Volume 3 Issue 5, March 2015

International Journal of Emerging Science and Engineering

ISSN : 2319-6378 (Online)
Website: www.ijese.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. 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, Chunche0nsi, 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

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 Emerging Science and Engineering (IJESE)

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 Ptriya
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

1.

Authors: Beniwal Ashok, M.P Sharma,Vinod Kumar

Paper Title: An Analysis of Land use/land Cover Change Detection Using Geospatial Technology-A Case Study of Rewari District, Haryana, India

Abstract: Land resources are finite and therefore their conservation, development and management plays the determining role in their sustaining use. The land resources shall be treated as single, renewable and intergenerational entity and they have to be viewed as prime national resources for all societal, economical and political considerations. Preparation of land use/Land cover maps for development plan aims at optimal, eco-friendly, viable & integrated land use planning. As a pre-requisite of any planning and implementation of land resources development action plan with continuous and periodic assessment of status of land use/Land cover both at regional and national level. The objective of study is to generate change analysis of land use/land cover pattern of the years 2005-2006 and 2011-2012 of the study area. This analysis was carried out through geospatial technology using IRS-Resourcesat-2 (LISS-III) data. The study shows that increase in area under built up land category is the expense of agricultural and wasteland land use classes. The study concluded that area under urban infrastructure is increasing at fast pace and which is eating up fertile agriculture land of area. Keywords:

Keywords: Remote sensing and GIS, Resourcesat-2, LISSIII, land use/land cover.

1-5

References:

1. Harmsen K., Nidhumolu B. N. (2002). "Land use planning for sustainable development in South Asia: An example from India," IAPRS & SIS, Vol. 34, Part 7, "Resource and Environment Monitoring," Hyderabad, India. PP 1467-1473
2. Anderson James R. (1971). "Land use classification scheme used in selected recent geographic applications of remote sensing", Photographic Engineering and remote sensing (PE & RS), vol. 37, No. 4, PP 379-387.
3. Panigarhi S., Ray S S., Sood A., Patel L.B., Sharma P.K. and Parihar J.S. (2004). "Analysis of cropping pattern changes in Bhathinda District, Punjab" Journal of ISRS, Vol. 32, No.2. PP 209-16.
4. Minakshi, Sharma P. K., Kaur A. and Shalley V. (2005). "Satellite based study of land transformation of Ludhiana district, Punjab," Journal of ISRS, Vol.33, No1, PP 181-186
5. Ray S.S., Sood A., Das G., Panigrahy S., Sharma P. K.and Parihar J.S.(2005). "Use of GIS and remote sensing for crop diversification- A case study of Punjab state", Journal of ISRS, Vol.33, No1, PP181-186
6. Sharma, M.P, Archana, Prawasi, Ravindra, Hooda, R.S., (2013): Land use/land over change detection in National Capital Region (NCR) Delhi:
7. A case study of Gurgaon District.

2.

Authors: D. Suresh, S. Manikandan

Paper Title: Enterprise Resource Planning: Firms are Trying to Extend the System to Frond-End and M-Commerce

Abstract: The growth of global enterprises and the expansion of technical and managerial knowledge are hallmarks of the twenty-first century organization. A wave of interest in improving the integration of information or data across the functional areas of a business has surfaced during the past few years. More specifically, business transactions that occur in one functional area would, indeed, affect transaction in other functional areas. Not surprisingly, the most effective managerial decisions can be made when information and data from all areas of business are available in real time, and that all parties having access to the information are participants in the decision made. A Software which enables this integration of information is the Enterprise Resource Planning (ERP) software system. The core issues and concepts underlying idea behind Enterprise Resource Planning is its ability to bind the entire enterprise in a tight web of information system. This software application leaves no function of an organization untouched. The thrust of this paper is to provide information about the ABC's of ERP, ERP implementation life cycle, the seven mantra's for ERP implementation, and the rebirth of ERP extending its footprints to Supply Chain Management (SCM), Customer Relationship Management (CRM) and Collaborative Management.

Keywords: Enterprise resource planning ERP, ERP II, Cost of ERP, e-commerce.

6-13

References:

16.1 Text Books:
[1] Alexis Leon, 1998, "Enterprise Resource Planning"
[2] Alexis Leon, 1998, "ERP Demystified"
[3] Parag Diwan, R.K.Suri, 2000, "Enterprise Resource Planning", IT Encyclopaedia.com
16.2 Journals:
[1] Gopinath.S ,Ramesh Kannan.M and Ramajeyam.L , "Computerized Critical Path Segmental Scheduling for Construction Projects", pp 60-66, Proceedings of second International Conference on Advances in Industrial Engineering Applications (ICAIEA2014), Anna University,January 6-8,2014
[2] Kathleen M.Utecht, Randall B.Hayes, and Patrick A.Okonkwo, "Enterprise Resource Planning and SAP R/3 Functionality", pp.210-214, 1st International conference of Logistics and Supply Chain Management6-8th August 2001, PSG College Of Technology, Coimbatore
[3] R.B.Hayes, P.A.Okonkwo, S.Palaniswami, and K.M.Utecht, "Enterprise Resource Planning Implementation in Institutions Of Higher Learning", pp.226-233, From 1st International conference of Logistics and Supply Chain Management 6-8th August 2001, PSG College Of Technology, Coimbatore.
[4] A.K. Bharadwaj, "Evaluating an ERP Project", vol 82, Nov 2001,Institute Of Engineers.
[5] Shelley singh, "Rebirth Of ERP", pp.46-48,Business World 5, Nov 20001
[6] Raju Bist, " A Laboratory Of Ideas ",pp.46-48, MIS South Asia, May 2000
[7] Chris Bell, "Unlocking ERP Benefits",pp.64-71, MIS South Asia, Sept 2000.
[8] Zubin Sethna. "Changing With the Times", pp.36-39, MIS South Asia, March 2000
[9] Louis Fernandes, "Sing Glass",pp.41-42, MIS South Asia, June 2000.
[10] Vinod Kumar Garg & Dr.Kamal Bharani,"An Empirical Method For Estimation Of Efforts For ERP Implementation", pp.10-14,

Industrial Engineering Journal, vol xxx No.11.
[11] John Ribeiro, "ERP Counseling from Maini", pp.6, Information Systems Computerworld Feb 2000.

3.

Authors:	**P. Swapnil, Devesh Narayan, Sipi Dubey**
Paper Title:	**An Approach for Human Identification by Ear Biometric System**

Abstract: Ear biometric for identification of human is quite complex task. It's use either uni-modal or multi-modal approach in order to authenticate a person. A uni-modal biometric system involves a single source of biometric to identify a person. This paper is based on uni-modal approach with ear as a biometric trait for recognizing a person. In this paper, an experimental approach is used for identifying a person based by their ear structure. As researchers suggest that ear is a physiological biometric that is quite reliable source of identifying human, we here, present the work related to this field of ear biometrics. Firstly, we will discuss about identification process of our ear biometric system that includes pre-processing, edge detection using canny edge detection method and then extracting farthest boundary points that form a maxline. Now this maxline is divided into multiple points to extract geometrical intersecting points on the outer edge. Then finally template matching is done for identification.

Keywords: Biometrics, ear biometrics, canny edge detection, maxline and template matching.

References:

1. Human Computer Interpreting with Biometric Recognition System, Gajanan Pandurangrao, Khetri, Satish L.Padme, Dinesh Chandra Jain, IJARCSSE, Volume 2, Issue 12, December 2012.
2. A Review on Biometrics and Ear Recognition Techniques, Sukhdeep Singh, Dr. Sunil Kumar Singla, Volume 3, Issue 6, June 2013, ISSN: 2277 128X
3. Automated Biometric Verification: A Survey on Multimodal Biometrics, Rupali L. Telgad, Almas M. N. Siddiqui,Dr. Prapti D. Deshmukh, International Journal of Computer Science and Business Informatics, ISSN: 1694-2108, Vol. 6, No. 1. October 2013.
4. A Review Paper on Ear Biometrics: Models, Algorithms and Methods, Khamiss Masaud, S.Algabary, Khairuddin Omar, Md. Jan Nordin, Siti Norul Huda Sheikh Abdullah, Aust. J. Basic & Appl. Sci. 7(1): 411-421,2013.
5. A New Force Field Transform for Ear and Face Recognition, David J. Hurley, Mark S. Nixon and John N. Carter, IEEE, 2000.
6. Contour Matching for 3D Ear Recognition, Hui Chen and Bir Bhanu, Proceedings of the Seventh IEEE Workshop on Applications of Computer Vision (WACV/MOTION'05) 0-7695-2271-8/05, IEEE.
7. Human Ear Recognition in 3D, IEEE Transactions On Pattern Analysis And Machine Intelligence, Vol. 29, No. 4, April 2007.
8. Ear Recognition Using Wavelets, M. Ali1, M. Y. Javed and A. Basit, Proceedings of Image and Vision Computing New Zealand 2007, pp. 83–86, Hamilton, New Zealand, December 2007.
9. Robust Multi-biometric Recognition Using Face and Ear Images", Nazmeen Bibi Boodoo, R K Subramanian, IJCSIS, Vol. 6, No. 2, 2009.
10. The Human Identification System Using Multiple Geometrical Feature Extraction of Ear –An Innovative Approach, Jitendra B. Jawale, Dr. SMT. Anjali S. Bhalchandra, IJETAE, ISSN 2250-2459, Volume 2, Issue 3, March 2012.
11. Ear Localization from Side Face Images using Distance Transform and Template Matching, Surya Prakash, Umarani Jayaraman and Phalguni Gupta, Proceedings of IEEE Int'l Workshop on Image Processing Theory, Tools and Applications, IPTA 2008, Sousse, Tunisia, pp. 1-8, Nov 2008.
12. Ear Recognition for Automated Human Identification, Singh Amarendra and Verma Nupur, Research Journal of Engineering Science, ISSN 2278 – 9472, Vol. 1(5), 44-46, November (2012)
13. Ear Biometrics: A Survey of Detection, Feature Extraction and Recognition Methods, Anika Pflug, Christoph Busch, , IET Biometrics, July 2012.
14. On ear-based human identification in the mid-wave infrared spectrum, 2013, Ayman Abaza, Thirimachos Bourlai, Image and Vision Computing 31 (2013) 640–648, Elsevier.
15. A Book on Biometric Technology Application Manual,(2008), National Biometric Security Project(NBSP).

14-18

4.

Authors:	**Kalesh M. Karun, Binu V. S, Kala M. Karun, Keerthana Prasad, Nair N. S, K. Manjunatha Prasad, K. M. Girisha**
Paper Title:	**Review on Image Segmentation Methods in cDNA Microarray Experiments and a Novel Algorithm for Segmentation**

Abstract: Microarray experiments are used to measure gene expression levels of thousands of genes at a time. The image analysis has an important role in the microarray data analysis and has potential impact on the identification of differentially expressed genes. Segmentation is one of the important processes in image analysis. The current paper attempts to provide an overview of commonly used segmentation methods in microarray image analysis like fixed circle segmentation, adaptive circle segmentation, the adaptive shape segmentation, histogram-based method and machine learning algorithms. We estimated intensity ratios of selected spots from an image file downloaded from the Gene Expression Omnibus (GEO) database based on the above segmentation methods. It was observed that all these methods give almost similar estimates of intensity ratio value. We are also proposing a new algorithm to identify the spot radius for the adaptive circle segmentation, instead of manual fixing of the radius. Index Terms—

Keywords: Microarray, Image analysis, Segmentation, Intensity ratio.

References:

1. V. S. Binu, N. S. Nair, K. M. Prasad, and K. M. Kalesh, "Estimation of uncertainty associated with intensity ratio in cDNA microarray experiments", Research & Reviews: A Journal of Statistics, 1:24-33,2012.
2. R. Steve, A. M. Lisa, and R. R. Roslin, Microarray Technology in Practice, Academic press, UK, 2009.
3. Carl F.E., Daniel R.E., David J.W., Eugene T., Ronald G.S, William F.B et.al. 1997. Heller Electric field directed nucleic acid hybridization on microchips. Nucleic Acids Research, 25:4907–4914.
4. Lehmussola, P. Ruusuvuori, and O. Yli-Harja, "Evaluating the performance of microarray segmentation algorithms", Bioinformatic, 22:2910–2917, 2006.
5. A.A. Ahmed, M. Vias, N. G. Iyer, C. Caldas, and J. D. Brenton, "Microarray segmentation methods significantly influence data precision", Nucleic Acids Res. 32, e50, 2004.
6. Antti L., Pekka R. and Olli Y.H. 2006. Evaluating the performance of microarray segmentation algorithms. Bioinformatics, 22: 2910–2917.
7. Themis P.E., Athanasios P. and Dimitrios I.F. 2009. Handbook of Research on Advanced Techniques in Diagnostic Imaging and Biomedical Applications. IGI Global, USA.
8. Ernst W. and John M. 2004. Statistics for Microarrays-Design, Analysis and Inference. John Wiley & Sons Ltd. England.
9. Li Q., Luis R., Adnan A. and Alioune N. 2005. Spot Detection and Image Segmentation in DNA Microarray Data. Appl Bioinformatics, 4:1-

19-24

11.
10. Buhler J., Ideker T. and Haynor D. 2000. Dapple: Improved Techniques for Finding Spots on DNA Microarray Data. Journal of Computational and Graphical Statistics, 11:108-136.
11. Volkan U. and Dhsan O.B. 2010. Microarray image segmentation using clustering methods. Mathematical and Computational Applications, 15:240-247.
12. Lakshmana P.M., Keshav R. and Srinivasu P.N. 2013. A Comparative Analysis of Clustering based Segmentation Algorithms in Microarray Images. International Journal of Emerging Science and Engineering (IJESE), 1:2319–6378
13. Nagarajan R. 2003. Intensity-Based Segmentation of Microarray Images. IEEE Trans. On Medical Imaging, 22:882–889.
14. H. Laurie, "MicroArray Genome Imaging & Clustering (MAGIC) Tool", Davidson College, Available: http://www.bio.davidson.edu/projects/magic/magic.html
15. P. Exarchos, A. Papadopoulos, and D. I. Fotiadis Handbook of Research on Advanced Techniques in Diagnostic Imaging and Biomedical Applications, Mar. 2009 (ISBN 978-1-60566-314-2): IGI Global.

5.

Authors: **Faten Z. Mahmoud, Fouz M. Omar, Mohamed M. Mahmoud, Atef A. T. Ramadan**

Paper Title: **Synthesis and Characterization of Palladium (II) Complexes with Hydrazo-β-diketone Ligands**

Abstract: Phenyl hydrazo-β-diketone ligands were prepared and their complexes with Pd(II) were studied. The β-diketone moieties included acetyl acetone (AA), benzoyl acetone (BA) and dibenzoyl methane (DBM), while the aniline part included 2- mezoxy-, 2-chloro-, 3-nitro-, 3-bromo- and 4-flouro- moieties. The stability constants and protonation constants of Pd(II) complexes and the ligand were studied in 75% (v/v) dioxanewater spectrophotometrically. Solid complexes of Pd(II) where established by elemental analysis, IR spectra, mass spectra and 1H-NMR methods. A linear relationship exists between the chemical shift of hydrazo proton and the protonation constants of the ligand, in addition to the linear relation obtained between the stability constants and the ligand basicties (∑pKH).

Keywords: hydrazo-β-diketone ligand, potentiometric and spectrophotometric studies of Pd(II)-PHBDH complexes, preparation of solid complex.

25-30

References:

1. Tammam G. H., Alnaimi I. S. and Ramadan A. T.; Oriental J. Chem., 1, 4, 1988.
2. Abdel-Moez M. S., Ramadan A. T. and Tammam G. H.; J. As. Chem. Soc., 105, 1, 1992.
3. Ramadan A. T., Seada M. H. and Rizkalla E. N.; Talanta, 245, 30, 1983.
4. Ramadan A. T., Seada M. H., El-Behairy M. A., Ismail A. I. and Mahmoud M. M.; Anal. Lett. , 745, 26, 1993.
5. Briegleb C.; "Electron Donor-Acceptor Complex", Springer Veleg, Berlin 1961.
6. Nach C. P.; J. Phys. Chem., 950, 64, 1960.
7. Irving H. and Rossotti H.; Acta Chem. Scand., 72, 10, 1956.
8. Groy H. B. and Bullhauseu C. J.; Am. Chem. Soc., 260, 85, 1963.
9. Mehta R. K. and Saighiz V. C.; Nature Forsh. 304, 276, 1972.
10. Ozha D. D. and Mehta R. K.; J. Ind. Chem. Soc., 370, 52, 1975.