

ISSN : 2319-9598 Website: www.ijies.org Volume-1 Issue-4, March 2013 Published by: Blue Eyes Intelligence Engineering and Sciences Publication Pvt.



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. Himani Sharma

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

Prof.(Dr.) Anuranjan Misra

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

CIENC

Chief Advisory Board

Prof. (Dr.) Hamid Saremi Vice Chancellor of Islamic Azad University of Iran, Ouchan Branch, Ouchan-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 Counceling, 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, Schhool 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, Mulllana, 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 Skils, 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 Informetics, 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 Cordinator, 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, 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. Thyagharajan

Principal & Professor, Department of Informational Technology, RMK College of Engineering & Technology, RSM Nagar, Thiruyallur, 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 Cheshmejgaz

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

INNOV

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 Advanced Engineering and Nano Technology (IJAENT)

Editorial Board

Dr. Vikas Maheshwari Associate Professor, Department of Electrical Communication Engineering, Amity University Madhya-Pradesh Gwalior, M.P., India

Dr. Sudhakara A

Associate Professor, Department of Chemistry, Jain Institute of Technology Davanagere, Karnataka, India

Dr. Jammi Ashok

Associate Professor, Department of Electrical and Computer Engineering, Hawassa University, Hawassa.(East Africa)

Dr. Mohamed Ashabrawy

Associate Professor, Department of Computer Science, Salman bin Abdulaziz University Kingdom, Saudi Arabia

Dr. Omer Muhammad Ayoub

Associate Professor, Department of Computer Science, Punjab University Affected Center Abdullah Sulayman Road, Al-Fayyaz, Jeddah, KSA Saudi Arabia

Dr. M. Seenivasan

Associate Professor, Department of Mathematics, Annamalai University Annamalainagar, Tamil Nadu, India

Dr. S.V.G.V.A. Prasad

Associate Professor, Department of Physics, Ideal College of Arts & Sciences, Kakinada, A.P, India.

Dr. S. Omkumar

Associate Professor, Department of Electronics and Communication Engineering, SCSVMV University, Enathur, Kanchipuram – 631 561. Tamilnadu, India.

Dr. Yousef FARHAOUI

Associate Professor, Department of Computer Science, Faculty of Sciences and Technic, Moulay Ismail University, B.P 509, Boutalamine, Errachidia, Morocco.

Dr. Gutta Sridevi

Associate Professor, Department of Computer Science & Engineering, K L University, Vaddeswaram, Guntur (DT) Andhra Pradesh. India.

Dr. Debmalya Bhattacharya

Associate Professor, Department of Electronics & Communication Engineering, University of Technology & Management, Bawri Mansion, Dhankheti, Shillong-793003, Meghalaya, India.

Dr. K. Harinadha Reddy

Associate Professor, Department of Electrical and Electronics Engineering, L B R College of Engineering, Mylavaram, Krishna District, Andhra Pradesh State - 5 21 230, India.

Dr. C. Gajendran

Associate Professor, Department of Civil Engineering, School of Civil Engineering, Karunya Nagar, Karunya University, Coimbatore – 641114, Tamil Nadu, India.

Dr. Dibya Prakash Rai

Assistant Professor, Department of Physics, College of Aizawl, Pachhunga University, Mizoram, India.

Dr. Sreenivasa Reddy

Associate Professor, Department of Chemistry, Sri Krishnadevaraya University, Anantapur-515003, A.P., India.

Dr. P. K. Dhal

Associate Professor, Department of Electrical and Electronics Engineering, Vel Tech, Dr. RR & Dr. SR Technical University, Chennai, India.

Dr. M. A. Ashabrawy

Associate Professor, Department of Computer Science, Atomic Energy Authority, Salman bin Abdulaziz University, Al Kharj Saudi Arabia.

Dr. K. Meenakshi Sundaram

Professor & Head, Department of Computer Science, Agnel Institute of Technology and Design, Assagao - Bardez, Goa. India.

Dr. Persis Voola

Associate Professor, Department of Computer Science and Engineering, Adikavi Nannaya University, Rajah Narendra Nagar, Rajahmundry-533296 Andhra Pradesh, India.

Dr. Abhijit Banerjee

Associate Professor, Department of Electronics and Instrumentation Engineering, Academy of Technology, Hooghly, Grand Trunk Rd, Adisaptagram, Aedconagar, West Bengal, India.

Dr. D. Amaranatha Reddy

Associate Professor, Department of Chemistry, Pusan National University, Busan, South Korea.

Dr. A. Heidari

Associate Professor, Department of Chemistry, Postdoctoral Research Fellow, California South University (CSU), Irvine, California, USA

Dr. Ashwani Kumar Aggarwal

Assistant Professor, Department of Electrical and Instrumentation Engineering, Sant Longowal Institute of Engineering and Technology, Longowal, Punjab, India.

Dr. P. Srinivas

Assistant Professor, Department of Electrical Engineering, University College of Engineering Osmania University, Hyderabad-500007, Telangana, India.

Dr. Sandeep Chettri

DST-SERB, Young Scientist, Department of Physics, Mizoram University, Tanhril, Aizawl, Mizoram 796004, India.

Dr. Elsanosy M. Elamin

Assistant Professor, Department of Electrical and Electronic Engineering, Faculty of Engineering, University of Kordofan B.O.Box: 160 Elobeid, (Sudan). North Africa.

Dr. Porag Kalita

Professor & Head, Department of Automobile Engineering, Jorhat, Assam, India.

Dr. T. A. Ashok Kumar

Associate Professor, Department of Computer Science, Christ University, Bengaluru, Karnataka, India.

Dr. Malini M Patil

Associate Professor, Department of Information Science and Engineering, JSS Academy of Technical Education, JSS Campus, Bangalore-560060, Karnataka, India.

Dr. V. Selvan

Associate Professor, Department of Civil Engineering, Sri Ramakrishna Engineering College, Vattamalaipalayam, Coimbatore, Tamil Nadu, India.

Dr. Syed Umar

Associate Professor, Department of Computer Science and Engineering, Koneru Lakshmaiah University, Vaddeswaram, Guntur, Andhra Pradesh, India.

S. No

Volume-1 Issue-4, March 2013, ISSN: 2319-9598 (Online)

Published By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.

	Authons	S Anita M Dann M N Nashanna	
-	Authors:	S. Annta, M. Danu, M. N. Nachappa	
	Paper Title: A Prominent Solution to Test Academic and Scientific Integrity Using LSA Abstract: "Taking over the ideas, methods, or written words of another, without acknowledgment and with the intention that they be taken as the work of the deceiver" is a quotation defined by American Association of University Professors in 1989 for Plagiarism. As the above quotation states, plagiarism has been traditionally defined as the taking of words, images, ideas, etc. from an author and presenting them as one's own. It is often associated with phrases, such as capturing of words, ideas and literary theft. Plagiarism can manifest itself in a variety of ways and it is not just confined to student papers or published articles or books. For example, consider a scientist, who makes a presentation at a conference and discusses at length an idea or concept that had already been proposed by someone else and that is not considered common knowledge. During his presentation, he fails to fully acknowledge the specific source of the idea and, consequently, misleads the audience into thinking that he was the originator of that idea. This, too, may constitute an instance of plagiarism. A small number of students, about 10%, admit that they started plagiarizing because of the Internet [3]. This research studies about the concept of plagiarism with respect to internet to find the originality of a student or an author, who made a publication. It also proposes an idiosyncratic tool for identifying plagiarism of a key document by comparing the similarity percentage. This tool will be used to decide the integrity of a student or an author, who published an article by scanning through the documents available in the web. Keywords: Plagiarism and the Web. Macomb, IL: Western Illinois University. Retrieved October 31, 2000: ttp://www.wiu.edu/ users/ mtbhl/ wiu/ plagiarism.htm		
	 Oliphant, T. http://www.librat Oliphant, T. http://www.librat Carroll, J., (2002 Davis, U. C. <http: li="" sja.ucdav<=""> Diane Carroll. (2 Larry J. Sabato. specialreports/ cl Paul C http:/www.smith Schein, M. (2001 Standler, R. B. (2 Susan T. Dun divito 1002 (orig </http:>	 (2001a). Preventing plagiarism. Edmonton, Alberta: University of Alberta. Retrieved May 15, 2002: ry.ualberta.ca/ guides/ plagiarism/ preventing.html (2001b)Why students plagiarism. Edmonton, Alberta: University of Alberta. Retrieved May 15, 2002: ry.ualberta.ca/ guides/ plagiarism/ students.html), A Handbook for Deterring Plagiarism in Higher Education, Oxford Centre for Staff and Learning Development, Oxford. , (2001), University of Southern California, Avoiding Plagiarism: Mastering the Art of Scholarship is.edu/avoid.htm> 002). Teacher Quits In Dispute with School Board Over Student Plagiarism. Kansas City Star, p. 1. (2002). Joseph Biden's Plagiarism; Michael Dukakis's 'Attack Video' – 1988. http://www.washingtonpost.com //wp-inton/ frenzy/ biden.htm Gray. (2002). Other People's Words. Smithsonian Magazine. sonianmag.si.edu/smithsonian/issues02/mar02/presence.html). Redundant publications: From self-plagiarism to "Salami-Slicing". New Surgery, 1, 139-140. 2003). Plagiarism in Colleges in USA. Retrieved February 17th, 2003 from http://www.rbs2.com/plag.htm. 1240220105 	
	Authors:	Sajid Mulla, Jasar Rayeen, Rahul Muluk, Naseemul Gani Bhat	
ŀ	Paper Title:	Library Automation System for Visually Handicapped Person	
- 	Abstract: A facility to pick up desired book by Visually Handicapped Person by touching letters in Braille, they have to understand information about the book. For each book same process will be repeated so the process is somewhat time consuming and tedious. To reduce this complex procedure we are introducing the system by which visually handicapped person will get information about that book in audio format. For using this system, student have to keep electronic kit with him during searching of book in library. When he goes to the book, information in audio format will be played which contains details as name & author of the book & breif information about the book . The project will support the visually handicapped person to select correct book. Keywords: Rfid Tags, Rfid Reader.		
	 References: Pual Golding and Vanesa Tannat, "Evaluation of RFID library system:preliminary results", International journal of Multimedia and Ubiquitous Enginnering, Vol 3,No. 1,January 2008 Changwon Lee and Minchul Kiml " RFID Applications: An Introductory and Exploratory Study", International journal of computer science Issues, Published in Volume 7, Issue 1, No 3, pp 1-7, January 2010 Daniel McPherson and Vinod Chachra. "Personal privacy and use of RFID technology in libraries". White Paper, VTLS Inc., October 2003 www.vtls.com/documents/privacy.pdf. Stephan Engberg, Morten Harning, and Christian Damsgaard Jensen." Privacy & security enhanced RFID preserving business value and consumer convenience". In The Second Annual Conference on Privacy. Security and Trust. New Brunswick. Canada. October 2004 		
	Authors:	Kevin George Chittu, S. Berclin Jeyaprabha	
ļ	Paper Title:	Design and Simulation of Fuel Cell Energy System to Power RO Desalination Plant	

Abstract: Desalination is the only solution to this crisis as it provides clean drinking water from largely available sea water. Also it is necessary to drive this desalination plant by a non-conventional source in order to prevent the CO2 emission that affects the environment. Various renewable energy sources are available for this purpose such as solar energy, wind energy, geothermal energy, bio gas etc. By using proper channel to trap these energies we can power the desalination easily and effectively. Some of the sources like wind turbine, solar thermal systems, photovoltaic (pv), biogas plant, fuel cell are the widely used for desalination. Combining these sources with some of the desalination techniques such as Multi-stage flash evaporation (MSF), Multi effect boiling (MEB), Vapor compression (VC) and Reverse Osmosis (RO) will give optimum results. In this proposed system RO method of desalination and polymer electrolyte membrane fuel cell as the power source is used.

Keywords: Fuel Cell, RO System, Desalination, Renewable Energy.

References:

3.

- 1. Gupta Akhilesh, R.K. Mall, L. S. Rathore, Ranjeet Singh, R. S. Singh, "Water resources and climate change: An Indian Perspective"Current Science, vol. 90no. 12, 2000.
- 2. Annette Prüss, David Kay, Jamie Bartram, and Lorna Fewtrell "Estimating the Burden of Disease from Water, Sanitation, and Hygiene at at a Global Level" Environmental Health Perspectives, vol. 110no. 5, 2002, pp. 537-542
- Soteris A. Kalogirou, "Seawater Desalination using Renewable energy Sources" Elsevier, Progress in Energy and Combustion Science, vol. 31, 2005, pp. 242–281
- Abderrahmane Belkaid, Khaled Halbaoui, Mustapha Chelali, Rabah Benabid and Said Touati, "Pre-Feasibility Design and Simulation of Hybrid PV/Fuel Cell Energy System for Application to Desalination Plants Loads" ScienceDirect, Procedia Engineering, vol. 33, 2012 pp.366 – 376
- 5. P. Lisbona, L. Serra and J. Uche "High-temperature fuel cells for fresh water production" Elsevier, Desalination vol. 182, 2005, pp. 471–482.
- Ines Ben Ali, JamelBelhadj, Mehdi Turki and Xavier Roboam, "Energy Management of a Reverse Osmosis Desalination Process Powered by Renewable Energy Sources" Electrotechnical Conference MELECON),2012pp. 800-805[16th IEEE Mediterranean]
- P.Alvfors, J.Ekmanc, L. Hedström, M.Rissanen, B.Stridh, C.Wallmark "Description and modeling of the solar-hydrogenbiogas-fuel cell system in GlashusEtt", Journal of Power Sources, Vol. 131, 2000, pp. 340–350
- Bilal Gumus, MuhsinTunayGencoğlu and Zehra Ural "Dynamic Simulation of a Pem Fuel Cell System", Proceedings 2nd International Hydrogen energy congress and Exhibition IHEC, 2007
- C. de Prada, L.Palacin, J. Salazar, F.Tadeo, "Operation of Medium-size Reverse Osmosis Plants with Optimal Energy Consumption" Elsevier, vol.23, 2010, pp.2245–2262
- 10. A.Al Taee, T.Ben M'Barek, K.Bourouni "Design and optimization of desalination reverse osmosis plants driven by renewable energies using genetic algorithms" Elsevier, Renewable Energy, vol. 36, 2007 pp. 936-950
- 11. Craig Bartels and Mark Wilf "Optimization of seawater RO systems design", Elsevier, Desalination vol. 173, 2005, pp.1-12
- 12. B.Haganesh andSakthivel Mohan "Study on subsurface water quality in selected places in coimbatore" ISSN,vol.2, no. 4, 2012, pp. 2250-3498
- P.Lalitha, R.Shyamala and M.Shanthi "Physicochemical Analysis of Borewell Water Samples of Telungupalayam Area in Coimbatore District, Tamilnadu, India"ISSN, Vol. 5, No.4, 2008, pp. 924-929.

Authors:	Gurdeep Kaur, Gaganpreet Kaur, Sushil Garg	
Paper Title:	Natural Languauge Fuzzy Set Based CBIR	
Abstract: Not much is understood in terms of semantics of natural language applicable in CBIR. There are many		

Abstract: Not much is understood in terms of semantics of natural language applicable in CBIK. There are many linguistic systems, often based on set theory and logic, attempting to grasp (at least some phenomena and circumstances) of the natural language based on which a image might understood or interpreted and thereby be annotated with , and it must useful in such way that it reduces the cost of accessing the relevant information and remains refresh all together with open ended structure to incorporate the validity of ground truths. In this research work we have tried to come all these issues and results shows that our method used in building natural language sets for images in question is highly relevant thus enriching results to provide high recall and precision value of range of 67% .

Keywords: Fuzzydataset, linguistic, raw symbolism, semantic.

References:

4.

- 1. Extraction of Image Features for an Effective CBIR System, P. Gangadhara Reddy JNTU College of Engineering Anantapur, Anantapur, A.P., India
- 2. Smeulders AWM, Worring M, Santini S, Gupta A, Jain R, "Content-Based Image Retrieval at the End of the Early Years", In IEEE Transaction Pattern Anal Mach Intell, Vol.22, Issue 12, pp. 1349-80, 2000.
- 3. Dorai C,Venkatesh, S., "Bridging the Semantic Gap with Computational Media Aesthetics", IEEE MultiMedia, Vol.10, Issue 2, pp. 15-17, 2003.
- 4. R. Datta, D. Joshi, J. Li, and J. Z. Wang, "Image Retrieval: Ideas, Influences, and Trends of the New Age," ACM Computing Survey, Vol. 40, No. 2, pp. 1-60, 2008.
- 5. E.D. Hirsch Jr., "The Knowledge Deficit", publisher: Houghton Mifflin Harcourt, ISBN -10: 0618657312, ISBN- 13: 978-0618657315, April 2006.
- 6. P.G.Reddy, "Extraction of Image Features for an Effective CBIR System", In IEEE Conference Publications Recent Advances in Space Technology Services and Climate Change (RSTSCC), ISBN: 978-1-4244-9184-1, pp. 138-142, 2010.
- Jun Wei Han and Lei Guo, "A New Image Retrieval System Supporting Query by Semantics and Example", In IEEE International Conference on Image Processing, Vol. 3, pp.953-956, 2002.
- Bilge Gunsel, Sanem Sariel and Oguz Icoglu, "Content Based Access to Art Paintings", In IEEE International Conference on Image Processing, ISBN: 0-7803-9134-9, Vol. 2, pp. 558-61, Sep 2005.

15-17

9-14

Paper Title:	An Evaluation Approach of Trust Value and User Satisfaction Value Using Fuzzy Logic for Service Provider	or Cloud

Abstract: Cloud computing has recently come forward as a new and well-liked paradigm for organizing, managing and delivering a variety of services through a shared infrastructure and used by many individuals and organization globally. Demand of cloud service providers (CSPs) is increasing day by day due to it reduces capital expenditure as well as operational expenditure. More number of CSPs providing more well-versed choice for customers to choose. This paper portrays issues for having trusted cloud such as trust assessment and uncertainty in customer satisfaction assessment, and also developed a model, which consist trust assessment model and user satisfaction assessment model together based on fuzzy logic. This assessment helps users to make a well-versed choice towards selecting the appropriate CSPs as per their requirement, and also helps managers to perform gap analysis between existing level and the desired one.

Keywords: Cloud Service Provider, Cloud Analyst, Customer Satisfaction, Fuzzy Logic, Trust.

References:

5.

- 1. Cong Wang, Qian Wang, Kui Ren, "Ensuring Data Storage Security in Cloud Computing", 2009.
- 2. Cloudtweaks on January 18, 2013 in business, http://www.cloudtweaks.com/author/cloud77.
- 3. Tripathi, A and Mishra, A. "Cloud Computing Security Considerations", International Conference on Signal Processing, Communications and Computing, India, September 2011, pp. 1-5.
- 4. Armbrust, M., et al. Above the clouds: A Berkeley view of cloud computing. Tech.Rep. UCB/EECS-2009-28, EECS Department, U.C. Berkeley, Feb 2009.
- 5. Nuno Santos, Krishna P. Gummadi, Rodrigo Rodrigues, "towards trusted cloud computing".
- 6. Jaesun Han: "The Future of Cloud Computing and Server Platform", http://www.web2hub.com/blog/82 (in Korean) February 1, 2008.
- 7. Kim Won, Cloud Computing : "Today and Tomorrow", 2009.
- Hamid R. Motahari-Nezhad, Bryan Stephenson, Sharad Singha, "Outsourcing Business to Cloud Computing Services: Opportunities and Challenges", IEEE IT Professional, Special Issue on Cloud Computing, Vol. 11, No. 2. (September 2009) Key: citeulike:4453620.

18-24

- 9. Fang Hao, T. V. Lakshman, Sarit Mukherjee, Haoyu Song, Bell Labs, Alcatell Lucent, "Secure cloud computing with a virtualized network infrastructure" HotCloud'10 Proceedings of the 2nd USENIX conference on Hot topics in cloud computing, page 16-16.
- Mohamed Firdhous, Osman Ghazali, and Suhaidi Hassan. "Trust and Trust Management in Cloud Computing A Survey", Internetworks Research Group, Universiti Utara Malaysia, Technical Report, February 2011.
- 11. Xiaodong Sun, Guiran Chang and Fengyun Li. "A Trust Management Model to Enhance Security of Cloud Computing Environments", Second International Conference on Networking and Distributed Computing, China, September 2011, pp. 244-248.
- 12. Mohammed Alhamad, Tharam Dillon and Elizabeth Chang. "A Trust-Evaluation Metric for Cloud Applications", International Journal of Machine Learning and Computing, Volume 1, Number 4, October 2011, pp. 416-421.
- 13. Cloud Service Measurement Index Consortium (CSMIC). "Service Measurement Index Version 1.0" (PDF), USA, September 2011.
- 14. Garg, S.K., Versteeg, S and Buyya, R. "SMICloud: A Framework for Comparing and Ranking Cloud Services", Fourth International Conference on Utility and Cloud Computing, Australia, December 2011, pp. 210-218.
- 15. Wickremasinghe, B, Calheiros R.N and Buyya, R. "CloudAnalyst: A CloudSim-Based Visual Modeller for Analyzing Cloud Computing Environments and Applications" 24th International Conference on Advanced Information Networking and Applications, Australia, April 2010, pp. 446-452.
- 16. http://www.mathworks.com/help/pdf_doc/fuzzy/fuzzy.pdf" Fuzzy Logic Toolbox™ User"s Guide.
- 17. Jensen M, Schwenk J, Gruschka N and Iacono, L.L. "On Technical Security Issues in Cloud Computing", International Conference on Cloud Computing, Germany, September 2009, pp. 109-116.
- Kosko, Bart; Isaka, Satoru (July 1993). "Fuzzy Logic". Scientific American 269 6-81 [22] Lin, C.T., Chen, C.T., (2004), "A fuzzy logic-based approach for new product", IEEE . Transactions on Systems and Humans, Vol.34, 134-142.

Authors: Kalyan Chatterjee, Nilotpal Mrinal, Mandavi, Prasannjit, Amit Sur

Paper Title:Adaptive Filtering and Video Compression Using Neural NetworksAbstract: Video Compression is concerned with reducing the amount of data required to reproduce a video. Adaptive
Filtering and Video compression is necessary because video is often disturbed by useless noise at the time of
compression and video requires more space to store. In this paper, we present an Adaptive Filtering technique for the
removal of useless noise from video. After cancelling the unwanted noise, we get a filtered video. After that we take
the filtered video as input to the neural network. Finally, we have used back propagation algorithm to compress the
video.

Keywords: Adaptive Filtering, MPEG standards, Neural Network, Singularity maps.

References:

6.

- 1. Huang Y L, Chang R F (2002) A new Side-Match Finite State Vector Quantization Using Neural Network for image coding. In: Journal of visual Communication and image representation vol 13, pp. 335-347.
- Szu H, Wang H, Chanyagorn P (2000) Human visual system singularity map analyses. In: Proc. of SPIE: Wavelet Applications VII, vol 4056, pp. 525-538, Apr. 26-28, 2000.
- 3.
 Buccigrossi R, Simoncelli E (Dec. 1999) Image Compression Trans. Image Processing, vol 8, no 12, pp. 1688-1700, Dec. 1999.
 via Joint Statistical Characterization in the Wavelet Domain. In: IEEE
 25-28
 - 4. Milanova M G, Campilho A C, Correia M V (2000) Cellular neural networks for motion estimation. In: International Conference on Pattern Recognition, Barcelona, Spain, Sept 3-7, 2000. Pp. 827-830.
 - 5. Grassi G, Grieco L A (2003) Object-oriented image analysis using the CNN universal machine: new analogic CNN algorithms for motion compensation, image synthesis, and consistency observation. In: IEEE Transactions on Circuits and Systems I, vol 50, no 4, April 2003, pp.

- 488 499
- 6. Lee S J, Ouyang C S, Du S H (2003) a neuro-fuzzy approach for segmentation of human objects in image sequences. In: IEEE Transactions on Systems, Man and Cybernetics, Part B vol 33, no3, pp. 420-437.
- ISO/IEC FDIS15444-1:2000 Information Technology JPEG 2000 Image Coding System. Aug. 2000 7
- Egger O, Fleury P, Ebrahimi T, Kunt M (1999) High-Performance Compression of Visual Information-A Tutorial Review-Part I: Still 8. Pictures. In: Proceedings of the IEEE, vol. 87, no 6, June 1999
- CCITT SG 15, COM 15 R-16E (1993), ITU-T Recommendation H.261 Video Codec for audio-visual services at p x 64 Kbit/s. March 1993. 0
- Noll P (1997) MPEG digital audio coding. In: IEEE Signal processing Magazine vol 14, no 5, pp. 59-81, Sept 1997. 10
- Grill B (1999) The MPEG-4 General Audio Coder. In: Proc. AES 17th International Conference, Set 1999. 11.
- Scheirer E D (1998) The MPEG-4 structured audio Standard. In: IEEE Proc. On ICASSP, 1998. 12
- Koenen R (2002) Overview of the MPEG-4 Standard-(V.21-Jeju Version). ISO/IEC JTC1/SC29/WG11 N4668, March 2002. 13
- Aizawa K, T. S. Huang, Model Based Image Coding: Advanced Video Coding techniques for low bit-rate applications. In: Proc. IEEE, vol 14. 83, no 2, Feb. 95.
- Avaro O, Salembier P (2001) MPEG-7 systems: Overview. In: IEEE Transaction on circuit and system for video Tecnology, vol 2. no 6, June 15 2001
- ISO/IEC JTC1/SC29/WG11 N3933, Jan 2001. MPEG-7 Requiremens document. 16.
- Manjunath B S, Salam bier P, Sikora T (2002) Introduction to MPEG-7: multimedia content description language. In: John Wiley & Sons 17. 2002
- 18. JPEG-LS, information Technology - Lossless and Near-lossless Compression Of Continuous-tone Still Images, 1998. Final Draft International Standard FDIS14495-1.
- 19 A. J. Penrose and N. A. Dodgson, \Extending lossless image compression, "Euro graphics UK '99, April 1999.
- E. S. G. Carotti, J. C. D. Martin, and A. R. Meo, \Backward-adaptive lossless Compression of video sequences," Proceedings of the IEEE 20. International Conference on Audio, Speech and Signal Processing, vol. 4, pp. 3417{3420, May 2002
- N. D. Memon and K. Sayood, \Lossless compression of video sequences," IEEE Transactions on Communications, vol. 44, no. 10, pp. 21 1340{1345, Oct 1996.
- B. B. Chai, J. Vass, and X. Zhuang, \Signi_cance-linked connected component analysis for wavelet image coding," IEEE Transactions on 22. Image Processing, vol. 8, no. 6, pp. 774{784, June 1999.
- F. Sheng, A. Bilgin, P. J. Sementilli, and M. W. Marcellin, \Lossy and lossless image compression using reversible integer wavelet 23. transforms," Proceedings of the IEEE International Conference on Image Processing, vol. 3, pp. 876{880,October 1998.
- 24. A. R. Calderbank, I. Daubechies, W. Sweldens, and B.-L. Yeo, Wavelet transforms that map integers to integers," Applied and Computational Harmonic Analysis, vol. 5, no. 3, pp. 332{369, July 1998.

25 M. Grangetto, E. Magli, M. Martina, and G. Olmo, Optimization and implementation of the integer wavelet transform for image coding," IEEE Transactions on Image Processing, vol. 11, no. 6, pp. 596{604, June 2002.

Authors:	N. Susheela, P. Satish Kumar, B. Sirisha
Paper Title:	Hybrid Topologies of Multilevel Converter for Current Waveform Improvement

Abstract: This paper presents different multilevel converter topologies that includes NPC, NPC-CHB, FC, FC-CHB converter. The operating principle of each topology and a review of the most relevant modulation methods are discussed. Multilevel converters offer advantages in terms of the output waveform quality due to the increased number of levels used in the output voltage modulation. This advantage is particularly true for cascade H-bridge (CHB) converters that can be built to produce a large number of levels owing to their modular structure. Nevertheless, this advantage comes at the cost of multiple dc links supplied by independent rectifiers through the use of a multioutput transformer for inverters. This front end complicates the implementation of converters that have a high number of levels. An alternative method of using lower voltage cells with floating dc links to compensate only for the voltage distortion of a neutral-point-clamped and flying capacitor converter is considered for active rectifier applications. The analogy between the floating HBs and the series active filters is used to develop a strategy for the harmonic compensation of the NPC output voltage and the control of the floating dc-link voltages. This simplifies the current control scheme and increases its bandwidth. The proposed topologies have been verified using MATLAB/Simulink. The results show the improvement in the output current waveforms.

Keywords: Current Control, dc link voltage, High-Power applications, Multilevel Converter.

References:

7.

- J. Rodríguez, S. Bernet, B. Wu, J. Pontt, and S. Kouro, "Multilevel voltage-source-converter topologies for industrial medium-voltage drives," IEEE Trans. Ind. Electron., vol. 54, no. 6, pp. 2930-2945, Dec. 2007.
- S. Kouro, M. Malinowski, K. Gopakumar, J. Pou, L. Franquelo, B. Wu,J. Rodríguez, M. Pérez, and J. León, "Recent advances and industrial 2. applications of multilevel converters," IEEE Trans. Ind. Electron., vol. 57, no. 8, pp. 2553-2580, Aug. 2010.
- J. S. Lai and F. Z. Peng, "Multilevel converters—A new breed of power converters," IEEE Trans. Ind. Appl., vol. 32, no. 2, pp. 509–517, 3 May/Jun. 1996.
- 4. T.Meynard, H. Foch, P. Thomas, J. Courault, R. Jakob, and M. Nahrstaedt, "Multicell converters: Basic concepts and industry applications," IEEE Trans. Ind. Electron., vol. 49, no. 5, pp. 955–964, Oct. 2002.

J. Pou, R. Pindado, and D. Boroyevich, "Voltage-balance limits in fourl evel diode-clamped converters with passive front ends," IEEE Trans. 5. Ind.Electron., vol. 52, no. 1, pp. 190-196, Feb. 2005.

- S. Busquets-Monge, S. Alepuz, J. Rocabert, and J. Bordonau, "Pulsewidth modulations for the comprehensive capacitor voltage balance of 6. N-level three-leg diode-clamped converters," IEEE Trans. Power Electron., vol. 24, no. 5, pp. 1364-1375, May 2009.
- N. Hatti, Y. Kondo, and H. Akagi, "Five-level diode-clamped PWM converters connected back-to-back for motor drives," IEEE Trans. Ind. 7 Appl., vol. 44, no. 4, pp. 1268-1276, Jul./Aug. 2008.
- C. Rech and J. R. Pinheiro, "Impact of hybrid multilevel modulation strategies on input and output harmonic performances," IEEE 8. Trans.Power Electron., vol. 22, no. 3, pp. 967–977, May 2007 & M. D. Manjrekar, P. K. Steimer, and T. A. Lipo, "Hybrid multilevel power conversion system: A competitive solution for high-power applications," IEEE Trans. Ind. Appl., vol. 36, no. 3, pp. 834-841, May/Jun. 2000.
- S. Song, F. Kang, and S.-J. Park, "Cascaded multilevel inverter employing three-phase transformers and single dc input," IEEE Trans. Ind. 9 Electron., vol. 56, no. 6, pp. 2005–2014, Jun. 2009.
- P. Lezana and J. Rodriguez, "Mixed multicell cascaded multilevel inverter," in Proc. IEEE ISIE, 2007, pp. 509-514. 10.
- M. Veenstra and A. Rufer, "Control of a hybrid asymmetric multilevel inverter for competitive medium-voltage industrial drives," IEEE Trans. Ind. Appl., vol. 41, no. 2, pp. 655–664, Mar./Apr. 2005. C. Silva, P. Kouro, J. Soto, and P. Lezana, "Control of an hybrid multilevel inverter for current waveform improvement," in Proc. IEEE
- 12. ISIE, 2008, pp. 2329-2335.
- J. Rodriguez, J. S. Lai and F. Z. Peng, "Multilevel Inverters: Survey of topologies, Controls, and Applications," IEEE Transactions on 13. Industry Applications, vol. 49, no. 4, Aug. 2002, pp. 724-738.

29-37

- 14. L. M. Tolbert, F. Z. Peng, and T. Habetler, "Multilevel Converters for Large Electric drives," IEEE Trans. Ind. Applicat., vol.35, pp. 36-44, Jan./Feb. 1999.
- 15. A. Nabae, I. Takahashi, and H. Akagi, "A New Neutral-point Clamped PWM inverter," IEEE Trans. Ind. Applicat., vol. IA-17, pp. 518-523, Sept./Oct. 1981.
- 16. K. A. Corzine, M.W. Wielebski, F. Z. Peng, J. Wang, "Control of Cascaded Multi-Level Inverters," IEEE Trans. on Power Elect., May 2004, Vol. 19, Num. 3, pp 732-738.
- 17. Roshankumar, P and Rajeevan, PP and Mathew, K and Gopakumar, K and Leon, Jose I and Franquelo, Leopoldo g (2012) "A five-level inverter topology with single-dc supply by cascading a flying capacitor inverter and an h-bridge" ieee transactions on power electronics, 27 (8). pp. 3505-3512.
- P. Lezana, J. Rodriguez, and D. A. Oyarzun, "Cascaded multilevel inverter with regeneration capability and reduced number of switches," IEEE Trans. Ind. Electron., vol. 55, no. 3, pp. 1059–1066, Mar. 2008.
- 19. V. M. E. Antunes, V. F. Pires, and J. F. A. Silva, "Narrow pulse elimination PWM for multilevel digital audio power amplifiers using two cascaded H-bridges as a nine-level converter," IEEE Trans. Power Electron., vol. 22, no. 2, pp. 425–434, Mar. 2007.
- J. Rodríguez, P. Correa, and L. Morán, "A vector control technique for medium voltage multilevel converters," IEEE APEC, Anaheim, CA, Mar. 2001, pp. 173–178.
- L. Tolbert and T. G. Habetler, "Novel multilevel converter carrier-based PWM method," IEEE Transactions on Industry Applications, vol. 35, pp. 1098–1107, Sept./Oct. 1999.
- 22. V. G. Agelidis and M. Calais, "Application specific harmonic performance evaluation of multicarrier PWM techniques," IEEE PESC, Fukuoka, Japan, May 1998, pp. 172–178.
- 23. D. W. Kang et al., "Improved carrier wave-based SVPWM method using phase voltage redundancies for generalized cascaded multilevel converter topology," IEEE APEC, New Orleans, LA, Feb. 2000, pp. 542–548.
- Cesar A. Silva, Leopoldo A. Cordova, Pablo Lezana, Lee Empringham," Implementation and Control of a Hybrid Multilevel Converter with Floating DC Links for Current Waveform Improvement," IEEE Transactions on Industrial Electronics, vol. 58, no.6, pp. 2304–2311, Jun. 2011
- L. Li, D. Czarkowski, Y. Liu, and P. Pillay, "Multilevel selective harmonic elimination PWM technique in series-connected voltage converters," IEEE Transactions on Industry Applications, Vol. 36, no. 1, Jan.-Feb. 2000, pp. 160 – 170.
- L. Cordova, C. Silva, and P. Lezana, "Hybrid multilevel inverter drive with synchronous modulation and current waveform improvement," in Proc.IEEE IEMDC, 2009, pp. 158–164.
- 27. C. Rech and J. R. Pinheiro, "Hybrid multilevel converters: Unified analysis and design considerations," IEEE Trans. Ind. Electron., vol. 54, no. 2, pp. 1092–1104, Apr. 2007.
- T. A. Meynard, H. Foch, "Multi-Level Conversion: High Voltage Choppers and Voltage-Source Inverters," IEEE Power Electronics Specialists Conference, 1992, pp. 397-403.

Authors:	Srinivas Naik, Rajesh Adepu
Paper Title:	Security for SOHO in IPv6 Networks

Abstract: Small Office and Home Office (SOHO) distinguishes from large organizations where there exists minimal security or protection mechanisms. This paper investigates and presents different threats that a network can be exposed to and the common protection techniques that can be applied, with a focus on the network perimeter – specifically the router/firewall between the local area network and the Internet. All Internet connected devices and networks are exposed to and affected by security threats to some degree, hence security is important in almost every type of network. With the constant growth of the Internet the 32-bit addressing scheme ipv4 is proving to be inadequate, and therefore the transition to the 128-bit addressing scheme ipv6 is becoming critical. With ipv6 comes new security threats (while still old threats remain) that requires an understanding of perimeter security. In this paper we secure a home router and describe these steps to enable home and small business owners to secure their IPv6 network.

38-40

Keywords: Security, IPv6 Attacks, SOHO threats, Intrusion detection system, Firewall.

References:

8

- 1. 'IP Address Pools'. American Registry for Internet Numbers, Available at https://www.arin.net/knowledge/ip_address_pools.pdf,
- 2. Jan Hedström, '6 brandväggar för ipv6', TechWorld, p. 6, 13-February-2012, Available at
- 3. http://techworld.idg.se/2.15821/1.431895/6-brandvaggar-for-ipv6,
- 4. Carolyn Duffy Marsan, 'Five of the biggest IPv6-based threats facing CIOs', Network World, p. 2, 13-July-2009, Available at http://www.networkworld.com/news/2009/071309-ipv6-network-threat.html
- E. Karamanos, 'Investigation of home router security', Masters Thesis, KTH Royal Institute of Technology, Stockholm, Sweden, Available at http://urn.kb.se/resolve?urn=urn:nbn:se:kth:diva-91107, 2010.

Malware Tunneling in IPv6'. US-CERT, 26-May-2005, Available at http://www.uscert.gov/reading_room/IPv6Malware-Tunneling.pdf

Authors: Prajakta R. Thakare, Saba Anjum J. Patel, Tanaji. D. Khadtare

Efficient Image Retrieval Mechanisms using Color Feature **Paper Title:** Abstract: Many areas of commerce, government, academia, and hospitals create large collections of digital images. Digital image databases open the way to content-based searching. One of the tool that is essential for electronic publishing is a powerful image retrieval system. Most commercial image retrieval systems associate keywords or text with each image and require the user to enter a keyword or textual description of the image. This text based approach is incompetent as some features are nearly impossible to describe with text. In an effort to overcome these problems and to improve image retrieval performance researchers are focusing on content based image retrieval (CBIR). In CBIR retrieval is accomplished by comparing image features directly rather than textual descriptions of image 9. features. Features that are commonly used in CBIR include Color, Texture, Shape and Edges. These features are 41-45 primitive image descriptors in content based image retrieval systems. Among these features, color feature is the most widely used features for image retrieval because color is the most intuitive feature and can be extracted from images conveniently. In this paper we survey some technical aspects of current content-based image retrieval systems using Color as a feature.

Keywords: CBIR, Color, Image Retrieval, Retrieval efficiency.

References:

- 1. Remco C. Veltkamp, Mirela Tanase "Content-Based Image Retrieval Systems: A Survey", Technical Report UU-CS-2000-34, October 2000
- 2. Robert S. Gray, "Content based Image Retrieval".
- Mohamed A. Tahoun', Khaled A. Nagag, Taha I. El-Arie?, Mohammed A-Megeed3,"A Robust Content-Based Image Retrieval System Using Multiple Features Representations" Proceedings of IEEE Transactions 2005. Combining Novel features for Content Based Image Retrieval
- 4. K. Satya Sai Prakash1, RMD. Sundaram.
- 5. Dengsheng Zhang," Improving Image Retrieval Performance by Using Both Color and Texture Features" Proceedings of the Third International Conference on Image and Graphics (ICIG'04)IEEE
- 6. Sanjoy Kumar Saha; Amit Kumar Das, Bhabatosh Chanda "CBIR using of the 17th International Conference on Pattern Recognition (ICPR'04)1051-4651/04 IEEE
- 7. Seong-O Shim, Tae-Sun Choi "Edge color Histogram for Image Retrieval ", Proceedings of IEEE Transactions 2002
- 8. K. idrissi, J. Ricard, A. Baskurt, "An Objective Performance Evaluation Tool for Color based Image Retrieval Systems" Proceedings of IEEE Transactions 2002
- P. S. Hiremath, Jagadeesh Pujari, "Content Based Image Retrieval using Color, Texture and Shape features", 15th International Conference on Advanced Computing and Communications 0-7695-3059-1/07 © 2007 IEEE

Authors:	V. Muthulakshmi, A. Mano Prarthana, A. Nithiya, M. Prabhavathy
Paper Title:	Impurity Profiling Of Food Using Template Matching

Abstract: Food is essential for nourishment and sustenance of life. The addition of impurities to food affects the composition and quality of food. The manual method is practical and fast, but lacks the reliability and objectivity required in competitive food industries. Machine vision using morphological features have been reported in numerous studies as an effective solution to detect impurities in food. In this paper we experimented detection of impurities in rice samples using template matching technique. Various image processing techniques have been studied and we've concluded that template matching is the best and efficient way to detect the impurities. Using area computation we've also identified the broken rice in samples.

Keywords: Machine vision, Edge Detection, Normalized Cross Correlation, Template Matching.

References:

10.

- 1. Giaime Ginesu, Student Member, IEEE, Daniele D. Giusto, Senior Member, IEEE, Volker Märgner, Member and Peter Meinlschmidts, IEEE, Detection of Foreign Bodies in Food by Thermal Image Processing, Vol. 51, NO. 2, April 2004
- 2. Krishna Kumar Patel & A. Kar & S. N. Jha & M. A. Khan, Machine vision system: a tool for quality inspection of food agricultural products, Vol. 5, April 2005
- 3. Peter Nillius and Jan-Olof Eklundh, Fast Block Matching with Normalized Cross-Correlation, Vol. 34, Jan 2003.
- Jagdeep Singh Aulakh, V. K. Banga, Percentage Purity of Rice Sample by Image Processing. International Conference on Trends in Electrical, Electronics and Power Engineering (ICTEEP'2012) July 15-16, 2012 Singapore

46-51

- 5. Fast Block Matching with Normalized Cross-Correlation using Walsh Transforms Peter Nillius & Jan-Olof Eklundh, Computational Vision and Active Perception Laboratory (CVAP), September 2002
- Fast Normalized Cross Correlation for Motion Tracking using Basis Functions A. J. H. Hii, C. E. Hann, J. G. Chase, E. E. W. Van Houten
 Matching by Normalized Cross-Correlation Reimplementation, Comparison to Invariant Features Tomas Petrcek, Tomas Svoboda September 9, 2010
- 8. Template Matching for Artifact Detection and Removal by R.Barth, July 2009.
- Likelihood Models for Template Matching Using the PDF Projection Theorem., A. Thayananthan, R. Navaratnam, P. H. S. Torr, R. Cipolla.
 V. Athitsos and S. Sclaroff. An appearance-based framework for 3D hand shape classification and camera viewpoint estimation. In IEEE Conf. on FGR, pages 45–50, 2002.
- 11. J. Paliwal, N. S. Visen, D. S. Jayas, "Cereal Grain and Dockage Identification using Machine Vision", Biosystems Engineering 85(1):51-57, 2003.
- 12. Agustin, O.C., Byung-Joo Oh, "Automatic Milled Rice Quality Analysis", IEEE Computer Society International Conference on Future Generation Communication and Networking, Washington, DC, USA, vol.2, pp.112-115 2008.
- 13. Fuzzy Based Adaptive Mean Filtering Technique for Removal of Impulse Noise from Images., Punyaban Patel_, Bibekananda Jena, Banshidhar Majhi, C.R.Tripathy International Journal of Computer Vision and Signal Processing, 1(1), 15-21(2012)
- 14. Removal of High Density Salt & Pepper Noise in Noisy Images Using Decision Based UnSymmetric Trimmed Median Filter (DBUTM) Dodda Shekar#1, Rangu Srikanth., International Journal of Computer Trends and Technology- volume2Issue1- 2011
- Removal of Salt-and Pepper Noise in Images: A New Decision-Based Algorithm Madhu S. Nair, K. Revathy, and Rao Tatavarti., Proceedings of the International MultiConference of Engineers and Computer Scientists 2008 Vol I IMECS 2008, 19-21 March, 2008, Hong Kong