

# International Journal of Inventive Engineering and Sciences

ISSN : 2319-9598

# website: www.ijies.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. Himani Sharma

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

#### Prof.(Dr.) Anuranjan Misra

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

CIENC

# **Chief Advisory Board**

**Prof. (Dr.) Hamid Saremi** Vice Chancellor of Islamic Azad University of Iran, 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, ChuncheOnsi, Gangwondo, Korea

#### Dr. Sanjay M. Gulhane

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

#### Dr. K.K. Thyagharajan

Principal & Professor, Department of Informational Technology, RMK College of Engineering & Technology, RSM Nagar, Thiruyallur, Tamil Nadu, India

#### Dr. P. Subashini

Assoc. Professor, Department of Computer Science, Coimbatore, India

#### Dr. G. Srinivasrao

Professor, Department of Mechanical Engineering, RVR & JC, College of Engineering, Chowdavaram, Guntur, India

#### Dr. Rajesh Verma

Professor, Department of Computer Science & Engg. and Deptt. of Information Technology, Kurukshetra Institute of Technology & Management, Bhor Sadian, Pehowa, Kurukshetra (Haryana), India

#### Dr. Pawan Kumar Shukla

Associate Professor, Satya College of Engineering & Technology, Haryana, India

#### Dr. U C Srivastava

Associate Professor, Department of Applied Physics, Amity Institute of Applied Sciences, Amity University, Noida, India

#### Dr. Reena Dadhich

Prof. & Head, Department of Computer Science and Informatics, MBS MArg, Near Kabir Circle, University of Kota, Rajasthan, India

#### Dr. Aashis. S. Roy

Department of Materials Engineering, Indian Institute of Science, Bangalore Karnataka, India

# Dr. Sudhir Nigam

Professor Department of Civil Engineering, Principal, Lakshmi Narain College of Technology and Science, Raisen, Road, Bhopal, (M.P.), India

# Dr. S. Senthil Kumar

Doctorate, Department of Center for Advanced Image and Information Technology, Division of Computer Science and Engineering, Graduate School of Electronics and Information Engineering, Chon Buk National University Deok Jin-Dong, Jeonju, Chon Buk, 561-756, South Korea Tamilnadu, India

## Dr. Gufran Ahmad Ansari

Associate Professor, Department of Information Technology, College of Computer, Qassim University, Al-Qassim, Kingdom of Saudi Arabia (KSA)

#### Dr. R. Navaneetha krishnan

Associate Professor, Department of MCA, Bharathiyar College of Engg & Tech, Karaikal Puducherry, India

#### Dr. Hossein Rajabalipour Cheshmejgaz

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

#### Dr. Veronica McGowan

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

#### Dr. Sanjay Sharma

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

#### Dr. Taghreed Hashim Al-Noor

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

#### Dr. Madhumita Dash

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

#### Dr. Anita Sagadevan Ethiraj

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

#### Dr. Sibasis Acharya

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

#### Dr. Neelam Ruhil

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

#### Dr. Faizullah Mahar

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

#### Dr. K. Selvaraju

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

INNOV

#### Dr. M. K. Bhanarkar

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

#### Dr. Sanjay Hari Sawant

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

#### Dr. Arindam Ghosal

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

#### Dr. M. Chithirai Pon Selvan

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

#### Dr. S. Sambhu Prasad

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

#### Dr. Muhammad Attique Khan Shahid

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

#### Dr. Kuldeep Pareta

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

#### Dr. Th. Kiranbala Devi

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

#### Dr. Nirmala Mungamuru

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

#### Dr. Srilalitha Girija Kumari Sagi

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

#### Dr. Vishnu Narayan Mishra

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

#### Dr. Yash Pal Singh

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

#### Dr. Sripada Rama Sree

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

#### **Dr. Rustom Mamlook**

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

# **Managing Editor**

Mr. Jitendra Kumar Sen International Journal of Advanced Engineering and Nano Technology (IJAENT)

# **Editorial Board**

#### Dr. Vikas Maheshwari

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

#### Dr. Sudhakara A

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

#### Dr. Jammi Ashok

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

#### Dr. Mohamed Ashabrawy

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

#### Dr. Omer Muhammad Ayoub

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

#### Dr. M. Seenivasan

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

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

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

#### Dr. S. Omkumar

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

#### Dr. Yousef FARHAOUI

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

#### Dr. Gutta Sridevi

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

#### Dr. Debmalya Bhattacharya

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

#### Dr. K. Harinadha Reddy

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

# Dr. C. Gajendran

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

# Dr. Dibya Prakash Rai

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

# Dr. Sreenivasa Reddy

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

# Dr. P. K. Dhal

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

#### Dr. M. A. Ashabrawy

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

# Dr. K. Meenakshi Sundaram

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

#### Dr. Persis Voola

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

#### Dr. Abhijit Banerjee

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

#### Dr. D. Amaranatha Reddy

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

#### Dr. A. Heidari

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

#### Dr. Ashwani Kumar Aggarwal

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

#### Dr. P. Srinivas

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

#### Dr. Sandeep Chettri

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

#### Dr. Elsanosy M. Elamin

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

#### Dr. Porag Kalita

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

#### Dr. T. A. Ashok Kumar

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

#### Dr. Malini M Patil

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

#### Dr. V. Selvan

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

#### Dr. Syed Umar

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

S. No	<b>V</b> Pu	<b>/olume-2 Issue-4, March 2014, ISSN: 2319-9598 (Online)</b> blished By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.	Page No.
	Authors:	Abhijit D. Jadhav, Ashvini A. Phalke, Pradnya A. Waman, Usha N. Katore, Santosh R. Salunk	he
	Paper Title:	Enterprise Level E-mail Security System	
1.	Abstract: Data leakage is a process in which a data distributor has given important data to a supposedly trusted agents and some of the data is leaked and found in an unauthorized place or unauthorized user. An enterprise data leak is a scary statement. Security practitioners have always had to deal with data leakage issues that spring up from various ways like email, IM and other Internet channels. One or more agents can leak the data. Moreover, data can also be leaked from within an organization via e-mails. So, there is need to filter these e-mails. The mail can be filtered by blocking e-mails which contains images, videos or sensitive data of an enterprise. The e-mail is one of the sources of data leakage. Principle used in e-mail security is we classify e-mail, sensitive data into the white and black lists with document's digital signature value. The data can also be changed by the trusted agents. The system will detect such a changes of the sensitive data and if founds same as black list it will block the mail or stop for review. Then the distributor will decide to allow or disallow the incoming mails from the agent's. The system will prevent the enterprise data from data leakage. E-mail security system will make the data more secure.		
	Keywords: Black	List, SHA, TF, White List.	
	References: 1. Hector Garcia-M 23, No.1 january 2. Mayur Gaikwad 3. Behrouz A. Foro 4. www.vanemery. 5. http://www.par	Iolina and Panagiotis Papadimitriou "Data Leakage Detection," IEEE Transactions on Knowledge and Data Engineering, Vol 2011. , Ankit Agarwal, Vahid Inamdar, Kapil Garg, "Robust Data leakage and Email Filtering System" 2012 IEEE. buzan, "Cryptography & Network Security", com/protocols ashift.com/ c+ +-faq-lite/ serialization. html	
	Authors:	Manish Bhaskar, Abhinav Saha	
	Paper Title:	Computational Analysis of Free Convection in Different Cavities with Different Aspect Ratios	
2.	<ul> <li>Abstract: Cavity and Enclosures are finding increasing applications in the aerospace, marine, transportation, and electrical, chemical, construction and consumer goods industries. In some of these applications the composites are subjected to Thermal loads. This paper deals with the computational analysis of natural convection flow in a square, Cubical, Rectangular, Triangular and trapezoidal cavity, using FEV tool ANSYS FLUENT. Where the bottom wall and vertical walls are heated linearly, and the top wall is been insulated with the maximum temperature TH and the minimum temperature with Tc. The present numerical investigation deals with steady natural convection flow in a closed square cavity when the bottom wall is sinusoidal heated and vertical walls are linearly heated, whereas the top wall is well insulated. In the nonuniformly heated bottom wall maximum temperature T at the sidewalls are linearly heated, maintained at minimum temperature Tc at top edges of the sidewalls and at temperature distribution and flow pattern across the cavities were visualized. The FEV results are validated with well published results in literature and furthermore with experimentation. Results are first presented in the form of streamlines, isotherm contours, local Nusselt Number.</li> <li>References:         <ol> <li>D. M. Kim and R. Viskanta, "Heat transfer by conduction, natural convection and radiation across a rectangular cellular structure," International Journal of Heat and Fluid Flow, vol. 5, No. 4, pp. 205-213, 1984.</li> <li>S. Ostrach, "Natural Convection on far in a square cavity: A bench mark numerical solution," International Journal of Heat and Fluid Flow, vol. 5, No. 4, pp. 205-213, 1984.</li> <li>D. eQuert, T. Alziary de Roquetor of air in a square cavity: A bench mark numerical solution," International Journal for Numerical Methods in Fluids, vol. 3, Issue 3, pp. 249–264, 1983.</li> <li>M. Caurach, "Natural convection of air in a square cavity: A b</li></ol></li></ul>		3-8
	10. M. Sathiyamoor cavity for nonun	urnal of Heat and Fluid Flow, vol. 23, issue 4, pp. 519–529, 2002. thy, T. Basak, S. Roy and N. C. Mahanti, "Effect of the temperature difference aspect ratio on natural convection in a square iform thermal boundary conditions", Journal of Heat Transfer, , vol. 129, pp. 1723-1728, 2007.	

 I. Imariniad, M. El Alami, M. Najam, A. Oubarra, Numerical investigation on mixed convection how in a trapezoidal cavity neated from below", Energy Conversion and Management, vol. 49, issue 11, pp. 3205-3210, 2008.
 Xu Xu, Gonggang Sun, Yu, Zitao Hu, Yacai Liwu Fan, Kefa Cen, "Numerical investigation of laminar natural convective heat transfer from a horizontal triangular cylinder to its concentric cylindrical enclosure", International Journal of Heat and Mass Transfer, Volume 52, Issues 14, July 2007. 13-14, June 2009, Pages 3176-3186

13. S.C. Saha, "Scaling of free convection heat transfer in a triangular cavity for Pr > 1", Energy and Buildings, vol. 43, issue 10, pp. 2908-2917, 2011.

	14. A.J. Chamkha, I	M.A. Ismael, "Conjugate heat transfer in a porous cavity filled with nanofluids and heated by a triangular thick wall",		
	<ol> <li>S. Bhardwaj, A. Dalal, "Analysis of natural convection heat transfer and entropy generation inside porous right-angled triangular enclosure", International Journal of Heat and Mass Transfer, vol. 65, pp. 500-513, 2013.</li> </ol>			
	Authors:	N. Mohan Teja, R. S. Ravi Sankar, P. Harsha, V. Uma Shankar		
	Paper Title: A Novel Method of Diode Clamped Multi-Level Inverter using PWM Technique			
	Abstract: This Paper presents a novel method of Diode clamped Multi Level Inverter using a visu recomptee association the clamping diodes. The conventional diode clamping inverter suffers from such problems as dc link unbalance, indirect clamping of the inner devices, turn-on snubbing of the inner dc rails as well as series association of the clamping diodes etc. It is due largely to these problems that the application of the conventional diode clamping inverter in practice has been deterred, in spite of the growing discussion in the literature. An auxiliary resistive clamping network solving the indirect clamping problem of the inner devices is also discussed for both the new and conventional diode clamping inverter. Operation principle, clamping mechanism, auxiliary clamping as well as experimentation are presented.			
	Keywords: Clamp	ping Diodes, DC Link Unbalance, Multi Level Inverter, Pulse Width Modulation.		
3.	References: 1. Jih-Sheng Lai, Applications,VC 2. Soern Baekhoej Single-Phase Gr 1306. SEP./OCT 3. M.Malinowski,k VOL. 57, NO.7, 4. A.M.Massoud, MAR. 2003, VC 5. C.Boonmee,Y.K PV System," IN 6. F.Z.PENG and PCIM/POWER "1994, PP. 285-"	<ul> <li>Fang Zheng Peng, "Multilevel converters- A New Breed Of Power Converters," IEEE Transactions on Industry DL. 32, NO. 3, MAY, JUNE 1996.</li> <li>Kjaer member of IEEE, John k.Pedersen senior member of IEEE, And Frede Blaabjerg fellow of IEEE "A Review Of id-Connected Inverters For Photovoltaic Modules," IEEE Transactions on Industry Applications, VOL.41, NO. 5, PP1292-7. 2005.</li> <li>C.Gopakumar,J.Rodriguez and M.A.Perez, "A Survey On Cascaded Multilevel Inverters," IEEE TRANS. IND. ELECTRON., PP. 2197–2206, JUL. 2010.</li> <li>S.J.Finney and B.W.Williams, "Control techniques For Multilevel Voltage Source Inverters," IN PROC. IEEE. CONF., DL. 4, PP. 171–176.</li> <li>Cumsuwan, "A Phase- Shifted Carrier- Based PWM Technique For Cascaded H-Bridge Inverters Application In Standalone PROC. IEEE. CONF., SEP. 2012, VOL. 4, PP.</li> <li>J.S.Lai, "A Static VAR Generator Using A Staircase Waveform Multilevel Voltage - Source Converter," IN PROC. QUALITY, 1994, PP. 58-66. "Power Converter Options For Power System Compatible Mass Transit Systems, 294.</li> </ul>	9-12	
	Authors:	Alphy John, I. Bildass Santhosam		
	Paper Title:	Home Energy Management System Based On Zigbee		
4.	<ul> <li>Abstract: To inculcate the Home Energy Management System (HEMS) based on ZigBee communication using remote controller and sensor. This technique brings out the more efficient home energy management system to reduce power consumption in home area. We consider the room easily controllable with an IR remote control of a home appliance. The room has power outlets, a light, sensor and a ZigBee hub. The ZigBee hub has an IR code learning function and educates the IR remote control signal of a home appliance connected to the power outlet. Then it can control the power outlets and the light in the room. The PIR sensor which detects the presence of the human and then it allows the power on the light. A LCD is used in the hardware module for the user interface. The LCD displays the power consumed and the value of PIR sensor. The ZigBee hubs in each room communicate with the home server and report the power consumption information to the home server. The proposed architecture gives more efficient energy-saving HEMS.</li> <li>Keywords: ZigBee, Remote control, IR, Energy–saving, Power Outlet, Standby Power, sensor.</li> <li>References:         <ul> <li>Masahiro Inoue, Toshiyasu Higuma, oshiak Ito, Noriyuki Kushiro, and Hitoshi Kubota, "Network Architecture for Home Energy Management System," IEEE Trans on Consumer Electronics, Vol. 49, No. 3, pp. 606-613, Aug. 2003.</li> <li>Young- Sung Son and Kyeong - Deok Moon, "Home Energy Management System Based on Power Line Communication," Proceedings of the 28thInternational Conference on Consumer Electronics (ICCE), 2010.</li> <li>Kwang- Soon Choi, Yang - Keun Ahn, Young- Choong Park, Woo- ChoolPark, Hae - Moon Seo, and Kwang -Mo Jung, "Architectural Design of Home Energy System Based on Real time Energy -Awareness". Proceedings of the 4th International Conference on Ubiquitous Information Technologies &amp; Applications (ICUT), 2009.</li> <li>Chia- Hung Len, Ying- Wen Bai, Hsien -Chung Chen, and Chi- Huang Hung, "Hom</li></ul></li></ul>			
	Authors:	Tanushree Bhattacharya		
	Paper Title:	Sustained Growth of Green Energy Economics		
	Abstract: Energy present energy sce of energy that day Sources. These no degradation. This sources. This alon resources such as l supply and consu changed if we can carbon, efficient a	is one of the critical inputs for economic development of any Country. In order to overcome the enario problems, energy should be conserved and since we are consuming disproportionate amount is not far when all our Non-Renewable resources will expire forcing us to rely just on Renewable on renewable sources of energy will not last forever and are proven contributors to environmental has led to governments and industries around the globe thinking seriously about alternative energy gwith declining availability of the fossil fuels have led to the development of renewable energy Biomass, Bio fuels, Wind, Solar, Geothermal, and Hydro energy etc. Current global trends in energy mption are not sustainable – environmentally, economically, socially but this situation can be a secure the supply of reliable and affordable energy and effect a rapid transformation to a low- nd environmentally benign system of energy supply. Since exhaustible energy sources are limited,		

	there is an urgent	need to focus attention on development of renewable energy sources and use of energy efficient	
	technologies. It is large economies b analysis as well a	estimated that renewable energy could contribute to at least half of all electric power in each of the y 2050. This Paper emphasis on the various types of modern energy generation techniques and cost s economics from Biomass. Biomass is biological material derived from living, or recently living s wood waste hydrogen gas and alcohol fuels. Correctly managed biomass is a sustainable fuel	
	that can deliver a	significant reduction in net carbon emissions when compared with fossil fuels.	
5.	Keywords: Biom	ass, Energy Conservation, Renewable Energy, Energy Economics.	16-18
	<ul> <li>References:</li> <li>Ministry of Nor</li> <li>Indian Renewat</li> <li>Ravindranath N 1995.</li> <li>Dassappa, S. Si Biomass Energy</li> <li>Renewable Ene</li> <li>Somasekar, H. Case Study of T</li> <li>Alternate Energy</li> <li>G.D Rai, "Non</li> <li>Wellinger, A at pp:1-19</li> <li>Vijay, V.K 1989</li> <li>Kapdi, S.S. V.J Proceeding of In</li> <li>Haripriye G,20</li> <li>D'Apotel SL, 1, , Paris : OECD</li> <li>International Err</li> <li>Biomass Energy</li> </ul>	<ul> <li>Conventional Energy Sources, Annual Report for the FY 2002 -2003.</li> <li>be Energy Development Agency Limited Annual Report for the FY 2002 - 2003.</li> <li>H., Hall. D. O., "Biomass Energy &amp; Environment: A developing country prospective from India", Oxford University press, ridhar, H.V. Sridhar, G. Paul, P.J., Mukundha H.S., "Biomass gasification – A substitute t fossil fuel for heat application", 2003.</li> <li>rgy Sources for rural areas in Asia and Pacific, APO, Tokyo, 2000</li> <li>L Dassappa, Ranindranath N.H., "Rural Bio Energy Centre based on Biomass Gasifier for Decentralized Power Generation: Wo Villages in South India".</li> <li>y Sources by T H Taylor. Adam Hilger Itd, Bristol Bureau of Energy Efficiency Conventional Energy Sources"</li> <li>d A. Lindeberg , 1999. Biogas upgrading and utilization. Task 24, Energy grom biological conversion of organic wastes, thermational Conference on Energy and Rural Development, MNIT, jaipur.</li> <li>O. Estimation of biomass in Indian forests. Biomass and Bioenergy, 19:245-258</li> <li>EIA biomass energy analysis and projections. In : Proceedings of biomass energy Conference Data, analysis and trends tal panel on climate change (IPCC), Renewable Energy Sources and Climate Change ergy Agency, Energy outlook, 2009</li> </ul>	
	17. Martin , Marsh	all A," First Generation biofuel compete". Pp 596-608	
	Authors:	Cezarina Adina Tofan	
	Paper Title:	Implementation of Quality Management in the Assessment of Higher Education - Case St Private University in Romania	udy in a
6.	Abstract: At the current needs of technologies. Giv- university system implement a type performance in th requirements of a find solutions to international sym products, services <b>Keywords:</b> Decis <b>References:</b>	beginning of the infinite infinite infinite reducation passes through a process of adaptation to the society, a process marked by globalization and unprecedented development of the information en by increasing the number of the students and the offer of specializations, the competitive inter- development and intensification of the international academic cooperation, it appears logical to of educational management to increase the services offer, their effectiveness in promoting the ne competitive conditions. In this context, the quality is undoubtedly one of the most important ny result of actions taken, and any activity for detecting the problems, to assess the influence and solve them is, for any organization, the key of the progress. The QUALITY term and the bol Q can be used in many different circumstances. Thus, it can be spoken by the quality of , life, education, learning, vocational training, etc.	19-23
	<ol> <li>TOFAN C. A., Improving quality and reliability of technological systems by cold pressing aided design and computer simulation, "Alma Mater" House Publishing, ISBN 978-973-632-728-5, Sibiu, 2011</li> <li>TOFAN C.A., Management Information Systems for Computer Aided Design, International Journal of Academic Research in Accounting, Finance and Management Sciences, Vol 1, Issue 1 of IJ-ARAFMS, ISSN: 2225-8329, Pakistan, 2012</li> <li>TOFAN C. A., Training and assessment of students computerized, Economic Tribune, no. 1-2, ISSN 1018-0451, Bucharest, 2003</li> </ol>		
	Authors:	Chaithanya T, Bachu Anusha, Manikandan S	
	Paper Title:	Theoretical and Computational Analysis on Blunt Shaped Reentry Capsule	
7.	Abstract: For hig the blunt shape re obtained by the st numbers are in the semi-discretized of field features arou found between the the theoretical va various reentry co there is a increase: <b>Keywords:</b> Blunt <b>References:</b> 1. Lee, D.B., Bert	h aerodynamic drag and safe returning of capsule on the earth, to protect astronaut from radiation, eentry capsule is required. The flow fields over the blunt shaped reentry capsule are numerically aeady state, axisymmetric, compressible Navier–Stokes k-E turbulence model for free stream mach e range of 2 and 4. Employing a finite volume approach which reduces the governing equations to ordinary differential equations. The numerical simulation is carried out on a structural grid. The flow and reentry capsule, such as bow shock, sonic line, expansion are obtained. A good agreement is e computationally calculated value of aerodynamic drag co-efficient blunt shape reentry capsule with lue. The effects of geometrical parameters, blunt shapes have been numerically investigated for nfigurations which will be useful for forming the strong shock wave in supersonic flow, as a result in aerodynamic drag during landing of the vehicle. , reentry capsule, supersonic flows, drag.	24-27
	NASA TN D-60	128, October 1970.	

- 2. Lee, D.B., "Apollo Experience Report: Aerothermodynamics Evaluation", NASA TN D-6843, June 1972.
- 3. Hillje, E., "Entry Flight Aerodynamics from Apollo Mission AS-202", NASA TN D-4185, October 1967.
- Wright, M.J., Prabhu, D.K. and Martinez, E.R., "Analysis of Afterbody Heating Rates on the Apollo Command Modules, Part 1", Journal of Thermophysics and Heat Transfer, Vol. 20, No. 1, pp. 16-30, 2006.
- 5. Walpot, L., "Development and Application of a Hypersonic Flow Solver", Ph.D. Thesis, T.U. Delft University, May 2002.
- 6. Gerhold, T.O., Friedrich, J.E. and Galle, M., "Calculation of Complex Three-Dimensional Configurations Employing the DLR-TAU-Code", 16th Aerospace Sciences Meeting, Reno, NV, USA, AIAA Paper 97-0167, January 1997
- Walpot, L.M.G., Noeding, P., Tarfeld, F., Molina, R.C., Gülhan, A. and Paulat, J.-C., "Transonic and Supersonic Static Stability Analysis of the CARV Reentry Vehicle", 14th AIAA/AHI Space Planes and Hypersonic Systems and Technologies Conference, AIAA Paper 2006-8077, 2006.
- Lee, D.B., Bertin, J.J. and Goodrich, W.D., "Heat Transfer Rate and Pressure Measurements Obtained During Apollo Orbital Entries", NASA TN D-6028, October 1970.

Authors:	Hemanta Kumar Nayak, Debaraj Rana
Paper Title:	Eye Localization using PCA Based Genetic Search

**Abstract:** In this paper, we propose a novel approach for eye localization from human face image using GA based on PCA. As the genetic algorithm is computationally intensive, the searching space is reduced and limited to the eye regions so that the required timing is greatly reduced. Here GA is used to search for the possible eye region in an image efficiently. Specifically, we use GAs to find image sub-windows that contain the eye region. Each sub-window is evaluated using a fitness function and sub-windows containing eyes eye region is extracted. This is one of the major applications in case of retina recognition used in security purpose. The idea from the method of eigen-eye, and used to determine the fitness values.

Keywords: YCbCr, Skin Region extraction, PCA, Eigen Eyes, Genetic Algorithm.

#### **References:**

8.

- 1. G Bebis, S Uthiram and M Georgiopoulos, "Genetic Search for Face Detection and Verification", Proceedings, International Conference on Information Intelligence and Systems, pages 360 367,1999.
- 2. M. Turk, A. Pentland, "Eigen faces for face recognition", Journal Cognitive Neuroscience, Vol. 3, No.1, 1991.
- 3. D. Swets, B. Punch and J. Weng, "Genetic Algorithms for Object Localization in a Complex Scene", International Conference on Image Processing, vol. II, pp. 595-598, 1995.
- 4. H. Rowley, S. Baluja and T. Kanade, "Neural Network- Based Face Detection", IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 20, No. 1, pp. 23-38, 1998.
- 5. V. Vezhnevets, V. Sazonov, A. Andreeva, "A Survey on Pixel-Based Skin Color Detection Techniques", In Proceedings Graphicon-2003, pp.85-92, Moscow, Russia, September 2003.
- 6. K Sastry, D Goldberg, "Genetic Algorithms", Search Methodologies, 2005 Springer.
- 7. R. Crane, A simplified approach to Image Processing, Prentice Hall, 1997.
- 8. D Goldberg, "Genetic Algorithms in Search, Optimization and Machine Learning". Addison- Wesley, Reading, MA, 1989.

9. MP Panigrahy and N Kumar , "Face Recognition using Genetic Algorithm and Neural Networks", International Journal of Computer Applications Volume 55–No.4, pages 0975–8887,October 2012.

28-32

 BK Gunturk, AU Batur and Y.Altunbasak, "Eigenface domain super-resolution for face recognition", Image Processing, IEEE Transactions, Volume.12, Issue.5, pages 597 – 606, May 2003.

 MA Kashem, MN Akhter, S Ahmed, and MM Alam, "Face Recognition System Based on Principal Component Analysis(PCA) with Back Propagation Neural Networks (BPNN)", Canadian Journal on Image Processing and Computer Vision Vol. 2, No. 4, pp. 36-45, April 2011.
 L. Bai, L. Shen, and Y. Wang, "A novel eye location algorithm based on radial symmetry transform", in Proceedings of the International

- E. Sai, E. Shen, and T. Wang, A novel eye location argonatin based on radial symmetry transform, in Proceedings of the International Conference on Pattern Recognition, pages 511–514, 2006.
   P. Valanti and T. Currence and the state and the share and the share and the state and the state and the share and the shar
- 13. R. Valenti and T. Gevers. Accurate eye center location and tracking using isophote curvature. In Proceeding of IEEE Conference on Computer Vision and Pattern Recognition ,pages 1-8, 2008.
- 14. AL. Yuille, PW Hallinan, and DS Cohen, "Feature extraction from faces using deformable templates". International Journal of Computer Vision, vol.8, issue 2, pages 99–111, 1992.
- 15. M. Turk and A. Pentland, "Eigenfaces for Recognition", Journal of Cognitive Neuroscience, Vol. 3, pp. 71-86,1991 . hard copy.
- 16. S. P. Lee, "Facial Animation System with Realistic Eye Movement Based on a Cognitive Model for Virtual Agents", PhD thesis, Computer and Information Science, University of Pennsylvania, 2002.
- 17. KW Wong, KM Lam and WC Siu, "An efficient algorithm for human face detection and facial feature extraction under different conditions", Pattern Recognition 34, pages 1993-2004, 2001.
- F Yang, J Huang, P Yang and D Metaxas, "Eye Localization through Multiscale Sparse Dictionaries", IEEE International Conference on Automatic Face and Gesture Recognition and Workshops, Pages 514-518,2011.
- D. Rana and N. P. Rath, "Face Identification using Soft Computing Tool ", IEEE International Conference, Conference on Advanced Communication Control and Computing Technologies (ICACCCT-2012), Tamilnadu, INDIA, Aug 23-25. Conference Proceeding Page(s): 232-236, 2012.

20. http://fei.edu.br/~cet/facedatabase.html

Authors:	Dayalan J, Beulah M		
Paper Titles	Effect of Waste Materials in Partial Replacement of Cement Fine Aggregate and Course Agg	regate in	
Taper Thie.	Concrete		
Abstract: A brief study on the suitability of silica fumes, powdered ceramic tiles and crushed animal bones as partial			
replacement for c	ement, fine aggregate and coarse aggregate respectively in concrete work has been carried out.	l	
Experimental stud	y has been conducted for approximately 10 % of the silica fumes in replacement for cement, 20 %	I	
of the powdered ceramic waste powder in replacement for fine aggregate and 50 % of the crushed animal bones in			
replacement for coarse aggregate separately and in a single sample. Compressive strength, flexural strength and split			
tensile strength has been conducted for each sample. Results were quite satisfactory with no compromise in strength			
requirements for 1	M20 grade concrete. Hence comparative study has been done between normal concrete and new	I	
concrete mix.		l	
		I	
Keywords: Silica	Fumes - Powdered Ceramic Tiles - Crushed Bones – Compressive Strength – Flexural Strength -	33-36	

9. Keywords: Silica Fumes - Powdered Ceramic Tiles - Crushed Bones – Compressive Strength – Flexural Strength - Split Tensile.
 References:

Mukesh B.Patel, Charkha.D.. "Effect of silica fume and partial replacement of ingredients on flexural and split tensile strength of concrete",

	2. Ramkumar.V.R	Irnal of emerging trends in engineering and development, Issue 2, Vol.4 (May2012) ,, Murali, G. Javaganesh, V. "Flexural behaviour of concrete by using silica fumes as partial replacement of cement",		
	International jou	irral of emerging trends in engineering and development, Issue 2, Vol.4 (May2012), p.p 590-593		
	Journal of Emer	ging Technolgy and Advanced Technology, Issue 8, Vol.2 (Aug 2012) p.p.472-475		
	4. Zeena Adel Mol	hammed, "Effect of partial replacement of fine aggregate on some engineering properties of concrete" by		
	5. Javed Anniad B lightweight cond	crete", ARPN Journal of Engineering and Applied Sciences, (sep 2012), Vol.7, p.p. 1202-1207		
	New Delhi, Indi	a. A. Using Siling Furge to Complet ASD in Congrete Indian Congrete Journel (Oct 2001) on 656 664 [6] Louis D. C. Hashi		
	S. A. : Use of Si	A Using Since Fulle to Contrast ASK in Concrete, indian Concrete Journal, (Oct. 2001), pp 050-004 [0] Lewis, K. C. , Hasol, ilica Fume concrete :Selective case studies, Indian Concrete Journal, (Oct. 2001), pp 050-004 [0] Lewis, K. C. , Hasol,		
	8. Roncero, J., Ge Concrete Journa	d, (Jan. 2002), pp. 31-35.		
	9. Polat R., Demir of concrete expo	bo_A.R., Karakoç M.B. and Turkmen I.(2010) The influence of lightweight aggregate on the physico-mechanical properties osed to freeze-thaw cycles. Cold Reg. Sci. Tech. 60: 51-56.		
	10. Robert L., Lind Elsevier publica	lon S., Peter W. and Ray R. 2003. Cementitious additions. In: John N, Ban SC (Eds.). Advanced Concrete Technology. tions, Amsterdam.		
	<ol> <li>Rossignolo J.A. lightweight aggr</li> </ol>	, Agnesini M.V.C. and Morais J.A. 2003. Properties of high performance LWAC for precast structures with Brazilian regates. Cement Con. Compo. 25: 77-82.		
	12. Teo D.C.L., Ma Env. Sci. 30: 25	nnan M.A. and Kurian V.J. 2006.Structural Concrete Using Oil Palm Shell (OPS) as Lightweight Aggregate. Turk. J. Eng. 1		
	Authors:	Sandeep Rankawat, J. S. Purohit, D. R. Godara, S. K. Modi		
	Paper Title:	Scattering Measurement Due to Trunk and Foliage Canopy of Desert Region at 35 GHz		
	Abstract: At the	time of propagation of millimeter wave, Scattering phenomenon due to foliage plays an important		
	the propagation at	ngth approaches to the order of the size of the leaves and edges of leaves. It is important to estimate the state the scattering when the arid zone foliage leaves and twigs size affect adversely in		
	experimental prop	bagation range. In this paper a 35 GHz transmitter receiver link system is used to measure the		
	attenuation scatte	ring pattern of tree foliage of Ber tree (Zizyphus mauritiana) of western Rajasthan region.		
	Measurements we	re made to study the angular variations of the positioning of receiver unit around the target tree with		
	trunk and canopy	positions. The measurements, which were made for HH polarization configurations over a wide		
	range of the azim	uth angle, provide a quantitative reference for the design of millimeter-wave distatic radar, high		
	speed data commu	incation miks, point to point communication systems.		
	Keywords: 35 GF	Hz, Scattering, Foliage, Trunk, Tropical tree, Western Rajasthan, Millimeter wave, Thar Desert.		
	<b>References:</b>			
	1. Sandeep Ranka	wat, Dr.J.S.Purohit, D.R.Godara, S.K.Modi. "Scattering Measurement Due To Foliage of Western Rajasthan Region at 35		
10.	2. D.R.Godara,Dr.	JS: 2231-2307, Volume-4, Issue-1, March 2014. J.S.Purohit, SandeepRankawat, S.K. Modi "Effect of Foliage Length on Signal Attenuation in Millimeter Band at 35Ghz	37 30	
	3. D.R.Godara,Dr.	J.S.Purohit,SandeepRankawat,S.K.Modi "Propagation Attenuation Due to Foliage at 35Ghz" IJECT ISSN: 2230-9543,	37-39	
	Volume-4, Issue 4. D.R.Godara, S.I	2-4, OCT-DEC2013. K.Modi, Rupesh Kumar Rawat "Experimental studies on millimeter wave scattering from ground and vegetation at 35 GHz"		
	IJSCE ISSN: 22 5. Akira Ishimaru,	231-2307, Volume-1, Issue-6, January2012. "Wave Propagation and Scattering in Random Media and Rough Surfaces", Proceedings of the IEEE, Vol 79, No. 10,		
	October 1991	lora & Bannanart - Bahart I. Baula Jamas H. Sahaffnar, "Massuraments and Models for 28 CHz Doint to Multipoint		
	Radiowave Prop	pagation", IEEE journal on selected areas in communications, Vol. 18, No. 3, March 2000.		
	<ol> <li>N. C. Rogers, A generic model of</li> </ol>	. Seville, J. Richter, D. Ndzi, N. Savage, R. Caldeirinha, A. Shukla, M. O. AlNuaimi, K. H. Craig, E. Vi-lar, and J. Austin, "A f 1-60 GHz radio propa-gation through vegetation". Tech Report Radiocommunications Agency May 2002		
	8. Wang, F. and K	K. Sarabandi, "An enhanced millimeter-wave foliage propagation model", IEEE Trans. Antennas Propag., Vol. 53, No. 7,		
	2138-2145, 200 9 M Majeed S	5. Tiuata "An Improved Propagation Model for Wireless Communications" (1996) IEEE International Conference on		
	Communication	s, Converging Technologies for Tomorrow's Applications, Vol. 1, pp. 292-296, ICC 96.		
	10. A. Seville, "Veg and Propagation	getation Attenuation: Modeling and Measurements at Millimetric Frequencies." 10th International Conference on Antennas		
	11. L.L. Foldy,"The	e multiple scattering of waves", Phys. Rev., vol. 67,pp 107-119,1945.		
	12. T. Chiu, K. Sara 925, 2000.	abandi, "Electronics Scattering from Short branching vegetation", IEEE Trans. Geo. Remote Sensing, vol. 38, no.2, pp. 911-		
	Authors:	Vamsi Krishna Pelluru		
	Paper Title:	Scattering Measurement Due to Trunk and Foliage Canopy of Desert Region at 35 GHz		
	Abstract: In Traditional Enterprise-class storage technology, many organizations now have a variety of storage needs			
	many deploying options based on the organizations needs.			
11.				
	Keywords: Open	Stack, SAN, Storage, Havana.	40-42	
	<b>References:</b>			
	<ol> <li>http://docs.openstack.org/havana/install-guide/install/apt/content/</li> <li>http://docs.openstack.org/havana/install-guide/install/apt/content/ch_kevstone.html</li> </ol>			
	Authors:         Lakshmikishore Nittala, Preet Kanwar Singh Rekhi, Sukhvinder Singh Malik, Rahul Sharma			
	Authors:	Lakshmikishore Nittala, Preet Kanwar Singh Rekhi, Sukhvinder Singh Malik, Rahul Sharma		

	Abstract: Scheduler is the backbone of intelligence in a LTE network. Scheduler will often have clashing needs that		
	can make its design very complex and non-trivial. The overall system throughput needs to be maintained at the best		
	possible value without sacrificing the cell edge user experience. In this paper, authors compared different scheduler		
	designs for voice and packet services. They explained the role of configuration parameters through simulations. These		
	parameters control the tradeoff between the sector throughput and the fairness in system through. They explained a		
	possible scheduler implementation.		
12.	2. Keywords: LTE, Scheduler, Quality of service, GBR, Non GBR, Proportional fair.		
	References:		
	1. LTE - The UMTS Long Term Evolution from Theory To Practice 2nd Edition by Stefania Sesia , Issam Toufik, Matthew Baker		
	2. Essentials of LTE and LTE-A (The Cambridge Wireless Essentials Series) by Amitabha Ghosh and Rapeepat Ratasuk		
	3. 3G Evolution: HSPA and LTE for Mobile Broadband by Erik Dahlman, Stefan Parkvall, Johan Sköld and Per Beming		
	4. 3GPP TS 36.211 "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation".		
	5. 3GPP TS 36.213 "Evolved Universal Terrestrial Radio Access (E-UTRA) Physical layer procedures".		
	$( - \Delta C D D T C \Delta C \Delta A W = 1 - 1 U C - 1 T - ( - 1 D C - ( - 1 U T D A - ) A C - ( - 1 ( - 1 A - ( - 1 C - ( - 1 $		

3GPP TS 36.321 "Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification"
 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRAN); Radio Resource Control (RRC) Protocol Specification".