, Mirme A, Pekkanen J., 1999. Fine Particulate Air Pollution, Resuspended Road Dust and Respiratory Health Among Symptomatic Children, European Respiratory Journal 13 (2): 266-273.
19. Haykin, S., 1999. Neural Networks: A comprehensive foundation. Mcmillan College Publishing Company, New York,
20. Callan, R., Callan, R., 1999. The Essence of Neural Networks. Prentice Hall, UK,
21. Stanley, J., 1990. Introduction to Neural Networks, 3rd edition. Sierra Madre, California Scientific Software.
22. Maier, H.R., Dandy, G.C., 2000. Neural networks for the prediction and forecasting of water resources variables: a review of modelling issues and applications. Environmental Modelling and Software 15 (1), 101–124.
23. Willmott, C.J., Matsuura, K., 2005. Advantages of the MAE over the RMSE in Assessing Average Model Performance, Climate Research, 30, 79-82.
24. Schlink, U., Herbarth, O., Richter, M., Dorling, S., Nunnari, G., Cawley, G., Pelikan, E., 2006. Statistical Models to Assess the Health

	Effects and to Forecast Ground Level Ozone, Environmental Modeling and Software, 21, 547-558.	
	24. Willmott, C.J., 1981. On the Validation of Models, Journal of Physical Geography, 2, 184-194.	
	<b>Authors:</b> Vidya.M.S, Roykumar.M	
	<b>Paper Title:</b> Static Synchronous Series Compensator and Dynamic Voltage Restorer-A comparison	
82.	<p><b>Abstract:</b> With the growth of complex electrical power networks, the use of FACTS(Flexible Alternating Current Transmission System) devices has also increased in Power system. Increased demands on transmission, absence of long term planning, and the need to provide open access to generating companies and customers, all together have created tendencies towards less security and reduced quality of supply. Static Synchronous Series Compensator(SSSC) and Dynamic Voltage Restorer(DVR) are two important devices to mitigate these problems. Even though the role of these two devices in power system has been studied by many resercherers, a comparison between the two is not found much in literature. In this paper, a description of the two devices with their control strategies and a comparison between the two is presented.</p> <p><b>Keywords:</b> SSSC,DVR,Voltage source converter, Series injection transformer, DC link capacitor.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. N G. Hingarorani, "Flexibile AC transmission ", IEEE spectrum, 1993</li> <li>2. R.Padiyar, " FACTS controllers in Power transmission and distribution", New age international(P) Ltd, 2007</li> <li>3. M.Sharanya, B.Basavaraja, M.Sasikala, "An Overview of Dynamic Voltage Restorer for Voltage Profile Improvement", International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-2, Issue-2, December 2012</li> <li>4. Laszlo gui, Colin D Schauder et al, "Static Synchronous Series Compensator"-A solidstate approach to the series compensation of transmission lines", IEEE Transactions on Power Delivery, Vol. 12, No. 1, January 1997.</li> <li>5. Schauder C D, Gyugyi L, Lund M R, Hamai D M, Rietman T R, Torgerson D R, Edris A, "Operation of the Unified Power Flow Controller (UPFC) Under Practical Constraints", IEEE Transactions On Power Delivery, Vol. 13, No. 2, April 1998, pp. 630-639</li> <li>6. B A Renz, A J F Kerl, AS Mehraban, C Schauder, E Stacey, L Kovalsky, L Gyugyi, A Edris, "AEP Unified Power Flow Controller Performance", IEEE Transactions On Power Delivery, Vol. 14, No. 4, October 1999, pp. 1374-138</li> <li>7. Jowder F A L, "Influence of Mode of Operation of the SSSC on the Small Disturbance and Transient Stability of a Radial Power System", IEEE Transactions On Power Delivery, Vol. 20, No. 2, May 2005, pp. 935-942.</li> <li>8. Pradhan A C, Lehn P W, "Frequency-Domain Analysis of the Static Synchronous Series Compensator", IEEE Transactions On Power Delivery, Vol. 21, No. 1, January 2003, pp. 440-449</li> <li>9. P.Suman Pramod Kumar, N.Vijaysimha, C.B.Saravanan, "Static Synchronous Series compensator for series compensation of EHV transmission line", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering Vol. 2, Issue 7, July 2013</li> <li>10. C.H Srisailami, A Sreenivas, "Mitigation Of Voltage Sags/Swells By Dynamic Voltage Restorer Using PI And Fuzzy Logic Controller", International Journal of Engineering Research and Applications (IJERA) Vol. 2, Issue 4, July-August 2012, pp.1733-1737</li> <li>11. M.V.Kasuni Perera, "Control of a Dynamic Voltage Restorer to compensate single phase voltage sags", Master of Science Thesis Stockholm, Sweden 2007</li> </ol>	410-413
	<b>Authors:</b> Jija Rajmohan, M.R.Baiju	
	<b>Paper Title:</b> Design and Analysis of a Low Voltage RF MEMS Shunt Switch for Reconfigurable Antennas	
83.	<p><b>Abstract:</b> RF MEMS switches can be used to achieve reconfigurability of various RF systems and in particular, that of miniaturized antenna structures. In the case of micromachined antennas, which involve low voltage signals, RF MEMS switches with low actuation voltage are required for achieving reconfigurability. The capacitive shunt switch derives its switching property from the significant difference of its capacitance in the up-state and down-state. The actuation voltage of RF MEMS switches mainly depends on the spring constant of the switch membrane. In this paper, a low actuation voltage capacitive shunt switch suitable to be used along with micromachined antennas, is presented. A process flow for the fabrication is designed and simulated using Intellisuite. The electromechanical analysis results are presented and compared with that of a fixed- fixed flexure based switch membrane to establish the low actuation voltage characteristics of the proposed design.</p> <p><b>Keywords:</b> RF MEMS Switches, Actuation voltage, Reconfigurability</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Christos G Christodolou, Youssef Tawk, Steven A Lane and Scott R Erwin, " Reconfigurable antennas for wireless and space applications ", Proceedings of the IEEE Vol 100 No .7 July 2012.</li> <li>2. Harvey S.Newmann, "RF MEMS Switches and Applications ", 40th Annual International Reliability Physics Sympopsium, Dallas, Texas, 2002.</li> <li>3. N.Haider, D Caratelli and A.G.Yarovoy, " Recent developments in Reconfigurable and Multiband and Antenna technology", Microwave Sensing, Signal and Systems, Delft University of Technology, January 2013.</li> <li>4. Chang won Jung, Ming-jeer Lee, G. P. Li, and Franco De Flaviis, "Reconfigurable Scan-Beam Single-Arm Spiral Antenna Integrated With RF-MEMS Switches," IEEE Transactions on Antennas and Propagation, vol. 54, no. 2, February 2006.</li> <li>5. Greg H. Huff, and Jennifer T. Bernhard, "Integration of Packaged RF MEMS Switches With Radiation Pattern Reconfigurable Square Spiral Microstrip Antennas" IEEE Transactions on Antennas and Propagation, vol. 54, no. 2, february 2006</li> <li>6. Jennifer .T. Bernhard, Reconfigurable antenna s, Morgan and Claypool publishers.</li> <li>7. Nakul Haridas, Ahmet T. Erdogan, Tughrul Arslan, Anthony J. Walton, Stewart Smith, Tom Stevenson, Camelia Dunare, Alan Gundlach, Jon Terry, Petros Argyrakis, Kevin Tierney, Alan Rose and Tony O'Hara, Reconfigurable MEMS Antenna</li> <li>8. E. R. Brown, "RF-MEMS switches for Reconfigurable Integrated Circuits", IEEE Trans. Microwave Theory Tech., vol. 46, p p. 1868-1880, Nov. 1998.</li> <li>9. Gabriel M.Rebeiz and Jeremy .B.Muldavin, " RF MEMS Switches and Switch circuits ", IEEE Microwave magazine, December 2001.</li> <li>10. Gabriel .M.Rebeiz, "RF MEMS Switches :Status of the Technology", 12th International Conference on Solid state Sensors, Actuators and microsystems, June 8-12, 2003.</li> <li>11. V. Ziegler, C. Siegel, B. Schönlinner, U. Prechtel, H. Schumacher, "Switching Speed Analyssi of low complexity RF-MEMS switches ", European Microwave Week, Paris, France, October 2005.</li> <li>12. Mingxin Song, " Design and analysis of a novel low actuation voltage capacitive RF MEMS switches", Proceedings of the 3rd IEEE International conference on Nano/Micro Engineered and Molecular systems, January, 2008</li> <li>13. P.D.Grant and M.W.Denhoff, " A Comparison between RF MEMS Switches and Semiconductor switches ", Proceedings of the 2004</li> </ol>	414-418

International Conference on MEMS ,Nano and smart systems.

14. Haslina Jaafar, Othman Sidek, Azman Miskam and Shukri Korakkottil, "Design and Simulation of Microelectromechanical System Capacitive Shunt Switches," American J. of Engineering and Applied Sciences 2 (4): 655-660, 2009 ,ISSN 1941-7020 © 2009 Science Publications
15. Lianjun Liu , " High Performance RF MEMS Series Contact switch -Design and Simulation", Electronic Components and Technology Conference ,p.p 158-164 ,2007.
16. Jeremy B Muldavin and Gabreil .M Rebeiz , "High Isolation CPW MEMS shunt switches - Part1:Modelling ", IEEE Transactions on Microwave Theory and Techniques ,Vol 48,No:6,June 2000.
17. Jeremy B Muldavin and Gabreil .M Rebeiz , "High Isolation CPW MEMS shunt switches - Part2:Design ", IEEE Transactions on Microwave Theory and Techniques ,Vol 48,No:6,June 2000.
18. Jeremy B Muldavin and Gabreil .M Rebeiz , "Inline capacitive and DC Contact MEMS shunt switches ", IEEE Microwave and Wireless components letters , Vol 11,No:8,August ,2001.
19. Mai O. Sallam, Ezzeldin A. Soliman, and Sherif Sedky "Reconfigurable Micromachined Antenna with Polarization Diversity for mm-Wave Applications", 6th European Conference on Antennas and Propagation (EUCAP), 2011.
20. Dimitrios Peroulis, Sergio P. Pacheco, Kamal Sarabandi, and Linda P. B. Katehi, " Electromechanical Considerations in Developing Low-Voltage RF MEMS Switches" IEEE transactions on microwave theory and techniques, vol 51,pp. 259-269, J January 2003.
21. G. Huff, J. Feng, D Zhang, J.T. Bernard, A Novel Radiation Pattern and Frequency Reconfigurable Single Turn Square Spiral Microstrip Antenna, IEEE Microwave and Wireless Components Letters, Vol. 13, No. 2, February 2003, pp. 57-59.
22. H. Pan, J.T Bernhard, V.K. Nair, Reconfigurable Single-Armed Square Spiral Microstrip Antenna Design, IEEE International Workshop on Antenna Technology Small Antennas and Novel Metamaterials, 2006, March 6-8, 2006, pp. 180 – 183.

**Authors:** Rimpi Suman, Dinesh Kumar

**Paper Title:** Punjabi Offline Signature Verification System Using Neural Network

**Abstract:** The signature identification or verification , means where "identification" implies matching a user signature against a signature associated with the identity that the user claim. Biometrics can be classified into two types Behavioral (signature verification, keystroke dynamics, etc.) and Physiological (iris characteristics, fingerprint, etc.). Signature and Finger Print verifications are most widely used personal verifications and are one of the first few biometrics used even before computers. Signature verification is widely studied and discussed using two approaches. On-line approach and offline approach. Online signature verification represents the dynamic information related to signature which is captured at the time when signature made. The offline signature verification represents the static information of signature. Offline systems are more applicable and easy to use in comparison with on-line systems in many parts of the world however it is considered more difficult than on-line verification due to the lack of dynamic information. This paper presents about offline Signature identification method that had more attraction in recent years because of its necessity for use in daily life routines and when the signature needs to be immediately verified like bank checks, Security for Commercial Transactions, Cheque Authentication, attendance etc. In this paper we present, features types and recent methods used for features extraction in offline signature verification systems .Finally, we suggest new interesting ideas to be incorporated in the future.

General Terms Signature verification, Signature matching, biometric

**Keywords:** Signature verification techniques, Preprocessing ,feature extraction, feature detection, security.

**References:**

1. Ali Karounia , Bassam Day'ab, Samia Bahlakb, "Offline signature recognition using neural networks approach ", Published by Elsevier Ltd. Procedia Computer Science 3 (2011) 155–161.
2. Kai Huang\*, Hong Yan , " Off-line signature verification using structural feature correspondence". Pattern Recognition Society. Published by Elsevier Science Ltd.
3. Banshider Majhi, Y Santhosh Reddy, D Prasanna Babu, " Novel Features for Off-line Signature. Communication & Control Vol. I, No.1, pp. 17-24, 2006.
4. Ibrahim S. I. ABUHAIBA , " Offline Signature Verification Using Graph Matching ", Turk J Elec Engin, VOL.15, NO.1 ,2007.
5. Debasish Jena1, Banshidhar Majhi2, Saroj Kumar Panigrahy3, Sanjay Kumar Jena4, "Improved Offline Signature Verification Scheme" . IEEE international Conference ,2008
6. O.C Abikoye 1 , M.A Mabayoje 2, R. Ajibade 3 , "Offline Signature Recognition using neural networks approach" , International Journal of Computer Applications (0975 – 8887) Volume 35– No.2, 2011.
7. Ashwini Pansare, Shalini Bhatia , "Off-line Signature Verification Using Neural Network ", International Journal of Scientific & Engineering Research, Volume 3, Issue 2, February-2012 , ISSN 2229-5518.
8. Rajesh Kumar a, J.D. Sharma b, Bhabatosh Chanda c, "Writer-independent off-line signature verification using surroundedness feature", Pattern Recognition Society. Published by Elsevier Science Ltd. Pattern Recognition Letters 33 (2012) 301–308.
9. Yazan M. Al-Omari, Siti Norul Huda Sheikh Abdullah2, Khairuddin Omar3, "State-of-the-Art in Offline Signature Verification System ", 2011 International Conference on Pattern Analysis and Intelligent Robotics (IEEE).
10. Meenakshi S Arya, Vandana S Inamdar , " A Preliminary Study on Various Off-line Hand Written Signature Verification Approaches ". ©2010 International Journal of Computer Applications (0975 – 8887) Volume 1 – No. 9.
11. Abhay Bansal, Bharat Gupta, Gaurav Khandelwal, and Shampa Chakraverty, "Offline Signature Verification Using Critical Region Matching", International Journal of Signal Processing, Image Processing and Pattern Vol. 2, No.1, March, 2009.
12. Vu Nguyen, Michael Blumenstein, Graham Leedham, "Global Features for the Off-Line Signature Verification Problem", 2009 10th International Conference on Document Analysis and Recognition.
13. A. Alizadeh, T. Alizadeh, Z. Daei, "Optimal Threshold Selection for Online Verification of Signature", Proceedings of the International MultiConference of Engineers and Computer Scientists 2010 Vol I, IMECS 2010, March 17-19, 2010, Hong Kong.

**Authors:** Eman M. Nasir

**Paper Title:** Fabrication and Characterization of n-ZnS/p-Si and n-ZnS:Al/p-Si Heterojunction

**Abstract:** A thin films of ZnS and ZnS:Al with various Al concentration (0, 1, 2)%wt has been prepared successfully. Also n-ZnS/p-Si and n-ZnS:Al/p-Si heterojunction detector(HJs) has been fabricated by thermal evaporation at different Al concentration. Structure of these films was characterized by X-ray diffraction. The structures of these films are cubic zinc along (111) plane The reverse bias capacitance was measured as a function of bias voltage, and it is indicated that these HJs are abrupt. The capacitance decreases with increasing the reverse bias, and fixed at high value of reverse bias voltage. The capacitance increases with increasing Al concentration. The

419-424

425-429

width of depletion layers decreases with increases Al concentration. The value of highest built in potential varies between (2-1.37V). The current-voltage characteristic of n-ZnS/p-Si and n-ZnS:Al/p-Si heterojunction show that the forward current at dark condition varies approximately exponentially with applied voltage and the junction was coincide with recombination-tunneling model, and reverse current exhibited a soft breakdown. The difference between forward and reverse current with applied voltage indicates that the detector has a high rectification characteristic. The value of ideality factor was varies between 2.58-3.22, and the value of tunneling constant ( $A_t$ ) varies between 4.92-8.05V-1. From the I-V measurements under illumination, the photocurrent increased with increasing Al concentration. The energy band diagram for HJ has been constructed

**Keywords:** C-V measurements, heterojunction, vacuum evaporation, Zinc sulfide.

**References:**

1. K. Jayanthi, S. Chawla, H. Chander, and D. Haranath, Structural, optical and photoluminescence properties of ZnS: Cu nanoparticle thin films as a function of dopant concentration and quantum confinement effect, *Cryst. Res. Technol.* V.42 (10) (2007) pp. 976 – 982).
2. T. Ben Nasr, N. Kamoun , M. Kanzari, R. Bennaceur, Effect of pH on the properties of ZnS thin films grown by chemical bath deposition, *Thin Solid Films*, V. 500, (2006) pp.4-8.
3. B.L.Sharma, R.K.Purohit, "Semiconductors Heterojunctions", Academic Prees, Inc, Oxford, New York (1974)pp.1-15.
4. G.Milnes & D.L.Feucht, "Heterojunctions and Metal Semiconductor Junctions" Academic Prees, London (1972).
5. Huang Jian, Wang Lin-Jun, Tang Ke, Xu Run, Zang Ji-Jun, Lu Xiong-Gang, Xia Yiben, Photoresponse Properties of an n-ZnS/p-Si Heterojunction, *Chin. Phys. Lett.* V. 28, N. 12 (2011) 127301-3.
6. Liang-Wen Ji, Yu-Jen Hsiao, I-Tseng Tang, Teen-Hang Meen, Chien-Hung Liu, Jenn-Kai Tsai, Tien-Chuan Wu and Yue-Sian Wu, Annealing effect and photovoltaic properties of nano-ZnS/textured p-Si heterojunction, *Nanoscale Research Letters*, V. 8(470) (2013) 1-6
7. Shiv P. Patel , J.C. Pivin, V.V. Siva Kumar, A. Tripathi , D. Kanjilal, Lokendra Kumar, Grain growth and structural transformation in ZnS nanocrystalline thin films, *Vacuum*, V.85,pp.307-311 (2010).
8. M. Ashrat, M. Mehmood, A. Qayyum, Influence of source-to-substrate distance on the properties of ZnS films grown by close-space sublimation, *Физика и техника полупроводников*, 2012, том 46, вып. 10
9. Wang Cai-Feng, Li Qing-Shan, Lv Lei, Zhang Li-Chun, Qi Hong-Xia, Chen Hou, Structural, optical and electrical properties of ZnS/Porous Silicon heterojunction, *Chin. Phys. Lett.*, V.24, N.3(2007)825-827.
10. Wang Cai-Feng, Li Qing-Shan, Hu Bo, and Li Wei-Bing, The effect of annealing on structural, optical and electrical properties of ZnS/porous silicon composites, *Chinese Physics B*, V. 18, N. 6(2009)2610-14.
11. Salma M. Shaban, Nada M. Saeed\* and Raad M. S. AL-Haddad, Fabrication and study zinc sulfide schottky barrier detectors, *Indian Journal of Science and Technology*, V. 4, N. 4 (April 2011)pp.384-86.
12. Hai Jun Xa, He Shun Jia, Zhi Tao Yao, Xin Jian Li, Photoluminescence and I-V characteristics of ZnS grown on Silicon nonporous pillar array, *J. Mater. Res.*, V23, N.1(2008)pp.121-126.
13. Eman M. Nasir., Characterization and Physical Properties of ZnS and ZnS:Al Thin Films", *International journal of Innovative research in science engineering and technology*, To be published, 2014
14. K. W. Tek, "New Physics (Korean Physical society)", Vol. 14, No. 3, (1974) p. 109 – 13,.
15. A. G. Milnes and D. L. Feucht, "Heterojunctions and Metal-Semiconductor Junctions", Academic Press, New York, (1972).
16. S. M. Sze and K. Ng. Kwok, "Physics of Semiconductor Devices", 3rd ed., John Wiley & Sons, Inc. Hoboken, New Jersey, (2007).
17. Morgan & K.Board,"An Introduction to Semiconductor Microtechnology", John Wiley & Sons, Inc., New York (1991).
18. Mridha S and Basak D, *J. Appl. Phys.* V. 101,( 2007) 083102
19. Jeong I S, Kim J H, Park H H and Im S, *Thin Solid Films*, V. 447-448,( 2004)pp- 111.

**Authors:** **Yiannis Koumpouros, Panagiotis Kalagiakos, Anastasia Kadda**

**Paper Title:** **The Social Aspects of the Web-Based Social Network Sites: The Greek Case**

**Abstract:** The current research identifies the social implications and dimensions of the several web-based social networking sites. It targets the multiple aspects behind the need for socializing using the Internet, while revealing the results of such kind of socialization in Greece. The paper examines the statistics of the Greek population by focusing on eight major axis: membership issues, socializing, cross-cultural communication, transmission of social messages, commercial and business perspective, information technology awareness, general issues, users’ profiles. It concludes with the need for socializing through such services, the profile of the Greek users, the major reasons for having net-friends, connection statistics between different social layers, as well as the use of web social networks for business purposes.

**Keywords:** Social Network Sites, Socialization, Social Capital.

**References:**

1. Wenger, E., McDermott, R., & William, M. S. (2002) ‘Cultivating Communities of Practice: A Guide to Managing Knowledge’, Harvard Business School Press, Cambridge, USA.
2. Facebook and other social networks’, *CosmoScience*, Available at: <http://www.cosmoscience.gr/2011/02/12/facebook-twitter> (10 March 2012).
3. Facebook Usage and Facebook Growth Statistics by World Geographic Regions’, *Internet Word Stats Usage and Population Statistics*, Available at: <http://www.internetworldstats.com/facebook.htm> (10 March 2012).
4. Feld, S. (1991) ‘Why your friends have more friends than you do’, *Ammer. J. Sociolog.* vol. 96, no. 6, pp. 1464-1477.
5. Nie, H. N., & Hillygus, D. S. (2002) ‘The Impact of Internet Use on Sociability: Time-Diary Findings’, *IT & Society*, vol. 1, no. 1, pp. 1-20.
6. Schaefer, R. (2011) Exploring the Relationship between Facebook, Face-to-Face and Intercultural Communication, Thesis projects, Honors College Capstone Experience, Paper 339.
7. Lynch, G. C. (Jan 03, 2008) ‘Fake social networking profiles still big problem but don’t expect social networking sites to care’, Available at: [http://www.cio.com/article/168900/Fake\\_Social\\_Networking\\_Profiles\\_Still\\_Big\\_Problem\\_But\\_Don\\_t\\_Expect\\_Social\\_Networking\\_Sites\\_to\\_Care](http://www.cio.com/article/168900/Fake_Social_Networking_Profiles_Still_Big_Problem_But_Don_t_Expect_Social_Networking_Sites_to_Care).
8. Perez S. (February 2, 2009) ‘Fake social networking profiles: a new form of identity theft in 2009’, Available at: [http://www.readwriteweb.com/archives/fake\\_social\\_network\\_profiles\\_a.php](http://www.readwriteweb.com/archives/fake_social_network_profiles_a.php) (2 May 2012).
9. Koumpouros I, *Information and Communication Technologies & Society*. Athens, Greece: New Technologies Publications, 2012, pp. 271–304.
10. Burbary, K. (March 7, 2011) Available at: (<http://www.kenburbary.com/2011/03/facebook-demographics-revisited-2011-statistics-2/>) (10 April 2012).
11. ‘Google, Facebook Users Skew Young, Affluent, and Educated’, (n.d.). Available at: <http://www.marketingcharts.com/direct/google->

86.

430-436

	<p>facebook-users-skew-young-affluent-and-educated-16173/gallup-socnet-demographics-feb11gif/ (20 April 2012).</p> <p>12. Brad, S. (2011) 'Social Media User Statistics', Available at: <a href="http://askhaley.haleymarketing.com/2011/06/social-media-user-statistics/">http://askhaley.haleymarketing.com/2011/06/social-media-user-statistics/</a> (20 April 2012).</p> <p>13. Reisinger D. (2009) 'Study: Internet use don't cause social isolation', Available at: <a href="http://news.cnet.com/8301-1023_3-10391416-93.html">http://news.cnet.com/8301-1023_3-10391416-93.html</a> (4 April 2012).</p>					
87.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Ibrahim M. Ali, Fathy M. Ahmed</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Application of a Wigner Ville Distribution Based Method in Moving Target Detection</b></td> </tr> </table> <p><b>Abstract:</b> In the present work, a sinusoidal detection method based on Wigner–Ville distribution (WVD) proposed in [1] is applied in the Moving Target Detection (MTD) for realizing a bank of Doppler filters instead of the direct Fast Fourier Transform (FFT) or WVD in a typical ground based radar. The proposed MTD scheme does not suffer from cross terms produced due to the bilinear nature of WVD. It enhances the target detection capabilities by providing higher detection probabilities and additional gain of 9 and 11 dB in the improvement factor, in the presence of ground and weather clutter, compared to WVD and direct FFT schemes respectively. Performance of the proposed MTD scheme and the other mentioned schemes is evaluated through computer simulation by generating receiver operating characteristics (ROCs) via Monte Carlo trials.</p> <p><b>Keywords:</b> Fast Fourier Transform (FFT), Moving Target Detection (MTD), Wigner Ville distribution (WVD).</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Shahida G. Qadir, Yangyu Fan, and Fathy M. Ahmed, "A Wigner Ville Distribution Based Method for Detection of Gaussian Contaminated Sinusoidal Signal in Frequency Domain," PERS Proceedings, Marrakesh, MOROCCO, March 20-23, 2011</li> <li>2. Fathy M., Khairy A. Elbarbary, and Abdel Rahman H., "A New Approach for Moving Target Detection using Bartlett Method for Spectral Estimation," in SPPRA 2006, Innsbruck, Austria, February 15- 17,2006,</li> <li>3. Muehe, C.E., "Moving Target Detector, an Improved Ssignal Processor," Proceedings of International Conference ACARD. 1976, Vol. 195, pp. 14.1-14.10</li> <li>4. P. Krishna Kumar, and K.M.M. Prabhu, "Simulation Studies of Moving Target Detection: a New Approach With Wigner-Ville Distribution," Proc. IEE, Radar, Sonar and Navigation, Vol. 144, No. 5, 1997, pp. 259-265.</li> <li>5. J. Giridhar, and K. M. M. Prabhu, "Implementation of MTD-WVD on a TMS320C30 DSP Processor," Microprocessor and Microsystems 22, 1998, pp. 1-12.</li> <li>6. Merrill I. Skolnik, Introduction to Radar Systems, 3rd ed., McGraw-Hill, 2001.</li> <li>7. Abey Asekera, "Computation of Wigner-Ville Distribution for Complex Data" in Elertvon. Lett.. 1990, 26, (16), pp. 1315- 1317.</li> <li>8. KUMAR, P.K., and PRABHU K.M.M., "Classification of Radar Returns using Wigner-Ville Distribution," Proceedings of the IEEE International Conference on ASSP, ICASSP-96, USA, 1996,pp. 3105-3 108</li> <li>9. Mitchell, R.L., "Radar Signal Simulation, Artech House, 1976.</li> <li>10. Barlow, E.J, Doppler Radar," Proc. IRE- 37, 1949, pp. 340-355.</li> </ol>	<b>Authors:</b>	<b>Ibrahim M. Ali, Fathy M. Ahmed</b>	<b>Paper Title:</b>	<b>Application of a Wigner Ville Distribution Based Method in Moving Target Detection</b>	437-441
<b>Authors:</b>	<b>Ibrahim M. Ali, Fathy M. Ahmed</b>					
<b>Paper Title:</b>	<b>Application of a Wigner Ville Distribution Based Method in Moving Target Detection</b>					
88.	<table border="1"> <tr> <td><b>Authors:</b></td> <td><b>Deepthi Ch, G. Vijay Kumar, P Ravindra Reddy</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Thermo-Structural Response of a Rocket Thruster Using Fem</b></td> </tr> </table> <p><b>Abstract:</b> Rocket Thruster is a reaction control system of liquid rocket propulsion system, used for the attitude control of missile. The reaction control system is employed in the missile to provide roll control to the second stage after separation of the first stage. The thruster is subjected to temperature and pressure loads during its operation. It is essential for a flight vehicle to have low weight and high velocity to overcome the gravity. In order to develop compact size thruster, it is required to carry out structural analysis for SS321 material. The present report deals with analysis of Rocket Thruster casing and flange joint. The Rocket Thruster casing is designed as per ASME pressure vessel code and NASA SP 125 design report. The proposed model is a modification from the conventional joint between L-dome and injector plate. Thermo-structural analysis is performed to evaluate the new design which eliminates use of welded joint. Analysis is carried out to estimate stresses especially in the modified region to ensure less stresses are developed compared to the original design. Analysis has been carried out considering the external injector pressure for shell and then the temperature loads are applied on the thruster to estimate the deformations and stresses. The Thruster is then subjected to a thermo-structural load and then von Mises stresses are estimated.</p> <p><b>Keywords:</b> Finite Element Method, Thermo-structural response, Rocket Thruster</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. R. Taylor, safety performance advantage of nitrous oxide fuel blends (NOFBX) propellants for manned and unmanned spaceflight applications, in: L.Ouhand (Ed), proceeding of the 5th IAASS conference a safer space for safer world, European space agency, Noordwijk, Netherlands, 2012.</li> <li>2. Z.W. Peterson, closed-loop thrust and pressure profile throttling of nitrous oxide/hydroxyl-terminated polybutadiene hybrid rocket motor. A thesis in mechanical and aerospace engineering, ulah state university, 2012.</li> <li>3. W.J. You, H.J. Moon , S.P. Jang, J.K. Kim, J. Koo, Effects of porosity, pumping power, and L/D ratio on the thermal characteristics of an N2O catalytic igniter with packed bed geometry, Int. J. Heat mass transfer 53 (2010) 726-731.</li> <li>4. M.N. Sweeting, T. Lawrence, J. Leduc, low-cost orbit manoeuvres for mini satellites using novel resistijet thruster, Proc. Inst. Mech. Part G: J. Aerosp, Eng. 213 (1999) 223-231.</li> <li>5. V. Zakirov, S. Martin, Nitrous oxide as a rocket propellant, Acta Astronaut. 48 (5-12) (2001) 353-362.</li> <li>6. V. Zakirov, S. Martin, An update on surrey nitrous oxide catalytic decomposition research, in: 15th AIAA/USC Conference on small satellites. 2001</li> <li>7. V. Zakirov, L. Luming, K. Gong, N2O propulsion research at Tsinghua 2003, in: 2nd international conference on green propellant for space propulsion, 2004.</li> <li>8. V. Zakirov, S. Martin, surrey research on nitrous oxide catalytic decomposition for space applications, in: 14th AIAA/USC Conference on small satellites. 2000</li> <li>9. M.A Karabeyonglu. S.D Zilwa, B. Cantwell, G. Zilliac, Transient modeling of hybrid rocket low frequency instabilities, in: 39th AIAA/ASME/SAE/ASEE joint propulsion conference and exhibition 20-23, Huntsville, Al, 2003.</li> <li>10. W.A. Jonker, Alfons E.H.J. Mayer, barry T.c Zandbergen, Development of a rocket engine igniter using the catalytic decomposition of hydrogen peroxide. In: green propellant for space propulsion, 2006.</li> <li>11. J.C. Martin, J.M. Matthew, J.A. Sauer, H.K. William, Vortex combustion chamber development for future liquid rocket engine, AIAA-2002-</li> </ol>	<b>Authors:</b>	<b>Deepthi Ch, G. Vijay Kumar, P Ravindra Reddy</b>	<b>Paper Title:</b>	<b>Thermo-Structural Response of a Rocket Thruster Using Fem</b>	442-449
<b>Authors:</b>	<b>Deepthi Ch, G. Vijay Kumar, P Ravindra Reddy</b>					
<b>Paper Title:</b>	<b>Thermo-Structural Response of a Rocket Thruster Using Fem</b>					

4149.

12. J.A. Sauer, H.K. William, J.M. Matthew, Development of LOX/JP-1 vortex combustion cold-wall thrust chamber assembly, AIAA-2002-4144.
13. J.C. Martin, J.M. Matthew, J.A. Sauer, Vortex thrust chamber testing and analysis for O<sub>2</sub>-H<sub>2</sub> propulsion applications, AIAA-2003-4473.
14. J.C. Martin, J.A. Sauer, M.M. Scott, Laboratory characterization of vortex-cooled thrust chamber for methane/O<sub>2</sub> and H<sub>2</sub>/O<sub>2</sub>, AIAA-2005-4131.
15. B.V. Anand, M. Joseph, Characterization of the tangentially boundary layers in the bidirectional vortex thrust chamber, AIAA-2006-4888.
16. B.V. Anand, M. Joseph, J.C. Martin, The bidirectional vortex.
17. B.V. Anand, M. Joseph, J.C. Martin, The bidirectional vortex.
18. B.V. Anand, M. Joseph, J.C. Martin, The bidirectional vortex.
19. E.T. Andrew, H.K. William, The vortex-cooled chamber wall engine: A tamed tornado, SPECTIMES (March/April 2006).
20. J.R. Craig, H.A. Mark, J.C. Martin, Cold flow analysis of a vortex chamber engine for a gelled propellant combustor applications. AIAA-2004-3359.
21. M.A. Esam, M. Joseph, Hydrodynamic instability of the bidirectional vortex, AIAA-2005-4531.
22. D. Fang, M. Joseph, J.C. Martin, Hot flow model of the vortex cold wall liquid rocket, AIAA-2004-3676.
23. D. Fang, M. Joseph, J.C. Martin, Simulation of the cold-wall swirl driven combustion chamber, AIAA-2003-5055.
24. M. Joseph, D. Fang, On the directional vortex and other similarity solutions in spherical geometry, AIAA-2004-3675.
25. A. Mark, V. Rene, R. Craig, Vortex chamber flow field characterization for gelled propellant combustion applications. AIAA-2003-4474.
26. Kardomateas GA. The initial phase of transient thermal stresses due to general boundary thermal loads in orthotropic hollow cylinders. ASME J Appl Mech 1990;57: 719-24.
27. Mukherjee N, Sinha PK. Thermostructural analysis of rotationally symmetric multidirectional fibrous composite structures. Comput Struct 1997; 65(6):809-17.

<b>89.</b>	<b>Authors:</b>	<b>Magdi B. M. Amien, Alia M. A. Sidig, Razaz K. Yusif</b>	<b>450-453</b>
	<b>Paper Title:</b>	<b>Object Detection and Tracking on Three- Dimensional Images Based-on a New Multishape- Search-Pattern</b>	
	<p><b>Abstract:</b> Object detection and motion estimation are important issues in many different fields. They are widely and comprehensively used in military, robot industry, movie technology, medical field, and others. Therefore they have been the motivation of many research activities, through image and video processing. Among tens of available literature a number of approaches have been tried, but Block Matching, Optical Flow, and Block Flow are the famous techniques. This study introduces a new framework to deal with object detection and trajectory tracking problem, in a sequences of 3D ultrasound frames; firstly the traditional Block-Matching algorithm has been modified into a new multishape-search-pattern, and then we use combination of the modified-model and optical flow algorithm in a “cascade” to detect and determine the trajectory of the interested object. Atrial septal defect (ASD) has been selected as an object of case-study, and 3D ultrasound videos from “Khalifa-Hospital in Abu-Dhabi” were used as a data set, to evaluate the performance of the implemented algorithm. Comparative results show that the proposed scheme has a significant improvement in detecting and tracking ASDs, in terms of Peak Signal to Noise Ratio (PSNR) and computing velocity.</p> <p><b>Keywords:</b> Block-Matching, Computer vision technology, Objects-Detection.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. T. Koga, K. Iinuma, A. Hirano, Y. Iijima and T. Ishiguro, "Motion compensated interframe coding for video conferencing," Pro. Nat. Telecommun. Conf., New Orleans, Nov. 1981.</li> <li>2. R. Li, B. Zeng and M. L. Liou, "A new three step search algorithm for block motion estimation," IEEE Trans. on Circuits and Systems for Video Technology, Vol. 4, No. 4, pp. 438-442, Aug. 1994.</li> <li>3. L. M. Po and W. C. Ma, "A novel four-step search algorithm for fast block motion estimation," IEEE Trans. on Circuits and Systems for Video Technology, Vol. 6, Jun. 1996.</li> <li>4. S. Zhu and K. K. Ma, "A new diamond search algorithm for fast block matching motion estimation," IEEE Trans. Image Processing, Vol. 9, No. 2, pp. 287-290, Feb. 2000.</li> <li>5. B. K. P. Horn and B. G. Schunck, "Determining optical flow: a retrospective" Artificial Intelligence, vol. 59, no. 1{2, pp. 81{87, 1993.</li> <li>6. B. D. Lucas and T. Kanade, "An iterative image registration technique with an application to stereo vision," in Proceedings: Imaging Understanding Workshop, pp. 121{130, 1981.</li> <li>7. Djamal Boukerrou, J. Alison Noble, and Michael Brady "Velocity estimation in Ultrasound images: a block matching approach", LNCS 2732, Springer-Verlag Berlin Heidelberg 2003</li> <li>8. Marius George Linguraru , Nikolay V.Vasilyev, Pedro J. del Nido, and Robert D. Howe" Atrial Septal Defect Tracking in 3D Cardiac Ultrasound", LNCS 4150, Springer-Verlag Berlin Heidelberg 2006.</li> <li>9. Aroh Barjatya , "Block Matching Algorithms For Motion Estimation" , IEEE , DIP 6620 Spring 2004.</li> </ol>		

<b>90.</b>	<b>Authors:</b>	<b>Jayabhaskar Muthukuru, B. Sathyanarayana</b>	<b>454-456</b>
	<b>Paper Title:</b>	<b>A Secure Elliptic Curve Digital Signature Approach without Inversion</b>	
	<p><b>Abstract:</b> The Elliptic Curve Digital Signature Algorithm (ECDSA) is the elliptic curve analogue of the Digital Signature Algorithm (DSA). Unlike the ordinary discrete logarithm problem elliptic curve discrete logarithm problem (ECDLP) has no sub-exponential time algorithm, due to this the strength per key bit is substantially greater when compare with conventional discrete logarithm systems. Elliptic curve based digital signatures are stronger and ideal for constrained environments like smart cards due to smaller bit size, thereby reducing processing overhead. Considering the security of data it is lacking regarding random number choosing or determination. This lacking leads to recovery of the private key in original Elliptic Curve Digital Signature scheme. This problem is overcome by our proposed digital signature scheme which is presented in this paper.</p> <p><b>Keywords:</b> Digital Signature, ECDSA, Elliptic Curve Cryptography, Elliptic Curve Digital Signature Algorithm.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Araki. Kiyomichi, Takakazu Satoh, and Shinji Miura, "Overview of Elliptic Curve Cryptography," Public Key Cryptography. pp. 2948. Springer-Verlag. 1998.</li> <li>2. Rivest, R.L., Shamir, A., and Adelman, L. "A method for obtaining digital signatures and public-key cryptosystem", Commun. ACM, 1978, 21, (2). pp. 120-126.</li> </ol>		

	<ol style="list-style-type: none"> <li>3. Elgamal, T, "A public-key cryptosystem and a signature scheme based on discrete logarithms", IEEE Trans. Info. Theo, 1985, IT-31, pp. 469-472.</li> <li>4. Koblitz, Neal, "Elliptic Curve Cryptosystem", Mathematics of Computation, vol 48, no, 177, pp 203-209, 1987.</li> <li>5. Miller. Victor S., "Use of Elliptic Curves in Cryptography", Lecture Notes in Computer Sci.no. 218, pp. 417-426, Springer-Verlag. 1986.</li> <li>6. Vanstone, S. A., "Responses to NISTs Proposal", Communications of the ACM, 35, 50-52, 1992.</li> <li>7. T.Yanik, E. Savas and C. K. Koc "Incomplete reduction in modular arithmetic" IEE Proceedings, 2002.</li> <li>8. "Digital Signature Standard (DSS)", FIPS Pub.186-2" February 2000.</li> <li>9. Certicom Research, "Certicom ECC Challenge", 2009.</li> <li>10. H. Lange and W. Ruppert, "Addition laws on elliptic curves in arbitrary characteristics", Journal of Algebra, Vol.107(1),106-116, 1987.</li> <li>11. Darrel Hankerson, Alfred Menezes and Scott Vanstone,"Guide to Elliptic Curve Cryptography".</li> <li>12. Tao LONG, Xiaoxia LIU, "Two Improvements to Digital Signature Scheme Based on the Elliptic Curve Cryptosystem", Proceedings of the 2009 International Workshop on Information Security and Application, Nov-2009.</li> </ol>					
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>S.L. Jany Shabu, Dr.C. Jayakumar, T. Surya</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Survey of Image Fusion Techniques for Brain Tumor Detection</b></td> </tr> </table>	<b>Authors:</b>	<b>S.L. Jany Shabu, Dr.C. Jayakumar, T. Surya</b>	<b>Paper Title:</b>	<b>Survey of Image Fusion Techniques for Brain Tumor Detection</b>	
<b>Authors:</b>	<b>S.L. Jany Shabu, Dr.C. Jayakumar, T. Surya</b>					
<b>Paper Title:</b>	<b>Survey of Image Fusion Techniques for Brain Tumor Detection</b>					
91.	<p><b>Abstract:</b> Image Fusion is the process of combining relevant information from two or more images into a single composite image. Image fusion is used to detect the tumor by integrating two or more medical images. In this paper, we propose Genetic algorithm to detect the brain tumor, which generate solutions to optimization problems using techniques, such as selection, crossover and mutation. Before applying genetic algorithm, features of the images are extracted. Feature Extraction is a form of dimensionality reduction and it can be either general feature, such as extraction of color, texture and shape features.</p> <p><b>Keywords:</b> Feature Extraction, Genetic Algorithm, Image Fusion.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Vivek Angoth, CYN Dwith, Amarjot Singh, "A Novel Wavelet Based Image Fusion for Brain Tumor Detection", International Journal of computer vision and signal processing,2(1),2013.</li> <li>2. M .Chandana, S. Amutha, and Naveen Kumar, "A Hybrid Multi-focus Medical Image Fusion Based on Wavelet Transform". International Journal of Research and Reviews in Computer Science Vol. 2, No. 4, August 2011.</li> <li>3. Chetan K. Solanki Narendra M. Patel,"Pixel based and Wavelet based Image Fusion Methods with their Comparative Study". National Conference on Recent Trends in Engineering &amp; Technology, May 2011.</li> <li>4. K.Kannan, S.Arumuga Perumal and K.Arulmozhi. "The Review of feature Level fusion of Multi-focused images using Wavelets,Recent Patents on Signal Processing, 2010, 2, 28-38</li> <li>5. V.P.S. Naidu and J.R. Raol, "Pixel-level Image Fusion using Wavelets and principal Component Analysis". Defence Science Journal, Vol. 58, No.3, May 2008.</li> <li>6. SusmithaVekkot, and Pancham Shukla "A Novel Architecture for Wavelet based Image Fusion". World Academy of Science, Engineering and Technology, 2009</li> <li>7. V. Jyothi,B. RajeshKumar, P.Krishna Rao, D.V.RamaKoti Reddy "Image Fusion using Evolutionary Algorithm", Int. Journal of Comp. Tech.Appl.</li> <li>8. B.K Saptalakar, et al, "Segmentation based detection of brain tumor". International journal of Computer and Electronics Research.vol 2,issue</li> <li>9. Tanishzaveri, et al, "Region based image fusion for detection of Ewing Sarcoma", international conference on advances in pattern Recognition, 2009.</li> <li>10. Pareshrawat, et al, "Implementation of hybrid image fusion technique using Wavelet Based Fusion rules",International journal of Computer Technology and Electronics Engineering, vol.1,2011.</li> <li>11. Ahmed Kharrat, et al, "Detection of brain tumor in medical images". International Conference on Signals, Circuits and Systems, 2009.</li> </ol>	457-459				
92.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>A.Sathyavathi, M.R.Rajaraman, B.Kumaragurubaran, P.Gopal</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Optimization of Cutting Parameters on Surface Roughness Using CNC Turning</b></td> </tr> </table> <p><b>Abstract:</b> Paper Optimization of cutting parameters is important for achievement of high quality. Taguchi method of experimental design is one of the widely accepted techniques for off line quality assurance of products and processes. In this investigation, comparison of TiBN coated on carbide tool using Physical Vapor Deposition (PVD) machine and uncoated carbide tool, under dry condition. The chemical composition of TiBN is 0.55% Ti, 0.22%B, 0.22%N .The Work piece material is taken as Aluminium and Copper. Experiment is carried out using Taguchi's L27 orthogonal array. The effect of cutting parameters on SR was evaluated and optimum cutting conditions for minimizing the SR was determined. Analysis of variance (ANOVA) was used for identifying the significant parameters affecting the responses and Comparing the result with genetic algorithms.</p> <p><b>Keywords:</b> Computer numerical control, Surface Roughness, Optimization, Tool</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. S. Y. Liang, R. L. Hecker, and R. G. Landers, "Machining process monitoring and control: The state-of-the-art," Trans. of ASME, J. of Manufacturing Science and Engineering, 126-2, pp. 297-310, 2004.</li> <li>2. D U Braga, A E Diniz, G.W.A. Miranda, N.L. Coppini, Using a minimum quantity of lubricant (MQL) and a diamond coated tool in the drilling of aluminum-silicon alloys Journal of Materials Processing Technology. 2002, Vol. 122, pg. 127-138.</li> <li>3. Kelly JF, Cotterell MG (2002) Minimal lubrication machining of aluminium alloys. J Mater Process Technol 120:327-334</li> <li>4. M. Nouari, G. List, F. Giro, D. Coupard; Experimental analysis and optimisation of tool wear in dry machining of aluminium alloys. Wear, 255 (2003), pp. 1359-1368.</li> <li>5. MS Carrilero, JMS Sola, JM Sanchez, M. Alvarez, J. Gonzalez, M. Macros; A SEM and EDS insight into the BUL and BUE differences in the turning process of AA2024 Al-Cu Alloy. International Journal of Machine Tools and Manufacture, 42 (2002), pp. 215-220</li> <li>6. E.M.Trent,Cutting steel and iron with cemented carbide tools.Part I:An analysis of tool wear, J.Iron Steel Inst.(1963)847-855.</li> <li>7. E.M.Trent,Cutting steel and iron with cemented carbide tools.Part II:Conditions of seizure at the tool-work interface,J.Iron Steel Inst,(1963)923-932.</li> <li>8. E.M.Trent,Metal cutting and the tribology of seizure:II.Movement of work material over the tool in metal cutting,Wear 128(1988)47-64.</li> <li>9. E.M.Trent,Metal Cutting ,third ed., Butterworth- Heinemann, 1991.</li> <li>10. E.M.Trent,P.K.Wright,Metal Cutting, fourth ed., Butterworth-Heinemann,2000.</li> <li>11. W.Koenig,R.Fritsch,G.Kammermeier,New approaches to characterizing the performance of coated cutting tools,Ann.CIRP 41(1992)49-54.</li> <li>12. F.Klocke.Coated tools for metetal cutting—features and applications,a key note paper,Ann.CIRP 48(1999)515-525.</li> </ol>	<b>Authors:</b>	<b>A.Sathyavathi, M.R.Rajaraman, B.Kumaragurubaran, P.Gopal</b>	<b>Paper Title:</b>	<b>Optimization of Cutting Parameters on Surface Roughness Using CNC Turning</b>	460-465
<b>Authors:</b>	<b>A.Sathyavathi, M.R.Rajaraman, B.Kumaragurubaran, P.Gopal</b>					
<b>Paper Title:</b>	<b>Optimization of Cutting Parameters on Surface Roughness Using CNC Turning</b>					

	<p>13. H.K.Toenshoff, Coated tools for metal cutting- features and applications, in: Proceedings of the 1st International Conference on The Coatings, Thessaloniki, 1999, pp.1-20.</p> <p>14. D. Larrouquere, S. Dominiak, D. Dudzinski, Cutting forces and wear in dry machining of Inconel 718 with coated carbide tools, Wear, 2007, <a href="http://dx.doi.org/10.1016/j.wear.2006.10.009">http://dx.doi.org/10.1016/j.wear.2006.10.009</a>,</p> <p>15. Torres CD, Heaney PJ, Sumant AV, Hamilton MA, Carpick RW,</p> <p>16. Pfefferkorn FE (2009) Analyzing the performance of diamond coated micro end mills. Int J Mach Tool Manuf 49:599–612</p> <p>17. Astrand M, Selinder TI, Fietzke F, Klostermann H, PVDAI2O3- coated cemented carbide cutting tools, Surf Coat Tech, 2004</p> <p>18. Dong HY, Huang PJ, Bi YB, Study on the orthogonal cutting process of Al7050T7451 with uncoated and coated Tools, Key Eng Mat, 2009.</p> <p>19. Iqbal S, Mativenga PT, Sheikh MA, Characterization of machining of AISI 1045 steel over a wide range of cutting speeds. Part 1: investigation of contact phenomena., J Eng Manuf, 2007</p> <p>20. Grzesik W, Lutervelt CA, Analytical models based on composite layer for computation of tool-chip interface temperatures in machining steels with multilayer coated cutting tools., Ann CIRP Manuf Technol, 2005</p> <p>21. Bouzakis, K.D., et al., Application in milling of coated tools with rounded cutting edges after the film deposition., CIRP Annals - Manufacturing Technology, 2009.</p> <p>22. Corduan, N., et al. Wear Mechanisms of New Tool Materials for Ti- 6Al-4V High Performance Machining, CIRP Annals – Manufacturing Technology, 2003.</p> <p>23. Özel, T., et al, Investigations on the effects of multi-layered coated inserts in machining Ti–6Al–4V alloy with experiments and finite element simulations., CIRP Annals - Manufacturing Technology, 2010</p>					
93.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Virendra Kumar Swarnkar, K. J. Satao</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>An Implementation of Efficient Text Data Compression</b></td> </tr> </table> <p><b>Abstract:</b> The size of data related to a wide range of applications is growing rapidly. Typically a character requires 1 Byte for storing. Compression of the data is very important for data management. Data compression is the process by which the physical size of data is reduced to save on memory or improve traffic speeds on a website. The purpose of data compression is to make a file smaller by minimizing the amount of data present. When a file is compressed, it can be reduced to as little as 25% of its original size which makes it easier to send to others over the internet. Data compression may take extensions such as zip, rar, ace, and BZ2. It is normally done using special compression software. Compression serves both to save storage space and to save transmission time. The aim of compression is to produce a new file, as short as possible, containing the compressed version of the same text. Grand challenges such as the human generated project involve very large distributed databases of text documents, whose effective storage and communication requires a major research and development effort. Several text compression schemes have been introduced for reducing storage space and transfer time via a computer network. The aim of this paper is to introduce a scheme for text data compression which will take less storage space, will yield better compression rate and compression ratio.</p> <p><b>Keywords:</b> Data compression, Data decompression, Compression algorithms, Compression ratio, Compression rate.</p> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Data Compression Techniques on Text Files: A Comparison Study, July 2011</li> <li>2. Charles Bloom "Compression : News Postings : Kraft Inequality" (<a href="http://www.cbloom.com">http://www.cbloom.com</a>)</li> <li>3. <a href="http://en.wikipedia.org/wiki/Burrows%E2%80%93Wheeler_transform">http://en.wikipedia.org/wiki/Burrows%E2%80%93Wheeler_transform</a></li> <li>4. Data compression theory and algorithms, <a href="http://www.maximumcompression.com/algorithms.php">http://www.maximumcompression.com/algorithms.php</a></li> <li>5. Made Agus Dwi Suarjaya , A New Algorithm for Data Compression Optimization, IJACSA, Vol. 3, No.8, 2012</li> </ol>	<b>Authors:</b>	<b>Virendra Kumar Swarnkar, K. J. Satao</b>	<b>Paper Title:</b>	<b>An Implementation of Efficient Text Data Compression</b>	466-469
<b>Authors:</b>	<b>Virendra Kumar Swarnkar, K. J. Satao</b>					
<b>Paper Title:</b>	<b>An Implementation of Efficient Text Data Compression</b>					
94.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Er. M.Manikanda Ramkumar</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Water Quality in River Basin</b></td> </tr> </table> <p><b>Introduction:</b> To analysis the quality of water in river basin with the following objectives.  <b>OBJECTIVES OF A WATER QUALITY</b></p> <ol style="list-style-type: none"> <li>1. For enhancing good quality water to consumers.</li> <li>2. For Passage of sufficient water to the desired area.</li> <li>3. For easy availability of water to consumers so as to promote hygiene in the environment</li> </ol> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Water Supply Engineering- S.K.Garg</li> <li>2. Water Supply Engineering- Rangwala</li> </ol>	<b>Authors:</b>	<b>Er. M.Manikanda Ramkumar</b>	<b>Paper Title:</b>	<b>Water Quality in River Basin</b>	470-472
<b>Authors:</b>	<b>Er. M.Manikanda Ramkumar</b>					
<b>Paper Title:</b>	<b>Water Quality in River Basin</b>					
95.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>Authors:</b></td> <td><b>Sayed Shoheb Navid, Swayambhu S. Bhalsing, Pankaj B. Autade</b></td> </tr> <tr> <td><b>Paper Title:</b></td> <td><b>Tensile Strength of Ferro Cement With Respect to Specific Surface</b></td> </tr> </table> <p><b>Abstract:</b> Ferrocement is a term commonly used to describe a steel-and-mortar composite material .Essentially a form of reinforced concrete, it exhibits behavior so different from conventional reinforced concrete in performance, strength, and potential application that it must be classed as a completely separate material. It differs from conventional reinforced concrete in that its reinforcement consists of closely spaced, multiple layers of steel mesh completely impregnated with cement mortar.</p> <p>The use of ferrocement is a promising technology for increasing the flexural strength of deficient reinforced concrete members. The study reported herein investigates the increase in tension due to increase in contact area between wire meshes and mortar, i.e. increase in specific surface of ferrocement. For achieving higher values of specific surface, No. of Layers of meshes needs to be increased.</p> <p>So in a beam if we use ferrocement in tensile zone of beam, we will be in a position to replace steel bars used in R.C.C, saving in steel is thus achieved.</p> <p>Behavior of such Ferrocement is studied which includes following mechanical properties for determining the relations between the tensile strength of ferrocement with respect to the specific surface using various combination of</p>	<b>Authors:</b>	<b>Sayed Shoheb Navid, Swayambhu S. Bhalsing, Pankaj B. Autade</b>	<b>Paper Title:</b>	<b>Tensile Strength of Ferro Cement With Respect to Specific Surface</b>	473-475
<b>Authors:</b>	<b>Sayed Shoheb Navid, Swayambhu S. Bhalsing, Pankaj B. Autade</b>					
<b>Paper Title:</b>	<b>Tensile Strength of Ferro Cement With Respect to Specific Surface</b>					

mortar and meshes which is to be used in ferrocement.

1. Tensile Strength.
2. Compressive Strength.
3. Split Tensile Strength.

**Keywords:** R.C.C

**References:**

1. Antoine E. Naaman, "Ferrocement & laminated cementitious composites."
2. Bishwendu K.Paul & Ricardo P.Pama, "Ferrocement"
3. S.P Shah & M.G Srinivasan , "Strength & Cracking of ferrocement"
4. Ferrocement structural journal by ACT Committee 549
5. Ferrocement material & applications — Publication SP-6 1
6. J.N.Chhanda & P.C Sharma, "Quality of Cement Mortar for Ferrocement Structures"
7. IS 456:2000 "Plain & Reinforced Concrete CODE of Practice"
8. IS 10262 — 1982 „Recommended guidelines for concrete mix design"
9. Ferrocement journal — Prof. Dr. Balkrishna Divekar
10. Ferrocement under combined bending and axial loads by M .A Mansur
11. Journal of Ferrocement - Asian Institute of Technology
12. Ferrocement Society journals 2011