

International Journal of Innovative Technology and Exploring Engineering

ISSN : 2278 - 3075

Website: www.ijitee.org

Volume-6 Issue-6, NOVEMBER 2016

Published by:

Blue Eyes Intelligence Engineering and Sciences Publication Pvt. Ltd.



Editor In Chief

Dr. Shiv K Sahu

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

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

Dr. Shachi Sahu

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

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

Vice Editor In Chief

Dr. Vahid Nourani

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

Prof.(Dr.) Anuranjan Misra

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

Chief Advisory Board

Prof. (Dr.) Hamid Saremi

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

Dr. Uma Shanker

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

Dr. Rama Shanker

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

Dr. Vinita Kumari

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

Dr. Kapil Kumar Bansal

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

Dr. Deepak Garg

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

Dr. Vijay Anant Athavale

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

Dr. T.C. Manjunath

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

Dr. Kosta Yogeshwar Prasad

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

Dr. Dinesh Varshney

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

Dr. P. Dananjayan

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

Dr. Sadhana Vishwakarma

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

Dr. Kamal Mehta

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

Dr. CheeFai Tan

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

Dr. Suresh Babu Perli

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

Dr. Binod Kumar

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

Dr. Chiladze George

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

Dr. Kavita Khare

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

Dr. C. Saravanan

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

Dr. S. Saravanan

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

Dr. Amit Kumar Garg

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

Dr. T.C.Manjunath

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

Dr. P. Dananjayan

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

Dr. Kamal K Mehta

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

Dr. Rajiv Srivastava

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

Dr. Chakunta Venkata Guru Rao

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

Dr. Anuranjan Misra

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

Dr. Robert Brian Smith

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

Dr. Saber Mohamed Abd-Allah

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

Dr. Himani Sharma

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

Dr. Sahab Singh

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

Dr. Umesh Kumar

Principal: Govt Women Poly, Ranchi, India

Dr. Syed Zaheer Hasan

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

Dr. Jaswant Singh Bhomrah

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

Technical Advisory Board

Dr. Mohd. Husain

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

Dr. T. Jayanthi

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

Dr. Umesh A.S.

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

Dr. B. Kanagasabapathi

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

Dr. C.B. Gupta

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

Dr. Sunandan Bhunia

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

Dr. Jaydeb Bhaumik

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

Dr. Rajesh Das

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

Dr. Mrutyunjaya Panda

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

Dr. Mohd. Nazri Ismail

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

Dr. Haw Su Cheng

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

Dr. Hossein Rajabalipour Cheshmehgaz

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

Dr. Sudhinder Singh Chowhan

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

Dr. Neeta Sharma

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

Dr. Ashish Rastogi

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

Dr. Santosh Kumar Nanda

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

Dr. Hai Shanker Hota

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

Dr. Sunil Kumar Singla

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

Dr. A. K. Verma

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

Dr. Durgesh Mishra

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

Dr. Xiaoguang Yue

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

Dr. Veronica Mc Gowan

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

Dr. Mohd. Ali Hussain

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

Dr. Mohd. Nazri Ismail

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

Dr. Sunil Mishra

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

Dr. Labib Francis Gergis Rofaiel

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

Dr. Pavol Tanuska

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

Dr. VS Giridhar Akula

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

Dr. S. Satyanarayana

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

Dr. Bhupendra Kumar Sharma

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

Dr. Praveen Agarwal

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

Dr. Manoj Kumar

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

Dr. Shaikh Abdul Hannan

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

Dr. K.M. Pandey

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

Prof. Pranav Parashar

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

Dr. Biswajit Chakraborty

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

Dr. D.V. Ashoka

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

Dr. Sasidhar Babu Suvanam

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

Dr. C. Venkatesh

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

Dr. Nilay Khare

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

Dr. Sandra De Iaco

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

Dr. Yaduvir Singh

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

Dr. Angela Amphawan

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

Dr. Ashwini Kumar Arya

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

Dr. Yash Pal Singh

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

Dr. Ashish Jain

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

Dr. Abhay Saxena

Associate Professor & Head, Department of Computer Science, Dev Sanskriti University, Haridwar, Utrakhand, 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. Thyagarajan

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 Cheshmejjaz

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

Dr. Veronica McGowan

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

Dr. Sanjay Sharma

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

Dr. Taghreed Hashim Al-Noor

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

Dr. Madhumita Dash

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

Dr. Anita Sagadevan Ethiraj

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

Dr. Sibasis Acharya

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

Dr. Neelam Ruhil

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

Dr. Faizullah Mahar

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

Dr. K. Selvaraju

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

Dr. M. K. Bhanarkar

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

Dr. Sanjay Hari Sawant

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

Dr. Arindam Ghosal

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

Dr. M. Chithirai Pon Selvan

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

Dr. S. Sambhu Prasad

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

Dr. Muhammad Attique Khan Shahid

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

Dr. Kuldeep Pareta

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

Dr. Th. Kiranbala Devi

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

Dr. Nirmala Mungamuru

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

Dr. Srilalitha Giriya Kumari Sagi

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

Dr. Vishnu Narayan Mishra

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

Dr. Yash Pal Singh

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

Dr. Sripada Rama Sree

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

Dr. Rustom Mamlook

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

Dr. Ramzi Raphael Ibraheem Al Barwari

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

Dr. Kapil Chandra Agarwal

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

Dr. Anil Kumar Tripathy

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

Dr. Hasan. A. M Al Dabbas

Chairperson, Vice Dean Faculty of Engineering, Department of Mechanical Engineering, Philadelphia University, Amman, Jordan.

Dr. Gabil Adilov

Professor, Department of Mathematics, Akdeniz University, Konyaaltı/Antalya, Turkey.

Dr. Ch.V. Raghavendran

Professor, Department of Computer Science & Engineering, Ideal College of Arts and Sciences Kakinada, Andhra Pradesh, India.

Dr. Ikvinderpal Singh

Assistant Professor, Department of Computer Science & Applications, Trai Shatabdi Guru Gobind Khalsa College, Amritsar. Punjab, India.

Dr. Thanhtrung Dang

Associate Professor & Vice-Dean, Department of Vehicle and Energy Engineering, HCMC University of Technology and Education 01 Vo Van Ngan St., Hochiminh, Vietnam.

Dr. Wilson Udo Udofia

Associate Professor, Department of Technical Education, State College of Education, Afaha Nsit, Akwa Ibom State, Nigeria.

Dr. Sameh Ghanem Salem Zaghloul

Doctor, Department of Radar, Military Technical College, Cairo Governorate, Egypt.

Dr. Vijay Kumar Joshi

Director-Principal, Department of Computer Science & Engineering, Ram Devi Jindal Group of Professional Institutions, Basoli (Lalru), Punjab. India.

Managing Editor

Mr. Jitendra Kumar Sen

International Journal of Innovative Technology and Exploring Engineering (IJITEE)

Editorial Board

Dr. S. Rajkumar

Assistant Professor, Department of Mechanical and Electromechanical Engineering, Hawassa Institute of Technology, Hawassa University, Hawassa, Ethiopia.

Dr. A.V. Senthil Kumar

Professor, Department of Computer Applications, Hindusthan College of Arts and Science College, Coimbatore, Tamilnadu, India.

Dr. K. Subramanyam

Associate Professor, Department of Physics, Sri Venkateswara University, Tirupati, Andhra Pradesh, India.

Dr. Said Elshahat Abdallah

Associate Professor, Department of Agricultural Engineering, Faculty of Agriculture Kafrelsheikh University, Kafr Elsheikh 33516, Egypt.

Dr. R. Devi Priya

Associate Professor, Department of Information Technology, Kongu Engineering College, Erode, Tamil Nadu-638052, India.

Dr. P. Rathnakumar

Professor & Head, Department of Mechanical Engineering, Navodaya Institute of Technology, Raichur, Karnataka 584103, India.

Dr. Abhinav Vidwans

Associate Professor, Department of Computer Science and Engineering, Vikrant Group of Institutions Campus, Morar, Gwalior 474001, India.

Dr. A. K. Priya

Associate Professor, Department of Civil Engineering, KPR Institute of Engineering and Technology, Arasur, Coimbatore, Tamil Nadu 641407, India.

Dr. K Ashok Reddy

Associate Professor, Department of Mechanical Engineering, MLR Institute of Technology, Hyderabad, Telangana, India.

Dr. T. V. Surya Narayana

Assistant Professor, Department of Information Technology, Manipal University, SMUDDE, Gangtok, Sikkim, India.

Dr. Srinivasa Raju Rallabandi

Assistant Professor, Department of Mathematics, Gandhi Institute of Technology and Management, Hyderabad (Telangana). India.

Dr. Deepika Garg

Assistant Professor, Department of Applied Science, GD Goenka University, Gurgaon, Haryana-122103. India.

Dr. Girish Madhukar Tere

Assistant Professor, Department of Computer Science, Thakur College of Science and Commerce, Affiliated to University of Mumbai, Mumbai, Maharashtra-400098, India.

Dr. Sameh G.Salem

Associate Professor, Department of Electrical Engineering, Military Technical College, Cairo Governorate, Egypt.

Dr. Abhishek Singh

Associate Professor, Department of Mathematics, African Institute for Agrarian Studies, Amity University, Noida- 201304. (U.P). India.

Dr. Kompella Venkata Ramana

Associate Professor, Department of Computer Science and Systems Engineering, Engineering College, Andhra University, Visakhapatnam (A.P.)-530003. India.

Dr. Bala Siddulu Malga

Assistant Professor, Department of Mathematics, Gandhi Institute of Technology and Management, Visakhapatnam (Andhra Pradesh)-530045. India.

Dr. Meeravali Shaik

Professor, Department of Master of Business Administration, Rise Krishna Sai Prakasam Group of Institutions, Valluru, Ongole, (A.P.)-523272. India.

Dr. Mohammad Valipour

Assistant Professor, Department of Water Sciences and Engineering, Payame Noor University, Tehran, Iran.

Dr. Arvind Kumar Drave

Associate Professor, Department of Mechanical Engineering, Indian Institute of Technology, Kanpur (Uttar Pradesh)-208016. India.

Dr. Krishna Banana

Assistant Professor, Department of Commerce and Business Administration, Acharya Nagajuna University Ongole Campus, Ongole. Prakasam (Andhra Pradesh). India.

S. No	Volume-6 Issue-6, November 2016, ISSN: 2278-3075 (Online) Published By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.		Page No.
1.	Authors:	Nishad Nazar, K. Govardhan	1-5
Paper Title:	Collision Avoidance based on Blind Spot Detection and Automatic Steering Control		
<p>Abstract: There have been constant research and development in the area of automotive electronics focusing on safe driving and driver safety concerns. Thus, automotive industry has developed ADAS (Advanced driver assistance systems) to adapt different technologies for the better HMI to better the driver safety. Blind spots of the automobile have been a major reason for the accidents caused to the vehicle and many sensing technologies have been developed and implemented to prevent the accidents. The automotive industry has always evolved with new development in the sensing and safety technologies for the automobile. Blind spot of an automobile is a critical issue, until now, which cannot be completely eliminated. There have been usage of convex mirror for eliminating blind spots manually by driver assistance, but the current study aims at managing Blind spots automatically. This study works on the Blind Spot monitoring and automatic steering control to steer away the vehicle from the obstacle at the both rear end corners. Autonomous driving concept has seen a tremendous development from almost all the automotive industries till today hence, the concept of monitoring Blind spot and to automatically steer the vehicle to avoid the accident is a great task. The Blind spot is detected using the Ultra sonic sensing technology and set margins using mirrors and the automatic steering control is achieved using the Hall Effect sensing mechanism in the driving shaft. The project uses the Arduino MEGA as the Central Unit for the system.</p> <p>Keywords: Blind Spot detection, Ackermann steering, Arduino MEGA etc.</p> <p>References:</p> <ol style="list-style-type: none"> Muhammad Zahir Hassan and Haziq Irfan Zainal Ariffin, "Development of Vehicle Blind Spot System for Passenger Car", Applied Mechanics and Materials, Vol (393), 2013 Akhil Samnotra, Dr. Mahesh Kolte, "Collision Avoider using Lane Departure Warning", International Journal of Scientific and Research Publications, Vol (4), February 2014 Shunji Miyahara, "Blind Spot Monitoring by a single camera", SAE International, January 2009. Yasuhisa Hayakawa and Osamu Fukatu, "All Round Blind Spot Detection by Lens condition adaptation based on Rearview Camera Images", SAE International in October 2013 Y. K. Wang and S. H. Chen, "A Robust Vehicle Detection Approach," IEEE International Conference on Advanced Video and Signal-based Surveillance, 2005, pp. 117-122. Z. Sun, G. Bebis and R. Miller, "On-Road Vehicle Detection Using Optical Sensor: A Review," IEEE Transactions on Intelligent Transportation Systems, 2004, pp. 585-590. Techmer, "Real-time motion analysis for monitoring the rear and lateral road," in Proceedings of the IEEE Intelligent Vehicles Symposium, pp. 704-709, June 2004. M. Ruder, W. Enkelmann, and R. Garnitz, "Highway lane change assistant," in Proceedings of the IEEE Intelligent Vehicles Symposium, vol. 1, pp. 240-244, J. C. McCall and M. M. Trivedi, "Video-based lane estimation and tracking for driver assistance: survey, system, and evaluation," IEEE Transactions on Intelligent Transportation Systems, vol. 7, no. 1, pp. 20-37, 2006. Diarmaid O Cualain and Martin Glavin "Lane Departure and Obstacle Detection Algorithm for Use in an Automotive Environment" Journal of Intelligent and Fuzzy Systems, vol.2, no.3, May 2012. Bhupendra Pratap Singh¹ , Brijesh Kumar Yadav² , Lal Bahadur Singh³ , Badri Vishal⁴ , Raj Kumar Yadav⁵ Mr.Ram Pratap Yadav⁶ , Mr.Rahul Srivastav⁷, "Advanced Four Wheel Steering System" ,IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 3, Issue 2, April-May, 2015 Sharul Agrawal, Mr. Ravi Prakash, Prof. Zunnun Narmawala, "Implementation of WSN which can simultaneously monitor Temperature conditions and control robot for positional accuracy", Green Computing Communication and Electrical Engineering (ICGCCEE), March 2014 Aidan Lalor , "Vehicle Handling Characteristics and Development of a Formula Student Car", Swansea Metropolitan University, 2012 			
2.	Authors:	Nwokoro C.O, Chinmanma O.	6-11
Paper Title:	The Utilitarian Indexs of ICT in the Effective Administration Secondary School Education in Rivers State		
<p>Abstract: This study investigated the impact of ICT for quality secondary school education delivery in River State. To address the issue raised therein, 36 item questionnaire titled questionnaire for Application of Information and Communication Technology for Quality secondary school Education Delivery (QAICTQSED). The responses were correlated and analysed using the Pearson Product Moment Correlation Co-efficient to establish the reliability co-efficient of 0.90. The study adopted descriptive survey design and Technology acceptance model theory. For the analysis of data mean (x) was used to answer the research questions, while Z-test was used for the testing of hypotheses of no significant difference. The findings from the analysis revealed that ICT application for the delivery of quality secondary school education to a minimal extent has been achieved. This study recommends that teachers in secondary schools should be armed with appropriate and requisite skills in ICT so as to be able to impact these skills in the students and especially help in trouble-shooting ICT related problems. Educational managers should ensure that students are provided with practical and functional knowledge of computers, the internet and associated areas of ICT. Adequate funds should be allocated and disbursed to public secondary schools for proper financing and maintenance of ICT appliances. This study has provided an empirical basis for problem solving on the application of ICT for quality secondary school education delivery in River State among others.</p> <p>Keywords: Quality secondary school education, ICT, Application, Educational managers, delivery.</p> <p>References:</p> <ol style="list-style-type: none"> Adeyemi, T. O. & Olaleye, F. O. (2010). Information Communication and Technology (ICT) for the Effective management of Secondary schools for Sustainable Development in Ekiti State, Nigeria. American-Eurasian Journal of Scientific Research, 5(2). Pp. 106-113. Retrieved 			

	<p>September 18, 2012. http://www.idosi.org/aejst/5(2)10/4.pdf</p> <p>2. Federal Republic of Nigeria, (2004). National Policy on Education (4th ed.). Yaba, Lagos: NERDC.</p> <p>3. Encarta Premium DVD (2009). English Dictionaries. Retrieved May 21, 2011. http://top.windows9download.net/list/encarta-premium-dictionary-2009.html</p> <p>4. Ndioho, O. F. & Ndioho, E. O. (2011). Practical Experience: A tool for Quality Assurance in Secondary School Science: African Journal of Educational Research and Development, 4 (2a), 176-182.</p>					
3.	<table border="1"> <tr> <td data-bbox="119 2157 335 2195">Authors:</td> <td data-bbox="335 2157 1412 2195">Poorva Khemaria, Shiv Kumar, Babita Pathik</td> </tr> <tr> <td data-bbox="119 2195 335 2228">Paper Title:</td> <td data-bbox="335 2195 1412 2228">A Review of Fog Computing In Cloud Enterprise for Data Security and Privacy Management</td> </tr> </table> <p>Abstract: Fog computing is the extension of cloud computing. The fog computing proceeds the security scenario of extended technology. Now a day's internet on things is demanded technology for the connection of home network to another network. The interpretability of cloud computing through other network is face some problem of data sociability. The data scalability is major issue in fog computing. The privacy of data and location privacy is also major issue. The location of fog server is also major issue. In this paper present the review of fog computing for the extension of cloud computing for the process of transportation and some other things.</p> <p>Keywords: cloud computing, Fog computing, scale, Privacy, security</p> <p>References:</p> <ol style="list-style-type: none"> Jürgo S. Preden and KalleTammemäe, Axel Jantsch, MairoLeier and AndriRiid and EmineCalis "The Benefits of Self-Awareness and Attention in Fog and Mist Computing", IEEE, 2015, Pp 37-45. Mohammad Abdullah Al Faruque and KoroshVatanparvar "Energy Management-as-a-Service Over Fog Computing Platform", IEEE, 2016, Pp 161-169. FatemehJalali, Kerry Hinton, Robert Ayre, TansuAlpcan and Rodney S. Tucker, "Fog Computing May Help to Save Energy in Cloud Computing", IEEE, 2016, Pp 1728-1739. Mugen Peng, Shi Yan, Kecheng Zhang and Chonggang Wang "Fog-Computing-Based Radio Access Networks: Issues and Challenges", IEEE, 2016, Pp 46-53. Amir VahidDastjerdi and RajkumarBuyya "Fog Computing: Helping the Internet of Things Realize Its Potential", IEEE, 2016, Pp 112-116. Flavio Bonomi, Rodolfo Milito, Jiang Zhu and SateeshAddepalli "Fog Computing and Its Role in the Internet of Things", Mobile cloud computing, 2012, Pp 13-16. Luis M Vaquero and Luis. Rodero-Merino "Finding your Way in the Fog: Towards a Comprehensive Definition of Fog Computing", HP Laboratories, 2014, Pp 1-7. Salvatore J. Stolfo, Malek Ben Salem and Angelos D. Keromytis "Fog Computing: Mitigating Insider Data Theft Attacks in the Cloud", IEEE, 2012, Pp 125-128. Tom H. Luan, Longxiang Gao, Zhi Li, Yang Xiang, Guiyi We and Limin Sun "Fog Computing: Focusing on Mobile Users at the Edge", arXiv, 2016, Pp 1-11. Mohammad Aazam and Eui-Nam "Fog Computing and Smart Gateway Based Communication for Cloud of Things", IEEE, 2014, Pp 464-470. Flavio Bonomi, Rodolfo Milito, Preethi Natarajan and Jiang Zhu "Fog Computing: A Platform for Internet of Things and Analytics", Springer, Pp 169-184. Ivan Stojmenovic and Sheng Wen "The Fog Computing Paradigm: Scenarios and Security Issues", IEEE, 2014, Pp 1-8. Shanhe Yi, Cheng Li and Qun Li "A Survey of Fog Computing: Concepts, Applications and Issues", ACM, 2015, Pp 1-6. Clinton Dsouza, Gail-JoonAhn and MarthonyTaguinod "Policy-Driven Security Management for Fog Computing: Preliminary Framework and A Case Study", IEEE, 2014, Pp 16-23. Nguyen B.Truong, GyuMyoung Lee and YacineGhamri-Doudane "Software Defined Networking-based Vehicular Adhoc Network with Fog Computing", IFIP, 2015, Pp 1202-1207. John K. Zao SMIEEE, Tchin-TzeGan, Chun-Kai You, Ser-gio José Rodríguez Méndez, Cheng-En Chung, Yu-Te Wang, Tim Mullen and Tzyy-Ping Jung "Augmented Brain Computer Interaction based on Fog Computing and Linked Data", IEEE, 2014, Pp 374-377. 	Authors:	Poorva Khemaria, Shiv Kumar, Babita Pathik	Paper Title:	A Review of Fog Computing In Cloud Enterprise for Data Security and Privacy Management	12-14
Authors:	Poorva Khemaria, Shiv Kumar, Babita Pathik					
Paper Title:	A Review of Fog Computing In Cloud Enterprise for Data Security and Privacy Management					
4.	<table border="1"> <tr> <td data-bbox="119 2240 335 2240">Authors:</td> <td data-bbox="335 2240 1412 2240">Rakhee Single, S. G. Vaidya, M. B. Ansari</td> </tr> <tr> <td data-bbox="119 2273 335 2240">Paper Title:</td> <td data-bbox="335 2273 1412 2240">Improvised Blowfish under Bouncy Castle Framework</td> </tr> </table> <p>Abstract: Greater demand for Internet applications require data to be transmitted securely with improved facilities for networking. But the transmission of data in the public communication system is not secure because of the interception and improper handling by indiscreet. It is necessary to secure the information we want to convey. This need to secure information introduces the concept "Cryptography", which is the art and science of writing hidden. Cryptography before the modern age was effectively synonymous with encryption, data conversion means readable in an apparent nonsense. The proposed system uses Bouncy Castle APIs for cryptography, which is founded in 2000 year. Basically bouncy castle is a collection of APIs used in cryptography. Using Bouncy Castle APIs for cryptography provides security information such as data confidentiality, data integrity, authentication and non-repudiation.</p> <p>Keywords: Bouncy castle, cryptography, Blowfish algorithm, Homomorphic Encryption</p> <p>References:</p> <ol style="list-style-type: none"> Bruce Schneier, "Applied Cryptography", John Wiley & Sons, Inc. 1996 T. Morkel, J.H.P. Eloff, M.S. Olivier, "An overview of Cryptography", (ICSA), 2004. The homepage of description of a new variable-length key, 64-bit block cipher http://www.counterpane.com/bfsverlag.html. Ms Neha Khatri – Valmik, Prof. V. K Kshirsagar, "Blowfish Algorithm", IOSR Journal of Computer Engineering (IOSR-JCE), Volume 16, Issue 2, Ver. X (Mar-Apr. 2014), PP 80-83. Patterson and Hennessy, "Computer Organization & Design: The Hardware/ Software Interface", Morgan Kaufmann, Inc. 1994. P. Karthigai Kumar and K. Baskaran. 2010. An ASIC implementation of low power and high throughput blowfish crypto algorithm Microelectron. J. 41, 6 (June 2010), 347-355. B. Schneier, "Description of a New Variable-Length Key, 64-bit Block Cipher (Blowfish)," Fast Software Encryption: Second International Workshop, Leuven, Belgium, December 1994, Proceedings, Springer-Verlag, 1994, pp.191-204. TingyuanNie; Chuanwang Song; XulongZhi, "Performance Evaluation of DES and Blowfish Algorithms," Biomedical Engineering and Computer Science (ICBECS), 2010 International Conference on, vol., no., pp.1-4, 23- 25 April 2010. S. Vaudenay, "On the Weak Keys in Blowsh," Fast Software Encryption, Third International Workshop Proceedings, Springer-Verlag, 1996, pp. 27-32. 	Authors:	Rakhee Single, S. G. Vaidya, M. B. Ansari	Paper Title:	Improvised Blowfish under Bouncy Castle Framework	15-18
Authors:	Rakhee Single, S. G. Vaidya, M. B. Ansari					
Paper Title:	Improvised Blowfish under Bouncy Castle Framework					

10.	B. Schneier, Applied Cryptography: Protocols, Algorithms, and Source Code in C, 2nd ed., John Wiley & Sons, 1995J. Jones. (1991, May 10). Networks (2nd ed.) [Online]. Available: http://www.atm.com
11.	Manikandan Ganesan, Krishnan Ganesan, "A Novel Approach to the Performance and Security Enhancement Using Blowfish Algorithm", International Journal of Advanced Research in Computer Science, 2011
12.	Kishnamurthy G.N, Dr. V. Ramaswamy and Mrs. Leela.G.H, "Performance Enhancement of Blowfish algorithm by modifying its function" Proceedings of International Conference on Computers, Information, System Sciences and Engineering 2006, University of Bridgeport, Bridgeport, CT, USA. pp. 240-244.
13.	William Stallings, Cryptography and Network Security, 3rd Ed, Wiley, 1995.
14.	B. Schneier, "Description of a New Variable-Length Key, 64-Bit Block Cipher (Blowfish)", Fast Software Encryption, Cambridge Security Workshop proceedings (December 1993), Springer-Verlag, 1994, pp. 191-204.
15.	Dr.V. Ramaswamy, Kishnamurthy. G.N, Mrs. Leela. G.H, Ashalatha M.E, "Performance enhancement of
16.	CAST -128 Algorithm by modifying its function" Proceedings of International Conference on Computers, Information, System Sciences and Engineering 2007, University of Bridgeport, Bridgeport, CT, USA.

Authors:	Ritesh Pawar, Maiytree Dutta
Paper Title:	PSF Estimation with PSO and SURE LET Deconvolution for Blurred Image

Abstract: In this research we proposed a technique for the Point spread function estimation in the form of the particle swarm optimization, here also use unbiased risk estimation for the MSE in filtered version with blur stein's unbiased risk estimation in the form of the novel criterion to calculate only PSF from the blurred image which is unknown. This process of minimization of PSF is obtained by the wiener filtering. On the estimation of this blur kernel, non blind deconvolution is done with the SURE LET deconvolution algorithm. The best positions of the particles are calculated by the PSO. Here we use gaussian kernel for parametric form. In this research we found that position calculation from PSO gives the more accurate PSF parameter estimations, this may lead the high accuracy in restoration of degraded images which is as similar to the exact PSF, when whole result is performed with the help of the SURE LET deconvolution algorithm. From the result it is found that non blind deconvolution has highly accurate results in the form of the visually and computationally form.

Keywords: PSF estimation, PSO, Exact Wiener filtering, SURE LET, Blur SURE.

References:

5.	<ol style="list-style-type: none"> 1. Neel Joshi, Richard szeliski and Dayid J. Kriegman, "PSF estimation using Sharp Edge Prediction", IEEE Conference on Computer Vision and Pattern Recognition, pp. 1-8, 2008. 2. H.C. Andrew, Bobby Ray Hunt, "Digital Image Restoration", Published by Prentice Hall, 1977. 3. N. Wiener, "Extrapolation, Interpolation and Smoothing of Stationary Time Series", Published by Wiley, 1964. 4. Tikhonov and V. Arsenin, "Solutions of Ill-Posed Problems", Published by Winston, 1977. 5. O. Michailovich and A. Tannenbaum, "Blind Deconvolution of Medical Ultrasound Images: A Parametric Inverse Filtering Approach", IEEE Transaction on Image Processing, Vol. 16, No. 12, pp. 3005-3019, December 2007. 6. G. V. Poropat, "Effect of System Point Spread Function, Apparent Size, and Detector Instantaneous Field of View on the Infrared Image Contrast of Small Objects", Optical Engineering, Vol. 32, No. 10, pp. 2598-2607, 1993. 7. T. F. Chan and C.-K. Wong, "Total variation blind deconvolution," IEEE Trans. Image Process., vol. 7, no. 3, pp. 370-375, Mar. 1998. 8. R. Molina, J. Mateos, and A. K. Katsaggelos, "Blind Deconvolution Using a Variational Approach to Parameter, Image, and Blur Estimation", IEEE Transaction on Image Processing., Vol. 15, No. 12, pp. 3715-3727, Dec. 2006. 9. H. Liao and M. K. Ng, "Blind Deconvolution Using Generalized Cross Validation Approach to Regularization Parameter Estimation", IEEE Transaction on Image Processing, Vol. 20, No. 3, pp. 670-680, Mar. 2011. 10. J. Markham and J. A. Conchello, "Parametric Blind Deconvolution: A Robust Method for the Simultaneous Estimation of Image and Blur", Journal of Optical Society of America A, Vol. 16, No. 10, pp. 2377-2391, 1999. 11. Haiyan CHEN, Minghua CAO, Huiqin WANG, Yan YAN and Lan MA, "Estimation the Point Spread Function of motion-Blurred Images of the Ochotona Curzoniae", International Congress in Image and Signal Processing, Vol. 1, pp. 369-373, 2013. 12. Feng- Qing Qin, Jun Min and Hong-Rong Guo, "A Blind Image Restoration Method Based on PSF Estimation", IEEE World Congress on Software Engg., Vol. 2, pp. 173-176, 2009. 13. Chang-Hwan Son and Hyung-Min Park, "A Pair of Nosiy/blurry Patches-based PSF Estimation and Channel- dependent Deblurring", IEEE Transaction on Consumer Electronics, Vol. 57, No. 4, pp. 1791-1799, November 2011. 14. R. Molina, J. Mateos, and A. K. Katsaggelos, "Blind Deconvolution Using a Variational Approach to Parameter, Image, and Blur Estimation", IEEE Transaction on Image Processing., Vol. 15, No. 12, pp. 3715-3727, Dec. 2006. 15. H. Liao and M. K. Ng, "Blind Deconvolution Using Generalized Cross Validation Approach to Regularization Parameter Estimation", IEEE Transaction on Image Processing, Vol. 20, No. 3, pp. 670-680, Mar. 2011. 16. T. F. Chan and C.-K. Wong, "Total variation blind deconvolution," IEEE Trans. Image Process., vol. 7, no. 3, pp. 370-375, Mar. 1998. 17. S. D. Babacan, R. Molina, and A. K. Katsaggelos, "Variational Bayesian Blind Deconvolution Using a Total Variation Prior", IEEE Transaction on Image Processing, Vol. 18, No. 1, pp. 12-26, Jan. 2009. 18. R. Fergus, B. Singh, A. Hertzmann, S. T. Roweis, and W. T. Freeman, "Removing Camera Shake from a Single Photograph", ACM Transaction on Graphics, Vol. 25, No. 3, pp. 787-794, 2006. 19. Q. Shan, J. Jia, and A. Agarwala, "High-Quality Motion Deblurring from a Single Image," ACM Transaction on Graphics, Vol. 27, No. 3, August 2008. 20. J. Markham and J. A. Conchello, "Parametric Blind Deconvolution: A Robust Method for the Simultaneous Estimation of Image and Blur", Journal of Optical Society of America A, Vol. 16, No. 10, pp. 2377-2391, 1999. 21. T. Kenig, Z. Kam, and A. Feuer, "Blind Image Deconvolution using Machine Learning for Three-Dimensional Microscopy", IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. 32, No. 12, pp. 2191-2204, Dec. 2010. 22. J. Biemond, R. L. Lagendijk, and R. M. Mersereau, "Iterative Methods for Image Deblurring", IEEE Proceeding, Vol. 78, No. 5, pp. 856-883, May 1990. 23. F. Krahmer, Youzuo Lin, Bonnie McAdoo, Katharine Ott, Jiakou Wang, David Widemannk, Brendt Wohlberg, "Blind Image Deconvolution: Motion Blur Estimation", University of Minnesota, Minneapolis, MN, USA, Technical Report, pp. 1-14, 18 August 2006. 24. J. P. Oliveira, M. A. T. Figueiredo, and J. M. Bioucas-Dias, "Parametric Blur Estimation for Blind Restoration of Natural Images: Linear Motion and Out-of-Focus", IEEE Transaction on Image Processing, Vol. 23, No. 1, pp. 466-477, January 2014. 25. P. Pankajakshan, B. Zhang, L. Blanc-Féraud, Z. Kam, J. C. Olivo-Marin and J. Zerubia, "Blind Deconvolution for Thin-Layered Confocal Imaging", Journal of OSA Applied Optics, vol. 48, no. 22, pp. 4437-4448, 15 June 2009. 26. F. Xue, F. Luisier, and T. Blu, "Multi-Wiener SURE-LET Deconvolution", IEEE Transaction on Image Processing, Vol. 22, No. 5, pp. 1954-1968, May 2013. 27. F. Luisier, T. Blu, and M. Unser, "A New SURE Approach to Image Denoising: Interscale Orthonormal Wavelet Thresholding", IEEE Transaction on Image Processing, Vol. 16, No. 3, pp. 593-606, March 2007. 28. Chaux, L. Duval, A. Benazza-Benyahia, and J. Pesquet, "A Nonlinear Stein-Based Estimator for Multichannel Image Denoising", IEEE Transaction on Signal Processing, Vol. 56, No. 8, pp. 3855-3870, August 2008. 	19-24
----	--	--------------

<p>29. Vonesch, S. Ramani, and M. Unser, "Recursive Risk Estimation for Non-Linear Image Deconvolution with a Wavelet-Domain Sparsity Constraint", IEEE Conference on Image Processing, pp. 665–668, October 2008.</p> <p>30. R. Giryes, M. Elad, and Y. Eldar, "The Projected GSURE for Automatic Parameter Tuning in Iterative Shrinkage Methods," Applications of Computer Vision and Pattern Recognition, Vol. 30, No. 3, pp. 407–422, 21 March 2010.</p> <p>31. T. Blu and F. Luisier, "The SURE-LET Approach to Image Denoising", IEEE Transaction on Image Processing., Vol. 16, No. 11, pp. 2778–2786, November 2007.</p> <p>32. F. Luisier, T. Blu, and M. Unser, "A New SURE Approach to Image Denoising: Interscale Orthonormal Wavelet Thresholding", IEEE Transaction on Image Processing, Vol. 16, No. 3, pp. 593–606, March 2007.</p> <p>33. T. Blu and F. Luisier, "The SURE-LET Approach to Image Denoising", IEEE Transaction on Image Processing., Vol. 16, No. 11, pp. 2778–2786, November 2007.</p> <p>34. Vonesch, S. Ramani, and M. Unser, "Recursive Risk Estimation for Non-Linear Image Deconvolution with a Wavelet-Domain Sparsity Constraint", IEEE Conference on Image Processing, pp. 665–668, October 2008.</p> <p>35. Y. C. Eldar, "Generalized SURE for Exponential Families: Applications to Regularization", IEEE Transaction on Signal Processing, Vol. 57, No. 2, pp. 471–481, February 2009.</p> <p>36. Xue, F. Luisier, and T. Blu, "Multi-Wiener SURE-LET Deconvolution", IEEE Transaction on Image Processing, Vol. 22, No. 5, pp. 1954–1968, May 2013.</p> <p>37. K. Dabov, A. Foi, V. Katkovnik, and K. Egiazarian, "Image Restoration by Sparse 3D Transform-Domain Collaborative Filtering," SPIE Image Processing: Algorithms and Systems VI, Vol. 6812, pp. 681207-1–681207-12, 01 March 2008.</p> <p>38. N. Wiener, "Extrapolation, Interpolation and Smoothing of Stationary Time Series", Published by Wiley, 1964.</p> <p>39. S. J. Reeves and R. M. Mersereau, "Blur Identification by the Method of Generalized Cross-Validation", IEEE Transaction on Image Processing, Vol. 1, No. 3, pp. 301–311, July 1992.</p> <p>40. Feng Xue and Thierry Blue, "A Novel SURE-Based Criterion for Parametric PSF Estimation", IEEE Transaction on Image Processing, Vol. 24, No. 2, pp. 595-607, February 2015.</p> <p>41. J. Markham and J. A. Conchello, "Parametric Blind Deconvolution: A Robust Method for the Simultaneous Estimation of Image and Blur", Journal of Optical Society of America A, Vol. 16, No. 10, pp. 2377–2391, 1999.</p> <p>42. T. Kenig, Z. Kam, and A. Feuer, "Blind Image Deconvolution using Machine Learning for Three-Dimensional Microscopy", IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. 32, No. 12, pp. 2191–2204, Dec. 2010.</p> <p>43. M. Born, E. Wolf and A. Bhatia, "Principal of Optics: Electromagnetic theory of Propagation, Interference and Diffraction of Light", 7TH Edition, Cambridge University Press, 1999.</p> <p>44. M. Pourmahmood, A. M. Shotorbani, and R. M. Shotorbani, "Estimation of Images Corruption Inverse Function and Image Restoration Using a PSO-based Algorithm", International Journal of Video Image Processing and Network Security, Vol. 10, No. 6, pp. 1-5, December 2010.</p> <p>45. Yang-Chin Lai, Chih-Li Huo, Yu-Hsiang Yu, Tsung-Ying Sun, "PSO-based Estimation for Gaussian Blur in Blind Image Deconvolution Problem", IEEE International Conference on Fuzzy Systems, pp. 1143-1148, 27-30 June 2011.</p>	
--	--