Volume 1 Issue 10, September 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, ShivLoke 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. Vijav 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. Sarayanan

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. Dananjavan

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. Anuranian 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, Chowdayaram, 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

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 Froks, 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, Deprtment 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, Akluj, Maharashtra, India

Dr. E. Mohan

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

Dr. M. Shanmuga Ptriva

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		e-1 Issue-10, September 2013, ISSN: 2319–6386 (Online) ed By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.	Page No.	
	Authors:	M. M. Manyuchi, A. Phiri, P. Muredzi, N. Chirinda		
	Paper Title:	Bio-Conversion of Food Wastes into Vermicompost and Vermiwash		
1.	using earthworr wastes were ve vermiwash were composition wa nitrogen and 0 management str Keywords: Eise References: 1. M. M. Manyo application tin (4), 216-220, 2. A. A. Ansari (abelmoschus 3. M. M. Manyo application tin 2013. 4. V. Palanichan Waste by Ve Journal of Ch 5. M. M. Manyo application tin 2013. 6. G. Nath, K. Animal, Agro 7. M. M. Manyo scale vermico 8. S. Quaik, A. I hydroponics Sustainability 9. M. M. Manyo vermicompos 10. K. Tharmara vermiwash or 11. M. M. Manyo with cow dun 12. M. M. Manyo Solid Waste N 13. C. Mphambe February, 201 14. M. M. Manyo rotary tromm 4069-4072, 21 15. M. M. Manyo 15. M. M. Manyo 15. M. M. Manyo 169-4072, 21 15. M. M. Manyo 170 181 182 183 184 185 186 186 187 187 188 188 188 188 189 189 189 189 189 189	enia fetida, food wastes, vermicomposting, vermiwash, vermi-products. achi., T. Chitambwe, A. Phiri., P. Muredzi and Q. Kanhukamwe, "Effect of vermicompost, vermiwash and me on soil physicochemical properties", International Journal of Chemical and Environmental Engineering, 4 2013. and K. Sukhraj, "Effect of vermiwash and vermicompost on soil parameters and productivity of okra esculentus) in Guyana", Pakistan J. Agric Resources, Vol 23, pp. 137-142, 2010. achi., L. Kadzungura, A. Phiri., P. Muredzi and Q. Kanhukamwe, "Effect of vermicompost, vermiwash and me on soil micronutrients", International Journal of Engineering and Advanced Technology, 2 (5), 215-218, my, B. Mitra, N. Reddy, M. Katiyar, R. B. Rajkumari, C. Ramalingam and Arangantham, "Utilizing Food micomposting, Extracting Vermiwash, Castings and Increasing Relative Growth of Plants", International emical and Analytical Science 2 (11), pp. 1241-1246, 2011. achi., T. Chitambwe, A. Phiri, P, Muredzi and Q, Kanhukamwe, "Effect of vermicompost, vermiwash and me on Zea Mays growth", International Journal of Scientific Engineering and Technology, 2 (7), 638-641, Singh and D. K. Singh, "Chemical Analysis of Vermicomposts/Vermiwash of Different Combinations of and Kitchen Wastes", Australian Journal of Basic Applied Sciences, 3 (4), pp. 3671-3676, 2009. achi., T. Chitambwe, P, Muredzi and Kanhukamwe, Q, "Continuous flow-through vermireactor for medium imposting", Asian Journal of Engineering and Technology, 1 (1), 44-48, 2013. Embrandiri, P. F. Rupani, R. P. Singh and M. H. Ibrahim, "Effect of vermiwash and vermicompost leachate in culture of Indian borage (Plectranthus ambionicus) plantlets", 11th International Annual Symposium on Science and Management, pp. 210-214, 2012. uchi, A. Phiri, P. Muredzi and S. Boka, "Comparison of vermicompost and vermiwash bio-fertilizers from ting waste corn pulp", World Academy of Science, Engineering and Technology, 78, 365-368, 2013. j, P. Ganesh, K. Kolanjinathan, R. Suresh Kumar and A. Anandan, "Influence of verm	1-2	
	Authors:	Ajeet Bergaley, Anshuman Purohit		
	Abstract: Crane hook are highly significant component used for lifting the load with the help of chain or links. In the present paper a crane hook is purchased from the local market for Finite element analysis. The hook was tested on the UTM machine in tension to locate the area having maximum stress and to locate the yield point. The model of hook is prepared in CAE software having dimension and material similar to the crane hook which was purchased from the market. The results obtained were compared with theoretical analysis. Then cross section in which minimum stress induced for given load was modified through FEM.			
2.	Keywords: Finite Element Method (FEM), Crane Hook, Curved Beam, Universal Testing Machine (UTM). References:			
	 S. Vinodh, R. Ravikumar, (2012), "Application of probabilistic finite element analysis for crane hook design", Journal of Engineering, Design and Technology, Vol. 10 Iss: 2 pp. 255 – 275. ASME Standard B30.2, "Overhead Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)," 2005. ASME Standard B30.9, "Slings Safety Standard for Ca- bleways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings," 2006. ASME Standard B30.10, "Hooks Safety Standard for bleways, Cranes, Derricks, Hoists, Hooks, Jacks and Slings," 2009. Department of Labour of New Zealand, "Approved Code of Practice for Cranes," 3rd Edition, 2009. 			

- B. Ross, B. McDonald and S. E. V. Saraf, "Big Blue Goes Down. The Miller Park Crane Accident," Engi neering Failure Analysis, Vol. 14, No. 6, 2007 pp. 942-961.
- 7. Fatigue cycle. www.public.iastate.edu/`gkstarns/ME417M. Young, The Techincal Writers Handbook. Mill Valley, CA: University Science, 1989.
- 8. J. Petit, D. L. Davidson and S. Suresh, "Fatigue Crack Growth under Variable Amplitude Loading," Springer Publisher, New York, 2007.J. Jones. (1991, May 10). Networks (2nd ed.) [Online]. Available: http://www.atm.com
- 9. Y. Yokoyamal, "Study of structural relaxation-Induced Embrittlement of Hypoeutactic Zr-cu- Al nary Bulk Glassy Alloys," Acta Materialia, Vol. 56, No. 20, 2008 pp. 6097-6108.
- Rashmi Uddanwadiker, "Stress Analysis of Crane Hook and Validation by Photo-Elasticity", doi:10.4236/eng.2011.39115
 Published Online September 2011 (http://www.SciRP.org/journal/eng)
- 11. R.K. Rajput, "Strength of Material", S. Chand and company LTD.2002 published.
- 12. J. Petit, D. L. Davidson and S. Suresh, "Fatigue Crack Growth under Variable Amplitude Loading," Springer Publisher, New York, 2007
- Santosh Sahu, Ritesh Dewangan, Manas Patnaik, Narendra Yadav, "Study of Crane Hook Having Trapezoidal Section by Finite Element Method & Design of Experiments", (IJMER) International Journal of Modern Engineering Research, Vol.2, Issue.4, July-Aug 2012 pp-2779-2781 ISSN: 2249-6645.
- Y. Yokoyamal, "Study of structural relaxation-Induced Embrittlement of Hypoeutactic Zr cu-Al nary Bulk Glassy Alloys," Acta Materialia, Vol. 56, No. 20, 2008 pp. 6097-6108.
- 15. Takuma Nishimura, Takao Muromaki, Kazuyuki Hanahara Yukio Tada, Shigeyuki Kuroda, and Tadahisa Fukui, "Damage Factor Estimation of Crane-Hook (A Database Approach with Image, Knowledge and Simulation)", 4th International Workshop on Reliable Engineering Computing (REC 2010).
- Tae-Gu KIM et al, "A case study on Engineering Failure Analysis of Link Chain", safety and Health at Work 2010; 1:43-50
- 17. Dr. Kamal Kumar & RC Ghai. "Mechanics of material" Khanna Publishers.
- 18. Warning & application, Crosby group.

16. Warning & ap	plication, Crosby group.
Authors:	Sushma, Jyoti Pruthi
Paper Title:	Shortest Path Algorithms Techniques

Abstract: Shortest paths, or close to shortest paths, are commonly used in everyday situations. The paper reviews the various algorithms available for the problem. One of the famous technique Dijkstra's algorithm solves the single-source shortest path problem on any directed graph in O(m+nlogn) worstcase time when a Fibonacci heap is used as the frontier set data structure. Paper Setup must be in A4 size with Margin: Top 1.78 cm, Bottom 1.78 cm, Left 1.78 cm, Right 1.65 cm, Gutter 0 cm, and Gutter Position Top. Paper must be in two Columns after Authors Name with Width 8.59 cm, Spacing 0.51 cm. Whole paper must be with: Font Name Times New Roman, Font Size 10, Line Spacing 1.05 EXCEPT Abstract, Keywords (Index Term), Paper Tile, References, Author Profile (in the last page of the paper, maximum 400 words), All Headings, and Manuscript Details (First Page, Bottom, left side). Paper Title must be in Font Size 24, Bold, with Single Line Spacing. Authors Name must be in Font Size 11, Bold, Before Spacing 0, After Spacing 16, with Single Line Spacing. Please do not write Author e-mail or author address in the place of Authors name. Authors e-mail, and their Address details must be in the Manuscript details. Abstract and Keywords (Index Term) must be in Font Size 9, Bold, Italic with Single Line Spacing. All MAIN HEADING must be in Upper Case, Centre, and Roman Numbering (I, II, III...etc), Before Spacing 12, After Spacing 6, with single line spacing. All Sub Heading must be in Title Case, Left 0.25 cm, Italic, and Alphabet Numbering (A, B, C...etc), Before Spacing 6, After Spacing 4, with Single Line Spacing. Manuscript Details must be in Font Size 8, in the Bottom, First Page, and Left Side with Single Line Spacing. References must be in Font Size 8, Hanging 0.25 with single line spacing. Author Profile must be in Font Size 8, with single line spacing. Fore more details, please download TEMPLATE HELP FILE from the website.

Keywords: Best first search, combinatorial explosion, empirical time Euclidean, radius search.

References:

3.

1. G. B. Dantzig. Linear Programming and Extensions. Princeton University Press, 1962

- T. M. Chan, A. Efrat, and S. Har-Peled. Fly Cheaply: On the Minimum Fuel Consumption Problem. Journal of Algorithms, 41(2):330–337, 2001..
- R. Bauer, D. Delling, and D. Wagner. Experimental Study on Speed-Up Techniques for Timetable Information Systems. In C. Liebchen, R. K. Ahuja, and J. A. Mesa, editors, Proceedings of the 7th Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems (ATMOS'07), pages 209–225. Internationales Begegnungs- und Forschungszentrum für Informatik (IBFI), Schloss Dagstuhl, Germany,2007.C. J. Kaufman, Rocky Mountain Research Lab., Boulder, CO, private communication, May 1995.
- R. Bauer, D. Delling, P. Sanders, D. Schieferdecker, D. Schultes, and D. Wagner. Combining Hierarchical and Goal-Directed Speed-Up Techniques for Dijkstra's Algorithm. In C. C. McGeoch, editor, Proceedings of the 7th Workshop on Experimental Algorithms (WEA'08), volume 5038 of Lecture Notes in Computer Science, pages 303–318. Springer, June 2008.
- R. Bauer and D. Delling. SHARC: Fast and Robust Unidirectional Routing. In I. Munro and D. Wagner, editors, Proceedings of the 10th Workshop on Algorithm Engineering and Experiments (ALENEX'08), pages 13–26. SIAM, 2008.
- V.Batz, D. Delling, P. Sanders, and C. Vetter. Time-Dependent Contraction Hierarchies. In Proceedings of the 11th Workshop on Algorithm Engineering and Experiments (ALENEX'09). SIAM, 2009.
- Saunders, S., and Takaoka, T. Improved shortest path algorithmsfor nearly acyclic graphs. In Proc. Computing: The Australasian TheorySymposium, vol. 42 of Electronic Notes in Theoretical Computer Science. 2001.
- 8. Cherkassy B V, Goldberg A V and Radzik T. (1993) Shortest Paths Algorithms:Theory and Experimental Evaluation. Research project, Department of Computer Science, Cornell and Stanford Universities and Krasikova Institute for Economics and Mathematics

	Authors:	Ugale Shrikant, Godse Gaurav, Kale Onkar
	Paper Title:	Visualization of Query Processing on Data Warehouse with UML

8-11

Abstract: Data transformations are the main subject of visual modeling concerning data warehousing dynamics. A data warehouse integrates several data sources and delivers the processed data to many analytical tools to be used by decision makers. Therefore, these data transformations are everywhere: from data sources to the corporate data warehouse by means of the ETL processes, from the corporate repository to the departmental data marts, and finally from data marts to the analytical applications Data warehousing involves complex processes that transform source data through several stages to deliver suitable information ready to be analyzed. Usually Database designer process and extract the data for their use or according to the business needs. Anyone from the organization can specify the query and get the data related to it from the data warehouse. There may be the case when the database designers or business analysts need to view query flow. In other words, if they want to analyze the flow of query in data warehouse that is how query actually flows from one table to another, they cannot easily visualize it. Though many techniques for visual modeling of data warehouses from the static point of view have been devised, only few attempts have been made to model the data flows involved in a data warehousing process. Besides, each attempt was mainly aimed at a specific application, such as ETL, OLAP, what-if analysis, data mining. Data flows are typically very complex in this domain; for this reason, designers would greatly benefit from a technique for uniformly modeling data warehousing flows for all applications. The visualization of query flow is interactive to the designer and analyst. If the designer have the model to view the internal flow then it will be easy for them to visualize the important data and attribute. UML has an activity diagram which shows the complete and accurate flow actions. So if we have activity diagram to specify the flow. It will be easy to the designers to understand the query.

12-14

Keywords: OLTP, OLAP, ETL, data warehouse, data mining.

References

4.

- Jes'us Pardillo1, Matteo Golfarelli2, Stefano Rizzi2, and Juan Trujillo1, Visual Modelling of Data Warehousing Flows with UML Profiles 2009
- 2. OMG: Unified Modeling Language (UML) Superstructure, version 2.1.2.(November 2007).
- 3. Luj´an-Mora, S., Trujillo, J., Song, I.Y.: A UML profile for multidimensional modeling in data warehouses. Data Knowl. Eng. 59(3), 725-769 (2006).
- 4. A UML based Approach for Modeling ETLProcesses in Data Warehouses_ Juan Trujillo and Sergio Luj'an-Mora.
- 5. Data Mapping Diagrams for Data Warehouse Design eith UML Sergio Lujan-Mora, Panos Vassiliadis and Juan Trujillo.
- 6. Data warehouse design with uml Sergio Luján-MoraAdvisor:Juan Trujillo.
- 7. Jia Han, Micheline Kamber., "Data Mining concepts and techniques", second edition 2006, Elsevier Inc.
- Cabibbo, L., Torlone, R.: From a Procedural to a Visual Query Language for OLAP. In: Proc. SSDBM, pp. 74–83 (1998)

Authors:	Joseph Peter
Paper Title:	Modeling & Torque Ripple Minimization of Switched Reluctance Motor for High Speed Applications

Abstract: This paper deals with the analysis, study and modeling of the torque ripple minimization setup for the closed loop control of Switched Reluctance Motor.SRM is becoming more and more popular for high speed industrial application environments due to its rugged and robust construction. For low cost, variable speed drives SRM are most widely used. But the torque pulsations in SRM are relatively higher compared to sinusoidal machines due to the doubly salient structure of the motor. Nonlinear inductance profile and pulse magnetizing make the torque ripple unavoidable. Both machine design and electronic control approaches have been used to minimize the torque ripples in SRM. This paper gives an extensive review of the origin of the torque ripple and approaches adopted to minimize the torque ripple. The mathematical modeling of three phase SRM is developed and integrated with different converter topologies in Matlab / Simulink environment along with control methods. The power spectrum density wave forms of torque are studied to verify the simulation results obtained.

15-20

Keywords: Switched Reluctance Motor, mathematical modeling & simulation, converter topologies, torque ripple minimization, Power spectrum density.

Deferences

- 1. Torque ripple minimization in SRM drives by PWM current control. Iqbal hussain , M.ehsani IEEE Jan 1996
- 2. Simulation of a 6/4 SRM Based on Matlab/Simulink Environment . F . Soares , P.J. Costa Branco IEEE July 2001
- Naresh Vattikuti, Vandana Rallabandi and B. G. Fernandes, "A Novel High Torque, Low Weight Segmented SRM", IEEE June 2008.
- 4. Miller, T. J. E. (1993) Switched Reluctance Motors and their Control.
- 5. Modeling simulation analysis design and applications of SRM R. Krishnan
- A new power converter for SRM drive S.Gairola, Priti and L.N. Paliwal IEEE 2010

Authors: Oguejiofor O. S, Aniedu A. N, Ejiofor H. C, Okolibe A. U

Paper Title: Trilateration Based localization Algorithm for Wireless Sensor Network

Abstract: A Trilateration based localization algorithm for determining the position of nodes in a wireless sensor network is proposed. Details regarding the implementation of such algorithm are also discussed. Experiments were performed in a testbed area containing anchor and blind nodes deployed in it to characterize the pathloss exponent and to determine the localization error of the algorithm. The pathloss exponent of the testbed area was computed to be n=2.2 where as the algorithm is shown to have localization error of 0.74m which is acceptable because is not much.

5.

Keywords: Algorithm, beacon, pathloss, Trilateration.

References:

6.

- 1. "21 ideas for the 21st century", Business week, Aug. 30 1999, PP. 78-167.
- C.Y. Chony and S.P Kumar, (2003), "sensor networks. Evolution opportunities, and challenges", proceedings of the IEEE, Vol. 91. No 8, pp. 1247- 1256
- 3. Avinash srinivasan and Jie wu, (2002), "A survey on secure localization in wireless sensor networks." Florida Atlantic University, Boca Raton, F2 USA.
- 4. J.C Naves and T. Imielinski., (1997), "Geographic Addressing and routing" in proceedings of MOBICOM '97, Budapest, Hungary.
- 5. T. Yan, T. He and J.a stankovic, (2003), "Differentiated surveillance service for sensor networks." In proceeding of first ACM conference on embedded networked sensor system (sensys'03).
- A. Nasipum and K.Li, (2002), "A directionality based location discovery scheme for wireless sensor networks." In proceeding of the ACM WSNA '02.
- P. Bahl and V.N padmanabham, (2000), "RADAR: An in- Building Rf-based user location and Tracking system." In proceeding of the IFEE INFOCOM' 00.
- 8. J. Hightower, E. Boriello, and R. Want., (2011), "Spot on: an Indoor 3D location sensing technology based on RF signal strength." Technical report, university of Washington.
- 9. A. Harter, A. Hopper; P, steggles, a. ward, and P. Webster. (1999), "The anatomy of a context aware application" in proceeding of the MOBICOM'199.
- Chris savarese and Jan Rabacy, (2002), "Robots positioning Algorithm for Distributed adhoc wireless sensor networks" Berkeley wireless research centre.
- 11. L. Girod and D. Estrin, (2001), "Robust range estimation using acoustic multimodal sensing" in IEEE/RSJ international conference on intelligent Robots and system (IROS), Maul, Hawaii.
- 12. L. Doherty, K. pister and L.E Ghaoui, (2001), "convex position estimation in wireless sensor networks". In IEEE Infocom, anchorage,
- 13. D. Niculescu and B, Nath, (2001), "Adhoc positioning system". In IEEE Globecom
- 14. S. Capkum, M. Hamdi and J.P Hubaux, (2004), "GPS- free positioning in mobile ad-hoc networks". In Hawaii international conference in system sciences (Hicss -34), pages 3481-3490, maul, Hawaii
- Kamin Whitehouse, Chris Karloff and David culler, (2007), "A practical Evaluation of Radio Signal Strength for Rangingbased Localization" in ACM international workshop on wireless sensor networks.
- 16. Dixon, John C., (2009), "Suspension Analysis and computational Geometry: John Wiley and sons limited
- 17. Rappaport, Theodore S., (1996), "Wireless Communications: Principle and practice", New Jersey: prentice-Hall Inc.
- 8. Vijay k Garg, (2007), "Wireless Communication Networking", San Francisco: Morgan Kaufman publishers.

Authors: Mahmood T. Yassen, Jawad K. Ali, Ali J. Salim, Seevan F. Abdulkareem, Ali I. Hammoodi, Mohammed R. Hussan

Paper Title: A New Compact Slot Antenna for Dual-Band WLAN Applications

Abstract: The design of a simple two patch slotted antenna with an offset microstrip feed line is presented as a candidate for use in 2.4/5.2 GHz wireless local area network, WLAN, applications. The first patch has been designed as a rectangular shape and the other has been designed as an inverted L shape with a protruding stub. The proposed antenna has been supposed to be printed on an FR4 substrate with a thickness of 0.8 mm and relative permittivity of 4.6. The resulting antenna has been found to have a compact size of 25.75x22 mm2. The antenna offers dual –band characteristics with -10 dB return loss bandwidths of 2.3996 – 2.6309 GHz and 5.1335 – 5.8065 GHz for the lower and the upper resonating bands respectively. This dual-band resonant behavior makes the proposed antenna covering many communication services such as ISM, RFID, WLAN and WiFi applications. Modeling and performance evaluation of the proposed antenna have been carried out using a method of finite integration technique (FIT) based EM simulator, the CST MICROWAVE STUDIO.

Keywords: Compact antennas, Dual band antennas, Slot antennas, Wireless applications, WLAN.

References:

- Mishra Liu, W.-C., and H.-J. Liu, "Compact triple-band slotted monopole antenna with asymmetrical CPW grounds," IEE Electronic Letters, Vol. 42, No. 15, 840-842, 2006.
- Li, J.-Y., and Y.-B. Gan, "Multi-band characteristic of open sleeve antenna," Progress In Electromagnetics Research, PIER 58, 135-148, 2006.
- Deepu, V., K. R. Rohith, J. Manoj, M. N. Suma, K. Vasudevan, C. K. Aanandan, and P. Mohanan," Compact uniplanar antenna for WLAN applications," IEE Electronic Letters, Vol. 43, No.2, 70-72, 2007.
- Lee, Y.-C., and J.-S. Sun, "Compact printed slot antennas for wireless dual- and multi-band operations," Progress In Electromagnetics Research, PIER 88, 289-305, 2008.
- 5. Tilanthe, P., P.-C. Sharma, and T. K. Bandopadhyay, "A compact UWB antenna with dual-band rejection," Progress In Electromagnetics Research B, PIER B 35, 389-405, 2011.
- Tilanthe, P., P.-C. Sharma, and T. K. Bandopadhyay, "A printed 2.4 GHz / 5.8 GHz dual-band monopole antenna with a
 protruding stub in the ground plane for WLAN and RFID applications," Progress In Electromagnetics Research, PIER 117,
 425-434, 2011.
- 7. Latif, S. I., L. Shafai, and S. K. Sharma, "Bandwidth enhancement and size reduction of microstrip slot antenna," IEEE Trans. Antennas Propag., Vol. 53, No. 3, 994-1003, Mar. 2005.
- 8. Jan, J. Y. and J.-W. Su, "Bandwidth enhancement of a printed wide-slot antenna with a rotated slot," IEEE Trans. Antennas Propag., Vol. 53, No. 6, 2111-2114, Jun. 2005.
- Abdelaziz, A. A., "Bandwidth enhancement of microstrip antenna," Progress In Electromagnetics Research, PIER 63, 311-317, 2006.
- Chen, W., S. and K.-Y. Ku, "Band-rejected design of the printed open slot antenna for WLAN/WIMAX operation," IEEE Trans. Antennas Propag., Vol. 56, No. 4, 1163-1169, Apr. 2008.
- 11. Khodaei, G. F., J. Nourinia, and C. Ghobadi, "A practical miniaturized U-slot patch antenna with enhanced bandwidth," Prog. In Electromag. Res. B, PIER B, Vol. 3, 47-62, 2008.
- 12. Ali, J. K., M. T. Yassen, M. R. Hussan, and A. J. Salim, "A Printed Fractal Based Slot Antenna for Multi-Band Wireless Communication Applications," PIERS Proceedings, 618-622, Moscow, Russia, August 19-23, 2012.
- 13. Eldek, A. A., A. Z. Elsherbeni, and C. E. Smith, "Dual wideband square slot antenna with U-shaped printed tuning stub for personal wireless communication systems," Progress In Electromagnetics Research, PIER 53, 319-333, 2005.

28-32

21-27

7.

Sze, J.-Y., C.-I. G. Hsu, and S.-C. Hsu, "Design of a compact dual-band annular-ring slot antenna," IEEE Antennas Wireless Propag Lett., Vol. 6, 423-426, 2007. Ren, W., "Compact dual-band slot antenna for 2.4/5 GHz WLAN applications," Progress In Electromagnetics Research B, PIER B, Vol. 8, 319-327, 2008. Wang, C.-J., and S.-W. Chang "Studies on dual-band multi-slot antennas," Progress In Electromagnetics Research, PIER, 83, 293-306, 2008. Gai, S., Y.-C. Jiao, Y.-B. Yang, C.-Y. Li and J.-G. Gong, "Design of a novel microstrip-feed dual-band slot antenna for WLAN applications," Progress In Electromagnetics Research Lett., PIER, 13, 75-81, 2010. Ooi, P. C., and K.-T. Selvan, "A dual-band circular slot antenna with an offset microstrip-feed line for PCS, UMTS, IMT-2000, ISM, BLUETOOTH, RFID and WLAN applications," Progress In Electromagnetics Research Lett., PIER, 16, 1-10, Ameena Tabassum, S. Satheesh, Ch. Ganapathy Reddy **Authors:** Paper Title: Enhancement of Color Images with its RGB Representation using PDE Abstract: Image enhancement is important factor for better visual representation. An extension of scalar diffusion-shock filter coupling model is proposed where noisy and blurred images are denoised and sharpened. The proposed method is based on single vectors of gradient magnitude and second derivatives. In this paper we are presenting proposed method by comparing with previous method. The proposed algorithm is more efficient than previous work without creating false colors. The performance of proposed method with previous method is evaluated with parameters such as Mean Structure Similarity Index Measurement (MSSIM) and Peak Signal to Noise Ratio (PSNR). Keywords: Enhancement, Diffusion, Shock filter, Noise, Blur. **References:** 8. P. Perona and J. Malik, "Scale-space and edge detection using anisotropic diffusion," IEEE Trans. Pattern Anal. Mach. 33-37 Intell., vol. 12, no. 7, pp. 629–639, Jul. 1990.

D. Tschumperlé, "Fast anisotropic smoothing of multi-valued images using curvature-preserving PDE's," Int. J. Comput. Vis., vol. 68, no. 1, pp.65-82, Jun. 2006. L. Alvarez and L. Mazorra, "Signal and image restoration using shock filters and anisotropic diffusion," SIAM J. Numer. Anal., vol. 31, no. 2, pp. 590-605, Apr. 1994. B. M. ter Haar Romeny, Front-End Vision and Multi-Scale Image Analysis. Berlin, Germany: Kluwer, 2003. S. Bettahar and A. B. Stambouli, "Shock filter coupled to curvature diffusion for image denoising and sharpening," Image Vis. Comput., vol. 26, no. 11, pp. 1481-1489, Nov. 2008. S. Osher and L. I. Rudin, "Feature-oriented image enhancement using shock filters," SIAM J. Numer. Anal., vol. 27, no. 4, pp. 919-940, Aug. 1990. L. Remaki and M. Cheriet, "Enhanced and restored signals as a generalized solution for shock filter models. Part I-Existence and uniqueness. M. Cheriet and L. Remaki, "Enhanced and restored signals as a generalized solution for shock filter models. Part II-Numerical study," J.Math. Anal. Appl., vol. 279, no. 2, pp. 398-417, Mar. 2003. **Authors:** Neetu B. Yadav, Jayesh A. Shah, Rushabh A. Shah Paper Title: **Pervious Concrete: Solution for Low Cost Construction** Abstract: Pervious concrete is known as No fines, gap graded or porous concrete. This concrete is a mixture of Cement, Corse Aggregate and with or without sand. Pervious concrete has an interconnected pore structure that freely allows the passage of water to flow through. This concrete is being used as paving material to solve or reduce the storm water runoff to the drainage system and minimize water logging problems. This paper covers some of the main properties and major uses of pervious concrete and its ecofriendly benefits. This concrete proves to be very beneficial if it utilize to its full extent in various flat work applications in India. Keywords: Eco-Friendly, Low Cost Construction, Pervious Concrete, Storm Water Management. 9. 38-41 References: Thushara Priyadarshana, Colombo, Shri Lanka, "Pervious concrete - a sustainable choice in civil engineering and construction' http://myscmap.sc.gov/marine/NERR/pdf/PerviousConcrete_pavements.pdf http://www.perviousconcrete.com/maintenance_prevention.htm http://en.wikipedia.org/wiki/Pervious_concrete http://theconstructor.org/concrete/pervious-concrete-futuristic-solution-to-urban-runoff/5289/ http://www.nbmcw.com/articles/roads/5529-pervious-concrete-pavement-for-parking-areas-pathways-sustainable-porousand-storm-water-drainage.html http://www.nbmcw.com/articles/roads/25313-pervious-concrete-a-solution-to-stormwater-runoff.html. $http://www.nrmca.org/research_engineering/Documents/Pervious_Concrete_Overview_paper_KObla_Aug2010.pdf$ http://www.nrmca.org/aboutconcrete/pervious%20concrete%20-%20-%20freeze-thaw% 20durability% 20per% 20nrmca.pdf Abdullah H. Algahtani, Mohsin Iftikhar **Authors: Paper Title:** TCP/IP Attacks, Defenses and Security Tools Abstract: The TCP/IP protocol suite is the foundation of Internet and is ubiquitous in almost all networks worldwide. It was written as a robust protocol, which is able to communicate despite node failures. The design parameters of TCP did not weigh security as important and placed an implicit trust on nodes. The result was a protocol which was reliable and robust, but contained myriad inherent security flaws, open to be exploited by a malicious entity as was amply demonstrated by Morris worm

[1] in the early days of what is Internet today. This problem was aggravated by various faulty

implementations of the TCP/IP protocol. Many vulnerabilities and corresponding attacks have been identified targeting TCP/IP protocol suite including spoofing attacks, denial of service attacks, authentication attacks and routing attacks etc. Design flaws of TCP/IP can be mitigated by applying layers of security mechanism in a network. But this application itself is open to exploitation. Various tools have been designed to analyze and identify the presence of such vulnerabilities and avenues of exploitation in TCP/IP suite. We describe the spectrum of attacks against TCP/IP suite and discuss various defense mechanisms and tools like firewalls, intrusion detection systems, protocol analyzers, sniffers and vulnerability scanners etc. We conclude with an analysis of these tools.

Keywords: Network security, TCP/IP security, security tools, hacking, computer security.

References:

10.

- Spafford, Eugene H. The internet worm incident. Springer Berlin Heidelberg, 1989.
- Braden, Robert. "RFC-1122: Requirements for internet hosts." Request for Comments (1989): 356-363.
- Barden, R. "RFC 1123: Requirements for InterNet Hosts-Application and Support." InterNet Network Working Group
- Deering, Stephen, and Robert Hinden. "Internet protocol." (1998).
- Chappell, Laura. "Inside the TCP Handshake." NetWare Connection (2000).
- "Google", online, http://google.com (last accessed on 2 Jun 2013)
- "Wireshark", online, www.wireshark.org. (last accessed on 25 May 2013)
- CERT, "CERT Advisory CA-1996-21 TCP SYN Flooding and IP Spoofing Attacks," September 1996.
- Bellovin, Steven M. "A look back at." Computer Security Applications Conference, 2004. 20th Annual. IEEE, 2004. Tanase, Matthew. "IP spoofing: an introduction." Security Focus 11 (2003).
- 10.
- Ferguson, Paul. "Network ingress filtering: Defeating denial of service attacks which employ IP source address spoofing." (2000).
- Heberlein, L. Todd, and Matt Bishop. "Attack class: Address spoofing." Proceedings of the 19th National Information Systems Security Conference. 1996.
- Trabelsi, Zouheir, and Khaled Shuaib. "NIS04-4: Man in the Middle Intrusion Detection." Global Telecommunications Conference, 2006. GLOBECOM'06. IEEE. IEEE, 2006.
- Harris, B., and R. Hunt. "TCP/IP security threats and attack methods." Computer Communications 22.10 (1999): 885-897.
- Barbir, A., S. Murphy, and Y. Yang. "Generic threats to routing protocols." (2006).
- Yan, Boru, et al. "Detection and defence of DNS spoofing attack." Jisuanji Gongcheng/ Computer Engineering 32.21 (2006): 130-132.
- "TCPdump and libpcap", online, http://www.tcpdump.org/"(last accessed on 26 May 2013) 17.
- "KISMET", online, http://www.kismetwireless.net/, (last accessed on 25 May 2013)
- 19. "ETTERCAP", online, http://ettercap.github.io/ettercap/, (last accessed on 25 May 2013)
- "NESSUS vulnerability scanner", online, http://www.tenable.com/products/nessus (last accessed on 25 May 2013)
- "Open VAS- Open Vulnerability Assessment System", online, www.openvas.org (last accessed on 25 May 2013).
- 22. "Core-impact", online, http://www.coresecurity.com/core-impact-pro (last accessed on 25 May 2013).
- "Retina Network Security Scanner", online, http://www.beyondtrust.com/Products/RetinaNetworkSecurityScanner/ (last accessed 28 May 2013)
- Roesch, Martin. "Snort-lightweight intrusion detection for networks." Proceedings of the 13th USENIX conference on System administration. 1999.
- Leach, John, and Gianni Tedesco. "Firestorm network intrusion detection system." Firestorm Documentation (2003). 25.
- Zaraska, Krzysztof. "Prelude IDS: current state and development perspectives." URL http://www. prelude-ids. org/download/misc/pingwinaria/2003/paper. pdf(2003).
- Allan, Ant. "Enterasys Networks Dragon Intrusion Detection System (IDS)." (2002).
- Bro, I. D. S. "Homepage: http://www. bro-ids. org." (2013).
- "Suricata Intrusion Detection System", online, http://suricata-ids.org/ (last accessed 31 May 2013)
- Yao, Xiaoyu, and Chen ZHAO. "Research on Implementation and Application of Linux Kernel Firewall Netfilter [J]." Computer Engineering 8 (2003): 042.
- Reed, D.: IP Filter. Online. http://coombs.anu.edu.au/~avalon/ip-filter.html (Last accessed 31 May 2013)
- "Nmap", online, http://nmap.org/. (last accessed 1 Jun 2013)
- "What is netcat?", online, http://netcat.sourceforge.net/, (last accessed 1 Jun 2013) 33.
- "hping", online, http://www.hping.org/ (last accessed 1 Jun 2013)

42-47