

Volume 1 Issue 12, November 2013

**International Journal of Innovative
Science and Modern Engineering**

ISSN : 2319 - 6386 (Online)

Website: www.ijisme.org



Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.
Exploring Innovation: A Key for Dedicated Services

Address:

22, First Floor, ShivLoka Phase-IV,
Khajuri Kala, BHEL-Piplani, Bhopal (M.P.)-462021, India

Website: www.blueeyesintelligence.org

Email: director@blueeyesintelligence.org, blueeyes@gmail.com

Cell #: +91-9669981618, WhatsApp #: +91-9669981618, Viber #: +91-9669981618

Skype #: beiesp, Twitter #: beiesp

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. Jayanthi

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, Prabudh 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, Kadayiuruppu, 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, Uttarakhand, 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, Chuncheon, Gangwondo, Korea

Dr. Sanjay M. Gulhane

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

Dr. K.K. Thyagarajan

Principal & Professor, Department of Information Technology, RMK College of Engineering & Technology, RSM Nagar, Thiruvallur, Tamil Nadu, India

Dr. P. Subashini

Assoc. 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. Senthil Kumar

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. Navaneetha krishnan

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 Manipal 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 Girija 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.

Managing Editor

Mr. Jitendra Kumar Sen

International Journal of Innovative Science and Modern Engineering (IJISME)

Editorial Board

Dr. Saeed Balochian

Associate Professor, Gonaabad Branch, Islamic Azad University, Gonabad, Iratan

Dr. Mongey Ram

Associate Professor, Department of Mathematics, Graphics Era University, Dehradun, India

Dr. Arupratan Santra

Sr. Project Manager, Infosys Technologies Ltd, Hyderabad (A.P.)-500005, India

Dr. Ashish Jolly

Dean, Department of Computer Applications, Guru Nanak Khalsa Institute & Management Studies, Yamuna Nagar (Haryana), India

Dr. Israel Gonzalez Carrasco

Associate Professor, Department of Computer Science, Universidad Carlos III de Madrid, Leganes, Madrid, Spain

Dr. Guoxiang Liu

Member of IEEE, University of North Dakota, Grand Forks, N.D., USA

Dr. Khushali Menaria

Associate Professor, Department of Bio-Informatics, Maulana Azad National Institute of Technology (MANIT), Bhopal (M.P.), India

Dr. R. Sukumar

Professor, Sethu Institute of Technology, Pulloor, Kariapatti, Virudhunagar, Tamilnadu, India

Dr. Cherouat Abel

Professor, University of Technology of Troyes, France

Dr. Rinkle Aggrawal

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

Dr. Parteek Bhatia

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

Dr. Manish Srivastava

Professor & Head, Computer Science and Engineering, Guru Ghasidas Central University, Bilaspur (C.G.), India

Dr. B. P. Ladgaonkar

Assoc. Professor&Head, Department of Electronics, Shankarrao Mohite Mahavidyalaya, Akulj, Maharashtra, India

Dr. E. Mohan

Professor & Head, Department of Computer Science and Engineering, Pallavan College of Engineering, Kanchipuram, Tamilnadu, India

Dr. M. Shanmuga Priya

Assoc. Professor, Department of Biotechnology, MVJ College of Engineering, Bangalore Karnataka, India

Dr. Leena Jain

Assoc. Professor & Head, Dept. of Computer Applications, Global Institute of Management & Emerging Technologies, Amritsar, India

Dr. S.S.S.V Gopala Raju

Professor, Department of Civil Engineering, GITAM School of Technology, GITAM, University, Hyderabad, Andhra Pradesh, India

Dr. Ani Grubisic

Department of Computer Science, Teslina 12, 21000 split, Croatia

Dr. Ashish Paul

Associate Professor, Department of Basic Sciences (Mathematics), Assam Don Bosco University, Guwahati, India

Dr. Sivakumar Durairaj

Professor, Department of Civil Engineering, Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai Tamil Nadu, India

Dr. Rashmi Nigam

Associate Professor, Department of Applied Mathematics, UTI, RGPV, Airport Road, Bhopal, (M.P.), India

Dr. Mu-Song Chen

Associate Professor, Department of Electrical Engineering, Da-Yeh University, Rd., Dacun, Changhua 51591, Taiwan R.O.C., Taiwan, Republic of China

Dr. Ramesh S

Associate Professor, Department of Electronics & Communication Engineering, Dr. Ambedkar Institute of Technology, Bangalore, India

Dr. Nor Hayati Abdul Hamid

Associate Professor, Department of Civil Engineering, Universiti Teknologi Mara, Selangor, Malaysia

Dr. C.Nagarajan

Professor & Head, Department of Electrical & Electronic Engineering Muthayammal Engineering College, Rasipuram, Tamilnadu, India

Dr. Ilaria Cacciotti

Department of Industrial Engineering, University of Rome Tor Vergata Via del Politecnico Rome-Italy

Dr. V.Balaji

Principal Cum Professor, Department of EEE & E&I, Lord Ayyappa Institute of Engg & Tech, Uthukadu, Walajabad, Kanchipuram, Tamil Nadu, India

Dr. G. Anjan Babu

Assoc. Professor, Department of Computer Science, S V University, Tirupati, Andhra Pradesh, India

Dr. Damodar Reddy Edla

Assoc. Professor, Department of Computer Science & Engineering, National Institute of Technology, Goa, India

Dr. D.Arumuga Perumal

Professor, Department of Mechanical Engg, Noorul Islam University, Kanyakumari (Dist), Tamilnadu, India

Dr. Roshdy A. AbdelRassoul

Professor, Department of Electronics and Communications Engineering, Arab Academy for Science and Technology, Electronics and Communications Engineering Dept., POBox 1029, Abu-Qir, Alexandria, Egypt

Dr. Aniruddha Bhattacharya

Assoc. Professor & Head, Department of Computer Science & Engineering, Amrita School of Engineering, Bangalore, India

Dr. P Venkateswara Rao

Professor, Department of Mechanical Engineering, KITS, Warangal, Andhra Pradesh, India

Dr. V.Mahalakshmi M.L

Assoc. Professor & Head, Institute of Management Studies, Chennai CID Quarters, V.K.Iyer Road, Mandaveli, Chennai

S. No	Volume-1 Issue-12, November 2013, ISSN: 2319-6386 (Online) Published By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.		Page No.
1.	Authors:	Thilagavathi K, Kavitha M	1-4
	Paper Title:	Spark Med: A Framework for Multimedia Medical Data Integration of Adaptive Mobile Object in Heterogeneous Systems	
	<p>Abstract: Spark Med is Self-managing, Pervasive Automated network for Medical Enterprise Data (SparkMed). It is a framework for mobile healthcare which is obtained from the improved network wireless technologies. It allows a wide range of heterogeneous medical software and database system to be dynamically incorporated in to peer to peer multimedia data. SparkMed incorporates techniques from multimedia streaming, rich Internet applications (RIA), and remote procedure call (RPC) .This framework allows medical data applications to share data among mobile host over wireless.</p> <p>Keywords: RPC, RIA, HL7; Automated systems; biomedical engineering; handheld computing; m-Health; middleware.</p> <p>References:</p> <ol style="list-style-type: none">Foundation for the National Institutes of Health. (2009). The Inaugural mHealth (mobile health) Summit, Washington D.C.[Online]. Available: http://www.fic.nih.gov/news/events/mhealthsummit.htmD. Vatsalan, S. Arunatileka, K. Chapman, G. Senaviratne, S. Sudahar, D.Wijetileka, and Y. Wickramasinghe, "Mobile technologies for enhanceHealth solutions in developing countries," in Proc. 2nd Int. Conf. eHealth,Telemed., Soc.Med., eTELEMED 2010, IncludesMLMB2010; BUSMMed 2010, pp. 84-89.R. Istepanian, C. S. Pattichis, and S. Laxminarayan, "Ubiquitous mhealth systems and the convergence towards 4G mobile technologies," in M-Health: Emerging Mobile Health Systems. New York: Springer- Verlag, 2005, pp. 3-14.J. A. Hernandez, C. J. Acuna, M. V. de Castro, E. Marcos, M. Lopez, and N. Malpica, "Web-PACS for multicenter clinical trials," IEEE Trans. Inf. Technol. Biomed., vol. 11, no. 1, pp. 87-93, Jan. 2007.I. Balasingham, H. Ihlen, W. Leister, P. Roe, and E. Samset, "Communication of medical images, text, and messages in inter-enterprise systems: A case study in Norway," IEEE Trans. Inf. Technol. Biomed.A. Rosset, L. Spadola, and O. Ratib, "OsiriX: an open-source software for navigating in multidimensional DICOM images," J. Digital Imag., vol. 17, no. 3, pp. 205-216, Sep. 2004.A. Kailas, C. Chong, and F. Watanabe, "From mobile phones to personal wellness dashboards," IEEE Pulse, vol. 1, no. 1, pp. 57-63, Jul.-Aug 2010.2007 IBM Report on Health Care. (2007), "Healthcare 2015: Win-win or lose-lose? A portrait and a path to successful transformation," IBM Institute forBusinessValue, pp. 1-8. [Online]. Available: http://www-935.ibm.J. Philbin, F. Prior, and P. Nagy, "Will the next generation of PACS be sitting on a cloud?" J. Digital Imag., vol. 24, no. 2, pp. 179-183, Apr. 2011.C. Costa, C. Ferreira, L. Bastiao, L. Ribeiro, A. Silva, and J. L. Oliveira, "Dicoogle-An open source peer-to-peer PACS," J. Digital Imag., vol. 24, no. 5, pp. 848-856, Oct. 2010.Merge Healthcare, Inc. (2011, Jun. 1). "AMICAS PACS-The first 100% web-based PACS system," [Online]. Available: www.merge.com/products/pacs/amicas-pacs/index.aspxS. G. Langer, "Challenges for data storage in medical imaging research," J. Digital Imag., vol. 24, no. 2, pp. 203-207, Apr. 2011.T. J. Farnsworth, "PACS for imaging centers," Radiol. Manage., vol. 25, no. 3, pp. 36-41, 2003.S. B. El-Ghatta, T. Clade, and J. C. Snyder, "Integrating clinical trial imaging data resources using service-oriented architecture and grid computing," Neuroinformatics, vol. 8, no. 4, pp. 251-259, Dec. 2010T.-H. Yang, Y. S. Sun, and F. Lai, "A scalable healthcare information system based on a service-oriented architecture," J. Med. Syst., vol. 35, no. 3, pp. 391-407, Jun. 2011.B. Silverman, O. Sokolsky, V. Tannen, A. Wong, and L. Lang, "HOLON/CADSE: Integrating open software standards and formal methods to generate guideline-based decision support agents," in Proc. AMIA Annual Symp., 1999'.R. Kapitzka, H. Schmidt, G. Soeldner, and F. Hauck, "A framework for adaptive mobile objects in heterogeneous environments," in OTM Conference (Lecture Notes in Computer Science). New York: Springer, 2006, pp. 1739-1756.W. Grimson, D. Berry, J. Grimson, G. Stephens, and E. Felton, "Federated healthcare record server-the Synapses paradigm," Int. J. Med. Informat., vol. 52, no. 1, pp. 3-27, 1998.D. Sullivan, K. Farion, S. Matwin, and W. Michalowski, "A conceptbased framework for retrieving evidence to support emergency physician decision making at the point of care," in Knowledge Management for Health Care Procedures, (Lecture Notes in Computer Science vol 4924), 2008, pp. 117-126M. Tsiknakis, M. Brochhausen, J. Nabrzyski, and J. Pucacki, "A semantic grid infrastructure enabling integrated access and analysis of multilevel biomedical data in support of postgenomic clinical trials on cancer," IEEE Trans. Inf. Technol. Biomed., vol. 12, no. 2, pp. 205-217, Mar. 2008.		
Authors:	Wasen Abdul Ameer Ali, Wisam Abdul Ameer Farid, Abdul Muttalib Abdullah Al-Eed		
Paper Title:	Hydrocarbons Distribution in Shatt Al-Arab River Bacteria and Fungi		
<p>Abstract: The hydrocarbons in bacteria and fungi of Shatt Al-Arab River were estimated. The bacteria contained n-alkanes from C13 to C33. While, the n-alkanes in fungi ranged from C13 to C35. The two patterns of carbon atoms numbers of n-alkanes were observed in bacteria, the low molecular weight (<20) with the predominance of C16 to C19 and the high molecular weight (>20) with the predominance of C21, C22, and C24 to C29. In fungi, the carbon atoms numbers of n-alkanes were characterized by the other two patterns, the first in the range C13 to C23 with the predominance of C13, C14, C16 and C19 to C22, and the second in the range >23 with the predominance of C27 to C30. The pristane compound was only revealed in fungi samples. The distribution patterns of carbon atoms numbers of n-alkanes and the carbon preference index (CPI) values of bacteria and fungi suggested the biogenic origin of hydrocarbons.</p> <p>Keywords: Shatt Al-Arab River, biogenic hydrocarbons, bacterial hydrocarbons, fungal hydrocarbons, n-alkanes distribution.</p>			

2.	<p>References:</p> <ol style="list-style-type: none">1. Al-Saad, H.T. (1995). Distribution and sources of hydrocarbons in Shatt Al-Arab estuary and North West Arabian Gulf. Ph.D. thesis, Biology department, Basrah University, Iraq, 186 p.2. American Petroleum Institute (API) (2001). Risk-based methodologies for evaluating petroleum hydrocarbon impacts at oil and natural gas E&P Sites. American Petroleum Institute.3. Askari, K. and Pollard, S. (2005). The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils. 1st Ed., Environment Agency, Bristol, ISBN-10: 1844323420, p. 22.4. Bagaeva, T.V. (1998) Sulfate-reducing bacteria, hydrocarbon producers. Thesis Doctoral (Biol) Dissertation, Russia, Kazan State University.5. Bagaeva, T.V. and Chernova, T.G. (1994). Comparative characteristics of extracellular and intracellular hydrocarbons of <i>Desulfovibrio desulfuricans</i>. <i>Biochemistry</i>, 59 :31–33.6. Bagaeva, T.V. and Zinurova, E.E. (2004). Comparative characterization of extracellular and intracellular hydrocarbons of <i>Clostridium pasteurianum</i>. <i>Biochemistry</i>, 69: 427–428.7. Bessey, E. A. (1950). Morphology and taxonomy of fungi. The Blakiston Co., Philadelphia, Pa.8. Calvin, M. (1969). The nature of hydrocarbons in microorganisms. In: Chemical evolution. (Calvin, M. ed). Oxford, Oxford University Press, p. 39–54.9. Eglinton, G. and Hamilton, R. J. (1963). Chemical plant taxonomy, London and New York, Academic Press, chap 8.10. Ehrhardt, M. and Petrick, G. (1993). On the composition of dissolved and particulate-association fossil fuel residues in Mediterranean surface water. <i>Marine Chemistry</i>, 42: 57-70.11. Han, J. and Calvin, M. (1969). Hydrocarbon distribution of algae and bacteria, and microbiological activity in sediments. <i>Proceeding of the National Academy of Sciences</i>, 64 :436–443.12. Hoog de, G. S. and Goarro, J. (1995). Atlas of clinical fungi Centraalbureau voor schimmel-cultures and universital rovirai virgili, Spain.13. Jankowski, G.J. and ZoBell, C.E. (1944). Hydrocarbon production by sulfate-reducing bacteria. <i>Journal of Bacteriology</i>, 47: 447.14. Joint Group of Experts on the Scientific Aspect of Marine Pollution (GESAMP) (1993). Impact of oil and related chemical wastes on the marine environment. Reports and Studies (50).15. Jones, J.G. (1969). Studies on lipids of soil microorganisms with particular reference to hydrocarbons. <i>Journal of General Microbiology</i>, 59 :145–152.16. Klenkin A.A.; Pavlenko, L.F.; Skrypnik, G.V. and Larin A.A. (2010). Biogenic hydrocarbons and their effect on oil pollution estimates of the sea os Azov. <i>Water Resources</i>, 37 (5): 699-705.17. Ladygina, N.; Dedyukhina, E.G. and Vainshtein, M.B. (2006). A review on microbial synthesis of hydrocarbons, <i>Process Biochemistry</i>, 41: 1001–1014.18. Laseter, J.L.; Hess, W.M.; Weete, J.D.; Stocks, D.L. and Weber, D.J. (1968). Chemotaxonomic and ultrastructural studies on three species of <i>Tilletia</i> occurring on wheat. <i>Canadian Journal of Microbiology</i>, 14 :1149–1154.19. Merdinger E. and Devine E.M. (1965). Lipids of <i>Debaryomyces hansenii</i>. <i>Journal of Bacteriology</i>, 89 :1488–1493.20. National Research Council (NRC) (2003). Oil in the sea III. Input, fates and effects, National Academic Press. Washington.21. Oppenheimer, C.H. (1965). Bacterial production of hydrocarbon-like materials. <i>Zeitschrift fur Allgemeine Mikrobiologie</i>, 5: 284–289.22. Oro, J.; Laseter, J.L. and Weber, D. (1966). Alkanes in fungal spores. <i>Science</i>, 154: 399–400.23. Stone, R.W and ZoBell, C.E. (1952). Bacterial aspects of the origin of petroleum. <i>Industrial and Engineering Chemistry Research</i>, 44 :2564–2567.24. Tornabene, T.G.; Morrison, S.J.; Kloos, W.E. (1970). Aliphatic hydrocarbon contents of various members of the family <i>Micrococcaceae</i>. <i>Lipids</i>, 5: 929–934.25. Tuteja, G.; Rout, C. and Bishhnoi, N.R. (2011). Quantification of polycyclic aromatic hydrocarbons in leafy and underground vegetables: A case study around Panipat City, Haryana, India. <i>Journal of Environmental Science and Technology</i>, 4: 611-620.26. Walker, J.D. and Cooney, J.J. (1973). Aliphatic hydrocarbons of <i>Cladosporium resinae</i> cultured on glucose, glutamic acid, and hydrocarbons. <i>Journal of Applied Microbiology</i>, 26: 705–8.27. Weete, J.D.; Laseter, J.L.; Weber, D.J.; Hess, W.M. and Stocks D.L. (1969). Hydrocarbons, fatty acids, and ultrastructure of smut spores. <i>Phytopathology</i>, 59 :545–51.	5-9				
3.	<table><tr><td>Authors:</td><td>I. Yugashini, S. Vidhyasri, K. Gayathri Devi</td></tr><tr><td>Paper Title:</td><td>Design and Implementation of Automated Door Accessing System With Face Recognition</td></tr></table> <p>Abstract: In the last two decades face recognition has received significant attention and an important issue in many applications such as access control, security systems, credit card verification and criminal identification. This paper proposes three main sub systems namely face recognition, face detection and automatic door access control. The face recognition and detection process is implemented by modifying principal component analysis (PCA) approach to fast based principal component analysis (FBPCA) approach, by which the captured image is detected using a web camera and compared with the image in the database. If the image is an authenticated one the door will be opened automatically else an SMS will be generated using a GSM modem to the user that an unauthorized person has entered home.</p> <p>Keywords: Face recognition (FR), Face detection (FD), Fast Based Principle Component Analysis (FBPCA) algorithm, GSM.</p> <p>References:</p> <ol style="list-style-type: none">1. John See and Sze-Wei Lee, “An Integrated Vision-based Architecture for Home Security System,” <i>IEEE Transactions on Consumer Electronics</i>, Vol. 53, pp: 489-498, No. 2, May 2007.2. Y.-K. Choi, K.-M. Kim, J.-W.Jung, S.-Y.Chun, and K.-S. Park, “Acoustic intruder detection system for home security,” <i>IEEE Trans.Consumer Electron.</i>, vol. 51, no. 1, pp: 130-138, Feb. 2005.3. F. Zuo, and P. H. N. de With, “Real-time embedded face recognitionfor smart home”, <i>IEEE Trans. Consumer Electron.</i>, vol. 51, no. 1, pp.183-190, Feb. 2005.4. Y. Zhao and Z. Ye, “A Low Cost GSM/GPRS Based Wireless Home Security System”, <i>IEEE Trans. Consumer Electron.</i>, vol. 51, no. 1, pp. 567-572, May. 2008.5. I.Kramberger, M.Grasic, and T.Rotovnik, “Door Phone Embedded System for Voice Based User Identification and Verification Platform”, <i>IEEE Transactions on Consumer Electronics</i>, Vol. 57, No. 3, pp:1212-1217, August 20116. Malik Sikandar Havat Khival. Aihab Khan. and ErumShehzadi. “SMS Based Wireless Home Appliance Control	Authors:	I. Yugashini, S. Vidhyasri, K. Gayathri Devi	Paper Title:	Design and Implementation of Automated Door Accessing System With Face Recognition	10-13
Authors:	I. Yugashini, S. Vidhyasri, K. Gayathri Devi					
Paper Title:	Design and Implementation of Automated Door Accessing System With Face Recognition					

	<p>System(HACS) for Automating Appliances and Security,” IEEE Issues in Informing Science and Information Technology, Volume 6, 2009.</p> <p>7. Ratnawati Ibrahim and Zalhan Mohd Zin, “Study of Automated Face Recognition System for Office Door Access Control Application”, IEEE 3rd Conference on Communication Software and Networks, Pg no:132-136, May 2011.</p> <p>8. Haitao Zhao, Pong Chi Yuen, and James T. Kwok, “A Novel Incremental Principal Component Analysis and Its Application for Face Recognition”, IEEE Transactions On Systems, Man, And Cybernetics—Part B: Cybernetics, Vol. 36, No. 4, pp. 873-886, August 2006.</p> <p>9. Dong-Ju Kim, Kwang-Woo Chung, and Kwang-Seok Hong, “Person Authentication using Face, Teeth and Voice Modalities for Mobile Device Security”, IEEE Trans. Consumer Electron., vol. 56, no. 4, pp. 2678-2685, Nov. 2010.</p> <p>10. WANG Liting , DING Xiaoqing and FANG Chi, “Face Live Detection Method Based on Physiological Motion Analysis”, Tsinghua Science and Technology, Volume:14, Issue: 6 pp: 685 – 690, Dec 2009.</p> <p>11. Il-Kyu Hwang, Member, IEEE and Jin-Wook Baek, “Wireless Access Monitoring and Control System based on Digital Door Lock”, IEEE Transactions on Consumer Electronics, Vol. 53, No. 4, pp:1724-1730, Nov 2007.</p> <p>12. Faundez-Zanuy, M. ; Escola Universitaria Politecnica de Matard, Barcelona, “A Door-Opening System Using A Low-Cost Fingerprint Scanner and a PC”, IEEE Magazine on Aerospace and Electronic Systems, Vol:19 , Issue: 8, pp:23-26, Aug. 2004.</p>	
4.	Authors:	Rameshwr T. Murade, MD. Manan Mujahid, M. A. M. Sabir
	Paper Title:	The Design and Implementation of a Programmable Cyclic Redundancy Check (CRC) Computation Circuit Architecture Using FPGA
	<p>Abstract: Many communication systems use the cyclic redundancy code (CRC) technique for protecting key data fields from transmission errors by enabling both single-bit error correction and multi-bit error detection.[6] Cyclic redundancy check (CRC) coding is an error-control coding technique for detecting errors that occur when a message is transmitted. Data integrity is imperative for many network protocols, especially data-link layer protocols.[4] Techniques using parity codes and Hamming codes can be used for data verification, but CRC is the preferred and most efficient method used for detecting bit errors produced from medium related noise. For example, Ethernet uses a 32-bit CRC polynomial for error detection. Data storage is another area where CRC error detection is becoming increasingly important. iSCSI implementations that utilize the TCP/IP protocol to implement Storage Area Networks (SANs) require error detection to be deployed. These operate using multi-gigabit connection speeds and thus require CRC checks to be executed at high speed as well. [9]</p> <p>Keywords: CRC, Error Correction, implementation with CRC 32, FPGA CRC.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Analysis of an error detecting code in block based transmissionB. RAMYA SREE1, B. MANJULA2, K. MURALI KRISHNA2, B. V. RAMA MOHANA RAO3 2. FPGA Implementation of CRC with Error CorrectionWael M El-Medany 3. VLSI Implementation of Parallel CRC Using Pipelining, Unfolding and Retiming Sangeeta Singh1, S. Sujana2, I. Babu3, K. Latha4 4. Design and Synthesis of a Field Programmable CRC Circuit Architecture K.V.GANESH*,D.SRI HARI**,M.HEMA*** 5. CHIPSCOPE Implementation of CRC circuit architecture G.Shanthi1, Dr.L.Padmasree 6. CRC Look-up Table Optimization for Single-Bit Error CorrectionPAN Yun , GE Ning , DONG Zaiwang 7. IEEE 802.3 Cyclic Redundancy Check Author: Chris Borrelli 8. 32-Bit Cyclic Redundancy Codes for Internet Applications Philip Koopman ECE Department & ICES 9. Design and Implementation of a Field Programmable CRC Circuit Architecture Ciaran Toal, Kieran McLaughlin, Sakir Sezer, and Xin Yang 10. Information theory by Ass.Prof.Dr. Thamer 11. References for Xilinx,inc. at www.xilinx.com/support <ol style="list-style-type: none"> 1. SP006: LocalLink Interface Specification 2. UG189: Virtex-5 FPGA CRC Wizard v1.3 User Guide 3. UG196: Virtex-5 FPGA RocketIO GTP Transceiver User Guide 4. DS100: Virtex-5 Family Overview 12. IEEE 802.3 Cyclic Redundancy Check Author: Chris Borrelli 	14-19
5.	Authors:	Rahul Umesh Kale, MD. Manan Mujahid, N. Venkataramana
	Paper Title:	Implementation of VLSI Architecture for Lifting Scheme Based DWT
	<p>Abstract: To The discrete wavelet transform (DWT) plays a central role in a number of signal and image processing applications. Owing to its importance in real-time signal processing systems, its first hardware implementation has been proposed. Subsequently, significant research effort has been made to optimize DWT/inverse DWT (IDWT) implementation, like architectures based on the folded digit-serial approach and low-complexity architectures with a reduced number of multipliers. However, these hardware architectures do not adequately address the power and area consumption issues, which often are the two most important metrics in today’s high-performance signal processing systems. The main power consuming operation in DWT/IDWT computation is filtering, which requires a significant number of multiplications. The lifting scheme is a new algorithm proposed for the implementation of the wavelet transform. It can reduce the computational complexity of DWT involved with the convolution implementation. Furthermore, the extra memory required to store the results of the convolution can also be reduced by in place computation of the wavelet coefficient with the lifting scheme. The lifting scheme consists of the following three steps associated with the lifting scheme based DWT for the one-dimensional signal:(1) Split step: The input samples are split into even samples and odd samples ,(2) Predict step (P): The even samples are multiplied by the predict factor and then the results are added to the odd samples to generate the detailed coefficients;(3) Update step (U): The detailed coefficients computed by the predict step are multiplied by the update factors and then the results are added to the even samples to get the coarse coefficients. One of the elegant features of the</p>	20-24

	<p>lifting scheme is that the inverse transform is a mirror of the forward transform.</p> <p>Keywords: Discrete Wavelet Transform, Lifting schemes, VLSI architectures, Inverse lifting scheme.</p> <p>References:</p> <ol style="list-style-type: none"> 1. S.Mallat, (1989), "A theory for multiresolution signal decomposition: the wavelet representation", IEEE Trans. Pattern Anal. Mach. Intel.11, 674–693. 2. Chao Cheng and Keshab K. Parhi,(2008), "High-Speed VLSI Implementation of 2-D Discrete Wavelet Transform", IEEE Transactions on Signal Processing, Vol. 56, No. 1. 3. Usha Bhanu.N and Dr.A. Chilambuchelvan," A Detailed Survey on VLSI Architectures for Lifting based DWT for efficient hardware implementation" International Journal of LSI design & Communication Systems (VLSICS) Vol.3, No.2, April 2012 4. C.J Lian, K.F. Chen, H.H. Chen, and L.G. Chen,(2001), "Lifting Based Discrete Wavelet Transform Architecture for JPEG2000", IEEE International Symposium on Circuits and Systems, Sydney, Australia. 5. Naseer M. Basheer, Mustafa Mushtak Mohammed," Design and FPGA Implementation of a Lifting scheme 2D DWT Architecture" International Journal of Recent Architecture for Image Processing" Progress In Electromagnetic Research Symposium Proceedings, Moscow, Russia, August 18-21 Technology and Engineering (IJRTE) Volume-2, Issue- 1, March 2013 6. Karthikeyan A , Saranya P, Jayashree N ,” An Efficient VLSI Architecture for 3D DWT Using Lifting Scheme”, International Journal of Engineering Science and Innovative Technology (IJESIT) Volume 2, Issue 1, January 2013 7. Cheng-yi Xiong,a,b,?, Jian-hua Houa,b, Jin-wen Tianb,Jian Liub ,” Efficient array architectures for multi- dimensional lifting-based discrete wavelet transforms”, signal Processing 87 (2007) 1089–1099 8. I. Daubechies, W. Sweldens,(1998), "Factoring wavelet transform into lifting steps", J. Fourier Anal. Appl. 4, 247– 269 	
6.	Authors:	Mukesh, Sanjeev Sharma
	Paper Title:	Effect of Parameters on Weld Pool Geometry in 202 Stainless Steel Welded Joint Using Tungsten Inert Gas (TIG) Process
	<p>Abstract: Tungsten inert gas welding is found important in those applications where it is required to control the weld bead shape and metallurgical characteristics. To consider the quality characteristics, Taguchi method is applied in order to analyze the effect of each welding process parameters on the weld geometry. Orthogonal array L9 is applied for conduct the experimentation. Three input machine parameters namely current, welding speed and gas flow rate were varied at three different levels to find out the influence of parameters on weld bead geometry i.e. weld bead width and weld bead height. The quality and accuracy of the weld joint was studied along with microstructure. This paper deals with the study of weld bead geometry of austenitic stainless steel 202 using tungsten inert gas (TIG) welding. Experimental results are provided to illustrate the proposed approach and an optimal value of 0.35 mm is obtained in case of weld bead height and 8.63 mm in weld bead width. Microstructure of weld metal structure shows delta ferrite in matrix of austenite.</p> <p>Keywords: GTAW welding, Stainless steel 202, TIG welding, Weld bead geometry, Taguchi method.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Raafal M. Molak, Krystian Paradowski, Measurement of mechanical properties in 316L stainless steel welded joint, Int. J. Pressure vessels an piping, 86 (2009) 43-47. 2. Lothongkum G, Vivanit E, Bhandhubanyong P. Study on the effects of pulsed TIG welding parameters on delta-ferrite content, shape factor and bead quality in orbital welding of stainless steel plate. J Mater Process Technol 110 (2001) 233-238. 3. Ahmet Durgutlu, Experimental investigation of the effect of hydrogen in argon as a shielding gas on TIG welding of austenitic stainless steel, Materials and Design 25 (2004) 19-23. 4. Juang SC, Tarng YS. Process parameter selection for optimizing the weld pool geometry in the tungsten inert gas welding of stainless steel. J Mater Process Technol 122 (2002) 33-37. 5. Cary HB. 2nd ed. Modern welding technology.AWS,(1981). 82-85. 6. X.M. Zeng, J. Lucas M.T.C. Fang, Use of neural networks for parameter prediction and quality inspection in tungsten inert gas welding, Trans. Inst. Measur. Contr. 15 (2) (1993) 87-95 7. Y.M. Zhang, R. Kovacevic, L. Li. Characteristics and real time measurement of geometrical appearance of weld pool, Int. J. Mach. Tools Manf. 36 (1996) 799-816 8. Y.S. Tarng, H.L. Tsai, S.S. Yeh, Modelling, optimization and classification of weld quality in TIG welding, Int. J. Mach Tools Manf. 39 (9) (1999) 1427-1438. 9. S.C. Jaung, Y.S. Tarng, Process parameter selection for optimizing the weld pool geometry in the tungsten inert gas welding of stainless steel, J. of Material Processing Technology 122 (2002) 33-37 10. Tsann-Shyi Chern, Kuang-Hung Tseng and Hsien-Lung Tsai, Study of the characteristics of duplex stainless steel activated tungsten inert gas welds, J Materials and Design 32 (2011) 255-263. 11. Yan Jun, Gao Ming, Zeng Xiaoyan, Study microstructure and mechanical properties of 304 stainless steel joints by TIG, laser and laser-TIG hybrid welding, J Optics and Lasers in Eng 48 (2010) 512-517. 12. Morisada Yoshiska, Fujii Hidetoshi, Inagaki Fuminori, Kamai Masayoshi, Development of high frequency tungsten inert gas welding method, J Materials and Design, 44 (2013) 12-16. 13. Durgutlu Ahmet, Experimental investigation of the effect of hydrogen in argon as a shielding gas on TIG welding of austenitic stainless steel, Turk J Materials and Design 25 (2004) 19-23. 14. Kang B.Y, Prasad Yarlagadda K.D.V, Kang M. J, Kim H.J, Kim I.S, The effect of alternate supply of shielding gases in austenitic stainless steel GTA welding, J Mat Process Techn 10 (2009) 4722-4727. 15. G. Taguchi, Introduction to quality Engineering, Asian Productivity Organisation, Tokyo, 1990. 16. P.J. Ross, Taguchi Techniques for Quality Engineering, McGraw Hill, New York, 1988. 17. G.S.Peace, Taguchi Methods: A hand-on Aproach, Assison- Wesley, Reading, M.A, 1993. 	
	Authors:	I. D. Soubache, P. Sudhakara Reddy
	Paper Title:	Economic Dispatch Problem Using Shuffled Frog Leaping Algorithm

	<p>Abstract: A new evolutionary algorithm known as the shuffled frog leaping algorithm is presented in this paper, to solve the economic dispatch (ED) problem of thermal plants. The proposed optimization technique can take care of economic dispatch problems involving constraints such as transmission losses, power balance and generation capacity. The feasibility of the proposed method is demonstrated for three units and six units systems, and is compared with Particle Swarm Optimization (PSO) and Genetic Algorithm (GA) and methods in terms of the solution quality and computation efficiency. Compared with the other existing techniques, the proposed algorithm has been found to perform better in a number of cases. Considering the quality of the solution obtained, this method seems to be a promising alternative approach for solving the ED problems in practical power system.</p> <p>Keywords: Shuffled frog leaping algorithm (SFLA), Economic Dispatch (ED), Particle Swarm Optimization (PSO), Genetic Algorithm (GA).</p> <p>References:</p> <ol style="list-style-type: none">1. B. H. Chowdhury and S. Rahman, "A review of recent advances in economic dispatch," IEEE Trans. Power Systems, vol. 5, no. 4, pp. 1248–1259, Nov. 1990.2. A. J. Wood and B. F. Wollenberg, Power generation operation and control, 2nd ed. John Wiley and Sons, 1996.3. Z. X. Liang and J. D. Glover, "A zoom feature for a dynamic programming solution to economic dispatch including transmission losses", IEEE Trans. on Power Systems, vol. 7, no. 2, pp. 544-550, May 1992.4. P. H. Chen and H. C. Chang, "Large Scale Economic Dispatch by Genetic Algorithm", IEEE Trans. on Power Systems, vol. 10, no. 4, Nov. 1995.5. A. Bakirtzis, V. Petridis, and S. Kazarlis, "Genetic algorithm solution to the economic dispatch problem," Proc. Inst. Elect. Eng.–Gen., Transm. Dist., vol. 141, no. 4, pp. 377–382, July 1994.6. K. P. Wong and Y. W. Wong, "Genetic and genetic/simulated — Annealing approaches to economic dispatch," Proc. Inst. Elect. Eng., pt. C, vol. 141, no. 5, pp. 507–513, Sept. 1994.7. D. N. Simopoulos, S. D. Kavatzia and C. D. Vournas, "Unit commitment by an enhanced simulated annealing algorithm," IEEE Trans. on Power Systems, vol. 21, No. 1, Feb. 2006.8. T. Yalcionoz, H. Altun, and M. Uzam, "Economic dispatch solution using a genetic algorithm based on arithmetic crossover," in Proc. IEEE Proto Power Tech. Conf., Proto, Portugal, Sept. 2001.9. C.-L. Chiang, "Improved genetic algorithm for power economic dispatch of units with valve-point effects and multiple fuels," IEEE Trans. on Power Systems, vol. 20, no. 4, pp. 1690–1699, Nov. 2005.10. Z. L. Gaing, "Particle Swarm Optimization to Solving the Economic Dispatch Considering the Generator Constraints", IEEE Trans. on Power Systems, vol. 18, No. 3, Aug. 2003.11. J. Kennedy and R. Eberhart, "Particle swarm optimization", Proc. IEEE Int. Conf. Neural Networks, vol. 4, pp. 1942–1948, 1995.12. J. B. Park, K. S. Lee, J. R. Shin and K. Y. Lee, "A particle swarm optimization for economic dispatch with nonsmooth cost functions", IEEE Trans. on Power Systems, vol.20, no.1, Feb 2005.13. M. M. Eusuff, K. E. Lansey, and F. Pasha, "Shuffled frog-leaping algorithm: A memetic meta-heuristic for discrete optimization," Eng. Optimiz., vol. 38, no. 2, pp. 129–154, 2006.14. X. Zhang, X. Hu, G. Cui, Y. Wang, and Y. Niu, "An improved shuffled frog leaping algorithm with cognitive behavior," in Proc. 7th World Congr. Intelligent Control and Automation, 2008.15. M. Eslamian, S. H. Hosseinian, and B. Vahidi, "Bacterial foragingbased solution to the unit-commitment problem," IEEE Trans. Power Syst., vol. 24, no. 3, pp. 1478–1488, Aug. 2009.16. H. Elbehairy, E. Elbeltagi, and T. Hegazy, "Comparison of two evolutionary algorithms for optimization of bridge deck repairs," Computer- Aided Civil Infrastr. Eng., vol. 21, pp. 561–572, 2006.17. A. Rahimi-Vahed and A. H. Mirzaei, "Solving a bi-criteria permutation flow-shop problem using shuffled frog-leaping algorithm," in Soft Computing. New York: Springer-Verlag, 2007.18. X.-H. Luo, Y. Yang, and X. Li, "Solving TSP with shuffled frog-leaping algorithm," in Proc. ISDA 2008, vol. 3, pp. 228–232.19. E. Elbeltagi, T. Hegazy, and D. Grierson, "Comparison among five evolutionary-based optimization algorithms," Adv. Eng. Informat., vol. 19, no. 1, pp. 43–53, 2005.20. J. Kennedy and R. C. Eberhart, "Particle swarm optimization," in Proc. IEEE Conf. Neural Networks, 1995, vol. 4, pp. 1942–1948.21. M. M. Eusuff and K. E. Lansey, "Optimization of water distribution network design using the shuffled frog leaping algorithm," J. Water Resour. Plan. Manage., vol. 129, no. 3, pp. 210–225, 2003.22. T. H. Huynh, "A modified shuffled frog leaping algorithm for optimal tuning of multivariable PID controllers," in Proc. ICIT 2008, pp. 1–6.23. M. Vanitha and K. Thanushkodi, "Solution to Economic Dispatch Problem by Differential Evolution Algorithm Considering Linear Equality and Inequality Constrains," IJRRECE, vol. 1, no. 1, March 2011	32-37				
	<table><tr><td>Authors:</td><td>Divya Mittal, Sukhjinder Kaur</td></tr><tr><td>Paper Title:</td><td>Enhanced Location-Aware Routing Protocol for Wireless Sensor Network</td></tr></table> <p>Abstract: Minimizing Energy consumption is considered as one of the most important principles in the development of routing protocols for Wireless Sensor Networks (WSN). In this, we propose a Location based Energy-Aware Reliable routing protocol (LEAR) for WSN based on sensor position and clustering. Clustering-based routing protocols are more useful in the context of energy efficiency where several sensor nodes in the communication range of one another form a cluster. Each cluster has a cluster head (CH), which coordinates all the nodes of a cluster. There may be a number of base stations (BS) also known as sink in a WSN that communicate with other networks. Most of the existing geographic routing protocols make use of greedy routing to forward packets from source to destination. Enhance Greedy Forwarding is proposed to perform a geographic, efficient and reliable routing for WSN. A comprehensive simulation study illustrates that the lifetime of WSN can be consequentially extended with LEAR. Finally, LEAR algorithm has been developed, tested and validated through a set of experiments to illustrate the relative advantages and capabilities of a proposed algorithm. Existing cluster-based mobile routing protocols such as LEACH-Mobile, LEACH-Mobile-Enhanced and CBR-Mobile consider only the energy efficiency of the sensor nodes. However, reliability of routing protocols by incorporating fault tolerance scheme is significantly important to identify the failure of</p>	Authors:	Divya Mittal, Sukhjinder Kaur	Paper Title:	Enhanced Location-Aware Routing Protocol for Wireless Sensor Network	
Authors:	Divya Mittal, Sukhjinder Kaur					
Paper Title:	Enhanced Location-Aware Routing Protocol for Wireless Sensor Network					

	<p>data link and sensor nodes and recover the transmission path. In this study the authors, we propose a location-aware and fault tolerant clustering protocol for mobile WSN (LFCP-MWSN) that is not only energy efficient but also reliable. LFCP-MWSN also incorporates a simple range free approach to localize sensor nodes during cluster formation and every time a sensor moves into another cluster.</p> <p>Keywords: Wireless Sensor Network, Location Based Energy Aware Reliable Routing Protocol (LEAR), Base Station.</p>					
8.	<p>References:</p> <ol style="list-style-type: none">1. Awwad, S.A.B., Ng, C.K., Noordin, N.K., Rasid, M.F.A.: ‘Cluster based routing protocol for mobile nodes in wireless sensor network’. Int. Symp. on Collaborative Technologies and Systems, CTS’ 09, 2009, pp. 233–2412. Duresia, A., Paruchuri, V., Barolli, L.: ‘Clustering protocol for sensor networks’. 20th Int. Conf. on Advanced Information Networking and Applications, AINA 2006, 2006, vol. 2, p. 53. Martirosyan, A., Boukerche, A., Pazzi, R.W.N.: ‘A taxonomy of clusterbased routing protocols for wireless sensor networks’. Int. Symp. On Parallel Architectures, Algorithms, and Networks, I-SPAN 2008, 2008, pp. 247–2534. Kim, D.-S., Chung, Y.-J.: ‘Self-organization routing protocol supporting mobile nodes for wireless sensor network’. First Int. Multi-Symp. On Computer and Computational Sciences (IMSCCS’06), 20065. Kumar, G.S., Vinu, M.V., Athithan, P.G., Jacob, K.P.: ‘Routing protocol enhancement for handling node mobility in wireless sensor networks’. TENCON 2008–2008 IEEE Region 10 Conf., 2008, pp. 1–66. Bajaber, F., Awan, I.: ‘Dynamic/static clustering protocol for wireless sensor network’. Second UKSIM European Symp. on Computer Modeling and Simulation, EMS ’08, 2008, pp. 524–5297. Zheng, G.-p., Zhou, Y.: ‘An energy-aware cluster protocol for wireless sensor networks’. Second Int. Conf. on Innovative Computing, Information and Control, ICICIC ’07, 2007, pp. 473–4738. Huang, B., Hao, F., Zhu, H., Tanabe, Y., Baba, T.: ‘Low-energy static clustering scheme for wireless sensor network’. Int. Conf. on Wireless Communications, Networking and Mobile Computing, WiCOM 2006, 2006, pp. 1–49. Duan, Z.-f., Guo, F., Deng, M.-x., Yu, M.: ‘Shortest path routing protocol for multi-layer mobile wireless sensor networks’. Int. Conf. on Networks Security, Wireless Communications and Trusted Computing, 2009, pp. 106–11010. Kweon, K., Ghirn, H., Hong, J., Yoon, H.: ‘Grid-based energy-efficient routing from multiple sources to multiple mobile sinks in wireless sensor networks’. Proce. Fourth Int. Conf. on Wireless Pervasive Computing, Melbourne, Australia, 11–13 February 2009, pp. 185–18911. Xing, G., Lu, C., Pless, R., Huang, Q.: ‘Impact of sensing coverage on greedy geographic routing algorithms’, IEEE Trans. Parallel Distrib. Syst., 2006, 17, (4), pp. 348–36012. Karim, L., Nasser, N., Salti, T.E.: ‘RELMA: a range free localization approach using mobile anchor node for wireless sensor networks’. IEEE Globecom 2010, Miami, FL, 6–10 December 2010.13. Tang, F., Guo, M., Li, M., Wang, Z., Cheng, Z.: ‘Scalable and secure routing for large-scale sensor networks,’ IEEE/IFIP Int. Conf. on Embedded and Ubiquitous Computing, EUC ’08, 2008, vol. 2, pp. 300–30514. Cho, J., Choe, J.: ‘A cluster-based routing protocol for supporting mobile sinks in sensor network’. Int. Conf. on Information Networking, ICOIN 2008, 2008, pp. 1–515. Karim, L., Nasser, N.: ‘Energy efficient and fault tolerant clustering protocol for mobile sensor network’. IEEE Int. Communications Conf. (ICC’11), Kyoto, Japan, 5–9 June 201116. Lambrou, T.P., Panayiotou, C.G.: ‘A survey on routing techniques supporting mobility in sensor networks’. Fifth Int. Conf. on Mobile Ad-Hoc and Sensor Network, MSN ’09, 2009, pp. 78–8517. Martirosyan, A., Boukerche, A.: ‘Performance evaluation of an energy-aware clustering protocol for wireless sensor networks’. Int. Conf. on Parallel Processing Workshops, ICPP-W ’08, 2008, pp. 67–7218. Lewis, F.L. Wireless Sensor Networks. Automation and Robotics Research Institute, The University of Texas at Arlington: Ft. Worth, Texas, USA, 2004; pp. 1-18.19. Younis, M.; Youssef, M.; Arisha, K. Energy-aware routing in cluster-based sensor networks. In Proceedings of the 10th IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS2002), Fort Worth, TX, USA, October 2002.20. Schurgers, C.; Srivastava, M.B. Energy efficient routing in wireless sensor networks. In TheMILCOM Proceedings on Communications for Network-Centric Operations: Creating the Information Force, McLean, VA, USA, 2001.21. Shah, R.; Rabaey, J. Energy aware routing for low energy ad hoc sensor networks. In Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), Orlando, FL, USA, March 2002.22. Rodoplu, V.; Meng, T.H. Minimum energy mobile wireless networks. IEEE J. Sel. Area Commun. 1999, 17, 133344. Sensors 2010, 10 1052123. Li, L.; Halpern, J.Y. Minimum-energy mobile wireless networks revisited. IEEE Int. Conf. Commun. 2001, 1, 278-283.	38-43				
	<table><tr><td>Authors:</td><td>Usha Rani K. R, Ravishankar S, H. M. Mahesh, Nandan Nayak, Vijay Singh</td></tr><tr><td>Paper Title:</td><td>Broad Band Transmission Over Residential Power Lines Employing VDSL2: The Channel Capacity Analysis</td></tr></table> <p>Abstract: Bridging and Transmission of VDSL2 broadband over power lines has received considerable attention recently to cater to broadband distribution within the premises of a residence. Power lines are fundamentally different from telephone lines both in topology and load impedance. Power lines have a thicker gauge and shorter straight lengths, apart from a large number of bridge taps (BT) with inductive load terminations, which are not matched to line impedances. In this paper ABCD parameters of the individual sections are used to analyze the power line channel of upto 10 bridge taps over a 600 meter length. The noise profiles considered include periodic impulse noise which is predominant over power line sections, apart from AWGN. Impulse noise PSD has been computed. Tone loading profiles have been obtained using Discrete Multitone Transmission (DMT) as in VDSL2 over a bandwidth of 30 MHz. This analysis points to the fact that lower Transmit PSD would suffice to match the rates achievable by traditional VDSL2 when bridge taps are open. However with inductive loads in the BTs as is typical in residences, we recommend a two-step approach of (a) equipping existing VDSL2 modem front end hybrids with settable impedances that would approach a conjugate match of the loaded line along with (b) capability to nominally increase the Transmit PSD and added subbands to achieve the desired rates in a seamless manner as in VDSL2.</p> <p>Keywords: Channel modelling, discrete multitone, Power line communication.</p>	Authors:	Usha Rani K. R, Ravishankar S, H. M. Mahesh, Nandan Nayak, Vijay Singh	Paper Title:	Broad Band Transmission Over Residential Power Lines Employing VDSL2: The Channel Capacity Analysis	
Authors:	Usha Rani K. R, Ravishankar S, H. M. Mahesh, Nandan Nayak, Vijay Singh					
Paper Title:	Broad Band Transmission Over Residential Power Lines Employing VDSL2: The Channel Capacity Analysis					

9.	<div>References:</div> <div><div><div>1. S.Galli, Anna scaglione,k. Dostert. "Broadband is power: Internet access through the power line network" IEEE Communications Magazine, Guest editorial, PP. 82-83, May 2003.</div><div>2. Yu-ju Lin, Hanipath A.Latchman, and Minkyu Lee "A power line communication network infrastructure for the smarhome" IEEE Wireless Communications, 1070- 9916/02, Dec.2002.</div><div>3. Alexandre Matov "Measurements and Modeling of Power Line Channel at High Frequencies" Integrated systems Lab.Swis federal institute of tech., Lausanne, Switzerland</div><div>4. Yu-ju Lin, Hanipath A.Latchman, and Minkyu Lee "A power line communication network infrastructure for the smarhome" IEEE Wireless Communications, 1070- 9916/02, Dec.2002.</div><div>5. Huaiyu Dai,H.Vincent poor "Advanced Signal Processing for Power Line Communications" IEEE Communications Magzine, vol..0163-6804/03, PP.107,,May 2003.</div><div>6. Matthias gotz, Manuel rapp, and Klaus dostert, "Power line channel characteristics and their effect on communication system design" in IEEE communication magazine, April 2004</div><div>7. H.Meng, S.Chen, Y.L.Guan " Modeling of Transfer Characteristics for the Broadband Power Line CommunicationChannel" IEEE Transactions on power delivery, vol.19, No.3,july 2004.</div><div>8. M.Zimmermann and K.Dostert "A Multi path model for the power line channel" IEEE transactions on communications, vol. 50, no4, April 2002</div><div>9. Huangqiang LI, Yunlian Sun, Yao Yao " The indoor power line channel model based on two-port network theory" IEEE Xplore ,2008</div><div>10. Soo-young jung, Tae-hyun kim, myung-un Lee, Wook-hyun kwon, "Modeling and Simulation of power line channel" School of Electrical engineering Seoul t'l University.</div><div>11. ITU Recommendation,G.993.2 (02/2006)Very high speed Digital subscriber lines,Telecommunication standardization sector of ITU.</div><div>12. Thomas Starr, John.m.Cioffi, Peter.J.Silverman,Understanding Digital Subscriber Line Technology, PrenticeHal Publication,1999</div><div>13. David.k.Cheng, Field and wave electromagnetics, 2nd edition., Pearson Education Inc. 2006</div><div>14. H.Meng,Y.L.Guan, "Modeling and Analysis of noise effects on broadband power-line Communications" in IEEE transactions on power delivery, vol.20, no.2, April 2005.</div><div>15. Mohamed Tlich, Hassina Chaouche, Ahmed Zeddami, Pascal Pagani, "Novel Approach for PLC Impulse Noise Modeling" in IEEE Explore 978-1 -4244-3790-0/90. ISPLC 2009.</div><div>16. D.Chariag,D.Guezgouz,Y.Raingaud,J-C.Lebunetel, "Channel Modeling and Periodic Impulsive Noise Analysis in Indoor Power Line" in IEEE International Symposium on Power Line Communications and its Applications, 2011</div><div>17. Y.H.Ma,P.L.So, E.Gunawan,Y.L.Guan, " Analysis of impulse Noise and Multipath Effects on Broadband Power Line Communications" in International Conference on Power System Technology, Nov.2004, Singapore.</div><div>18. M.Zimmermann and K.Dostert " Analysis and Modeling of Impulsive Noise in Broad- band Powerline Communication" in IEEE Transactions on Electromagnetic Compatability, Vol.44, No.1, Feb.2002</div><div>19. V.Degardin, M.Lienard, A.Zeddami,F.Gauthier, P.Degaue, "Classification and Characterization of Impulsive Noise on Indoor Power Line Used For Data Communications" IEEE Explore 2002.</div><div>20. Shinya Honda, Daisuke Umehara, Taro Hayasaka, Sathosaisuke Umehara, Taro Hayasaka, Sathoshi Denno and Masahiro Morikura, " A Fast Bit Loading Algorithm Syncit Loading Algorithm Synchhronized with Commercial Power Supply for Inhome PLC Systems" 978-1-4244 -1976-0/08, IEEE 2008.</div><div>21. Nikoloas Papandreou, Theodore Antonakopoulos, "A New Computationally Efficient Discrete Bit- Loading Algorithm for DMT Applications" in IEEE Transactions on Communications, VOL 53, NO.5,May 2005.</div><div>22. Sobia Baig,Nasir D.Gohar, " Discrete Multi- tone(DMT) Transceiver with Dynamic Rate Adaptive Water-Filling Bit-loading Technique for -home Power Line Communication Networks" Proceedings IEEE INMIC 2003</div><div>23. David E. Goldberg, " Genetic Algorithms in search Optimization and Machine Learning" Addison Wiley Publishing company Inc.,1989</div><div>24. Usha Rani.K.R,Dr.S.Ravishankar, "Performance Analysis for Broadband over residential power lines using VDSL2 Profiles" in the proceedings IEEE International Conference Signal processing, Communication & Computing (ICSPCC2011), 14th -16th Sept.2011, Xi'an, China.</div></div></div>	44-53
10.	<div><div><div>Authors:</div><div>C. Veeramani, G. Mohan</div></div><div><div>Paper Title:</div><div>Dynamic Performance Analysis and Voltage Regulation of a Wind Energy Conversion System with STATCOM</div></div><div><div>Abstract:</div><div>Aim of this paper is to present the model and control design of a conventional wind energy system by employing induction generator. The system is divided into three stages whereas stage one consists of induction generator engendered by horizontal axis wind turbine and bordered to function by a twofold overhead transmission line. Second stage is to interface a static synchronous compensator (STATCOM) with the induction generator’s terminal in order to regulate its voltage level. The third stage deals with controlling the mechanical power unit by blade pitch-angle. The proposed system has been evaluated using MATLAB/SIMULINK software. The simulation result proves the efficiency of the closed loop system beneath various sorts of disturbances.</div></div><div><div>Keywords:</div><div>Induction generator, Static synchronous compensator (STATCOM), Wind turbine, PI controller.</div></div><div><div>References:</div><div><div><div>1. O. Wasynczuk, D. T. Man, and J. P. Sullivan, "Dynamic behavior of a class of wind turbine generators during random wind fluctuations," IEEE Trans. on PAS, vol. 100, no. 6, pp. 2837–2845, June 1981.</div><div>2. J. R.Winkelman and S. H. Javid, "Control design and performance analysis of a 6 MW wind turbine generator," IEEE Trans. on PAS, vol. 102, no. 5, pp. 1340–1347, May 1983.</div><div>3. B. S. Borowy and Z. M. Salameh, "Dynamic response of a stand-alone wind energy conversion system with battery energy storage to a wind gust," IEEE Trans. on EC, vol. 12, no. 1, pp. 73–78, Mar. 1997.</div><div>4. F. P. de Mello, J.W. Feltes, L. N. Hannett, and J. C. White, "Application of induction generators in power system," IEEE Trans. on PAS, vol. 101, no. 9, pp. 3385–3393, 1982.</div><div>5. I. Boldea and S. A. Nasar, Electric Machine Dynamics. NewYork, NY: Macmillan Publishing Company, 1986</div><div>6. Hingorani N.G. and Gyugyi, L. (2000), "Understanding FACTS", The Institute of Electrical and Electronics Engineers, New York.</div><div>7. Sen, K.K.(1999), "STATCOM-static synchronous compensator theory, modelling and applications", IEEE PES Winter Meeting 2, pp.1177-1183.</div><div>8. Krause, P.C., O. Wasynczuk, and S.D. Sudhoff, Analysis of Electric Machinery, IEEE Press, 2002.</div></div></div></div></div>	54-59

	9. Mohan, N., T.M. Undeland, and W.P. Robbins, Power Electronics: Converters, Applications, and Design, John Wiley & Sons, Inc., New York, 1995, Section 8.4.1.	
	Authors: Shaik Nahid, Srinivas Padala, V. Samson Deva Kumar	
	Paper Title: Design and Development of Train Tracking System in South Central Railways	
11.	<p>Abstract: Rail tracking system (RTS) is an advanced method used to track and monitor any train equipped with a MCU unit that receives and transfers signals through GPS satellite. RTS is a combination of Global Positioning System (GPS) that provides actual geographic real time position of each train. The entire transmission mechanism of RTS setup depends on GPS satellite, a receiver on the train, a GSM system and controller based tracking for dispatch. The GSM communication system is generally the same as cellular phone network. The two most common RTS systems are like GPS based and Signpost based. The Signpost-based RTS system was used earlier but with the development of modern satellites GPS used technology is more use now. This Automatic rail Tracking system is now widely used in a variety of market system that offers excellent communication or train tracking solution. This project is aimed to track the vehicles that which mean to locate the position of the train. The location of the train is indicated using GPS (global positioning system) technology. Communication link is made possible through a GPS receiver. GPS will give the information of parameters like longitude, latitude and attitude. Here the communication takes place between GPS receiver and GPS satellite. GPS satellite continuously tracks the missing train and the position of the train is send to the controller from GPS receiver. train is associated with LCD display which sends the continuous information about the position of the train to the control unit and the train position should be send to the GSM.</p> <p>Keywords: The entire transmission mechanism of RTS setup depends on GPS satellite.</p> <p>References:</p> <ol style="list-style-type: none"> 1. ITSr, Driver Safety Systems Discussion Paper, 2006, Australia/New South Wales Independent Transport Safety Regulator: Sydney, p.32. 2. Whitlock, Driver vigilance devices: systems review (and RSSB response) 2002, Rail Safety and Standards Board/Quintec, p.105. 3. Santosh B. Patil, Rupal M. Walli, "Design and Develop- ment of Fully Automatic AT89C52 Based Low Cost Embedded System For Rail Tracking", International Journals of Electronics, Communication and Soft Computing Science and Engineering (IJECSCE), Vol.1, Issue 1, Pg 9-14. 4. M. A. Mazidi, "The 8051 Microcontroller & Embedded Systems", Pearson Education Asia, India, 2nd edition, 2008. 5. Raj Kamal, "Embedded System- Architecture, Program- ming and Design", Tata McGraw Hill Publisher, 2nd edition, 2008. 6. GSM User Manual, SIMCOM LTD, August 2006. 7. http://www.atmel.com 8. http://www.simcom.com 9. Sky Traq Venus 6 GPS Module ST22 Data Sheet. 	60-64