11 - 12 FEB 2017

ICACIEM 2017

By Association of Scientists , Developers and Faculties

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCES & CHALLENGES IN INTERDISCIPLINARY ENGINEERING AND MANAGEMENT 2017

ISBN 978-81-933235-1-9

USD 200

EDITOR-IN-CHIEF

DR. K SAMIDURAI

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017

ICACIEM 2017

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management2017

Volume 1

By
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Financially Sponsored By
Association of Scientists, Developers and Faculties, India

Multiple Areas

11 – 12, February 2017
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Editor-in-Chief
Dr. K Samidurai

Editors:

Daniel James, Kokula Krishna Hari Kunasekaran & G Padmapriya

Published by

Association of Scientists, Developers and Faculties
Address: RMZ Millennia Business Park, Campus 4B, Phase II, 6th Floor, No. 143, Dr. MGR Salai, Kandanchavady, Perungudi, Chennai – 600 096, India.
Email: admin@asdf.org.in || www.asdf.org.in

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management (ICACIEM 2017)

VOLUME 1

Editor-in-Chief: **Dr. K Samidurai**
Editors: **Daniel James, Kokula Krishna Hari Kunasekaran & G Padmapriya**

Copyright © 2017 ICACIEM 2017 Organizers. All rights Reserved

This book, or parts thereof, may not be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system now known or to be invented, without written permission from the ICACIEM 2017 Organizers or the Publisher.

Disclaimer:

No responsibility is assumed by the ICACIEM 2017 Organizers/Publisher for any injury and/ or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products or ideas contained in the material herein. Contents, used in the papers and how it is submitted and approved by the contributors after changes in the formatting. Whilst every attempt made to ensure that all aspects of the paper are uniform in style, the ICACIEM 2017 Organizers, Publisher or the Editor(s) will not be responsible whatsoever for the accuracy, correctness or representation of any statements or documents presented in the papers.

ISBN-13: 978-81-933235-1-9
ISBN-10: 81-933235-1-3

PREFACE

The First International Conference on "Advances & Challenges in Interdisciplinary Engineering and Management 2017 (ICACIEM 2017)" held on 11 – 12th February 2017, in collaboration with Association of Scientists, Developers and Faculties (ASDF), an International body, at Vidyaa Vikas College of Engineering and Technology, Tiruchengode, Tamilnadu, India, Asia.

ICACIEM 2017 provides a chance for Academic and Industry professionals to discuss the recent progress in the area of Interdisciplinary Engineering and Management. The outcome of the conference will trigger for the further related research and future technological improvement. This conference highlights the novel concepts and improvements related to the research and technology.

The technical committee consists of experts in the various course subfields helped to scrutinize the technical papers in various fields, support to maintain the quality level of the proceedings of conference which consist of the information of various advancements in the field of research and development globally and would act as a primary resource of researchers to gain knowledge in their relevant fields.

The constant support and encouragement from Dr. S. Prithiv Rajan, ASDF Global President, Dr. P. Anbuoli, ASDF International President and Dr. K. Kokula Krishna Hari, ASDF International Secretary General helped a lot to conduct the conference and to publish the proceedings within a short span. I would like to express my deep appreciation and heartfelt thanks to the ASDF team members. Without them, the proceedings could not have been completed in a successful manner. I would like to express my sincere thanks to our management, student friends and colleagues for their involvement, interest, enthusiasm to bring this proceeding of the conference in a successful way.

Dr. K. SAMIDURAI,

Editor in Chief cum Patron,

Principal, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Organizing Committee

Conference Honorary Chair

Avner Schmuel, Senior Researcher, Microsoft, Jewish Republic of Israel

Chief Patron

- **Dr. S Gunasekaran**, Secretary and Managing Trustee, Vidyaa Vikas Educational & Charitable Trust, Republic of India
- **Dr. T O Singaravel**, Correspondent and Managing Trustee, Vidyaa Vikas Educational & Charitable Trust, Republic of India
- **Dr. S Ramalingam**, Managing Trustee, Vidyaa Vikas Educational & Charitable Trust, Republic of India
- **Dr. M Muthusamy**, Managing Trustee, Vidyaa Vikas Educational & Charitable Trust, Republic of India

Patrons

- **Dr. K Samidurai**, Principal, Vidyaa Vikas College of Engineering and Technology, Republic of India

Convener

- **Dr. G Padmapriya**, HoD/CSE, Vidyaa Vikas College of Engineering and Technology, Republic of India

Co-Conveners

- **Mr. G Vetri Chelvan**, Associate Professor/Mech, Vidyaa Vikas College of Engineering and Technology, Republic of India
- **Dr. G Aarthi**, Associate Professor/MCA, Vidyaa Vikas College of Engineering and Technology, Republic of India
- **Mr. B Balaji Prabhu**, Associate Professor/MCA & Placement Officer, Vidyaa Vikas College of Engineering and Technology, Republic of India

Organizing Secretaries

- **Mr. V Bharath Kumar**, Administrative Officer, Vidyaa Vikas College of Engineering and Technology, Republic of India
- **Mr. M Manikandan**, Associate Professor/CSE, Vidyaa Vikas College of Engineering and Technology, Republic of India

Publications Chair

- **Daniel James**, Alcatel Lucent, London, United Kingdom
- **T. Shanmuga Priyan,** ASDF International, Republic of India

Executive Committee

- Prof. M Kumar, HoD/EEE, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Mrs. P Jayaprabha, HoD/MCA, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Mr. B Seshu Sailendra, HoD/MBA, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Prof. S Balamurali, HoD/Mech, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Mrs. K Pooranapriya, HoD/ECE, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Mr. M Soundar Rajan, HoD/Civil, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Mr. M Jayaprakash, Associate Professor/MCA, Vidyaa Vikas College of Engineering and Technology, Republic of India
- Dr. K Ganesh, Assistant Professor/Chemistry, Vidyaa Vikas College of Engineering and Technology, Republic of India

TECHNICAL REVIEWERS

- A Amsavalli, Paavai Engineering College, Namakkal, India
- A Ayyasamy, Annamalai University, Chidambaram, India
- A Kumaravel, KSR College of Technology, India
- A Narendrakumar, Anna University, Chennai, India
- A Padma, Madurai Institute of Engineering and Technology, Madurai, India
- A S N Chakravarthy, JNTU Kakinada, India
- Abdelbasset Brahim, University of Granada, Spain
- Abdelnaser Omran, Universiti Utara Malaysia, Malaysia
- Abdul Aziz Hussin, Universiti Sains Malaysia, Malaysia
- Abdul Nawfar Bin Sadagatullah, Universiti Sains Malaysia, Malaysia
- Abdulkareem Sh. Mahdi Al-Obaidi, Taylor's University, Malaysia

- Abhay Prabhakar Kulkarni, Director - IICMR, Pune
- Abhishek Bajpai, SRM University, Lucknow, India
- Abhishek Shukla, U.P.T.U. Lucknow, India
- Adeline Chia Yoke Yin, Taylor's University, Malaysia
- Adit Gupta, MIER College of Education, India
- Aede Hatib Musta'amal, Universiti Teknologi Malaysia, Malaysia
- Ahmad Bani Younes, Khalifa University, United Arab Emirates
- Ahmed Mohammed Kamaruddeen, University College of Technology Sarawak, Malaysia
- Ahmed Salem, Old Dominion University, United States of America
- Alaanoud Abusalim, American University of Sharjah
- Albert Alexander S, Kongu Engineering College, Perundurai, India
- Ali Berkol, Baskent University & Space and Defence Technologies (SDT), Turkey
- Alphin M S, SSN College of Engineering, Chennai, India
- Alwardoss Velayutham Raviprakash, Pondicherry Engineering College, Pondicherry, India
- Amir Akramin Shafie, International Islamic University, Malaysia
- Ammar Jreisat, Al Ain University of Science and Technology, United Arab Emirates
- Anand Agrawal, Institute of Management Technology, Dubai
- Anand Nayyar, KCL Institute of Management and Technology, Punjab
- Anand S, V V College of Engineering, Tirunelveli, India
- Anbuchezhiyan M, Valliammai Engineering College, Chennai, India
- Ang Miin Huey, Universiti Sains Malaysia, Malaysia
- Anil Antony Sequeira, Manipal University, Dubai, UAE
- Anirban Mitra, VITAM Berhampur, Odisha, India
- Anjali Deshpande, Mumbai University, India
- Appavu @ Balamurugan S, K. L. N. College of Information Technology, Madurai, India
- Aravind C K, VV College of Engineering, India
- Ariffin Abdul Mutalib, Universiti Utara Malaysia, Malaysia
- Arniza Ghazali, Universiti Sains Malaysia, Malaysia
- Arumugam Raman, Universiti Utara Malaysia, Malaysia
- Aruna Anil Deoskar, IICMR, Pune, India
- Arunkumar Balakrishnan, Coimbatore Institute of Technology, India

- Arup Barman, Assam University, India
- Asha Ambhaikar, Rungta College of Engineering & Technology, Bhilai, India
- Ashish Chaurasia, RGPV, Bhopal, Madhya Pradesh
- Asrulnizam Bin Abd Manaf, Universiti Sains Malaysia, Malaysia
- Ata Elahi, Southern Connecticut State University, USA
- Ayaz Ahmad M, University of Tabuk, Saudi Arabia
- Aziah Daud, Universiti Sains Malaysia, Malaysia
- B Paramasivan, National College of Engineering, Tirunelveli, India
- B Santhosh Kumar, SNS College of Technology, India
- Badruddin A. Rahman, Universiti Utara Malaysia, Malaysia
- Balachandran Ruthramurthy, Multimedia University, Malaysia
- Balamuralitharan S, SRM University, Chennai, India
- Balasubramanie Palanisamy, Professor & Head, Kongu Engineering College, India
- Baskaran J, Adhiparasakthi Engineering College, Melmaruvathur, India
- Bharatiraja C, SRM University, Chennai, India
- Bhushan Chaudhari, Sandip Institute of Technology and Research Center, Nashik, India
- Binumol Tom, Government of Kerala, India
- Brahim Abdelbasset, University of Granada, Spain
- C G Ravichandran, SCAD Institute of Technology, Palladam, India
- C Krishnakumar, Anna University, Chennai, India
- C N Marimuthu, Nandha Engineering College, Erode, India
- C Poongodi, Bannari Amman Institute of Technology, Sathyamangalam, India
- C Vivekanandan, SNS College of Engineering, Coimbatore, India
- Chandrasekaran M, Government College of Engineering, Bargur, India
- Chandrasekaran Subramaniam, Professor & Dean, Anna University, India
- Chitra Krishnan, VIT University, Chennai, India
- Chokri Ben Amar, University of Sfax, Tunisia
- Choo Ling Suan, Universiti Utara Malaysia, Malaysia
- Christopher Hill, The British University in Dubai
- Cristian-Gyozo Haba, Technical University of Iasi, Romania
- D Deepa, Bannari Amman Institute of Technology, Sathyamangalam, India
- D Sheela, Tagore Engineering College, Chennai, India

- Daniel James, Senior Researcher, United Kingdom
- David Rathnaraj Jebamani, Sri Ramakrishna Engineering College, India
- Deepali Sawai, Director - MCA, University of Pune (Savitribai Phule Pune University), India
- Devaraju M, Karpaga Vinayaga College of Engineering and Technology, Chennai
- Dewi Nasien, Universiti Teknologi Malaysia, Malaysia
- Djilali IDOUGHI, University of Bejaia, Algeria
- Dong Hwa Kim, CEO, HuCare, South Korea
- Doug Witten, Oakland University, Rochester, United States of America
- Dzati Athiar Ramli, Universiti Sains Malaysia, Malaysia
- E Bhaskaran, Government of Tamilnadu, Chennai, India
- E Praynlin, Anna University, Chennai, India
- Fadhilah Mat Yamin, Universiti Utara Malaysia, Malaysia
- Faten Kharbat, Al Ain University of Science and Technology, United Arab Emirates
- Fatma Susilawati Mohamad, Universiti Sultan Zainal Abidin, Malaysia
- G A Sathish Kumar, Sri Venkateswara College of Engineering, India
- G Arunkumar, Saveetha University, Chennai, India
- G Subbaraju, Shri Vishnu Engineering College for Women, India
- Ganesan G, Adikavi Nannaya University, India
- Ganesan Kanagaraj, Thiagarajar College of Engineering, Madurai, Tamil Nadu
- Ganesh Kumar P, K. L. N. College of Information Technology, Madurai, India
- Gaurav Parashar, Abdul Kalam Technical University, India
- Geetha G, Jerusalem College of Engineering, Chennai, India
- Geetha S, VIT University, Chennai, India
- Geetha V, Pondicherry Engineering College, Pondicherry, India
- Govindachari Nagarajan, Visvesvaraya Technological University, India
- Gracia Nirmala Rani D, Thiagarajar College of Engineering, Madurai, Tamil Nadu
- Guobiao Yang, Tongji University, China
- Hamid Ali Abed AL-Asadi, Basra University, Basra, Iraq
- Hanumantha Reddy T, RYM Engneering College, Bellary, India
- Hardeep Singh Saini, Indo Global College of Engineering, Mohali, Punjab
- Hareesh N Ramanathan, Toc H Institute of Science and Technology, India

- Hari Mohan Pandey, Amity University, Noida, India
- Helena Karsten, Abo Akademi University, Finland
- Hidayani Binti Jaafar, Universiti Malaysia Kelantan, Malaysia
- Hussain Ahmed , American University of Sharjah
- Itebeddine GHORBEL, INSERM, France
- Jagathy Raj V P, Cochin University of Science and Technology, India
- Jayaprakash J, Dr. MGR Educational and Research Institute University, India
- Jebaraj S, Universiti Teknologi PETRONAS (UTP), Malaysia
- Jia Uddin, BRAC University, Bangladesh
- Jinnah Sheik Mohamed M, National College of Engineering, Tirunelveli, India
- John Augustine P, Sri Eshwar College of Engineering, Coimbatore, India
- Julie Juliewatty Mohamed, Universiti Malaysia Kelantan, Malaysia
- K Nirmalkumar, Kongu Engineering College, Perundurai, India
- K P Kannan, Bannari Amman Institute of Technology, Sathyamangalam, India
- K Parmasivam, K S R College of Engineering, Thiruchengode, India
- K Premalatha, Bannari Amman Institute of Technology, Sathyamangalam, India
- K R Ananth, Velalar College of Engineering and Technology, India
- K R Valluvan, Anna University, Chennai, India
- K Suriyan, Bharathiyar University, India
- K Thamizhmaran, Annamalai University, Chidambaram, India
- K Thiruppathi, Valliammai Engineering College, India
- K Vijayaraja, KCG College of Technology, Chennai, India
- Kamal Imran Mohd Sharif, Universiti Utara Malaysia, Malaysia
- Kannan G R, PSNA College of Engineering and Technology, Dindigul, India
- Karthikeyan J, SSM Institute of Engineering and Technology, India
- Karthikeyan P, Kongu Engineering College, Perundurai, India
- Karuppuswamy P, Sri Ramakrishna Engineering College, India
- Kathiravan S, National Ilan University, Taiwan
- Kavitha A, Chettinad College of Engineering & Technology, Karur, India
- Kavitha Devi M K, Thiagarajar College of Engineering, Madurai, Tamil Nadu
- Kavitha Rajamani, Mount Carmel College, Bengaluru, India
- Khairul Anuar Mohammad Shah, Universiti Sains Malaysia, Malaysia

- Khurram Saleem Alimgeer, COMSATS Institute of Information Technology, Islamabad
- Kokula Krishna Hari Kunasekaran, Chief Scientist, Techno Forum Research and Development Center, India
- Konguvel Elango, Dhanalakshmi Srinivasan College of Engineering, Coimbatore
- Krishnan J, Annamalai University, Chidambaram, India
- Kumaratharan N, Sri Venkateswara College of Engineering, India
- L Ashok Kumar, PSG College of Technology, Coimbatore, India
- Laila Khedher, University of Granada, Spain
- Lakshmanan Thangavelu, SA College of Engineering, Chennai, India
- Lalit Khullar, Tirpude Institute of Management Education, Nagpur, India
- Latha K, Anna University, Chennai, India
- Laura Christ Dass, Universiti Teknologi MARA, Dungun Campus, Terengganu
- M G Sumithra, Bannari Amman Institute of Technology, Sathyamangalam, India
- M Jaganath, VIT University, Chennai, India
- M Karthikeyan, Knowledge Institute of Technology, India
- M Madeswaran, Mahendra Group of Institutions
- M Marikkannan, Institute of Road and Transport Technology, India
- M S Sivagama Sundari, VV College of Engineering, India
- M Selvakumar, Anna University, Chennai, India
- M Shanmugapriya, SSN College of Engineering, Chennai, India
- M Suresh, Kongu Engineering College, Perundurai, India
- M Venkatachalam, RVS Technical Campus - Coimbatore, India
- M Vimalan, Thirumalai Engineering College, Kanchipuram, India
- Mahabuba Abdul Rahim, Al Ghurair University, Dubai, United Arab Emirates
- Malathi R, Annamalai University, Chidambaram, India
- Malmurugan N, Mahendra Group of Institutions
- Mansoor Zoveidavianpoor, Universiti Teknologi Malaysia, Malaysia
- Manvender Kaur Chahal, Universiti Utara Malaysia, Malaysia
- Mariam binti Abdul Latif, Universiti Malaysia Sabah, Malaysia
- Mariem Mahfoudh, MIPS, France
- Marinah binti Othman, Universiti Sains Islam Malaysia, Malaysia
- Mathivannan Jaganathan, Universiti Utara Malaysia, Malaysia

- Md Haider Ali Biswas, Khulna University, Khulna, Bangladesh
- Md Nur Alam, Pabna university of Science & Technology, Bangladesh
- Mehdi Asadi, IAU (Islamic Azad University), Iran
- Miroslav Mateev, American University in the Emirates
- Mohamad Afendee Mohamed, Universiti Sultan Zainal Abidin, Malaysia
- Mohamad Zaki Hassan, Universiti Teknologi Malaysia, Malaysia
- Mohamed Bak K, Ilahia School of Science and Technology, India
- Mohamed Moussaoui, ENSA of Tangier Abdelmalek Essaadi University, Morrocco
- Mohamed Najeh Lakhoua, ENICarthage, Tunisia
- Mohamed Saber Mohamed Gad, National Research Center, Egypt
- Mohammad Ayaz Ahmad, University of Tabuk, Saudi Arabia
- Mohammad Shaheen Khan, Universiti Malaysia Sabah, Malaysia
- Mohammed Ali Hussain, KL University, India
- Mohammed Arifullah, Universiti Malaysia Kelantan, Malaysia
- Mohammed Firoz, The University of Wollongong in Dubai
- Mohd Hanim Osman, Universiti Teknologi Malaysia, Malaysia
- Mohd Hashim Siti Z, Universiti Teknologi Malaysia, Malaysia
- Mohd Helmy A. Wahab, Universiti Tun Hussein Onn, Malaysia
- Mohd Helmy Abd Wahab, Universiti Tun Hussein Onn, Malaysia
- Mohd Murtadha Mohamad, Universiti Teknologi Malaysia, Malaysia
- Mohd Nazri Abdul Rahman, Universiti Putra, Malaysia
- Mohd Rafi Yaacob, Universiti Malaysia Kelantan, Malaysia
- Mohd Zulkifli Bin Mohd Yunus, Universiti Teknologi Malaysia, Malaysia
- Moniruzzaman Bhuiyan, University of Northumbria, United Kingdom
- Mora Veera Madhava Rao, Osmania University, India
- Muhammad Iqbal Ahmad, Universiti Malaysia Kelantan, Malaysia
- Muhammad Javed, Cornell University, USA
- Mukesh D Patil, Ramrao Adik Institute of Technology, India
- Mukesh Negi, TechMahindra Ltd, India
- Muthupandian T, PSNA College of Engineering and Technology, Dindigul, India
- N Rajesh Jesudoss Hynes, Mepco Schlenk Engineering College, Sivakasi, Tamilnadu, India

- N Brindha, University of Buraimi, Oman
- N Karthikeyan, SNS College of Engineering, Coimbatore, India
- N Meenakshi Sundaram, PSG College of Technology, Coimbatore, India
- N Suthanthira Vanitha, Knowledge Institute of Technology, India
- Nagmode Manoj Shrikrishna, Maharashtra Institute of Technology College of Engineering, Pune , India
- Nallusamy R, Principal, Nandha college of Technology, Erode, India
- Nasrul Humaimi Mahmood, Universiti Teknologi Malaysia, Malaysia
- Nayla El-Kork, Khalifa University, United Arab Emirates
- Nida Iqbal, Universiti Teknologi Malaysia, Malaysia
- Nirmalkumar Krishnaswami, Anna University, Chennai, India
- Nithya Kalyani S, K S R College of Engineering, Thiruchengode, India
- Noor Raihani Zainol, Universiti Malaysia Kelantan, Malaysia
- Nor Muzlifah Mahyuddin, Universiti Sains Malaysia, Malaysia
- Norita Ahmad, American University of Sharjah, United Arab Emirates
- Norma Binti Alias, Universiti Teknologi Malaysia, Malaysia
- Norzaida Abas, Universiti Teknologi Malaysia, Malaysia
- L Shanmugasundaram, K S R College of Engineering, Thiruchengode, India
- Om Prakash Bohra, Al Dar University College, United Arab Emirates
- Osama Al-Hares, The University of Wollongong in Dubai
- P Dhanasekaran, Erode Sengunthar Engineering College, Erode, India
- P Kumar, K S R College of Engineering, Thiruchengode, India
- P Marimuthu, Syed Ammal Engineering College, Ramanathapuram, India
- P Ramasamy, Sri Balaji Chockalingam Engineering College, India
- P Raviraj, Kalaignar Karunanidhi Institute of Technology, Coimbatore, India
- P Sengottuvelan, Bannari Amman Institute of Technology, Sathyamangalam, India
- P Sivakumar, K S R College of Engineering, Thiruchengode, India
- P Sudhakar, M Kumarasamy College of Engineering, Karur, India
- P Tamizhselvan, Bharathiyar University, India
- P Thamilarasu, Paavai Engineering College, Namakkal, India
- Padma Bonde, Shri Shankaracharya Technical Campus, India
- Padma T, Sona College of Technology, India

- Palanisamy P N, Kongu Engineering College, Perundurai, India
- Parammasivam Kanjikovil Mahali, Anna University, Chennai, India
- Pasupuleti Visweswara Rao, Universiti Malaysia Kelantan, Malaysia
- Pethuru Raj, IBM Research, India
- Praveen Kumar P K, Anna University, Chennai, India
- Premalatha Jayapaul, Kongu Engineering College, Perundurai, India
- Purna Chandra Mishra, KIIT University, Bhubaneswar, India
- Purna Chandra Padhan, XLRI, Xavier School of Management, Jamshedpur, India
- Pushkar Kanvinde, BKPS College of Architecture, Pune, India
- Qais Faryadi, USIM: Universiti Sains Islam Malaysia, Malaysia
- R Ashokan, Kongunadu College of Engineering and Technology, India
- R Dhanasekaran, Syed Ammal Engineering College, Ramanathapuram, India
- R Muthukumar, Shree Venkateshwara Hi-Tech Engineering College, India
- R Ragupathy, Annamalai University, Chidambaram, India
- R Sudhakar, Dr. Mahalingam College of Engineering and Technology, India
- R Suguna, SKR Engineering College, Chennai, India
- R Sundareswaran, SSN College of Engineering, Chennai, India
- Radzi Ismail, Universiti Sains Malaysia, Malaysia
- Raghvendra Kumar, LNCT College, Jabalpur
- Rajesh Deshmukh, Shri Shankaracharya Institute of Professional Management and Technology, Raipur
- Rajesh V G, APJ Abdul Kalam Technological University, India
- Rajiv Selvam, Manipal University, Dubai, UAE
- Rama Krishna Valmiki, Tumkur University, India
- Ramesh Babu N G, Anna University, Chennai, India
- Rathika P, V V College of Engineering, Tirunelveli, India
- Rathinam Maheswaran, Mepco Schlenk Engineering College, Sivakasi, Tamilnadu, India
- Ravindra Gaikwad, Pravara Rural Engineering College, Loni, India
- Ravindra W Gaikwad, Pravara Rural Engineering College, Loni
- Ravishankar Dudhe, Manipal University, Dubai, UAE
- Razauden Mohamed Zulkifli, Universiti Teknologi Malaysia, Malaysia
- Reza Gharoie Ahangar, University of North Texas, USA

- Rini Akmeliawati, International Islamic University, Malaysia
- Roesnita Ismail, USIM: Universiti Sains Islam Malaysia, Malaysia
- Rohaizah Saad, Universiti Utara Malaysia, Malaysia
- Roselina Binti Sallehuddin, Universiti Teknologi Malaysia, Malaysia
- Royson Donate Dsouza, Manipal University, Dubai, UAE
- Ruba Soundar K, P. S. R. Engineering College, Sivakasi, India
- Rula Sharqi, Heriot-Watt University, UAE
- S Balaji, Jain University, India
- S Balamurugan, Kalaignar Karunanidhi Institute of Technology, Coimbatore, India
- S Jaganathan, Dr. N. G. P. Institute of Technology, Coimbatore, India
- S Jayalakshmi, Anna University, Chennai, India
- S Jebaraj, Universiti Teknologi PETRONAS, Malaysia
- S Karthik, SNS College of Technology, India
- S Karthikeyan, Ministry of Higher Education, Oman
- S Natarajan, Karpagam College of Engineering, Coimbatore, India
- S Nithyanandam, PRIST University, India
- S Poorani, Karpagam University, Coimbatore, India
- S Prakash, Nehru Colleges, Coimbatore, India
- S R Kumbhar, Rajarambapu Institute of Technology, India
- S Rajkumar, University College of Engineering Ariyalur, India
- S Ramesh, KCG College of Technology, India
- S Selvi, Institute of Road and Transport Technology, India
- S Senthilkumar, Sri Shakthi Institute of Engineering and Technology, Coimbatore, India
- S Shahil Kirupavathy, Velammal Engineering College, Chennai, India
- S Thangavel, KSR College of Technology, India
- S Vengataasalam, Kongu Engineering College, Perundurai, India
- S Vijayalakshmi, Anna University, Chennai, India
- Sadhik Basha J, International Maritime College, Oman
- Sallehuddin Muhamad, Universiti Teknologi Malaysia, Malaysia
- Sampath Kumar Jinka, Srishti Institute of Arts, Design and Technology, India
- Samuel Charles, Dhanalakshmi Srinivasan College of Engineering, Coimbatore, India
- Sangeetha R G, VIT University, Chennai, India

- Sanjay Singhal, Founder, Strategizers, India
- Sanjeevikumar Padmanaban, Ohm Technologies, India
- Saratha Sathasivam, Universiti Sains Malaysia, Malaysia
- Sarina Sulaiman, Universiti Teknologi Malaysia, Malaysia
- Sathish Gandhi V C, University College of Engineering Nagercoil, India
- Sathish Kumar Nagarajan, Sri Ramakrishna Engineering College, Coimbatore, India
- Sathishbabu S, Annamalai University, Chidambaram, India
- Seddik Hassene, ENSIT, Tunisia
- Selvakumar G, Muthyammal Engineering College, India
- Selvakumar Manickam, Universiti Sains Malaysia, Malaysia
- Selvaperumal S, Syed Ammal Engineering College, Ramanathapuram, India
- Senthilkumar K, Erode Sengunthar Engineering College, Erode, India
- Senthilnathan N, Kongu Engineering College, Perundurai, India
- Sergei Gorlatch, University of Muenster, Germany
- Shagar A C, Sethu Institute of Technology, India
- Shaik Asif Hussain, Middle East College, Oman
- Shamshuritawati Sharif, Universiti Utara Malaysia, Malaysia
- Shankar S, Kongu Engineering College, Perundurai, India
- Shanthi N, Nandha Engineering College, Erode, India
- Shazida Jan Mohd Khan, Universiti Utara Malaysia, Malaysia
- Sheikh Abdul Rezan, Universiti Sains Malaysia, Malaysia
- Sher Afghan Khan, International Islamic University, Malaysia
- Shilpa Bhalerao, Acropolis Institute of Technology and Research, Indore, India
- Shunmuga Perumal P, Anna University, Chennai, India
- Singaravel G, K. S. R. College of Engineering, India
- Siti Uzairiah M Tobi, Universiti Teknologi Malaysia, Malaysia
- Sivakumar Ramakrishnan, Universiti Sains Malaysia, Malaysia
- Smriti Agrawal, Chiatanya Bharathi Institute of Technology, Hyderabad
- Somasundaram Sankaralingam, Coimbatore Institute of Technology, India
- Sri Devi Ravana, University of Malaya, Malaysia
- Sripada Rama Sree, JNTU Kakinada, India
- Subramaniam Ganesan, Oakland University, Rochester, United States of America

- Subrata Kundu, CSIR - CECRI, India
- Sudhakar B, Manipal University, Dubai, UAE
- Suganthi Appalasamy, Universiti Malaysia Kelantan, Malaysia
- Sukhwant Kaur, Manipal University, Dubai, UAE
- Sumathi Ayyalusamy, Manipal University, Dubai, UAE
- Sundar Ganesh C S, PSG College of Technology, Coimbatore, India
- Sundeep Kumar Dhawan, National Physical Laboratory, India
- Sunil Chowdhary, Amity University, Noida, India
- Sunita Daniel, Amity University, Haryana
- Sunitha Kshatriya, Al Dar University College, United Arab Emirates
- Syed Sahal Nazli Alhady, Universiti Sains Malaysia, Malaysia
- T K P Rajagopal, Kathir College of Engineering, Coimbatore, India
- T Krishnakumar, Tagore Engineering College, Chennai, India
- T Ramayah, Universiti Sains Malaysia, Malaysia
- T Subbulakshmi, VIT University, Chennai, India
- T V Arjunan, Coimbatore Institute of Technology, India
- T V P Sundararajan, Bannari Amman Institute of Technology, Sathyamangalam, India
- Tamilarasi Angamuthu, Kongu Engineering College, Perundurai, India
- TamilSalvi Mari, Taylor's University, Malaysia
- Tariq Rahim Soomro, SZABIST Dubai Campus, UAE
- Thangamani M, Kongu Engineering College, Perundurai, India
- Tom Kolan, IBM Research, Israel
- Uma N Dulhare, Muffkham Jah College of Engineering & Technology, Hyderabad, India
- Uvaraja V C, Bannari Amman Institute of Technology, Sathyamangalam, India
- V Akila, Pondicherry Engineering College, Pondicherry, India
- V E Nethaji Mariappan, Sathyabama University, India
- V K Gupta, IMT Ghaziabad, India
- V Mohanasundaram, Vivekanandha Institute of Engineering and Technology for Women, India
- V Ramesh, Mahatma Gandhi Institute of Technology, Hyderabad
- V Sathish, Bannari Amman Institute of Technology, Sathyamangalam, India
- V Vijayakumari, Sri Krishna College of Technology, Coimbatore, India

- Vaiyapuri Govindasamy, Pondicherry Engineering College, Pondicherry, India
- Veera Jyothi Badnal, Osmania University, India
- Veeraswamy Ammisetty, St. Ann's College of Engineering & Technology, India
- Venkatesh MP, Annamalai University, Chidambaram, India
- Vignesh Ramakkrishnon, Association of Scientists, Developers and Faculties
- Vijaya Deshmukh, Registrar, India
- Vijayalakshmi V, Pondicherry Engineering College, Pondicherry, India
- Vijayan Gurumurthy Iyer, Entrepreneurship Development Institute of India
- Vikrant Bhateja, Shri Ramswaroop Memorial Group of Professional Colleges (SRMGPC), India
- Vipin Jain, Teerthanker Mahaveer Institute of Management & Technology, India
- Wael Abdel Samad, Rochester Institute of Technology, Dubai Campus
- Wan Hussain Wan Ishak, Universiti Utara Malaysia, Malaysia
- Wei Ping Loh, Universiti Sains Malaysia, Malaysia
- Weichih Hu, Chung Yuan Christian University, Taiwan
- Yaty Sulaiman, Universiti Utara Malaysia, Malaysia
- Yerra Rama Mohana Rao, Dr. Pauls Engineering College, India
- Yongan Tang, Oakland University, Rochester, United States of America
- Yousef FARHAOUI, Moulay Ismail University, Morrocco
- Yudi Fernando, Universiti Sains Malaysia, Malaysia
- Yu-N Cheah, Universiti Sains Malaysia, Malaysia
- Zahurin Samad, Universiti Sains Malaysia, Malaysia
- Zailan Siri, University of Malaya, Malaysia
- Zainuddin Bin Zakaria, Universiti Teknologi MARA, Dungun Campus, Terengganu
- Zamira Zamzuri, Universiti Kebangsaan Malaysia, Malaysia
- Zul Ariff Abdul Latiff, Universiti Malaysia Kelantan, Malaysia

Table of Content

Volume	01	ISBN	978-81-933235-1-9
Month	February	Year	2017

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017

Title & Authors	Pages
Asymmetrical Seven Level CHB Inverter based Voltage Compensation Device for an 11kV Distribution System by *G Murugananth, Swetha R*	pp01
Modelling of Temperature Stresses on Fly Ash Concrete Pavements by Artificial Neural Network *by Jino John, Lins Paul Kuriakose, T Meenambal*	pp01
Hazard Identification and Risk Assessment in Steering Wheel Manufacturing Industry *by K S Sakthivel, K M Raghu, M Karthick, K Venkateshwaran, P Dhiravidamani*	pp02
Performance Analysis of SI Engine Fuelled with Bio Gas *by Sarangapani Palani, Shanmuga Rajan A, Noor Mohammed A*	pp02
Estimation of Marine Salts Behaviour around the Concrete Bridges *by C Senthilkumar*	pp03
Study on Acid Resistance of Structural Elements Using Fly Ash Aggregate *by S Arunkumar*	pp03
Performance Analysis of Engine Cylinder Fins By Varying its Material and Geometry *by S Mayakannan*	pp04
An Experimental Study and Investigation on Magnesite and Partially Replacement of Clay in Magnesite Refractory Bricks *by C S Arvinth Kumar*	pp04
Montgomery Modular Algorithm of Radix Multiplication *by G Suresh*	pp05

Enhancement in Leach Protocol for Large Scale Wireless Sensor Networks *by T Rajkumar*	pp05
Breath an Adaptive Protocol for Industrial Control Applications Using Wireless Sensor Networks *by M Saranya*	pp06
Detection and Avoiding Addiction Using Embedded Systems *by S Kavitha*	pp06
Performance Analysis on Wear and Friction Characteristics of Brake Rotor Made of A359-B4c Composites *by V Jeeva Bharathi*	pp07
Efficient Compression and Decompression of FPGA Bit Streams *by N Balasubramanian*	pp07
Analysis of Dynamic Latched Comparator with Reduced Delay and Energy for High Speed ADCs *by Bhuvaneswari N*	pp08
An Optimized Algorithm for Integrating Various CBIR Methods using Multivariate Features *by P Jayaprabha*	pp08
Pre-paid Toll Processing E-Ticketing System *by S Murugan*	pp09
A Study on Organizational Citizenship Behaviour of Employees in New Generation Private Banks with Special Reference to Madurai District *by V Karthiga Sengottuvel*	pp09
Investigation on Hybrid Concrete Using Steel and Polypropylene Fibre *by P Parthiban*	pp10
Classification of Audio Data using Rule Classifier from Decision Tree Induction using Training Samples *by Aishwarya P, Gomathi M, Kiruthika S, Lalithambigai B, Jayaprabha P*	pp10
An Empirical Study on Work-Life Balance among Married Working Women in Thiruchengode Taluk *by M Manikandan*	pp11

Mechanical Properties of High Performance Fibre Reinforced Concrete *by R Sri Ranjani*	pp11
Design and Performance Analysis of Biofuel Preheating Device for Two Stroke Diesel Engine by Using Finite Element Method *by S Balamurali*	pp12
Toll Gate Alarming Mechanism for Weapon Detection *by Bhuvaneshwari N, Hindhuja M, Kanmani N, Revathi P, Uthra B*	pp12
Study on Reinforced Concrete Flexural Beams with Precast Laminates *by M Soundar Rajan, D Jegatheeswaran, S Balaji*	pp13
Smart Tollgate and Vehicle Tracking System with RFID *by Rajkumar T, Chandra Prakash R, Kotesha G V, Nallathambi B, Naveen U*	pp13
Securing Voice by Sip with Offset Codebook *by M Jayaprakash, M Manikandan*	pp14
High Performance Optimal PID Controller *by K Pooranapriya, M Karthikeyan*	pp14
Experimental Study on Corrosion Prevention with Rebar's Along with Fibre in R.C Slabs *by E Shankar Sengottaiyan*	pp15
Optimizing the Tools and Examine the Defects of Al 6061 Alloy Using Friction Stir Welding *by V Rajesh*	pp15
Work Safety Analysis in Soda Recovery Plant *by K Sundaram*	pp16
Performance Investigation of Nuts and Grain Dryer by Using Forced Convection Mode *by M Muthuraj*	pp16
Effect of Copper on the Microstructure and Mechanical Properties of Al-Si7-Mg Alloy via Powder Metallurgy *by G Sathiaraj*	pp17

A Collision Free GPS System for Plantation Analysis and Yield Evaluation in Agriculture *by Pooranapriya K, Tharaniraj T, Vignesh G, Shyamaravind V, Soundarajan M*	pp17
Improving the efficiency of System Performance using Proxy Servers for Load Distribution and Content Services *by V Chanthiya*	pp18
Semi-Autonomous Waste Segregation Robot *by Pavithran N, Marimuthusamy S, Navaneethan V, Siva S*	pp18
Real Time Process Control Using Point to Point Protocol *by Saranya M, Gomathi P, Pavithra I, Vijaisri J M, Divya K*	pp19
Design and Analysis in Heat Exchanger on Radiator Fin and Tube With and Without Vortex Generators *by T Prakash*	pp19
A Study on Investors Awareness towards Stock Market Investment *by Suresh Mani*	pp20
Application of Shunt Active Filter in Automatic Voltage Control and Power Factor Correction *by K Saravanan*	pp20
An Optimized Framework for Data Mining using Grid based Mining *by Gowsalya B, Meena M, Ramya T, Radhika M, Suseela M, Jayaprabha P*	pp21
Are Racial Discrimination and Social Segregation a Problem? *by A Sebasti Arulraj*	pp21
New Integration System for PV/ Wind Resources for Efficient Power Generation *by M Kumar*	pp22
Cloud Computing used in mHealthcare Systems for Patients to preserve their Privacy *by Kesavan P, Prethiv B, Saravanan M, Sundresh S, Jayaprabha P*	pp22
Effect of Bath Temperature on Structural and Magnetic properties of Electrodeposited Ni-Co-B Magnetic Thin Films *by T Baskar*	pp23

An Investigation of Bio Gas Production by Using Food Waste *by Akash K P, Alakeshwaran K, Anilkumar S, Aravindhan V, Arivazhagan M*	pp23
Effect of Thiourea on Growth, Structural, Optical and Nlo Properties of Ammonium Di Hydrogen Phosphate Crystals *by B Ravi, B Neelakantaprasad, G Rajarajan*	pp24
Chemometric Analysis of Water Quality Parameter in and Around Sipcot Perundurai of Erode District *by Ganesh K, Karthikeyan M, Manikandan K*	pp24
Spectroscopic Investigation of Charge Transfer Complexes of 4-Aminoacetanilide with Series of Substituted 1, 4-Benzoquinones *by C Balraja, R Karpagarajan, K Ganesh*	pp25
Design and Investigation of Waste Heat Utilizer from Two Stroke Petrol Engine Exhaust *by Dinesh R, Divakar K, Gopalakrishnan K, Gowrishankar N R, Gowrishankar T M*	pp25
Free Vibration of Homogeneous Transversely Isotropic Thermo Elastic Cylindrical Panel *by M Suganya, S Kousalya, V Thivya, J Padmapariya*	pp26
Spatial Data for Image Segmentation a Modified Fuzzy C-Means Clustering with MRI Picture *by R Mohan*	pp26
Roman k-Domination in Graphs *by J Padmapriya, S Kousalya, M Suganya, V Thivya*	pp27
Wave Propagation in A Transversely Isotropic Thermo Elastic Solid Circular Cylinder *by V Thivya, S Kousalya, M Suganya, J Padmapariya*	pp27
Roman Domination in Graphs *by S Kousalya, V Thivya, M Suganya, J Padmapariya*	pp28
Prediction of Modal Characteristics of Orthotropic Curved Panel by Using Finite Element Method *by Karthi M, Kavin L, Manikandan K, Manojkumar S, Mohankumar D*	pp28
Microstructure and Mechanical Properties of Aluminium Alloy 6061 Reinforced Glass *by E Poovarasan, M Ramesh, S Ranjith, G Santhoshkumar, S Sarathkumar*	pp29

Analysis of Carbon-Epoxy Composite in Aircraft Application *by D Suman kotekar*	pp29
The Study of Software Development Process Models in Software Engineering *by A Prema, K Praveena, S Saranya, K Valarmathi, T Ranganathan*	pp30
The Importance of Testing throughout the Software Development Life Cycle in Various Projects *by T Ranganathan*	pp30
Design and Analysis of A Single Boiler Heat Exchanger for an Espresso Coffee Machine *by Nandha Kumar P, Nehru P K, Pradeep R, Prakash S, Priyadharasan M, Rajesh P*	pp31
Free Vibration Analysis of Drive Shaft for Automobiles *by Swaminathan R, Tamilselvan J, Thirumoorthy K, Venkatesh C, Vignesh M, Vigneshwaran A*	pp31
Design and Analysis of Wheel Rim with Spiral Flexures *by E Sabarish Kumar, G Sakthivelayutham, M Saravanan, P Saravanan, S Sathishkumar, D Sathishkumar*	pp32
Three Input Converters for Hybrid Wind/Solar System *by P Manikandan*	pp32
The Effect of Interface Friction in Drawing AISI 304 Stainless Steel and AL1100 Materials at Constant Blank Holding Force using on Finite Element Simulation Studies *by Senthil K, Sheik Sujavudeen M, Shyam Mohan, Silambarasan M, Surendar Raj L, Surendar D*	pp33
A Study on Secure Energy Efficient Cluster based Hierarchical Routing protocols for WSNs *by P J Shriidhar, A Senthil Kumar*	pp33
Design and Analysis of Pressure Vessel *by Baranikumar E, Chandrasekar R, Deepanraj P, Francis Xavier L, Gobinath V*	pp34
Design and Fabrication of Composite Helical Spring *by R Manikuamr, P Mounikar, M Muthu Selvan, P Nandha Kumar, P Naveen Kumar*	pp34
Implementation of Mechatronics System in the Inspection of Bogie Mounted Pneumatic Brake Cylinder *by V Suriyan, B Tamizharasu, V Theepak, A Varatha Vignesh, K Venkatesh*	pp35

Design and Simulation of Semi Hexagonal Fins for Air Cooled Engines *by Gokulsurya P, Gopalan P, Gopalsamy M, Gopinath M, Kapildev S*	pp35
Performance Improvement of Jet Ejector Based On CRMC Method by Using CFD *by J Janarthanan, M Karthick, M Kaviyarasu, K Kishore, S Kumaresan*	pp36
Recent Trends in Generation of Mobile Communication *by R Arunkumar, A Jeevanantham, S Karthi, V Ramprasath*	pp36
Design and Analysis of Pulse Jet Engine *by R R Rathinakumar, M Prakash Raj, P Prabakaran, Muhamin, Majid*	pp37
Artificial Intelligence and Intrusion Detection Systems *by D Kaviya, V Keerthika, B Kowsalya, T Nirmala*	pp37
Reputation System for Improving Security in VOIP *by S Manivannan, S Matheshwaran, S Naveen Kumar, P Pandiyaraj*	pp38
Analysing and Discovering Imitating Intruders in Real Time Wireless Sensor Networks *by L Deepanprabu, P Ramya, P J Shriidhar*	pp38
Predictive Control for Green House Irrigation Process *by S Bhoopathy, S Aravinthkumar, P Vivek*	pp39
Performance Improvement of Head Protective Cap with Acquainted Spring *by S Shyamsundar, K Sridhar, C Sundaram, S Vijay, R Anand*	pp39
Grid-Connected PV-Wind Power System Design *by K Yogesh, S Santhosh, T Nagaraj*	pp40
Improving Lifetime of WSN System using Virtual Backbone Scheduling *by B Balaji Prabhu*	pp40
Data Veracity Proofs in Cloud Storage Space *by B Pooja Devi, K Meiyalakan*	pp41

New Unified Multilevel Converter for Drives in Plug-in Hybrid Electric Vehicles with Adjustable Energy Conversion *by P Navinkumar, M Velmurugan, K Vivek, C Logesh*	pp41
Shared Cluster Decision Assembly method using sky Traffic-Flow Organization *by K Meiyalakan, G Padmapriya, P J Shriidhar*	pp42
Analysis of Micro-Channel Heat Exchangers *by K Dinesh Kumar, G Gunasekaran, P Jaya Kumar, P Jeeva, K Karthick*	pp42
Design and Analysis of Propeller Shaft by using Finite Element Analysis Method *by Anthony E, Ayyasamy S, Balusamy S, Chakkaravarthi S, Dhinakaran N*	pp43
Cost-Optimized Dynamic Immigration of Content Distribution Services into Hybrid Clouds *by S Malarkodi, M Nachiyammal, S Revathi, G Padmapriya*	pp43
Failure Investigation on Armature Plate to Enhance Durability *by M Vigneshwaran, S Vijay PraveenKumar, M Yuvaraj, G P Yuvaraj Thirumalaivasan, J Anantharaj, R Aniruttha*	pp44
Smart Drip System Using for Agriculture System *by G JayaPrakash, M Appu Samy, M Sabari Nathan, S Sulthanbasha*	pp44
Harmonics Reduction in Stepper Motor Drive Using Fuzzy Logic Controller *by B Maheshkumar, S Manikandan, B Sambath Kumar, R Soundarrajan*	pp45
Experimental Investigation of Oxygen Enriched Air Intake on Combustion in Single Cylinder Gasoline Engine *by Vignesh G, Vimal S N, Babu P, Balaji V, Dinesh P*	pp45
A Wireless Battery Charger for Mobile Device *by G Senthil Kumar, G S Sukanth, P Prem Kumar, V Benjamin Sam*	pp46
Noise Reduction and Material Inspection by using Geneva Conveyor *by K Selvaraj, R Silambarasan, K Sivamani, M Sridharan, P Srinivas*	pp46
Analysis of Leaf Spring Using Composite Material *by C Sabarinathan, P P Salman Bin Ahmed, C Sanjeev Kumar, N Selvamani, P Shareef*	pp47

Automobile Exhaust Based Thermo Electric Generator *by M Saravanan, A Sasikumar, V Sathiyamoorthy, C Sathiyaseelan, S Sathyamoorthy*	pp47
Chain Drive Power Generation in Roadways by Using Vehicles *by Mohanraj A, Nandhakumar R, Ramaraj R, Saminathan S, Thamaraikumar A, Yogesh P*	pp48
Compressed Air Production Using Vehicle Suspension *by Aravindh K, Hariharan M, Karthick M, Kasiviswanathan V, Manikandan P, Mohammed Rashith M*	pp48
A Security Mechanism for MANET with Efficient Certificate Revocation Mechanism *by Ramya P, Gopalakrishnan V*	pp49
Optical Core Networks Using Multi-layer Energy Savings for Reducing Energy Consumption *by A Deepa, Dhivya Bharathi, P Jeevitha, S Rajeswari, P Ramya*	pp49
Dynamic Routing in Wireless Sensor Networks Using Reliable Attribute Aided Data Aggregation *by R Sridevi, P Indhumathi, T Dhurkka, R Sandhiya, P Ramya*	pp50
Optimization Technique for Mobile Applications Using Ranking Algorithm *by Vithya Balasubramani, G Padmapriya*	pp50
FR-Efficient Compression of PUM Data in WAMS *by S Jayaprakash, D Manikandan, S Mathan, S Parthipan, C Vijayakumar, S Roshini*	pp51
Cluster Analysis of Organizational Website using Fk-Medoids *by C Gomathi*	pp51
Investigation on Concrete Effectively Using Glass Powder as Partial Replacement for Sand *by K Ajantha, U Dhanashree, M Dhivyabharathi, S Swathi, C Elangovan*	pp52
Eco Friendly Concrete Blocks Using Polymer Wastes for Medium Traffic Roads *by T Deepan Kumar, P Dhanapal, K Mano, S Manoj Kumar, R Sri Ranjani*	pp52
Durability Study on Self-Curing High Performance Steel Fibre Reinforced Concrete Using Super Absorbent Polymers *by Jaya Surya T, Rajeshwari E, Sabhishini K, Geetanjali S, P Parthiban*	pp53

An Experimental Study of Decorative Concrete *by K Gokulapriya, S S Rushmikka, S Lavanya, P Srinidhi, P Parthiban*	pp53
Bidirectional Control of DC Motor by using PI & PWM Controller *by Anitha P, Sharmila T, Hemalakshmi L, Indhumathi G*	pp54
E-Smart Vehicular Communication System Using LI -FI Technology *by Murugan S, Sivaraman S, Shyam Sunder S, Karthik Kumar S*	pp54
Energy Harvesting From Piezoelectric Crystals *by Chandra M, Gayathri K S, Nivetha P, Sathya V*	pp55
Efficient Gas Detection in Unmanned Aerial Vehicles *by Balasubramanian N, Nandhini S, Poovarasi S, Rohini S, Nandhini N*	pp55
Experimental Study on Properties of Pervious Concrete *by Kishore R, Nithyanandhan T, raja V, Sivachitrambalam U, S Manikandan*	pp56
Investigation on Fly Ash Brick Manufacturing by Replacing Partially Using China Clay (Ceramic Waste) *by Gowtham R, Sathisivanesh R, Veera Vignesh E, Nandha Kumar N, S Arun*	pp56
Experimental Study on conventional Concrete with Human Hair Fibre Reinforced Concrete *by A Anandha Boopalan, G Manikandan, N Sivabalan, D Gowsik, S Satheesh*	pp57
Experimental Study on Solid Waste Materials in Concrete *by Eswaraprabhu T, Kalairajapriyan G, Perumal K, Subash S, S Krishnakumar*	pp57
Investigation of SIFCON Concrete by Using Crimpled Steel Fibres *by C Jayanth Kumar, R Balasubramanian, S Manikandan, S Santhosh Kumar, M Soundar Rajan*	pp58
Investigation of Concrete on effectively Using Lignin from Prosopis Juliflora as Partial Replacement of Sand *by S Indhu Priya, K Kiruthika, R P Ranjani, S Suba, M Soundar Rajan*	pp58
Estimation of Oceanic Salts Behaviour around the Concrete Structures *by V Arun, M Mahendran, E Karthi, S Mohammed Ibramsha, C Senthilkumar*	pp59

Use of Quarry Dust to Replace Sand in Concrete - An Experimental Study *by M Tamilarasan, R Vignesh, S Boopathi Raja, Su Saran Kumaar, S Prathaban*	pp59
Study on Concrete with Human Hair Fibre Reinforced Concrete *by Manikandan M, Manikandan S, Manisundar K S, Deepakraj G, Manivel A, Balasubramaniyam R*	pp60
Study on Slurry Infiltrated Fibrous Reinforced Concrete Beams *by R Abu Hassain, K Aravinth Kumar, P Abdul Basith, V Anandraj, R Aneshkumar, M Barath*	pp60
Behaviour of Concrete with Partial Replacement of Cement by Groundnut Shell Ash *by K Dharmendhiran, R Dhinesh Babu, S Dhana Bharathi, M Ganesan, S Gokul Raj, S Kaviraj*	pp61
Experimental Study on Strength Characteristics of Geo Polymer Concrete Using Silica Fume *by K Elango, S Harish Gowtham, G Manivel, S Mathanraj, M Mathivannan, S Nallasamy*	pp61
Influence of Steel Slag on Mechanical Properties of Concrete *by Jagadeswaran S, Jeningshon V, Prabhu K, Ramesh C, Manivel A, Sriram R*	pp62
An Experimental Attempt in Concrete with Industry Sludge *by Nanthakumar K, Pradeeprajan S, Pragadeesh I, Venkatesan S, Vignesh M, Anusuya S*	pp62
Experimental Study on the Behaviour of Retrofitting the RC beam Using GFRP and PFRP *by Bargavi B, Barkavi Selvi B, Jeevitha P, Priya S, Priyanka R, Sathya C*	pp63
Strength and Durability Characteristics of Incinerated Egg Shell Powder in Concrete *by sharmila S, Sowmiya M, Roja G, Sumithra, Kirubhashini M, Poongodi P*	pp63
Teaching English through Digital World *by S Johnson Karunakaran*	pp64
Smart City Wireless Connectivity based on Water *by Kavitha S, Anees Nasrin M S, Lakshmi V, Manjula R*	pp64
Active Content Delivery Using Live Localization Scheme in Wireless Network *by M Manikandan, M Jayaprakash*	pp65

Shadow Elimination Using Traffic Video Surveillance *by Murugan S, Sangeetha N, Sivasakthi S, Suguna T*	pp65
Amalgam Approach on Usages of Agent Technology *by A Krishnakumar, P Praveenkumar, K Sathishkumar*	pp66
Privacy-Preserving-Outsourced Association Rule Mining on Vertically Partitioned Databases *by G MoheshKumar, K S Kandapirabu*	pp66
A Comparative Study of Teaching Competency and Organizational Citizenship Behaviour (OCB) of the Faculties Trained Through Formal System of Education and Those through Distance Education *by S Jeevapria, P Kaviya, S Indhumathi, S Ranjani*	pp67
A Study on Effectiveness of Employees Safety and Health Measures *by Surendar S, Subramani D, Manikandan P, Manikandan T, Prabakaran P, Prabakaran P*	pp67
Sensor Networks Considered Harmful *by T Gopalakrishnan, C Ganesan, V Vengatesan, D Vignesh*	pp68
Control System for People with Multiple Disabilities in Smart Homes *by Suresh G, Jegadeeshkumar A, Kavipriyan S, Vinoth R, Samson A*	pp68
Socio-Political Concern in Mulk Raj Anand's Coolie *by T Saranya*	pp69
Outsourced Parallel Search on Metric Information Resources *by E Anithaa, K Meiyalakan, N Manjula*	pp69
Development of IOT Based Smart Security and Ubiquitous Controlled Agriculture System *by Pooranapriya K, Buvanesh Kumar A, Karthikeyan R, Kathirvel S, Srisrinivasan K*	pp70
An Advanced Secure System Using Enhanced Adaptive Acknowledge for WSNs *by S Revathi, P J Shriidhar*	pp70
Data Intensive Using Mobile Relay Nodes in Wireless Sensor Networks for Energy Efficient Scheme *by S Roshni, J Senthil Kumar*	pp71

Improving Data Reliability and Integration in Cloud Using PRCR *by MohamedRafi A, Manikandan*	pp71
Light Fidelity (Li-Fi) - Connectionless Wireless Communication System *by R Hencida, V Amutha, S Divya, B Mathimila*	pp72
An empirical Study on the Effect of Demonetization on Indian Stock Market with Special Reference to Nifty and Bank Nifty *by Baggam Seshu Sailendra*	pp72
A Study on the Employee Retention with Special Reference to Aegis Limited, Chennai *by V Bharath Kumar*	pp73
A Study on the Organizational Culture of Sakthi Sugars Ltd, Erode *by Karthika K, Boopathiraja P, Praveenkumar K, Ananthi M, Sarathkumar G, Sasikumar S*	pp73
An Article on "Business Men are Made" *by Prathap G, Iyanar P, Jayachandran D, Thirumalairajan M, Gopinath R, Jayasudharasan A*	pp74
A Study on Performance of Selected Equity Mutual Funds with Special Reference to Tata Mutual Funds *by Amirtham A, Mythily M, Kumaresan M, Nagendran S, Kamalakkannan M, Sadhusundarsingh Y*	pp74
A Study on the Cash Management at Unifront Textiles, Coimbatore *by Sagunthaladevi M, Ravi P, Murugan P, Premkumar S, Prakash S, Karthikeyan M*	pp75
Water Quality Monitoring System Project Domain –Medical/Assistive Technologies *by M Vetrivel, B Mohanraj, T S Pravin, R B Abishek, R Marriyappan*	pp75
Molecular Modelling of Human Brain Function in Biological Technologies *by Apsha S, Bharathi M, Geethanjali K A, Priya S, Srimathi K, Vishalatchi K*	pp76
Performance Evaluation and Comparison of Wireless Standards with MAC Protocols Based on Different Mobility Models *by A Sindhuja, T Pavithra, T Kavitha, V Jayalaja, S Dharanivarshini, S Mahalakshmi*	pp76
A Smart Control System based on Context and Human Speech *by B Kopperundevi, P Suruthi, R Soundarya, K Vidhyavathi, S Priyanga, R Pushparani*	pp77

Text to Audio for Visually Impaired by Braille Converter *by Priyanka S, Ranjitha R, Showmya B, Sneka S, Suganthi P, Yasodha K*	pp77
An Ultra-Low Power Microprocessor Based Wireless ECG *by Arthi P, Kalaivani K, Madhubala V, Punitha S, Nivethini G, Umamaheswari M*	pp78
Heat Transfer Enhancement Analysis of Micro Channel *by Vetrichelvan G*	pp78
Visible Light Communications for Li-Fi Technology Using PWM Signals *by Divyalakshmi E, Pavithra B, Priya R, Priyanka S, Sugashini V, Vasuki R*	pp79
A Study on Sixth Sense – Future Mini Embedded Computer *by Vignesh Waran T, Elangovan P, Karthick Raj, Suresh S, Jayaprabhu S, Kanakaraj R*	pp79
A Secured Image Sharing on Social Websites *by G Aarthi, P Jayaprabha*	pp80
A Study on Performance Appraisal with Special Reference to CRI Pumps, Coimbatore *by Rajeshkanna R, Kanmanirajan T, Gokul S, Manigandan M, Lakshmipriya R, Sathya S*	pp80
Biodiesel Prepared By Trans-esterification Technique from Waste Cooking Oil (Yam Frying Oil) *by N Ashokkumar, V Bharathkumar*	pp81
Good House Keeping Technique Using 5 S *by Shanmugam Deepak, Gokulnath P, Prabhakaran E, Kavin S, Antony Rajkumar J, Balakrishnan N*	pp81
A Study on Customer Satisfaction towards Ambal Auto, Erode *by Anburanjithkumar K, Jayanthi G, Mahalakshmi R, Meenakshi S, Ranjithkumar N, Sathyavani R*	pp82
A Study on Brand Preference of Civil Engineers towards Agni Steel with Special Reference to Agni Steels, Erode *by Seenu V, Palanisamy M, Roja E, Thilagavathi T, Namdhini S, Veni P*	pp82
Raindrop Algorithm Based Controller for Chopper Driven PMDC Motor *by K Samidurai, G Murugananth*	pp83

A New Class of Locally Closed Sets in bigeneralized Topological Spaces via Hereditary Classes *by Binoy Balan K, Janaki C*	pp83
Asynchronous Power Management Using Grid Deployment Method for Wireless Sensor Networks in Critical Situation *by Dheepika Rajamanickam, S Pavithra, K Rajalakshmi, N Udhaya, P J Shriidhar*	pp84
Denial to "Analysis on Control Cloud Data Entrance Freedom and Ambiguity with Entirely Anonymous Attribute-Based Encryption" *by P Praveen Kumar, T Tamilselvan, V Prabhakaran, K Meiyalakan*	pp84
Survey and Research Challenges in Big Data *by G Padmapriya, K Meiyalagan, N Manjula, C Akila, A D Jeishri*	pp85
Dynamic Routing in Wireless Sensor Networks Using Efficient Attribute Aided Data Aggregation Technique *by K S Kandapirabu, P J Shriidhar*	pp85
Application of Agricultural Waste in Preparation of Sustainable Construction Material *by Karthick A, Karthick M, Suresh Kumar P S, Vijayan G, Vijay A, Vidya P*	pp86
Privacy Preserving Ranked Multi-Keyword Search for Multiple Data Owners in Cloud Computing *by R Deepika, S Tamilselvi, J Nandhini, K S Kandapirabu*	pp86
A Typical Sleep Scheduling Algorithm in Cluster Head Selection for Energy Efficient Routing in Wireless Sensor Networks *by P J Shriidhar, V Mathivarmarajan*	pp87

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM001

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.001

Asymmetrical Seven Level CHB Inverter based Voltage Compensation Device for an 11kV Distribution System

G Murugananth[1], Swetha R[2]
[1]Professor, [2]Assistant Professor, Department of EEE, Ahalia School of Engineering and Technology, India

Abstract: *This paper presents a Distribution Static Compensator (DSTATCOM) with a sinusoidal pulse width modulated (SPWM) Cascaded H Bridge (CHB) multilevel inverter for shunt compensation of distribution system. The advantages of DSTATCOM are power factor improvement, voltage regulation and harmonic mitigation in distribution line and load balancing. CHB inverters are used widely because of their simplicity, modularity and reduced switching losses. Here a seven level cascaded H bridge based DSTATCOM is considered for the voltage sag compensation of an 11 kV distribution system. The software used is MATLAB. The performance of multilevel inverter is investigated and Total Harmonic Distortion (THD) is noticed.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM002

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.002

Modelling of Temperature Stresses on Fly Ash Concrete Pavements by Artificial Neural Network

Jino John[1], Lins Paul Kuriakose[2], T Meenambal[3]
[1]Professor, Civil Engineering Department, Ahalia School of Engineering and Technology, India
[2]Assistant Professor, Civil Engineering Department, Vimaljyothi College of Engineering, India
[3]Professor, Government College of Technology, Coimbatore, India

Abstract: *In this study, artificial neural network models have been developed for concrete and fly ash concrete slabs of sizes 1000mm x 1000mm with various thickness 150mm, 200mm, 250mm and 300mm. The data used in the artificial neural networks includes temperature differential (°C), thickness of slab (mm), Modulus of Elasticity (MPa) and Poisson's ratio were taken as input layers and an output layer which is temperature stresses, the test results have shown that NN have strong potential for predicting the temperature stresses in fly ash concrete pavements.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM003	**eAID**	ICACIEM.2017.003

Hazard Identification and Risk Assessment in Steering Wheel Manufacturing Industry

K S Sakthivel[1], K M Raghu[2], M Karthick[3], K Venkateshwaran[4], P Dhiravidamani[5]
[1]PG Scholar, [2,3,4]Asst. Professor, [5]Associate Professor, Department of Mechanical Engineering, K.S.R College of Engineering, India

Abstract: *Risk assessment tool which will assist users in identifying hazard and estimating risk involved in each identified hazard. This risk assessment tool will identify possible hazard involved in each task in departments. Once the hazard has been identified, risks involved will be estimated and categorized. If the estimated risk falls in a category, which is higher than the low risk category, then possible control measures will be recommended. At the same time, the user can add new work plan, task, and control measures into the system to update existing information system.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM004	**eAID**	ICACIEM.2017.004

Performance Analysis of SI Engine Fuelled with Bio Gas

Sarangapani Palani[1], Shanmuga Rajan A[2], Noor Mohammed A[3]
[1,2,3]Assistant Professor, Dept. of Mechanical Engineering, V.R.S. College of Engineering & Technology, Villupuram, India

Abstract: *Installing small scale methane production units at their farms has always been a challenge to farmers and other large scale production units to convert waste into something productive. Methane production units have been employed successfully in rural areas, especially in India and China to meet the present energy needs. Carbon di-oxide is present with methane during biogas production through organic waste fermentation, in the by-products of gasification and reforming of heavy oil or coal, in waste gases of the petrochemical industry and in landfills, coal beds and sewage gases. The biogas combustion performance depending on the percentage of methane in biogas here spark ignition engine single cylinder with constant speed was used. The performance analysis of single cylinder SI engine using biogas produced from pungai leaf is attempted. Mechanical efficiency increases while NOx, CO2 reduces with employment of biogas.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM005	**eAID**	ICACIEM.2017.005

Estimation of Marine Salts Behaviour around the Concrete Bridges

C Senthilkumar[1]
[1]Assistant Professor, Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The development of chloride infiltration models is essential for the assessment of the service life of concrete structures uncovered to marine environment .Simple models are consequent from Fick's 2nd law of diffusion are at present the best way to guess chloride infiltration in practical situations. However these models need to be calibrating with investigational results. This paper presents an trial study where the parameters used in the infiltration model where calibrated to allow the guess of long term chloride content in concrete. The outcome showed that the concrete cover and concrete quality requirements stated in the present codes need to be increased so that an suitable service life can be achieve.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM006	**eAID**	ICACIEM.2017.006

Study on Acid Resistance of Structural Elements Using Fly Ash Aggregate

S Arunkumar[1]
[1]Assistant Professor, Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Now a day's one of the major problems in construction industries is insufficient and unavailability of construction materials. On the other side the main environmental problem is the disposal of the flash. In the experimental study, an attempt has been made to use the fly ash in concrete and experiments have been conducted for fly ash aggregate concrete with respect to acid resistance test. The main theme of this investigation is to replace the conventional coarse aggregates by flash aggregates(FAA).The Fly ash aggregates were prepared by the adding of cement with fly ash in five proportions such as 10:90 15:85, 20:80 ,25:75 & 30:70. The specimen cubes were cast and put in acid for 45 days at the end of 28 days & 56 days curing water. Durability of specimens were assess by immerse them in 3% of Nacl & 1% of sulphuric acid solution, periodically monitoring surface deteriorations and loss in weight.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM007	**eAID**	ICACIEM.2017.007

Performance Analysis of Engine Cylinder Fins By Varying its Material and Geometry

S Mayakannan[1]

[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Heat transfer is a process variant in most heat generation methods, applying two wheeler heat conduction fins. IC engine fins Assemblies with in a reacting power transmission Mechanisms in this engine Assembly, which requires heat removal to ensure proper operation. This project investigates alternative cooling methods for an engine fins Assembly. IC engine fins Assembly temperatures by means of conduction cooling are needed for operating pressure. Enhanced design Stack Assembly designs which utilize fins, straight fins and internal cooling cavities are required to reduce or eliminate cooling. Steady state heat transfer finite element analyses are performed using ANSYS Workbench™ Version 14.5, utilizing 3-D models and heat transfer material properties of current engine fins Assemblies. ANSYS results from modified fins Assembly designs are then compared to baseline geometry ANSYS results. Baseline cooling analyses are performed to validate the FEA models. The baseline results show that the average temperature at the inner surface of the heat during normal operating conditions is approximately 23°C above the maximum technical limit of 423K. The baseline results are considered acceptable based upon the conservative boundary conditions used in the FEA model. Fins Stack Assemblies which utilize fin optimization varies of cross section with internal grooves like half circle, Triangular, Trapezoidal, Square cross section with sliding taper cut-out arrays are also analysed. Then comparing constant natural materials to take AL 6061, AL 200, CE17, CE17M it is considering to take thermal distribution analysis in transient conditions to solving problems it's defined. An average temperature reduction of 150°C at the inner surfaces of the fins is achieved using fin arrays with a total additional surface area of 0.16 m 2 per Fins Stack Assembly. To consider forced convection to solving heat flux with distribution along the distance with respect to time to be calculating with result and discussed.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM008	**eAID**	ICACIEM.2017.008

An Experimental Study and Investigation on Magnesite and Partially Replacement of Clay in Magnesite Refractory Bricks

C S Arvinth Kumar[1]

[1]Associate Professor, Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Brick masonry plays an important role in the field of construction, signifying the need to study the nature of behaviour of masonry in different conditions and compositions. In this project, manufacturing and studies on the experimental investigation of material properties, compressive and shear behaviour of brick masonry with different materials are used like magnesite and clay. The magnesite is found in nature usually as secondary deposit formed due to 1) Alteration ultramafic rocks (mostly serpentine) as is found in chalk hills, Salem, and Dodkanya in Karnataka. Pure clay mineral is formed from the erosion and weathering of primary igneous rocks. In the process it picks up a number of impurities, quartz, mica, calcium carbonate (lime), iron oxide etc… The strength of partially replaced magnesite brick are gradually increased by 10% when compared to conventional bricks. In this magnesite bricks are partially replaced in clay. From the results it was observed magnesite bricks are good.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM009	**eAID**	ICACIEM.2017.009

Montgomery Modular Algorithm of Radix Multiplication

G Suresh[1]
[1]Assistant Professor, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Montgomery multiplication is an efficient method for implementation on general purpose computers and embedded microprocessors. It is the basic operation used in modular exponentiation which is required in the RSA public key cryptosystems. The algorithm uses simple divisions by a power of two instead of divisions by M which are used in a conventional modular operation and its implementation based on a fixed precision of the operands. In order to reduce the computation time by Radix-2 and Radix-4 algorithm and also to overcome the variable precision multiplication features although the number of partial product was reduced. The complexity of control and computational logic increased substantially at the same time. The approach was able to process an n-bit precision multiplication in approximately n clock cycles to simulate by Xilinx 12.3 tool using VHDL language.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM010	**eAID**	ICACIEM.2017.010

Enhancement in Leach Protocol for Large Scale Wireless Sensor Networks

T Rajkumar[1]
[1]Assistant Professor, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *As the use of wireless sensor networks (WSNs) has grown enormously in the past few decades, the need of scalable &energy efficient routing and data aggregation protocol for large scale deployments has also risen. LEACH is a hierarchical clustering protocol that provides an elegant solution for such protocols. One deficiency that affects the performance of the protocol is existence of very large and very small clusters in the network at the same time. This leads to the decrease in lifetime of WSNs. In this paper, the proposed and analysed a new energy efficient clusters protocol (Improved FZ-LEACH) that eliminates the above problem by forming Far-Zone. Far-Zone is a group of sensor nodes which are placed at locations where their energies are less than a threshold. The communication between nodes and Sink is based on the energy consumption and the minimum distance. The communicating nodes only will be in active and the remaining nodes will be in sleep mode, to this sleep scheduling algorithm has been used. The simulation results and analysis show that proposed Improved FZ-LEACH algorithm outperforms LEACH in terms of energy consumption and network lifetime.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM011

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.011

Breath an Adaptive Protocol for Industrial Control Applications Using Wireless Sensor Networks

M Saranya[1]
[1]Assistant Professor, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *An energy-efficient, reliable and timely data transmission is essential for Wireless Sensor Networks (WSNs) employed in scenarios where plant information must be available for control applications. The protocol is based on randomized routing, medium access control, and duty-cycling jointly optimized for energy efficiency. The design approach relies on a constrained optimization problem, whereby the objective function is the energy consumption and the constraints are the packet reliability and delay. The optimal working point of the protocol is achieved by a simple algorithm, which adapts to traffic variations and channel conditions with negligible overhead. The protocol has been implemented and experimentally evaluated on a test bed with off-the-shelf wireless sensor nodes, and it has been compared with a standard IEEE 802.15.4 solution. Analytical and experimental results show that Breath is tuneable and meets reliability and delay requirements. Breath exhibits a good distribution of the working load, thus ensuring a long lifetime of the network. Therefore, Breath is a good candidate for efficient, reliable, and timely data gathering for control applications.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM012

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.012

Detection and Avoiding Addiction Using Embedded Systems

S Kavitha[1]
[1]Assistant Professor, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *About 80% of the people in the world are addicted to one or more addictive substances. Addiction is one of the chronic disorders that are characterized by the repeated use of substances or behaviours despite clear evidence of morbidity secondary to such use. It is a combination of genetic, biological/pharmacological and social factors. Example: Over eating, Gambling, Alcohol drinking, Taking Narcotic Drugs and Certain Mannerisms. In this paper we are going to see about a design of device that can entirely avoid addiction. The device Addiction Avoider is based upon the principle of controlling "Brain waves".*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM013	**eAID**	ICACIEM.2017.013

Performance Analysis on Wear and Friction Characteristics of Brake Rotor Made of A359-B4c Composites

V Jeeva Bharathi[1]

[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Brake innovation is much the same as suspension and fuel framework innovation has made considerable progress lately. The Automobile slowing mechanisms typically utilize brake plates, which are combined with composite natural brake cushions. These sorts of materials are reasonable for use in slowing mechanisms with direct loads, yet vehicle producers are arranged to outline vehicles with all the more braking force. A background marked by high working expenses for on - parkway vehicles and for airplanes has supported outlines for weight lessening with long administration of slowing mechanisms. Upgrading of the stopping mechanism by swap of lighter material like aluminium and carbon composite brakes fundamentally have been in charge of brake circles, which are being utilized as a part of air ships and equation one dashing autos and bike bicycles .The necessities of the materials are light weight, high quality, scraped spot resistance and consumption resistance. Composite materials give such special blend of properties. In this review the substitute materials for vehicle brake circle applications with unique thought to Aluminium and Boron carbide Metal Matrix Composites .The mechanical properties were resolved according to ASTM principles and looked at the outcomes. The wear and grating conduct was resolved utilizing pin on circle device.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM014	**eAID**	ICACIEM.2017.014

Efficient Compression and Decompression of FPGA Bit Streams

N Balasubramanian[1]

[1]Assistant Professor, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Compression technique is important in reconfigurable system design. Since it reduces the bitstream size and the memory requirement. Thus it reconfiguration time decreased. Existing research in this field as decode-aware compression technique to improve both compression and decompression efficiencies. But Compression ratio is compromised. This paper propose an overcome of exiting system's compression ratio, efficiently. The three major contributions of this paper are: 1) smart placement of compressed bit streams that can significantly decrease the overhead of decompression engine; 2) selection of profitable parameters for bit stream compression; and 3) efficient combination of bitmask-based compression and Golomb compression of repetitive patterns. Our proposed technique outperforms the existing compression approaches by 10%, while our decompression hardware for variable-length coding is capable of operating at the speed closest to the best known field-programmable gate array-based decoder for fixed-length coding.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM015	**eAID**	ICACIEM.2017.015

Analysis of Dynamic Latched Comparator with Reduced Delay and Energy for High Speed ADCs

Bhuvaneswari N[1]
[1]Assistant Professor, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Design and analysis of Low-power, area efficient and high speed analogue-to-digital converters are pushing toward the use of dynamic comparators, which is used to maximize speed and power efficiency. In the existing design, an analysis on the delay of the dynamic comparators will be presented and analytical expressions are derived. From the analytical expressions, designers can obtain an intuition about the main contributors to the comparator delay and fully explore the trade-offs in dynamic comparator design. Based on the presented analysis, a new dynamic comparator is proposed; where the circuit of a conventional double tail comparator is modified for low-power and fast operation where supply voltages down to 1.2V. Without complicating the design and by adding few transistors, the positive feedback during the regeneration is strengthened, which results in remarkably reduced delay time. This paper presents a CMOS comparator that reduces the overall propagation delay and hence provides higher speed. The design is simulated in 0.18μm CMOS Technology using Tanner EDA Tools. CMOS Comparator shows that the overall propagation delay of the comparator, TPD, is 1.4872e-9 seconds, with a 1.0 V supply voltage.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM016	**eAID**	ICACIEM.2017.016

An Optimized Algorithm for Integrating Various CBIR Methods using Multivariate Features

P Jayaprabha[1]
[1]Professor/HOD, Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper describes different feature extraction and matching techniques in designing a Content Based Image Retrieval system. Due to the enormous increase in image database sizes, as well as its vast deployment in various applications, the need for CBIR development arose. This paper outlines a description of the primitive feature extraction techniques like texture, colour and shape. Once these features are extracted and used as the basis for a similarity check between images, the various matching techniques are discussed. In CBIR, each image that is stored in the database has its features extracted and compared to the features of the query image. This is done to retrieve images in the database that are visually similar to the query image. In this paper, five types of CBIR methods such as RVPIRA, SLA, SORA, GIRA and CPRA are used for image retrieval. These classification uses different features extraction for retrieval of images such as Image colour quadratic distance for image histogram, Image Euclidian distance for image wavelet transform; image Hamming Distance and corresponding retrieval Recall and Precision parameters are calculated for each feature. For as to increase retrieval efficiency combinations of these features are used instead of using a single feature for image retrieval.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM017	**eAID**	ICACIEM.2017.017

Pre-paid Toll Processing E-Ticketing System

S Murugan[1]
[1]Assistant Professor, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Nowadays almost all highways toll plazas are manually operated, where an operator collects cash from the driver and provides a receipt. Since this procedure can be slow, we often encounter traffic jams at the toll plazas on busy highways. Automatic process of toll collection will save time, effort, and man power. In this work propose a low cost and efficient technique called Electronic Toll Collection using RFID modules that automatically collects the toll from moving vehicles when they cross the toll plaza. We also assume that an owner maintains a prepaid account, so that toll tax is deducted automatically from the driver's account at toll plaza. If the balance in the owner's account is low or if the vehicle is not equipped with an RF system, the toll gate remains close. In such a case vehicle owner will have to pay the toll tax in cash and collect the receipt. The owner receives an SMS message on his/she mobile about the details of the payment and there is no need for him to stop the vehicle. How many vehicles passing through the toll gate stored in a database. We can also find out a vehicle how many times passing through the toll gate in a day. Through this process of toll collection will save time, effort and man power.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM018	**eAID**	ICACIEM.2017.018

A Study on Organizational Citizenship Behaviour of Employees in New Generation Private Banks with Special Reference to Madurai District

V Karthiga Sengottuvel[1]
[1]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Antecedents of Organizational Citizenship Behaviour were studied in the banking sector in India. The antecedents of OCB include Altruism, Conscientiousness and Civic Virtue in the study. Causal research design was adopted and purposive sampling was used. Unit of analysis was middle level managers and employees in private banks. 50 Questionnaires were analysed from different branches to study the relationship of OCB and its impacts on new generation private banking sectors. Results indicated that Civic Virtue explained more variance towards the construct of OCB compared to Conscientiousness and Altruism. In the current high competitive environment, where organizations are looking for those which can help them in achieving competitive advantage, OCB may help them. OCB is important for effective functioning of an organization because its ultimate goal is to make all the employees work towards achieving the organization goals rather than accomplishing their duties.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM019	**eAID**	ICACIEM.2017.019

Investigation on Hybrid Concrete Using Steel and Polypropylene Fibre

P Parthiban[1]
[1]Assistant Professor, Dept. of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This project provides a summary of "Investigation on Hybrid Concrete Using Steel and Polypropylene Fibre". The effect of hybrid fibres on the mechanical properties of concrete mixture is studied in the present investigation. Steel fibres of 1% and polypropylene fibres 0.035% were added together to form a hybrid fibre reinforced concrete. Mechanical properties such as compressive strength, split tensile strength and flexural strength were determined. Hybridization refers to combination of different types of fibres. The purpose of combining the fibres is to improve the multiple properties of concrete mixture. The behavioural efficiency of this composite material is far superior to that of plain and mono fibre reinforced concrete. The addition of fibre is helpful to improve the fracture properties of concrete. The hybrid fibres are comprehensively being used in rigid pavements, airfield pavements, flexible pavements, earthquake-resistant etc. The Hybrid fibre reinforced concrete cubes, cylinders and beams will be casted and finally test and find out the compressive strength, split tensile strength and flexural strength of concrete specimens.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM020	**eAID**	ICACIEM.2017.020

Classification of Audio Data using Rule Classifier from Decision Tree Induction using Training Samples

Aishwarya P[1], Gomathi M[2], Kiruthika S[3], Lalithambigai B[4], Jayaprabha P[5]
[1,2,3,4]III MCA, [5]Professor/HOD, Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Automatic classification of Audio Data plays major role in the fields of data mining and pattern recognition. This paper describes a rule based classification method for multi-class audio data that is Rule based Extraction for Audio Data (READ). Typically, this technique requires considerable computation cost to find rules from large datasets because of the combinatorial search problem. To achieve efficient and fast extraction of classification rules, take advantage of a frequent item set mining algorithm that can exhaustively extract non-redundant and condensed patterns from a transaction database within a reasonable time. The notable feature of this method is that the search space of classification rules can be dramatically reduced by searching for only frequent item sets constrained by "class label item". This paper improves the classification accuracy of a real audio dataset.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM021	**eAID**	ICACIEM.2017.021

An Empirical Study on Work-Life Balance among Married Working Women in Thiruchengode Taluk

M Manikandan[1]

[1]Assistant Professor, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The role of working women has changed throughout the world due to economic conditions and social demands. This has resulted in a scenario in which working women have extended family and are thus, under greater pressure to develop a career as robust as their male counterparts while sustaining active engagement in personal life. The ever-increasing work pressure is taking a toll on the working women leaving them with less time for themselves. The increasing responsibilities on the personal front with the technological blessings like advanced mobile phones, notepads, etc. that keeps work life integrated with personal life also creates stress on personal and professional fronts in this knowledge age. This affects the person's physical, emotional and social well-being. Thus, achieving work life balance is a necessity for working women to have a good quality of life. This paper is an attempt to explore the tough challenges faced by working women in maintaining a balance between their personal and professional life. The various factors affecting the work-life balance of married working women have been examined in this study. The tool used for the study is the manual on work–life balance of the industrial Society (now the Work Foundation) by Daniels and that work is the cause of health problems, specifically stress Mc Carraher. Data were subjected to descriptive statistics and it was found that the problems faced by the working women of productivity and effectiveness of workers. This paper focuses thiruchengode in terms of work-life balance are quite high. The results also indicate that the work-life balance of individuals affect their quality of life.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM022	**eAID**	ICACIEM.2017.022

Mechanical Properties of High Performance Fibre Reinforced Concrete

R Sri Ranjani[1]

[1]Assistant Professor, Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This project provides a summary of "Mechanical Properties of High Performance Fibre Reinforced Concrete" using fibre material. Concrete is a mixture of Cement, Fine aggregate, Coarse aggregate and Water. Fibre reinforced concrete is concrete containing Fibre material which increases its structural integrity. It contains sort discrete fibres that are uniformly distributes and randomly oriented. Fibre includes steel fibre glassy fibres, synthetic fibres and natural fibres. Within these different fibres that character of fibre reinforced concrete changes with varying concretes, fibres materials, geometries, distribution ,orientation and densities .Fibres of various origins are in increasing demand as they improve the tensile resistance and ductile of plain concrete and it's reducing cracking it leads to improved durability of reinforced concrete structures. In the present investigation a mechanical properties has been carried out a determine the compressive strength of concrete cubes made using fibres. High performance M60 was designed using Portland cement locally available fine and coarse aggregate. The hooked end steel fibres are used. Using volume fraction 0%, 0.25%, 0.50%, 0.75%, 1.0%, 1.25%, 1.50% and silica fumes. The fibre reinforced concrete cube will be casted and finally testing the cube and find out the compressive strength of cubes.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM023	**eAID**	ICACIEM.2017.023

Design and Performance Analysis of Biofuel Preheating Device for Two Stroke Diesel Engine by Using Finite Element Method

S Balamurali[1]

[1]Associate Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *With the alarming increase in vehicular population, there is depletion of fossil fuel availability. Hence to overcome the difficulties, alternative fuels are tested and used in parts of the world. One of the difficulties with usage of alternate fuels is their high viscosity in comparison to fossil fuels. To overcome this, preheating of biofuel is a good option as it makes the fuel less viscous. In our research, we have used a helical coil heat exchanger to preheat the inlet fuel using the engine's exhaust gas, making the system more sustainable since no external energy is used. In order to evaluate the effectiveness of preheating device a simulation study has been carried for the methanol based biofuels. For simulation work, a set of boundary conditions has been arrived based on the experimental analysis. The results from the experiment such as velocity of air and fuel inlet were utilized as input for simulation work. The simulation study was carried out using fluent solver, to compare the effectiveness of proposed preheating device for the biofuel blends (B20 and B30). The simulations results are obtained for various temperature and pressure profiles for air outlet, fuel outlet & outer wall of preheating device. These were analysed and a comparative study between ethanol blends. The result shows that the temperature profile of E30 is slightly higher than E20, this is solely due to viscosity of E20 being higher than E30. With the preheating device the fuel's viscosity reduces which helps in better fuel flow and improved atomization. Also the preheating of ethanol leads to improve vaporization characteristic and hence the improved combustion can be accomplished. Hence preheating is a viable solution for in biofuels. The focus of the research is to validate the effectiveness of preheating device.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM024	**eAID**	ICACIEM.2017.024

Toll Gate Alarming Mechanism for Weapon Detection

Bhuvaneshwari N[1], Hindhuja M[2], Kanmani N[3], Revathi P[4], Uthra B[5]

[1]Assistant Professor, [2,3,4,5]UG Scholars, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *National highway road security is challenging with increase of terrorist attacks across the world. The shipment of payload materials and illegal weapons in containers and even transport cars is a significant component to deliberate in modern days. This paper focused on three stage toll gate security system to automate the security level at targeted toll gates on road highways. Detecting sensor mechanism is proposed at stage 1 to scan the hidden objects. Detecting sensor is applied to improve the scan process. Capacitive stretch sensor technology is proposed to weigh the moving vehicle. The capacitive sensitivity is increased with three electrode layers. Radio frequency technology is proposed for toll management system. Global System for mobile communication is implanted for communicate with toll amount information, Overload state of the vehicle, weapons and explosive information to the pre-defined destination locations. The proposed methodology is reliable to safeguard the human life and to alert the security agencies from the terrorist movements in road highways.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM025	**eAID**	ICACIEM.2017.025

Study on Reinforced Concrete Flexural Beams with Precast Laminates

M Soundar Rajan[1], D Jegatheeswaran[1], S Balaji[3]
[1]Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Department of Civil Engineering, K.S.Rangasamy College of Technology, Tamilnadu, India
[3]Department of Civil Engineering, Kongu Engineering College, Tamilnadu, India

Abstract: *Slurry infiltrated fibrous concrete extremely better-quality version of conventional fibre reinforced concrete, is a distinctive construction material having exclusive properties in the areas of both strength and ductility. The investigational series will be carried out to compare the enactment of flexural RC beams with precast SIFCON laminates. A total number of 3 specimens of size 100mm x 150mm x 1700mm corresponding to two test series will be cast and tested. The concrete mix for RC beams has been designed to obtain a concrete grade of M30. The steel fibres used in the study were round crimpled fibres having 0.5mm diameter and aspect ratio of 0.6. Fibre volume fraction was 9%.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM026	**eAID**	ICACIEM.2017.026

Smart Tollgate and Vehicle Tracking System with RFID

Rajkumar T[1], Chandra Prakash R[2], Kotesha G V[3], Nallathambi B[4], Naveen U[5]
[1]Assistant Professor, [2,3,4,5]UG Scholars, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Automation of Toll Gate and Vehicle Tracking System is designed to automatically keep track of the vehicle's movement, record the time and the details like Owner's name, contact details, vehicle registration number, vehicle model etc. A computerized system automatically identifies an approaching vehicle and records the vehicle details. RFID-based automation of Toll gate and vehicle tracking system is designed to automatically process the toll gate system without any manual power. This system is very useful for automatic bomb detection, vehicle monitoring, time management and also for automation of payment system. In this paper, we propose an automatic system of toll gate for monitoring and controlling the entry of vehicle. This RFID-based system automatically records time and the details of vehicle's entry time, owner's name, mobile number and vehicle model etc. A passive RFID tag is used to have information about the vehicle registration number etc. And also read by RFID reader which is located at computerized system. An IR communication is proposed to count the number of vehicles which enters the toll gate. In this system, a computerized system automatically checks the details like vehicle owner's name, vehicle registration number and mobile number etc. If the vehicle belongs to the authorized person/group it automatically opens the Toll gate. A proximity sensor is used to detect the presence of weapons in the vehicle without any physical contact with the object. A pre-determined amount will be automatically deducted from vehicle owner's account and it will be shortly intimated to the user by short message service. This automation of Toll gate and vehicle tracking system is proposed to increase the traffic control in a very efficient and effective manner.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM027	**eAID**	ICACIEM.2017.027

Securing Voice by Sip with Offset Codebook

M Jayaprakash[1], M Manikandan[2]
[1,2]ASP/MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Session Initiation Protocol (SIP) has become in recent years a common choice regarding voice communication services because it is a cost effective solution and offers multiple features. Unfortunately, security is not one of them by default. In general, SIP-based solutions implemented in companies or as services on the internet do not offer any kind of privacy or confidentiality. Most companies that use SIP systems rely on the protection offered by a firewall between the LAN and the WAN. Some probably view this as a good compromise. However, when taking into account the fact that a good percentage of the attacks on IT systems come from inside the LAN, it becomes obvious that just the firewall is not enough and in this case not only the IT services are affected, but so do the voice communications system. Because SIP is a text-based protocol similar to HTTP, an attacker can find out not only information like the IP addresses of the phones and of the SIP system but also when, with whom, how long and what someone has talked on the phone.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM028	**eAID**	ICACIEM.2017.028

High Performance Optimal PID Controller

K Pooranapriya[1], M Karthikeyan[2]
[1]PhD scholar, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Principal, Tamilnadu College of Engineering, India

Abstract: *The control systems cannot be represented by certain analytical expression typically, so they need to use filters to approximate realization. A digital realization algorithm of fractional order system, the optimal Oustaloup digital realization algorithm is proposed. Optimal algorithm is used to find the optimal parameters of filter and achieve high fitting accuracy of fractional order systems in the frequency bands. In the process of Fast mode vehicle, attitude control model is a complex object of fast time-varying parameters of a wide uncertain range. This paper design Optimal PID controller to increase the complexity of the controller designed using modern control methods. Optimal PID controller inherits the advantages of the traditional PID controller and has stronger robustness and better control quality. In this paper Optimal PID controller is achieved by optimal Oustaloup digital algorithm and based on time-varying nonlinear model of high speed vehicle. Use D -decomposition to analyse the affect to Mach number and angle of attack stability region caused by the order of Optimal PID. Simulation results show that Optimal PID parameters, the stability of high speed vehicle can be achieved within a wide range.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM029	**eAID**	ICACIEM.2017.029

Experimental Study on Corrosion Prevention with Rebar's Along with Fibre in R.C Slabs

E Shankar Sengottaiyan[1]
[1]Assistant Professor, Department of Civil Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *All materials used for constructions and building made of structural elements are subjected to physical wear during use. Corrosion is a economical based problem. Corrosion causes damages in material and leads to destruction of structures ultimately affect the environment. Corrosion is a chemical or electrochemical thing which can attack any metal through reaction by the surrounding environment and the importance of corrosion studies is two folds. The project is aimed at preventing corrosion that is minimising the rate of corrosion using polypropylene fibre and epoxy coating.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM030	**eAID**	ICACIEM.2017.030

Optimizing the Tools and Examine the Defects of Al 6061 Alloy Using Friction Stir Welding

V Rajesh[1]
[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Friction Stir welding is a strong state joining and moderately another welding procedure that has a noteworthy points of interest contrasted with the combination welding procedure, For example, joining customarily non combination weld capable compound, being a strong state joining process it produces weld with lessened contortion and enhanced mechanical properties. The use of aluminium combination are broadly utilized as a part of various modern application, for example, send building, and car ventures because of their light weight great mechanical quality and high consumption resistance. The primary point of the venture is to enhance the device profile among the four tool profile in friction stir welding which increment the yield quality and hardness. In this venture, the principle parameters considered are warmth contribution from the device shoulder and apparatus stick. The temperature circulation investigation is done utilizing the math device programming. the four work piece are welded with the four diverse apparatus stick profile at the speed and bolster rate of 1200rpm and 1.25 mm/sec. in the wake of welding the work piece, hardness and malleable test are performed to check the quality of the work piece. Scanning electron magnifying lens is utilized to check whether any deformities and porosity in the work piece in the wake of welding.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM031	**eAID**	ICACIEM.2017.031

Work Safety Analysis in Soda Recovery Plant

K Sundaram[1]
[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Work Safety Analysis is also known as working Hazard Analysis, and work safety analysis is an efficient of measure for an safety risk assessment. It is also used in industrial manufacturing settings. In the manufacturing settings for an WSA was developed, and at soda recovery sites the physical environment is constantly changing the workers are moves through the site in the course of their work. They are often endangered by an activities are performed by other teams. The ability to predict an fluctuating of an safety risk levels are mainly used to support safety conscious of an planning and also pulling of an safety management efforts to the places and times are most effective. Work Safety Analysis is also used to identify and assess the hazards in the plant and to eliminate or control them by personal protective equipment's and engineering control measures.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM032	**eAID**	ICACIEM.2017.032

Performance Investigation of Nuts and Grain Dryer by Using Forced Convection Mode

M Muthuraj[1]
[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *At the present days the nuts, grains and various agriculture products are dried by natural method with the help of sunlight. It proceeds more time to remove the moisture content present in the nut. This manner is not appropriate to dry the nut during the period of rainy season and also drying area, time requirement and labour requirement are more to dry the nuts. So, I have trying to resolve this difficult by doing my project as "DUAL SOURCE DRYER". In India 70 per cent of the grain is sundried. This leads to better dependence on the atmosphere and loss of grain if improperly dried. The drying of grain by the conventional method cannot succeed the desired moisture level as per the user's requirement. The use of grain dryers will not only reduce the environmental dependence of the drying process but will also provide customizable moisture content in the grain according to user's demands. The storage of the grain requires is to be below at a particular moisture level else it would lead to the enlargement of moulds which will damage the grain.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM033	**eAID**	ICACIEM.2017.033

Effect of Copper on the Microstructure and Mechanical Properties of Al-Si7-Mg Alloy via Powder Metallurgy

G Sathiaraj[1]
[1]Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This work had been carried out to analyse the consequence on copper on the microstructure along with mechanical properties of A356 alloy. This metal matrix composite had been investigated by powder metallurgy. This generally involves three foremost stages: blending of the metal and ceramic powders, pressing or cold compaction, and sintering. These last two steps are often combined during hot pressing. One of the advantages of PM evaluated for casting is having better control on the microstructure, where better giving out of the reinforcement is possible in PM compacts. Particle size and the quantity of reinforcement had well-defined effect on the mechanical properties of composites. Proper addition of reinforcements to aluminium composites had a positive effect on mechanical properties, such as hardness, strength and wears resistance. The difference composition of Nano sized copper content is supplementary 1wt%, 3wt%. 6wt%. The average size of aluminium and reinforcement particle size 60µm and 80nm respectively. For Proper fabrication of the powder which was to be found in planetary ball mill. The sintering Temperature and time are in the range of 600-610°c for 90-120 min the results that exhibited at elevated sintering temperatures, lower porosity is obtained. Higher relative densities were attained at higher sintering temperature. Higher hardness was observed in samples containing finer copper particles. The addiction of the diffusion to time may be explained for sintering temperature. It could be seen that the atomic dislocation is comparative to the square basis of time. This is responsible for the atomic diffusion leading to grain coarsening. It is seen that, at superior sintering temperatures, a denser formation is formed due to elevated dispersal rates.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM034	**eAID**	ICACIEM.2017.034

A Collision Free GPS System for Plantation Analysis and Yield Evaluation in Agriculture

Pooranapriya K[1], Tharaniraj T[2], Vignesh G[3], Shyamaravind V[4], Soundarajan M[5]
[1]Professor, [2,3,4,5]UG Scholars, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Recently, GPS with their advance sensors and imaging capabilities have become an imperative part of the precision agriculture. In this work, we have described a framework which performs plantation monitoring and yield estimation using the supervised learning approach, while autonomously navigating through an inter-row path of the plantation. The proposed navigation framework assists the quad copter to follow a sequence of collision-free GPS way points and has been integrated with ROS (Robot Operating System). The trajectory planning and control module of the navigation framework employ convex programming techniques to generate minimum time trajectory between way-points and produces appropriate control inputs for the quad copter. A new 'pomegranate dataset' comprising of plantation surveillance video and annotated frames capturing the varied stages of pomegranate growth along with the navigation framework are being delivered as a part of this work.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM035	**eAID**	ICACIEM.2017.035

Improving the efficiency of System Performance using Proxy Servers for Load Distribution and Content Services

V Chanthiya[1]
[1]Assistant Professor, Dept. of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Content services such as content filtering and transcoding adapt contents to meet system requirements, display capacities, or user preferences. Data security in such a framework is an important problem and crucial for many Web applications. An approach that addresses data integrity and confidentiality in content adaptation and caching by intermediaries. It permits multiple intermediaries to simultaneously perform content services on different portions of the data. Protocol supports decentralized proxy and key management and flexible delegation of services. Experimental results show that approach is efficient and minimizes the amount of data transmitted across the network.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM036	**eAID**	ICACIEM.2017.036

Semi-Autonomous Waste Segregation Robot

Pavithran N[1], **Marimuthusamy S**[2], **Navaneethan V**[3], **Siva S**[4]
[1,2,3,4]UG Scholars, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Recycling is the process of collecting waste materials and processing it into new products. Identification of recyclable waste is the first stage of recycling. The objective of this project is to design a robot (Recyclebot) that automatically segregates recyclable and non-recyclable waste and to create awareness among people about the benefits of recycling. The Recyclebot system comprises of different modules for navigation, image acquisition, image processing and human-machine interface. It is mounted with two waste-bins on its either side to classify recyclable and non-recyclable materials and has a camera on the top. It uses image processing to analyse the object against its database and direct it towards the corresponding waste-bin using linear actuators.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM037

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.037

Real Time Process Control Using Point to Point Protocol

Saranya M[1], Gomathi P[2], Pavithra I[3], Vijaisri J M[4], Divya K[5]
[1]Assistant Professor, [2,3,4,5]UG Scholars, Dept. of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Point-to-Point Protocol protocols are responsible for managing radio communication that constitutes the main energy consumer in wireless sensor-actuator networks. The point-to-point protocol is a recently proposed protocol for process control applications in industrial automation. The goal of the point-to-point protocol is to improve energy efficiency along with addressing real-time requirements for process control applications using this model; we have successfully verified key properties of the point-to-point protocol, thereby increasing confidence in the design of the protocol.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM038

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.038

Design and Analysis in Heat Exchanger on Radiator Fin and Tube With and Without Vortex Generators

T Prakash[1]
[1]Assistant Professor, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Numerical simulation is to be carried out to study the heat transfer and fluid flow in the plate-fin and tube heat exchangers with different shaped vortex generators mounted behind the tubes. The span angles α 60° vortex generators are to be investigating in detail for the Reynolds number ranging from 400 to 3000. Numerical Simulation is to perform by a computational fluid dynamics for the heat transfer and fluid movement for the temperature distribution and limited flow structure. The comparisons of heat transfer enhancement with flat tube-fin element with and without vortex generator enhancement under different shaped vortex generators are to carry out and optimized shape for heat transfer is to be verified. The proposed heat transfer enrichment method is able to make longitudinal vortices and to improve the heat transfer performance in the wake regions. A reduction in fin area may be obtained if vortex generators embedded fins are used in place of plain fins. The proposed heat transfer enhancement technique may produce less pressure drop with high heat transfer Fluid flow and hear transfer over 3-row plate-fin and tube heat exchangers with and without a pair different shaped vortex generators are to be studied using Computational fluid dynamics. The conjugated convective heat transfers in the flow field and heat conduction in the fins will be considered. Study to be carried out for the flow and behavior of vortex generators in the wake re-circulation zone. The span angle is to be increased, the strength of the longitudinal vortex is intensified and mutually the Colburn and friction factors are to be increased. The study of arrangement of span angle is to be carried out and relative heat transfer rate is to be measured for Reynolds number 400 to 3000.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM039	**eAID**	ICACIEM.2017.039

A Study on Investors Awareness towards Stock Market Investment

Suresh Mani[1]
[1]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Investments are defined as "the trade-off of the consumption for a higher level of future consumption". Those who give up immediate possession of savings (defer current consumption) in the expectation of receiving a greater amount in future are called investors. Whenever a person is investing, he is exchanging the present cash outflow with a future cash inflow. The stock exchanges the NSEIL and OTCEI have been setup for solving the problem arising in out of the structural weakness of our market and provide more transparency in deals and nationwide network of trade.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM040	**eAID**	ICACIEM.2017.040

Application of Shunt Active Filter in Automatic Voltage Control and Power Factor Correction

K Saravanan[1]
[1]Associate Professor, Dept. of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper deals with the application of a three phase shunt active filter for power factor correction and voltage regulation by eliminating the voltage drop at the Point of Common Coupling (PCC). The active filter (AF) consists of a power electronic component based current controlled voltage source inverter (CC-VSI) with a dc bus capacitor .The control method of the AF uses two PI controllers. The dc bus voltage of the AF and the three-phase supply voltages are used as feedback signals in the PI controllers. The AF produces three phase reference supply currents. A carrier wave pulse width modulation (PWM) current controller is employed over reference and sensed supply currents to generate gating pulses. The proportional PI controllers are used to estimate the amplitudes of in-phase and quadrature components of the reference supply currents. To obtain the required power factor correction a quadrature component is made to zero and to get the better voltage regulation supply current is made to lead the supply voltage.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM041	**eAID**	ICACIEM.2017.041

An Optimized Framework for Data Mining using Grid based Mining

Gowsalya B[1], Meena M[2], Ramya T[3], Radhika M[4], Suseela M[5], Jayaprabha P[6]
[1,2,3,4,5]III MCA, [5]Professor/HOD, Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Knowledge extraction from the data warehouse using meta-learning is necessary for day to day activities. The Weka4GML framework has been designed to meet the requirements of distributed data mining. This paper, presents the Weka4GML architecture based on WSRF technology for developing meta-learning methods to deal with datasets distributed among Data Grid. This framework extends the Weka toolkit to support distributed execution of data mining methods, like meta-learning. The architecture and the behaviour of the proposed framework are described in this paper. We also detail the different steps needed to execute a meta-learning process on a Globus environment. The framework has been discussed and compared to related works.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM042	**eAID**	ICACIEM.2017.042

Are Racial Discrimination and Social Segregation a Problem?

A Sebasti Arulraj[1]
[1]Assistant Professor, Dept. of English, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Racial means connected with a particular race or with various races. Discriminate means to treat a person or particular group of people differently, especially in a worse way from the way in which one treats other people, because of their skin, colour, religion, sex etc. Segregate means to keep one group of people apart from another and treat them differently especially because of race or sex. The geographical features of a country decides the colour of the skin of human beings. People belonging to U.S.A, Russia, France, Great Britain and Australia are termed as the white people- the white race. Whereas the people of Africa, India, Srilanka and other countries whose skin is black are branded as black race people. Naturally the tendency of the white race is to look down upon the black race. Every race has its own characteristics. The people of the same race will easily mingle with others. But there will be no mutual understanding between any two races, Aryan race, Dravidian race, Mongolian race and other races are there in the world. One race discards the other race, sometimes a quarrel or fight may arise between two different races.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM043	**eAID**	ICACIEM.2017.043

New Integration System for PV/ Wind Resources for Efficient Power Generation

M Kumar[1]
[1]Professor, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper expects to build up a procedural apparatus that will encourage the substitution of fossil fuel based era with the coordination of utility scale PV/ Wind plants. It will result in techniques for evaluating suitable hybrid plant locations and an optimized plant sizing and energy storage control strategy which will allow for reliable power injection and storage that is capable of meeting the demand of a variable load. Although the separate interconnection of both wind and solar based generation has become common place, the integration of a large scale hybrid generation facility has yet to be achieved. Here, we are focusing on issues such as resource variability, energy storage and power system reliability in order to have hybrid plant supplement conventional generation. The synergistic merging of the two technologies solar and wind power is being investigated and solutions will be proposed for optimal control and reliability assessment of such hybrid plants.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM044	**eAID**	ICACIEM.2017.044

Cloud Computing used in mHealthcare Systems for Patients to preserve their Privacy

Kesavan P[1], **Prethiv B**[2], **Saravanan M**[3], **Sundresh S**[4], **Jayaprabha P**[5]
[1,2,3,4]III MCA, [5]Professor/HOD, Dept. of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Nowadays patients get consultant and treatment through online by sharing their personal health information among healthcare providers. It is very challenging to keep both the data about disease and patients' identity privacy information simultaneously. Many existing access control and anonymous authentication schemes cannot be straightforwardly exploited. To solve the problem, in this paper, a novel Authorized Accessible Privacy Model (AAPM) is established. Patients can authorize their physicians by setting an access tree supporting flexible threshold predicates. Then, based on it, by devising a new technique of attribute-based designated verifier signature, a Patient Self-controllable Multi-level Privacy-preserving cooperative Authentication scheme (PSMPA) realizing three levels of security and privacy requirement in distributed m-healthcare cloud computing system is proposed. The directly authorized physicians, the indirectly authorized physicians and the unauthorized persons in medical consultation can respectively decipher the personal health information and/or verify patients' identities by satisfying the access tree with their own attribute sets. Finally, the formal security proof and simulation results illustrate the scheme can resist various kinds of attacks and far outperforms the previous ones in terms of computational, communication and storage overhead.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM045	**eAID**	ICACIEM.2017.045

Effect of Bath Temperature on Structural and Magnetic properties of Electrodeposited Ni-Co-B Magnetic Thin Films

T Baskar[1]

[1]Professor, Department of Physics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Nano crystalline Ni-Co-B alloy thin films were deposited on the copper substrate at different temperature by electrode position method. Electro deposited Ni-Co-B thin films were subjected to the structural, mechanical and magnetic characterization analysis. The chemical composition of the coated films was analysed by EDAX. The surface and structural morphology of the coated film were analysed by using SEM and XRD. The mechanical properties of Ni-Co-B films have been studied by VHT. The magnetic properties of thin films have been analysed by VSM. The electroplated NiCoB thin films were strongly adherent to the copper substrate The SEM pictures of Ni-Co-B thin films shows that, the deposits of thin films are crack free, uniform and bright surface with fine grain size. All the electro deposited Ni-Co-B films exhibit FCC crystalline structure with crystalline size in the order of Nano scale. The VSM result of Ni-Co-B thin films shows that the Ni-Co-B thin films coated at high bath temperature have highest saturation magnetisation value with lower coactivity. Due to highest magnetisation value with low coactivity, Ni-Co-B thin films can be used for the manufacturing of MEMS and NEMS devices.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM046	**eAID**	ICACIEM.2017.046

An Investigation of Bio Gas Production by Using Food Waste

Akash K P[1], **Alakeshwaran K**[2], **Anilkumar S**[3], **Aravindhan V**[4], **Arivazhagan M**[5]

[1,2,3,4,5]UG Students, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In daily life lot of hotels as well as hostels are wasting a lot of food items, which can be utilized for better purpose. Biogas production requires anaerobic digestion. Project was to create an Organic Processing Facility to generate biogas which will be additional cost effective, eco-friendly, cut down on landfill squander, and generate a high-quality renewable fuel, and decrease carbon dioxide & methane emissions. Overall by creating a biogas reactor on site in the backyard of our hostels will be beneficial. The anaerobic absorption of food waste produces biogas, a precious energy resource anaerobic digestion is a microbial progression for production of biogas, which consist of primarily methane (CH4) & carbon dioxide (CO2). Biogas can be used as energy source and also for several purposes. But, any possible applications require data & information about the composition and amount of constituents in the biogas produced. The continuously-fed digester requires addition of sodium hydroxide (NaOH) to retain the alkalinity and pH to 7. For this reactor we have prepared our inoculums than we installed batch reactors, to which inoculum of previous cow dung slurry along with the food waste was added to develop our own inoculums.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM047	**eAID**	ICACIEM.2017.047

Effect of Thiourea on Growth, Structural, Optical and Nlo Properties of Ammonium Di Hydrogen Phosphate Crystals

B Ravi[1], B Neelakantaprasad[2], G Rajarajan[3]
[1]Department of Physics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Department of Physics, K.S.R. College of Engineering, Tiruchengode, India
[3]Department of Science and Humanities, Vidhya Mandhir Institute of Technology, Erode, India

Abstract: *1 mole % Thiourea doped Ammonium Dihydrogen Phosphate (TADP) crystals have been grown by slow evaporation technique. Vibrational frequencies of various functional groups in the crystals were derived from Fourier transform infrared (FTIR) spectroscopy. Powder X-ray diffraction studies were carried out and the lattice parameters of the grown crystals are evaluated. Their optical behaviour was examined by Ultraviolet-visible spectrum and found that the crystals are transparent in the Ultraviolet and visible region. The doped crystals are optically better and more transparent. Hence it may be very much useful for the second harmonic generation (SHG) applications.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM048	**eAID**	ICACIEM.2017.048

Chemometric Analysis of Water Quality Parameter in and Around Sipcot Perundurai of Erode District

Ganesh K[1], Karthikeyan M[2], Manikandan K[3]
[1]Department of Chemistry, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Centre for Environmental Research, Department of Chemistry, Kongu Engineering College, Perundurai, India
[3]Department of Economics, Gandhigram Rural Institute-Deemed University, Gandhigram, India

Abstract: *The seasonal variations of water quality parameters in around sipcot perundurai of Erode districts were discussed in this study, the ground water quality data for 10 physical and chemical parameters collected from Erode district were analysed using principal component analysis.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM049	**eAID**	ICACIEM.2017.049

Spectroscopic Investigation of Charge Transfer Complexes of 4-Aminoacetanilide with Series of Substituted 1, 4-Benzoquinones

C Balraja[1], R Karpagarajan[2], K Ganesh[3]
[1]Department of Chemistry, Kongu Engineering College (Autonomous), Erode, India
[2,3]Department of Chemistry, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The molecular complexes of a series of electron acceptors of 1,4-benzoquinone (BQ), 2,3,5,6-tetrachloro-1,4-benzoquinone (CHL) and 2,3-dichloro-5,6-dicyano-1,4-benzoquinone (DDQ) with 4-aminoacetanilide (ACE) have been investigated using various spectral techniques. The stoichiometry of the complexes was determined by photometric titration method and was found to be 1:1, in all the cases. The results of equilibrium and kinetic studies were performed and the final interaction products were characterized by FT-IR.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM050	**eAID**	ICACIEM.2017.050

Design and Investigation of Waste Heat Utilizer from Two Stroke Petrol Engine Exhaust

Dinesh R[1], Divakar K[2], Gopalakrishnan K[3], Gowrishankar N R[4], Gowrishankar T M[5]
[1,2,3,4,5]UG Students, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A quantity of irreversible processes in the engine boundary its capability to attain a highly balanced efficiency. The rapid expansion of gases inside the cylinder produces high temperature changes, turbulent fluid motions and large heat transfers from the fluid to the piston crown and cylinder walls. These rapid successions of events happening in the cylinder create increasing exhaust gases with pressures that exceed the atmospheric level, and they must be released while the gases are still increasing to prepare the cylinder for the following processes. By doing so, the heated gases produced from the combustion process can be simply channelled through the exhaust valve and manifold. The large amount of energy from the stream of exhausted gases could theoretically be used for waste heat energy recovery to generate power. Various methods to harness the waste heat to produce power effectively had ended up in vain. This paper recommends and outfits a thermoelectric waste heat energy recovery system for internal combustion engine automobiles, including gasoline vehicles and hybrid electric vehicles. The key is to directly change the surface heat energy from automotive waste heat to electrical energy using a thermoelectric generator (TEG), which is then regulated by a DC–DC Cuk converter to charge a battery using maximum power point tracking. Hence, the electrical power stored in the battery can be maximized. The experimental results demonstrate that the proposed system can work well under different working conditions, and is promising for automotive industry.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM051	**eAID**	ICACIEM.2017.051

Free Vibration of Homogeneous Transversely Isotropic Thermo Elastic Cylindrical Panel

M Suganya[1], S Kousalya[2], V Thivya[3], J Padmapariya[4]
[1,2,3,4]Assistant Professor, Department of Mathematics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This work analyses the wave propagation in a transversely isotropic thermo elastic solid and hollow circular cylinder of infinite length in Fluid Dynamics. The frequency equations are obtained for longitudinal and flexural modes of vibration and the numerical calculations or carried out for the material zinc and cobalt cylinders. The non-dimensional wave numbers are calculated by using the secant method and the dispersion curves are drawn and they are presented.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM052	**eAID**	ICACIEM.2017.052

Spatial Data for Image Segmentation a Modified Fuzzy C-Means Clustering with MRI Picture

R Mohan[1]
[1]Associate Professors, Dept. of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A customary way to deal with division of attractive reverberation (MR) pictures is the Fuzzy C-Means (FCM) grouping calculation. Be that as it may, the customarily standard FCM calculation is delicate to clamour. To defeat the above issue, an adjusted FCM calculation (called MS-FCM later) for MRI cerebrum picture division is displayed in this paper. The calculation is acknowledged by joining the spatial neighbourhood data into the standard FCM calculation and changing the enrolment weighting of every group. In The proposed calculation each purpose of the information set has a weight in connection to each bunch. Hence this weight grants to have a superior characterization particularly on account of clamour information. The proposed calculation is connected to both counterfeit blended picture and genuine picture. Division comes about exhibit that the displayed calculation performs more strong to clamour than the standard FCM calculation.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM053	**eAID**	ICACIEM.2017.053

Roman k-Domination in Graphs

J Padmapriya[1], S Kousalya[2], M Suganya[3], V Thivya[4]
[1,2,3,4]Assistant Professor, Department of Mathematics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *We introduce Roman dominating influence parameters by dominating each vertex exactly once. We also investigate the properties of Roman k-domination number.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM054	**eAID**	ICACIEM.2017.054

Wave Propagation in A Transversely Isotropic Thermo Elastic Solid Circular Cylinder

V Thivya[1], S Kousalya[2], M Suganya[3], J Padmapariya[4]
[1]Assistant Professors, Dept. of Mathematics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The frequency equations are obtained for longitudinal and flexural modes of vibration and the numerical calculations or carried out for the material zinc and cobalt cylinders. The non-dimensional wave numbers are calculated by using the secant method and the dispersion curves are drawn and they are presented. Dispersion curves are drawn between non dimensional frequencies versus dimensionless wave number.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM055	**eAID**	ICACIEM.2017.055

Roman Domination in Graphs

S Kousalya[1], V Thivya[2], M Suganya[3], J Padmapariya[4]
[1,2,3,4]Assistant Professor, Department of Mathematics, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *We introduce Roman dominating influence parameters by dominating each vertex exactly once.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM056	**eAID**	ICACIEM.2017.056

Prediction of Modal Characteristics of Orthotropic Curved Panel by Using Finite Element Method

Karthi M[1], Kavin L[2], Manikandan K[3], Manojkumar S[4], Mohankumar D[5]
[1,2,3,4,5]UG Scholars, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The bended boards are utilized as a part of present day basic framework, in light of the fact that the shape control of structures accomplishes the sought execution. The static and element shakiness conduct of bended boards made of cutting edge composite materials are of extraordinary significance to originators, in the journey to deliver proficient light weight structures because of their high solidness to weight and quality to weight properties. A portion of the auxiliary parts of air ship, rocket and marine structures can be romanticized as bended boards. The composite bended boards are widely utilized as a part of aviation, common, mechanical, car and other building applications. The major normal recurrence of composite bended boards very relies on upon the employ introductions, geometries, edge powers. So the investigation of element conduct of bended boards subjected to out-plane static and occasional edge loadings are critical in research and application perspective. This work exhibits a reproduction investigation of free vibration of bended boards. An examination was made amongst isotropic and orthotropic bended boards in perspective of lessening the heaviness of the isotropic bended boards. The modular qualities of isotropic (Aluminium) and orthotropic (carbon-epoxy composite) bended boards with cantilever limit condition (one end is settled and another end is free) has been broke down. The attributes of composite material fluctuates relying upon the kind of the connected material, amount, fibre introduction edge and so on. The characteristic recurrence and mode state of the boards has been gotten utilizing ANSYS. Midline eight-hub isoperimetric layered shell components (SHELL 99) are utilized in the demonstrating for depicting the bowing vibrations of these bended boards. The impact of fibre headings and stacking courses of action of covers on out-of-plane vibrations were explored. The bended board re-enactment consequences of the isotropic materials are contrasted and the orthotropic materials under cantilever plate limit conditions with different fibre point introduction and stacking grouping. It is likewise acquired that the regular frequencies change with the change of introduction edge.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM057	**eAID**	ICACIEM.2017.057

Microstructure and Mechanical Properties of Aluminium Alloy 6061 Reinforced Glass

E Poovarasan[1], M Ramesh[2], S Ranjith[3], G Santhoshkumar[4], S Sarathkumar[5]
[1,2,3,4,5]U.G Scholars, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Aluminium matrix composites (AMCs) refer to the category of luminosity heaviness elevated routine aluminium centric material systems. The reinforcement in AMCs might be in the appearance of incessant/irregular fibres, whisker or particulates, in volume fractions. Properties of AMCs be able to be tailored to the demands of different industrial applications by appropriate addition of matrix, reinforcement and processing route. This work focuses on the fabrication of aluminium alloy (6061) matrix composites (AMCs) reinforced with 5 to 14 wt% glass particulates of 70µm, 80µm, 100µm and 240µm using stir casting route. The microstructure and mechanical properties of the fabricate AMCs were analysed. The mechanical properties like rigidity and tensile strength of the unreinforced alloy and composites had been calculated. The mechanical properties like hardness and tensile strength had improved with the enlarge in weight percentage of glass particulates in the aluminium matrix.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM058	**eAID**	ICACIEM.2017.058

Analysis of Carbon-Epoxy Composite in Aircraft Application

D Suman kotekar[1]
[1]Assistant Professors, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The aerospace industry is one of the major fast growing fields and has a major contribution toward the development of a country by contributing to trade, freight and defence. The major concerns in this field are regarding the weight of the aircraft, performance and capacity. Regarding the weight of the aircraft, it has a major role in the functioning and performance of an aircraft. Starting from wood, metal, etc. there has been a continuous development in parts of an aircraft. Recent trend is that the metal has been replaced by composite materials, which are lighter in weight and have more strength and increased performance than their counterparts. Regarding the composites the have two major parts namely fibre and matrix. The proportion of this two has a major influence on the properties of the composite. The carbon epoxy composites are being used in major parts of an aircraft and their porosity level makes a major contribution to their performance. This composite is manufactured by variety of methods majorly by autoclave method. These composites are tested for their optimum porosity level as high porosity leads to the decrease in the strength of the part and hence leads to failure, which may cause damage at a large extent. Hence this project will be helpful to identify the optimum porosity level at which the part shows high strength and performance for the ideal functioning of the part.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM059	**eAID**	ICACIEM.2017.059

The Study of Software Development Process Models in Software Engineering

A Prema[1], K Praveena[2], S Saranya[3], K Valarmathi[4], T Ranganathan[5]
[1,2,3,4]Final Year Students, [5]Assistant Professor, Dept. of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Software has been a significant part of modern society for a long time. In particular, this paper is concerned with various software development process models. Software process model is a description of the sequence of activities carried out in a software engineering project, and the relative order of these activities. It represents some of the development models namely, waterfall, v-shaped, incremental, RAD, iterative spiral and agile model. Therefore, the main objective of this paper is to represent different models of software development and different aspects of each model to help the developers to select specific model at specific situation depending on customer demand.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM060	**eAID**	ICACIEM.2017.060

The Importance of Testing throughout the Software Development Life Cycle in Various Projects

T Ranganathan[1]
[1]Assistant Professors, Dept. of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Software testing is an incredibly complex and imperative element of any software development lifecycle. This paper discusses it in broad-spectrum without taking any particular model of software development into consideration. The matter of the fact is that testing should start as early as possible in the developmental cycle as possible to keep the time and monetary issues under control. It is to tackle these issues that testing is to be performed at every step of the software development life-cycle and that is what has been thoroughly discussed in this paper and a framework is presented to provide an initial road-map for this very matter. A series of steps have been presented which take us through the whole classical software development life cycle meticulously and the tests possible at each step have been acknowledged as well.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM061	**eAID**	ICACIEM.2017.061

Design and Analysis of A Single Boiler Heat Exchanger for an Espresso Coffee Machine

Nandha Kumar P[1], Nehru P K[2], Pradeep R[3], Prakash S[4], Priyadharasan M[5], Rajesh P[6]

[1,2,3,4,5,6]UG Scholars, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *An Espresso – coffee machine supplies water whose temperature must be confined within a narrow range in different operating conditions. This requires an accurate design of the components in the system level. In this paper we design a single boiler system with a heat exchanger, analyse its performance and optimize the results to be compared with the popular working model of twin boiler system. In order to save the energy utilized by the twin boiler Espresso coffee machine. The main area of concern was the boiler involved in the coffee machine and the amount of energy it utilizes and also considering the quality of the output, which is a very well brewed coffee.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM062	**eAID**	ICACIEM.2017.062

Free Vibration Analysis of Drive Shaft for Automobiles

Swaminathan R[1], Tamilselvan J[2], Thirumoorthy K[3], Venkatesh C[4], Vignesh M[5], Vigneshwaran A[6]

[1,2,3,4,5,6]UG Scholars, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Substituting composite structures for ordinary metallic structures has many favourable circumstances, as higher firmness and quality, weariness life, damping properties etc. This work manages the substitution of traditional two piece drive shaft with single piece composite drive shaft. The essential prerequisites considered here are the vibrations in the drive shaft .The outline parameters got with the target of minimizing the heaviness of composite drive shaft. The weight diminishment of the drive shaft can have a specific part in automobiles, if it can be accomplished without increment in cost and decline in quality and unwavering quality. It is conceivable to accomplish plan of composite drive shaft with less weight to build regular recurrence and diminishing bowing anxieties. The Aluminium, tungsten and vanadium are the network and fibre respectively, used in the drive shaft. In this work the vibration Analysis (modular Analysis) is completed on the MMC drive shaft to decide its regular recurrence and mode shapes. From, the outcomes it is reasoned that the mass divisions of framework and filaments affect sly affect common frequencies. Thus, in this venture work the whole drive shaft get together of a Toyota Qualis was picked and examined by supplanting it with composite materials.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM063	**eAID**	ICACIEM.2017.063

Design and Analysis of Wheel Rim with Spiral Flexures

E Sabarish Kumar[1], G Sakthivelayutham[2], M Saravanan[3], P Saravanan[4], S Sathishkumar[5], D Sathishkumar[6]

[1,2,3,4,5,6]UG Scholars, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *PC Aided building framework gives add up to framework way to deal with new item advancement. The utilization of PC in Design Analysis and advancement procedure, which is for the most part iterative in nature, decreases the dreary occupation and expands the accuracy. This extend includes one such model of wheel, which is as indicated by the determination given by the Japanese Industrial Standards. The wheel edge has been broke down for two conditions. Bowing continuance test, Radial perseverance test, In Radial continuance test, taking after three conditions have been dissected. The venture is gone for making the model of the wheel edge utilizing PRO-E Software. The wheel edge which is subjected to different mechanical powers, encounters straight static anxiety and these anxiety appropriations PLOTS are gotten by the utilization of a more adaptable bundle ANSYS, a Finite component bundle.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM064	**eAID**	ICACIEM.2017.064

Three Input Converters for Hybrid Wind/Solar System

P Manikandan[1]

[1]Associate Professor, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Hybrid power system is a recent growing technology in the renewable energy sources which has potential to provide high quality of power with maximum efficiency. Photovoltaic system is widely used because it is noiseless, pollution-free and less maintenance. It depends on sun irradiation level, ambient temperature, and an unpredictable shadow. Wind energy is a domestic, renewable source which converts the kinetic energy of the wind motion to mechanical energy by wind turbine. Mechanical energy is transferred to the generator through shaft and generates power. Batteries are usually taken as storage mechanisms for smoothing output power, improving start up transitions and dynamic characteristics, and enhancing the peak power capacity. Combining such energy sources introduces a PV/wind/battery hybrid power system. The converter used for this type of applications is divided into single input converters, two input converters and multiple-input converters. A three input converter are cost reduction, compactness, more expandability and greater manageability.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM065	**eAID**	ICACIEM.2017.065

The Effect of Interface Friction in Drawing AISI 304 Stainless Steel and AL1100 Materials at Constant Blank Holding Force using on Finite Element Simulation Studies

Senthil K[1], Sheik Sujavudeen M[2], Shyam Mohan[3], Silambarasan M[4], Surendar Raj L[5], Surendar D[6]

[1,2,3,4,5,6]UG Scholars, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Cups of various shapes and sizes are needed in pressure vessels and aerosol cans, in automobiles, in electronics devices and in many other industrial applications. Deep drawing, spinning, hydro forming, hydro mechanical forming are methods, among others, used for the production of shells Through there are several methods of forming these shells, hydro forming, hydro mechanical forming and forming against hydraulic counter pressure produces shells with very little thinning of the metal. Conventional deep drawing can produce good quality shells at high rate of production. In deep drawing blank holding force is needed to suppress wrinkling of the flange being drawn-in. In the recent years friction actuated blank holding technique has been developed for drawing cylindrical hemispherical and conical cups. In the present work, Finite element technique is used for simulating the deep drawing process with blank holding force on a single action press for drawing the cups. The process is carried out for AISI304 stainless steel and AL100 materials at different conditions; the effect of friction at a given blank holding force on peak drawing load of cup is presented in the report. The process of deep drawing AISI304 stainless steel and AL1100 materials is developed using finite element simulation and the peak load value shall help in choosing correct press and die sets.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM066	**eAID**	ICACIEM.2017.066

A Study on Secure Energy Efficient Cluster based Hierarchical Routing protocols for WSNs

P J Shriidhar[1], A Senthil Kumar[2]

[1]Research Scholar, Department of Computer Science, Bharathiar University, Coimbatore, India
[2]Assistant Professor, Department of Computer Science, Arignar Anna Government Arts College, Namakkal, India

Abstract: *Wireless Sensor Networks (WSNs) consist of a countable number of Sensors, which are low cost tiny devices with restricted storage, processing capability and utilization power. The security in Wireless sensor networks becomes a challenging mission due to legacy restrictions of sensors. Besides, security becomes really essential factor when sensor networks are arbitrarily deployed in a hostile environment. In this work, we focus at secure hierarchical routing protocols in wireless sensor networks which signify on selected methods that focusing on lacking of optimal secure routing, and compare them in conditions of energy efficient, security, safety issues and their solutions are also discussed.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM067

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.067

Design and Analysis of Pressure Vessel

Baranikumar E[1], Chandrasekar R[2], Deepanraj P[3], Francis Xavier L[4], Gobinath V[5]
[1,2,3,4,5]UG Students, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The significance of the title the project comes to front with designing structure of the pressure vessel for static loading and its assessment by Ansys, is basically a project concerned with design of different pressure vessel elements such as shell, Dish end, working manhole, hold up leg based on standards and codes; and progression of shell and dish end analysed by ansys. The key feature integrated in the project is to ensure the performance of pressure vessel in case of fluctuating loads. Such as selecting the material based on ASME codes, and then designing on the standards measures with referring standard manuals based on ASME. Further we have included the different manufacturing methods practice by the firm and different aspects of it. And step by step approaches to the NTD method carry out by the firm followed with standards and also integrated within the report work. This will be building a clear picture of this method among the reader. Conclusively, this modus of design based on practical standard and codes, can be employed on practical design of pressure vessel as per required by the industry or the problem statement given associated to the field of pressure vessel.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM068

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.068

Design and Fabrication of Composite Helical Spring

R Manikuamr[1], P Mounikar[2], M Muthu Selvan[3], P Nandha Kumar[4], P Naveen Kumar[5]
[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Springs that can hold abnormal state of potential vitality, have certain part in ventures. Helical spring is the most well-known component that has been utilized as a part of auto suspension framework. In this examination, steel helical spring identified with light vehicle suspension framework under the impact of a uniform stacking has been considered and limited component investigation has been contrasted and logical arrangement. Thereafter, steel spring has been supplanted by three distinctive composite helical springs including E-glass/Epoxy, Carbon/Epoxy and Kevlar/Epoxy. Spring weight, most extreme anxiety and avoidance have been contrasted and steel helical spring and components of security under the impact of connected burdens have been computed. It has been demonstrated that spring streamlining by material spring changing causes lessening of spring weight and most extreme anxiety extensively. Regardless, with changing fiber edge in respect to spring hub, composite spring properties have been explored.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM069	**eAID**	ICACIEM.2017.069

Implementation of Mechatronics System in the Inspection of Bogie Mounted Pneumatic Brake Cylinder

V Suriyan[1], B Tamizharasu[2], V Theepak[3], A Varatha Vignesh[4], K Venkatesh[5]

[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Nowadays, the trains play vital role in the transportation of lot of people. So, it has to ensure their safety by checking of their parts frequently. On those, the inspection of pneumatic brake cylinder of trains after overhauling is very essential to check the extraction and retraction of the cylinder in correct dimension and rotation of the ratchet in the cylinder. Then only, they can involve in the braking operation effectively. But, the increasing of train brake cylinder in recent days takes more time to check them manually. So, it needs to find the new way to inspect the brake cylinder. In this project, the mechatronics system which is implemented to inspect the brake cylinder is explained detail. The mechatronics system is the new way and also the effective way to inspect air brake cylinder of the trains after overhauling and reassembling them.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM070	**eAID**	ICACIEM.2017.070

Design and Simulation of Semi Hexagonal Fins for Air Cooled Engines

Gokulsurya P[1], Gopalan P[2], Gopalsamy M[3], Gopinath M[4], Kapildev S[5]

[1,2,3,4,5]UG Studennts, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *An air-cooled motorcycle engine releases heat to the atmosphere through the forced convection. To smooth the progress of this, fins are provided on the external surface of the cylinder. The heat transfer rate depends upon the velocity of the motor vehicle, fin geometry and the ambient temperature. Several investigational methods are available in literature to investigate the effect of these factors on the heat transfer rate. However, an endeavour is made to simulate the heat transfer using CFD analysis. The heat transfer surface of the engine is modelled in PRO-E and simulated in NASTRAN software. An expression of average fin surface heat transfer coefficient in terms of wind velocity is obtained. It is observed that when the ambient temperature reduces to a very low value, it results in overcooling and poor efficiency of the engine. Finally in our project we design a new semi hexagonal shape on the fins surface. By this way we can increase the number of heat dissipating areas as well as heat transfer rate. And we are all known that the rate of cooling of engine at the rear side is poor than the front side, the reason is air strike the engine at front side only, not in rear side. So rectify this problem we will introduce an arrangement for guide the air to rear side of the engine. Hence the heat transfer rate will increases to the maximum.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM071

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.071

Performance Improvement of Jet Ejector Based On CRMC Method by Using CFD

J Janarthanan[1], M Karthick[2], M Kaviyarasu[3], K Kishore[4], S Kumaresan[5]

[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Jet pumps have been widely used in many applications such as water desalination, steam turbine power generation, refrigeration systems, and chemical plants. The advantage of jet pump system lies in its extremely reliable and stable operation due to the complete absence of moving parts. The performance depends on a number of factors, However among which the flow channel configuration. To obtain this better performance at different operating conditions, area ratio of the jet pump is varied. In this study, a new diffuser based on constant rate momentum change method jet pump theory is written to analyse performance of the proposed jet pump. The model based on the axis-symmetric representation of the experimental jet pump is created using Computational fluid dynamics. The analysis includes effects of pressure and the effects of velocity in the mixing chamber and in the diffuser. The simulated performance of conventional and modified jet pumps are compared. The effects of operating parameters of constant rate momentum change jet pump and conventional jet pump on entrainment ratio are studied.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM072

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.072

Recent Trends in Generation of Mobile Communication

R Arunkumar[1], A Jeevanantham[2], S Karthi[3], V Ramprasath[4]

[1,2,3,4]Final Year Students , Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Cellular communication has brought in an unparalleled revolution in the field of communication during the past two decades. The mobile communication industry growth has surpassed growth of all other fields. Even our own country is not left behind. We are led to important conclusions by comparing the two main technologies costs and evaluating the cost parameters and variables that will lead future researchers to suggest ways to reduce the higher costs. The number of mobile subscribers in the country rose to over 911 m in Mar 2012. 3G system has been introduced in line with other countries. Talks have started about 4G / 5G. The implementation of 4G /5G will most probably be the ultimate goal in the field of communication.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM073

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.073

Design and Analysis of Pulse Jet Engine

R R Rathinakumar[1], M Prakash Raj[2], P Prabakaran[3], Muhamin[4], Majid[5]

[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A pulse jet engine is a category of jet engine in which combustion occurs in pulses. Pulsejet engines can be made with few or no moving parts, and are proficient of running statically. Pulse jet engines are a lightweight form of jet propulsion, but usually have a reduced compression ratio, and hence give a low specific impulse. One notable line of research of pulsejet engines includes the pulse detonation engine which involves repeated blowing up in the engine, and which can potentially give high solidity and good efficiency. They were invented in the early 1900's, and were cutting edge science until after WWII. Pulsejets got deserted, many feel long before they even reached their prime .They went from being the main source of power for tens of thousands of journey missiles. In we are mean a pulse jet engine and planned to analyse it for the rationale of get a high performance into it.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM074

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.074

Artificial Intelligence and Intrusion Detection Systems

D Kaviya[1], V Keerthika[2], B Kowsalya[3], T Nirmala[4]

[1,2,3,4]Final Year Students , Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Although the computer systems primary defence is its access control, computer systems access control cannot be relied to safeguard against an insider's attack. In such attacks, audit trails are the only method to detect abusive user activity. Previously, the Intrusion Detection Systems (IDS) were built by hand, so such systems faced difficulty in successfully classifying intruders because of need of processing massive volumes of audit trails. In order to overcome these processing overhead, Artificial Intelligence techniques like learning, data clustering, and searching are being used for data analysis. In this paper, we survey the uses of artificial intelligence methods in Intrusion Detection.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM075	**eAID**	ICACIEM.2017.075

Reputation System for Improving Security in VOIP

S Manivannan[1], S Matheshwaran[2], S Naveen Kumar[3], P Pandiyaraj[4]
[1,2,3,4]Final Year Students , Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Voice over Internet Protocol (VoIP) is built upon the interaction of a number of application protocols on the Internet. The open architecture of the Internet, however, makes VoIP protocols subject to more attacks. Spammers intend to create an environment of untrusted in the provided services as well as the tools used for the provision. Spam appears as a real threat that the service providers try to combat using in particular some filtering mechanisms. These filters are not always efficient as they have to make sure before discarding any message that the latter is a spam message with an extremely high confidence. In addition, these filters also need to be maintained and updated regularly. Reputation systems are mechanisms that have been used in many different areas to build trust between members of a certain community. The Session Initiation Protocol (SIP) and the Real Time Transport Protocol (RTP) are the dominant VoIP signalling protocol and media transport protocol respectively. This work proposed a novel trust and reputation based inter domain connections for improving the security of VoIP using Session Initiation Protocol (SIP). Trust management can help improving the security of VOIP.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM076	**eAID**	ICACIEM.2017.076

Analysing and Discovering Imitating Intruders in Real Time Wireless Sensor Networks

L Deepanprabu[1], P Ramya[2], P J Shriidhar[3]
[1]ME [CSE], [2]Associate Professor, [3]Assistant Professor, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The working principles of networks can easily achieved by using wireless spoofing attacks. Because of the cryptographic authentication and usual security approaches, their transparency requirements are not always desirable. In this paper, find the existence of attacks as well as find out the number of adversaries, spoofing the same sensor node identity. To detect the spoofing attacks and identifying the number of attackers, received signal strength (RSS) and a multiclass detection problem is used. Cluster-based mechanisms are constructed to determine the number of intruders. Support Vector Machines (SVM) method is used to get better the accuracy of finding the number of intruders. The positions of multiple Intruders can restrict by integrated detection method. Our tentative results and Identification results proves that our procedure can obtain over 95 per cent Hit Rate and obtain high rate of identifying multiple adversaries.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM077	**eAID**	ICACIEM.2017.077

Predictive Control for Green House Irrigation Process

S Bhoopathy[1], S Aravinthkumar[2], P Vivek[3]

[1,2,3]Final Year Students , Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *It can be the predictive control system for the greenhouse irrigation process. The important objective of control system is to maintain the desired humidity level, keeping the water usage as low as possible. The event-based control scheme uses a crop transpiration model and a water content virtual sensor to trigger the irrigation system events. In that scheme, the event-based controller determines the water level required to compensate for the irrigation system disturbances. Simulation experiments are performed to analyse the behaviour of the designed system and to study the water supply dynamics to the substrate and subsequent drainage and evaporation. The resulting control system is to adapt the actuation rate to the state of the plant providing the water consumption in efficient way. The obtained results shows that the application of proposed event-based approach for the greenhouse irrigation system allows us to improve the control performance and to reduce the water usage being an important issue in intensive agriculture. The improved control performance is obtained due to event-based approach and the inclusion of information about the plant dynamic response for water supply and transpiration effect.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM078	**eAID**	ICACIEM.2017.078

Performance Improvement of Head Protective Cap with Acquainted Spring

S Shyamsundar[1], K Sridhar[2], C Sundaram[3], S Vijay[4], R Anand[5]

[1,2,3,4,5]UG Scholars, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Cap outline and examination is critical and in addition a fundamental viewpoint if there should arise an occurrence of industry and anyplace. Plan of protective cap assumes a crucial part for its execution and security perspective. Head protector examination additionally to be another essential model in wellbeing perspective. Because of the present prerequisite and security viewpoint distinctive sorts of cap outlines are accessible with various material rules. In this venture non direct examination has been made in wellbeing protective cap plan. In this viewpoint a spring is acquainted with retain the sudden effect stack which is following up on the protective cap. Non straight examination is acquainted with demonstrate the distinctive impacts of sudden load following up on the head protector. By utilizing this outline of head protector the substantial weight fabrication issues and fluctuates perils can be maintained a strategic distance from. by fluctuating this head protector undesirable mishaps can be maintained a strategic distance from .the focal points in this cap is generally basic and plan less extensive as been accessible minimal sizes contrast with other cap this caps are more solid and monetarily &free taking care of procedure of the cap. In this venture we have considered two sorts of insurance premise of the end client. Initial one is Head insurance premise: Attractive outline and phenomenal creation .The protective caps go well past from formal testing in and are the alright with its low back moderately low profile. It was oblige expansion frill. Second one is Face assurance premise: Practical helpful answer for face and listening to generation were no caps to be required. The arrangement of the plan can be adjusted to be required; boosting security and satisfaction solace of these outlines are planned into solidworks2012 variant.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM079	**eAID**	ICACIEM.2017.079

Grid-Connected PV-Wind Power System Design

K Yogesh[1], S Santhosh[2], T Nagaraj[3]
[1,2,3]Final Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this paper, a control strategy for power flow management of a grid-connected hybrid photovoltaic (PV)–wind battery-based system with an efficient multi-input transformer coupled bidirectional dc–dc converter is presented. The proposed system aims to satisfy the load demand, manage the power flow from different sources, inject the surplus power into the grid, and charge the battery from the grid as and when required. A transformer-coupled boost half-bridge converter is used to harness power from wind, while a bidirectional buck– boost converter is used to harness power from PV along with battery charging/discharging control. A single-phase full-bridge bidirectional converter is used for feeding ac loads and interaction with the grid. The proposed converter architecture has reduced number of power conversion stages with less component count and reduced losses compared with existing grid-connected hybrid systems. This improves the efficiency and the reliability of the system. Simulation results obtained using MATLAB/Simulink show the performance of the proposed control strategy for power flow management under various modes of operation. The effectiveness of the topology of the proposed control strategy are validated through detailed experimental studies to demonstrate the capability of the system operation in different modes.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM080	**eAID**	ICACIEM.2017.080

Improving Lifetime of WSN System using Virtual Backbone Scheduling

B Balaji Prabhu[1]
[1]Associate Professor, Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A network of such nodes can coordinate among themselves for distributed sensing and processing of certain phenomena. In this project a protocol to provide a stateless solution in sensor networks for lifetime maximization is proposed. The protocol proposes a unique way to maximize the life time. Lifetime maximization is one key element in the design of sensor- network-based surveillance applications. A protocol for node sleep scheduling that guarantees a bounded-delay sensing coverage while maximizing network lifetime is proposed. The detection of rare events, where the network is normally silent, except when an event occurs is focused. Sleep scheduling ensures that coverage rotates such that each point in the environment is sensed within some finite interval of time, called the detection delay. The framework is optimized for rare event detection delay and lifetime without sacrificing coverage for each point. The goal of this system to develop a localized distributed protocol for solving the aforementioned constrained optimization problem while ensuring upper bounds on the worst-case detection delay. The resulting surveillance delay given constraints on energy consumption.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM081	**eAID**	ICACIEM.2017.081

Data Veracity Proofs in Cloud Storage Space

B Pooja Devi[1], K Meiyalakan[2]

[1]I Year ME-CSE, [2]Associate Professor, Department of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Cloud computing has been envisioned as the de-facto solution to the rising storage costs of IT Enterprises. With the high costs of data storage devices as well as the rapid rate at which data is being generated it proves costly for enterprises or individual users to frequently update their hardware. Apart from reduction in storage costs data outsourcing to the cloud also helps in reducing the maintenance. Cloud storage moves the user's data to large data centres, which are remotely located, on which user does not have any control. However, this unique feature of the cloud poses many new security challenges which need to be clearly understood and resolved. One of the important concerns that need to be addressed is to assure the customer of the integrity i.e. correctness of his data in the cloud. As the data is physically not accessible to the user the cloud should provide a way for the user to check if the integrity of his data is maintained or is compromised. In this paper we provide a scheme which gives a proof of data integrity in the cloud which the customer can employ to check the correctness of his data in the cloud. This proof can be agreed upon by both the cloud and the customer and can be incorporated in the Service level agreement (SLA). This scheme ensures that the storage at the client side is minimal which will be beneficial for thin clients.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM082	**eAID**	ICACIEM.2017.082

New Unified Multilevel Converter for Drives in Plug-in Hybrid Electric Vehicles with Adjustable Energy Conversion

P Navinkumar[1], M Velmurugan[2], K Vivek[3], C Logesh[4]

[1,2,3,4]Final Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper presents a unified multilevel converter of switched reluctance motors (SRMs) served by an aided front-end circuit for plug-in hybrid electric vehicle (PHEV) applications. Various operating modes shall be obtained by changing the on-off conditions of the switches in the front-end circuit. In generator mode, the battery bank is connected to raise the phase voltage for quick excitation and demagnetization. In battery driving mode, the converter is redesigned as a four-level converter, and the capacitor is used as an extra charge capacitor to produce multilevel voltage outputs, which improves the torque competence. The operating modes of the proposed drive are elucidated and the phase current and voltage are examined in details. The battery charging is logically attained by the demagnetization current in motoring mode and by the regenerative current in braking mode. Also, the battery shall be charged by the external power source through the proposed converter when the vehicle is in halt condition. The SRM fed PHEV can operate at variable speeds by organising the power flow between the generator and battery. Simulation in MATLAB/Simulink and analysis on a three-phase SRM confirm the usefulness of the proposed converter topology.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM083	**eAID**	ICACIEM.2017.083

Shared Cluster Decision Assembly method using sky Traffic-Flow Organization

K Meiyalakan[1], G Padmapriya[2], P J Shriidhar[3]
[1]Associate Professor, [2]Professors, [3]Assistant Professor, Department of CSE,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Initially linear dataset is formed for capable recovery of data from a massive record. Before undergoing the process of data sighting feature reduction route is implemented. This reduces the dimensionality and increases the space of data cargo space. Hence the map reduce is processed for the next step in knowledge discovering process to remove unwanted and irrelevant data from the database. The Support Vector Machine is one of the classifications technique is used. This overcome the problem of k Means disadvantage, it does not support effectively for both linear and nonlinear format of data. Map Reduce method to add privacy to a huge database can be obtained by adding dual authentication technique which ensures the privacy of the user without over heading the process. This overcomes the overlapping issue caused by the k means algorithm and it also reduces the issue of finding the distance between the record and cluster.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM084	**eAID**	ICACIEM.2017.084

Analysis of Micro-Channel Heat Exchangers

K Dinesh Kumar[1], G Gunasekaran[2], P Jaya Kumar[3], P Jeeva[4], K Karthick[5]
[1,2,3,4,5]UG scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Due to the high performance of electronics components, Heat dissipation becomes a significant issue for stable operation of components. Micro channels provide very high heat transfer coefficients because of their small diameters. In this study, two dimensional fluid flow and heat transfer in a rectangular micro channel heat sink are analysed using FLUENT as solver with water as cooling fluid. With strong literature study it is found that down to 50 μm of hydraulic diameter, macro scale model can be applicable. Three channels of height 50 μm, 100 μm and 150 μm are considered. The study is mainly focused on Nussle Number and height effects on micro channel thermal performance. The highest temperature is encountered at the heated surface of the heat sink immediately above the channel outlet.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM085	**eAID**	ICACIEM.2017.085

Design and Analysis of Propeller Shaft by using Finite Element Analysis Method

Anthony E[1], Ayyasamy S[2], Balusamy S[3], Chakkaravarthi S[4], Dhinakaran N[5]
[1,2,3,4,5]UG Students, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The innovative composite materials such as Graphite, Carbon, Kevlar and Glass with suitable resins are widely used because of their high specific strength (strength/density) and high specific modulus (modulus/density). Carbon fibres are among the most popular reinforcement additives for polymer based composites, to be used in all those applications where very excellent mechanical performances are compulsory. The technology of modern composite materials provides outstanding mechanical results to finished parts whose overall behaviour can vastly exceed many metallic alloys, even the most sophisticated. Advanced composite materials seem ideally suited for long, power driver shaft (propeller shaft) applications. Their elastic properties can be tailored to increase the torque they can carry as well as the rotational speed at which they operate. The drive shafts are used in automotive, aircraft and aerospace applications. The automotive industry is exploiting composite material technology for structural components construction in order to obtain the reduction of the weight without decrease in vehicle quality and reliability. It is known that energy conservation is one of the most important objectives in vehicle design and reduction of weight is one of the most effective measures to obtain this result. Actually, there is almost a direct proportionality between the weight of a vehicle and its fuel consumption, particularly in city driving.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM086	**eAID**	ICACIEM.2017.086

Cost-Optimized Dynamic Immigration of Content Distribution Services into Hybrid Clouds

S Malarkodi[1], M Nachiyammal[2], S Revathi[3], G Padmapriya[4]
[1,2,3]IV Year CSE, [4]Professor & Head, Department of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *With the recent advent of cloud computing technologies, a growing number of content distribution applications are contemplating a switch to cloud-based services, for better scalability and lower cost. Two key tasks are involved for such a move: to migrate the contents to cloud storage, and to distribute the web service load to cloud-based web services. The main issue is to best utilize the cloud as well as the application provider's existing private cloud, to serve volatile requests with service response time guarantee at all times, while incurring the minimum operational cost. While it may not be too difficult to design a simple heuristic, proposing one with guaranteed cost optimality over a long run of the system constitutes an intimidating challenge. we design a dynamic control algorithm to optimally place contents and dispatch requests in a hybrid cloud infrastructure spanning geo-distributed data centres, which minimizes overall operational cost over time, subject to service response time constraints. Rigorous analysis shows that the algorithm nicely bounds the response times within the present QoS target, and guarantees that the overall cost is within a small constant gap from the optimum achieved by a T-slot look ahead mechanism with known future information. We verify the performance of our dynamic algorithm with prototype-based evaluation.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM087

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.087

Failure Investigation on Armature Plate to Enhance Durability

M Vigneshwaran[1], S Vijay PraveenKumar[2], M Yuvaraj[3], G P Yuvaraj Thirumalaivasan[4], J Anantharaj[5], R Aniruttha[6]
[1,2,3,4,5,6]UG Students, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this study, a failure component of armature plate is used in picanol loom. This armature plate is used to stop auto loom suddenly. In one side of armature plate clutch is fitted and another side brake. The main focuses of the project is fracture and wear analysis, one of the fractured armature plate is retrieved to identify the cause of failure. The investigations included the visual examination, chemical analysis, hardness, micro-structural characterization, scanning electron microscopy (SEM), energy dispersive spectroscopy (EDS), and wear measurement is carried out in order to determine the cause and solution of this failure. A failure investigation has been conducted on a picanol loom consisting of a drive clutch and brake. The armature plate is made from an EN 3 material. The first visual examination and chemical analysis is very must and after hardness and micro-structural characterization is applied.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM088

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.088

Smart Drip System Using for Agriculture System

G JayaPrakash[1], M Appu Samy[3], M Sabari Nathan[4], S Sulthanbasha[5]
[1,2,3,4,5]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Agriculture is the back bone of India. To make the sustainable agriculture, this system is proposed. In this system ARM 9 processor is used to control and monitor the irrigation system. Different kinds of sensors are used. This paper presents a fully automated drip irrigation system which is controlled and monitored by using ARM9 processor.PH content and the nitrogen content of the soil are frequently monitored. For the purpose of monitoring and controlling, GSM module is implemented. The system informs user about any abnormal conditions like less moisture content and temperature rise, even concentration of CO2 via SMS through the GSM module.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM089	**eAID**	ICACIEM.2017.089

Harmonics Reduction in Stepper Motor Drive Using Fuzzy Logic Controller

B Maheshkumar[1], S Manikandan[2], B Sambath Kumar[3], R Soundarrajan[4]
[1,2,3,4]III-Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Space vector modulation (SVM) technique for CSC is established by dividing ac-side line current cycle into six sectors. Each sector is divided into certain number of space vector (SV) cycles. SV cycle is divided into three states, two active and one zero state. SVM technique generates fifth and seventh harmonics (HD5-7) in the CSC ac-side current when operated with low switching frequencies, i.e., low number of SV cycles. Minimal reduction in HD5-7 was achieved by using certain states sequence inside SV cycle, and by calculating states ON times at once in the middle of each SV cycle. In this paper, fuzzy logic-dependent technique for calculating states ON times in SVM-CSC is proposed.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM090	**eAID**	ICACIEM.2017.090

Experimental Investigation of Oxygen Enriched Air Intake on Combustion in Single Cylinder Gasoline Engine

Vignesh G[1], Vimal S N[2], Babu P[3], Balaji V[4], Dinesh P[5]
[1,2,3,4,5]UG Students, Dept. of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In the present experimental work a computerized Single cylinder Petrol engine with data acquisition system was used to study the effects of oxygen enriched air intake on combustion parameters. Increasing the oxygen content with the air leads to faster burn rates and the ability to burn more fuel at the same stoichiometry. Added oxygen in the combustion air leads to shorter ignition delays and offers more potential for burning Petrol. Oxy-fuel combustion reduces the volume of flue gases and reduces the effects of greenhouse effect also. Engine test has been carried out in the above said engine for different loads and the following combustion parameters like Ignition delay, Combustion duration, Heat release and Cylinder pressure was discussed. The research on efficiency has become essential due to depletion of petroleum products and the major contribution of inlet air for the AIR-FUEL mixture. In the present work, Oxygen gas is used as the inlet air to overcome the above problems. Of the higher compression ratio, the Oxygen will burn completely and the efficiency of the engine is to be increased. The emission of engine is also to be controlled by using the Oxygen as the inlet air. In this work experimental investigations have been carried out to the engine and the efficiency of the engine is to be compared with the inlet air of atmosphere and exhaust emissions of a single cylinder 4-stroke engine is to verified with the existing engine. For improve the efficiency of the four stroke engine, this process is carried out completely. The thermodynamic analysis of the actual four-stroke or two-stroke cycles is not a simple task. However, the analysis can be simplified significantly if air standard assumptions are utilized. The resulting cycle, which closely resembles the actual operating conditions. In fuel, the tendency for the compressed fuel mixture to ignite early is limited by the chemical composition of the fuel. There are several grades of fuel to accommodate differing performance levels of engines. The fuel is altered to change its self-ignition temperature. There are several ways to do this. As engines are designed with higher compression ratios the result is that pre-ignition is much more likely to occur since the fuel mixture is compressed to a higher temperature prior to deliberate ignition.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM091	**eAID**	ICACIEM.2017.091

A Wireless Battery Charger for Mobile Device

G Senthil Kumar[1], G S Sukanth[2], P Prem Kumar[3], V Benjamin Sam[4]
[1,2,3,4]III-Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this paper, an innovative design of a wireless battery charger for portable electronic devices is proposed. The wireless power transfer is implemented through the magnetic coupling between a power transmitter, which is connected to the grid, and a power receiver, which is integrated inside the load device. An innovative receiver architecture which heavily Improve the power conversion efficiency is presented. A laboratory prototype of the proposed wireless battery charger has been realized and tested to evaluate system performances. Over the entire range of operating conditions the receiver efficiency lies within the 96.5% to99.9% range.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM092	**eAID**	ICACIEM.2017.092

Noise Reduction and Material Inspection by using Geneva Conveyor

K Selvaraj[1], R Silambarasan[2], K Sivamani[3], M Sridharan[4], P Srinivas[5]
[1,2,3,4,5]UG Students, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In our project we are using the Geneva conveyor for material handling and noise lessening in industries. It consists of motor, rollers, belt and IR sensor. Two rollers are mount on the situate, according to the necessary remoteness. The belt is mounting on the rollers on which the materials are located. The roller shaft is coupled with the Geneva drive. The Geneva drive shaft is coupled by means of the motor shaft, hence when power is supplied to the motor the rollers turn around with a certain time stoppage according to the Geneva drive and the belt moves the length of the rollers. Thus material handling is carried out. With the help of Geneva drive, the time stoppage can be achieved which avoids the use of stepper motor thus reduces the cost concerned. The main aim of this project is to optimize the measuring distance end to end of work piece and to decrease the sound of conveyor. In general the plug gauges are used to examine the components. Instead of using manual inspection, automatic system via pneumatic comparators is used.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM093	**eAID**	ICACIEM.2017.093

Analysis of Leaf Spring Using Composite Material

C Sabarinathan[1], P P Salman Bin Ahmed[2], C Sanjeev Kumar[3], N Selvamani[4], P Shareef[5]
[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The suspension leaf spring is one of the prospective items for weight reduction in automobile as it accounts for ten to twenty per cent of the spring weight. This helps in achieving the vehicle with superior riding qualities. It is well known that springs, are calculated to absorb and store energy and then release it. In this mission design and analysis of leaf spring in weighty vehicle is carried out. The model of the leaf spring is designed using the software called pro E, and the systematic analysis of the designed model is done using ANSYS software. The model chosen is rear leaf spring. In this model leaves are been used and material is commonly for the leaf spring is spring steel. Now we are replacing the material to E glass epoxy. Then the replica is analysed for the deflection, max stress induce and strain for all the above materials under same load.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM094	**eAID**	ICACIEM.2017.094

Automobile Exhaust Based Thermo Electric Generator

M Saravanan[1], A Sasikumar[2], V Sathiyamoorthy[3], C Sathiyaseelan[4], S Sathyamoorthy[5]
[1,2,3,4,5]UG Scholar, Department of Mechanical Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Thermoelectric devices are semiconductor strategies which are endowed of generating a voltage when positioned in between a temperature gradient, exploiting the See beck effect, or producing a temperature gradient when powered by electricity, exploiting the pettier effect. The potential for thermoelectric power generation Thermo electric power generation offer a potential application in the direct conversion of waste-heat energy into electrical power where it is unnecessary to consider the cost of the thermal energy input. The application of this alternative green technology in converting waste-heat energy directly into electrical power can also improve the overall efficiencies of energy conversion systems.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM095	**eAID**	ICACIEM.2017.095

Chain Drive Power Generation in Roadways by Using Vehicles

Mohanraj A[1], Nandhakumar R[2], Ramaraj R[3], Saminathan S[4], Thamaraikumar A[5], Yogesh P[6]
[1,2,3,4,5,6]UG Scholar, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *During the past few decades, the field of power production has been witnessing tremendous development. Generally, in the field of electrical energy has been possessed wide variety of application in society. The power production capacity is not fulfilling the regular activity for our daily usage. That's why, we need to concentrate for producing electrical power based on the requirements. To investigate the feasibility of developing for producing the electrical energy with the help of friction and explore the power based on the mechanical energy. The surface of the shaft is knurled to produce the required amount of friction. The setup is placed beneath the road and the shaft is kept under the road surface. When the vehicle passes through the setup, the shaft will rotate and the friction force has been created in between shaft and tyre surface. The friction force is exerted on the shaft surface and creates a rotary motion by using shaft. Based on the rotation of the shaft, the mechanical energy will be produced and converted successfully into electrical energy by using the dynamo. The rotary motion from the shaft is transmitted through the chain drive to the generator. The electrical energy generated from dynamo and the electrical power has been stored by using battery. This research work has been focused on to create an electrical energy from roadways and fulfil the requirement of commercial application.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM096	**eAID**	ICACIEM.2017.096

Compressed Air Production Using Vehicle Suspension

Aravindh K[1], Hariharan M[2], Karthick M[3], Kasiviswanathan V[4], Manikandan P[5], Mohammed Rashith M[6]
[1,2,3,4,5,6]UG Scholar, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this project we are collecting air cylinder and store this energy to the compressor tank as non-conventional method by simply driving the vehicle. Non-conventional energy system is very essential at this time to our nation. Compressed air production using vehicle suspensor needs no fuel input power to produce the output of the air. For this project the conversion of the force energy in to air. The control mechanism carries the air cylinder (vehicle suspensor), quick exhaust valve, Non-return valve and spring arrangement. We have discussed the various applications and further extension also. The initial cost of this arrangement is high.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM097

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.097

A Security Mechanism for MANET with Efficient Certificate Revocation Mechanism

Ramya P[1], Gopalakrishnan V[2]
[1]Department of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Department of EEE, Alagappa Chettiar College of Engineering and Technology, Karaikudi, India

Abstract: *Mobile Adhoc Network contains mobile nodes which are deployed randomly in the network. These mobile nodes should cooperate each other for successful communication. But due to the frequent changes in network topology, the infrastructure for communication is not available and also presence of some malicious nodes cause attacks in the networks routing path. Hence, security is the major concern in this type of network. Certificate revocation mechanism based on Weighted Voting Game (CR-WVG) approach was introduced in which malicious nodes were identified based on the voting mechanism with respect to weights and quota of each node. However, security in routing paths was still a problem in this approach. To overcome this security issue, Certificate revocation based on weighted voting game and Secure Way Routing protocol (CR-WVG-SWR) is developed in which certificate from Certificate Authority (CA), shortest route discovered and data packets are encrypted using various encryption algorithms. Thus the performance of CR-WVG-SWR scheme is improved and compared with CR-WVG in terms of false revocation, revocation of malicious nodes, accuracy ration of revocation and normalized time to revocation.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM098

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.098

Optical Core Networks Using Multi-layer Energy Savings for Reducing Energy Consumption

A Deepa[1], Dhivya Bharathi[2], P Jeevitha[3], S Rajeswari[4], P Ramya[5]
[1,2,3,4]IV Year Students, [5]Associate Professor, Dept. of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this work we target extra savings by taking into account of additional layers in the network. We aim at reducing energy consumption to propose a multi-layer energy saving technique for optical core networks by powering off components in various layers of the network. The model proposed in this work is a heuristic that base the capacity calculation for a upcoming time slot on the number of 40G links required in the current time slot. We set the number of links to power off or power on, as well as two thresholds, low and high each time the consumption is below or above a threshold. We measure our form through experiments featuring an Internet2-like topology and a real one-day worth of traffic split into five-minute time slots. The results suggest a comparison between various parameters settings and how they influence energy savings and the number of overflows in the network that result from mis-prediction. This form decrease in energy consumption up to 90% in the best case when the upcoming traffic is known; otherwise, with the small amount of traffic overflow events the savings can range between 82% and 88%.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM099

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.099

Dynamic Routing in Wireless Sensor Networks Using Reliable Attribute Aided Data Aggregation

R Sridevi[1], P Indhumathi[2], T Dhurkka[3], R Sandhiya[4], P Ramya[5]
[1,2,3,4]IV Year Students, [5]Associate Professor, Dept. of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The vital issue in Wireless Sensor Networks (WSNs) is energy utilization. Data aggregation is a main method to conserve energy in WSN. It also minimizes the number of transmission and to save energy. Prior work based on static routing protocols which cannot dynamically forward packets according to network state or packet types. To make data aggregation more efficient packet attribute concept is introduced. Then propose the technique attribute aware data aggregation consisting of packet driven timing algorithm and a special dynamic routing protocol. A potential based dynamic routing is based on the concept of potential in physics and pheromone in ant colony which is elaborated to support an ADA strategy.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM100

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.100

Optimization Technique for Mobile Applications Using Ranking Algorithm

Vithya Balasubramani[1], G Padmapriya[2]
[1]II Year Students, [2]Professor & Head, Dept. of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Mobile applications are software developed for use on mobile devices and made available through app stores. App stores are highly competitive markets where developers need to cater to a large number of users spanning multiple countries. This work hypothesizes that there exist country differences in mobile app user behaviour and conducts one of the largest surveys to date of app users across the world, in order to identify the precise nature of those differences .And the country wise fraud detection in the mobile app is detected using ranking, rating, review of an app and the fraud in the mobile app is done by the fraudulent with the help of both farms and the main characteristics of fraud app duplication of data, gathering information without user knowledge and app ranking algorithm is used to detect Fraud in the mobile applications.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM101	**eAID**	ICACIEM.2017.101

FR-Efficient Compression of PUM Data in WAMS

S Jayaprakash[1], D Manikandan[2], S Mathan[3], S Parthipan[4], C Vijayakumar[5], S Roshini[6]
[1,2,3,4,5]III Year Students, [6]Assistant Professor, Dept. of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Widespread placement and high data sampling rate of current generation of phase measurement units (PMUs) in wide area monitoring systems result in huge amount of data to be analysed and stored, making efficient storage of such data a priority. This paper presents a generalized compression technique that utilizes the inherent correlation within PMU data by exploiting both spatial and temporal redundancies. A two stage compression algorithm is proposed using principal component analysis in the first stage and discrete cosine transform in the second. Since compression parameters need to be adjusted to compress critical disturbance information with high fidelity, an automated but simple statistical change detection technique is proposed to identify disturbance data. Extensive verifications are performed using field data, as well as simulated data to establish generality and superior performance of the method. In our project we consider an ecosystem, Ecology plays an important role in agriculture crop rotation, weed control, management of grasslands, range management forestry, biological surveys, pest control, fishery biology, and in the conservation of soil, wildlife, forest, water supplies, water bodies like rivers, lakes and ponds, Collecting related features of living things in the ecosystem and creates a database. And applying the data extraction based on the conditions. Afterward, we propose a compression algorithm, called 2P2D, which exploits the obtained group movement patterns to reduce the amount of delivered data.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM102	**eAID**	ICACIEM.2017.102

Cluster Analysis of Organizational Website using Fk-Medoids

C Gomathi[1]
[1]Professor, Department of MCA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Web Usage Mining (WUM) can be used to determine if the information architecture of a web site is structured correctly. Most of the existing WUM tools are not used to effective website visualization of the results obtained. Clustering techniques are used as the basis of many existing approaches for developing website visualization. A new clustering technique is introduced and used as the basic technique for visualization in order to evaluate the information architecture of an organization website. The performance of the proposed systems is evaluated using real data. Here, a new efficient clustering technique Fuzzy K-Medoids (FK-Medoids) has been proposed. The proposed algorithm uses Kongu Arts and Science College (KASC) and KSR College of Engineering (KSRCE) web log files for clustering after pre-processing. The results of the experiments show the efficiency of the improved algorithm and suggest that dimension of learning styles i.e. preferences to learning material, can be modelled using suitable attributes and can be detected using data mining techniques.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM103	**eAID**	ICACIEM.2017.103

Investigation on Concrete Effectively Using Glass Powder as Partial Replacement for Sand

K Ajantha[1], U Dhanashree[2], M Dhivyabharathi[3], S Swathi[4], C Elangovan[5]
[1,2,3,4]Final Year Students, [5]Professor & Head, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Natural sand is the best form of the fine aggregate used in concrete till now. But continuous sand mining results in impure water in river leading to an environment disaster. In the search for the replacement of sand, construction material waste and environmental waste materials got the focus of research people. Among these materials, waste glass can be an effective replacement for fine aggregate. This project studies the suitability of crushed glass as a possible substitute for conventional fine aggregate. Experimental investigation was carried out to evaluate the effect of fines on the properties of concrete mixture in which the fine aggregate was replaced with crushed glass in 10%, 20% and 30%. Properties like compressive strength, tensile strength and flexural strength were determined at an age of 7days and 28days.The test results indicate that when crushed glass used as fine aggregate enhances the strength properties of concrete.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM104	**eAID**	ICACIEM.2017.104

Eco Friendly Concrete Blocks Using Polymer Wastes for Medium Traffic Roads

T Deepan Kumar[1], P Dhanapal[2], K Mano[3], S Manoj Kumar[3], R Sri Ranjani[5]
[1,2,3,4]Final Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Non-degradable wastes is world tragic issue in the 21st century as more and more of these wastes are where been land filled by today without being recycled. These wastes do not have any end product or undergoes any decomposition. Because of these problems non bio degradable wastes can be used as the final products as partially replaceable material with the conventional construction materials such as concrete and mortar. By replacing the naturally available material we can provide a sustainable construction methodology in scope of using waste or recycled materials and also the potential advantage of waste materials that offer to the concrete. Utilization of waste plastics produced by the community is a partial solution to environmental and ecological problems. The paper deals with the poly amide and poly propylene wastes that can be replaced with the fine aggregate in the concrete. Studies on M40 grade of concrete under compression, flexural, splitting and water absorption was done for the paving blocks of double zig-sag which is to be used for medium traffic road ways. The concrete was being replaced with the proportions of 10%, 25% and 50% to fine aggregate with the sand of Zone four. The results of concrete using the poly amide crosses the designed strength of 40MPa by 14th day till 50% replacement of sand and concrete using poly propylene crosses the strength of 40MPa with 10% replacement with sand.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM105	**eAID**	ICACIEM.2017.105

Durability Study on Self-Curing High Performance Steel Fibre Reinforced Concrete Using Super Absorbent Polymers

Jaya Surya T[1], Rajeshwari E[2], Sabhishini K[3], Geetanjali S[4], P Parthiban[5]
[1,2,3,4]Final & Third Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *High performance concrete is used widely due to its high strength and durability. Proper curing is required to meet strength and durability requirements .improper curing affects the strength and durability. Self-curing concrete is one of the special concretes that mitigate insufficient curing due to human negligence, concreting in heights and sloped roof or thickness of concrete is high where percolation of water to interior is difficult. The present study involves the use of super-absorbent polymer in concrete which helps in self-curing and assists in attaining better hydration and strength. Here durability properties such as water absorption, porosity, resistance to sea water, resistance to acid, sorptivity is studied for self-curing concrete with and without fibres. Incorporating fibres into concrete is not only an effective way to enhance concrete tensile stress, but also fracture toughness, impact strength, durability etc. M60 grade concrete is used for study. In this investigation Self-curing concrete was made by replacement of cement by 6% of Silica fume and Super Absorbent Polymer added at various range of 0%, 0.2%, 0.3%, and 0.4% of cement along with 3 % of fibre.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM106	**eAID**	ICACIEM.2017.106

An Experimental Study of Decorative Concrete

K Gokulapriya[1], S S Rushmikka[2], S Lavanya[3], P Srinidhi[4], P Parthiban[5]
[1,2,3,4]Final Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Light-transmitting concrete is one of the Optical fibres are one which helps for transmission of light through fibre. The material can be used in a variety of architectural and interior design applications, such as walls, windows, etc. The main theme of this study is to use Plastic Optical Fibres in concrete, which is energy saving and green technology. It leads great energy savings in closed and non-ventilated spaces. This investigation aims at producing the concrete specimens by reinforcing Plastic Optical Fibres and comparing it with the conventional mortar. In this study cement mortar of grade 1:2 was used with the confirmed water cement ratio of 0.5 for casting of all the specimens of sizes 75 mm × 75 mm × 75 mm cubes. POFs were used for this study with the ratio of 4% of total volume of the concrete. The transparency of concrete specimens with plastic optical fibres was found, which clearly indicates that the transparency of light is possible in concrete which enhances the architectural view.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM107	**eAID**	ICACIEM.2017.107

Bidirectional Control of DC Motor by using PI & PWM Controller

Anitha P[1], Sharmila T[2], Hemalakshmi L[3], Indhumathi G[4]
[1,2,3,4]Third Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this paper the brushless DC shunt motor is implied for speed control as well as direction control. The DC motor can easily change the direction by changing its polarity by manually. And speed control can be achieved by various methods in dc motor. The main scope is to run the dc motor in both forward and reverse direction at the same time to control the speed of the motor for required rpm. Here the dc motor is run by using MOSFET (Metal Oxide Semiconductor Field Effect Transistor). Based on the ON/OFF condition of MOSFET the motor runs at forward or reverse direction. Using the IC PIC 16F877A, the program is written in microcontroller language to ON, OFF, motor forward and reverse conditions. Based on the input is given to the motor the driver circuit runs the motor in required direction with required speed. We can implement this project wherever the speed control (constant speed) is required. For reducing the manual operation of changing the switch to run the motor, our project reduce the manual mistakes, also avoid the short circuit if in case it will happen.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM108	**eAID**	ICACIEM.2017.108

E-Smart Vehicular Communication System Using LI -FI Technology

Murugan S[1], Sivaraman S[2], Shyam Sunder S[3], Karthik Kumar S[4]
[1]Assistant Professor, [2,3,4]UG Scholar, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper develops a smart vehicular communication system using Li Fi technology which provides protection against vehicular collisions on the roads. Li Fi (Light Fidelity) is an emerging technology which uses the visible light spectrum for communication. This project focuses on the safety on roads in which the headlights, which consists of LEOs acting as transmitter, communicate with photo sensors acting as receiver. White LEOs used in the head and tail lights can effectively be used for short range communication with the photo detectors. The application is cost effective as LEDS are cheap and simple algorithms are proposed for signal generation and transmission. The basic transceiver circuits are implemented and the results are given. Simulations of the experiment are done using Proteus 8 Professional.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM109	**eAID**	ICACIEM.2017.109

Energy Harvesting From Piezoelectric Crystals

Chandra M[1], Gayathri K S[2], Nivetha P[3], Sathya V[4]
[1,2,3,4]Third Year Students, Department of EEE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Now a day's Power demand has become a major problem which affects both the industries and home appliances. We are more struggled to generate power or we need to pay more cost to generate power from conventional as well as non-conventional energy resources. In this paper we are planned to generate power without any expensive capital cost and struggle (i.e.,) Energy Harvesting from Piezoelectric crystal The stress can be caused by hitting or twisting the material just enough to deform its crystal lattice without fracturing it, the transducer produce the electricity from our mechanical stress, here we no need to give any input other than our mechanical stress or pressure which is wasted in daily life. A crystal can able to produce an electricity of 5Volt, 10mA after every uneven mechanical pressure. After series connection or parallel connection of crystal bring us the required voltage or power. Various different capacity batteries are recharged using each device, to determine the charge time and maximum capacity battery that can be charged. The results presented in this paper show the potential of piezoelectric materials for use in power harvesting applications, provide a means of choosing the piezoelectric device to be used and estimating the amount of time required for it to recharge a specific capacity battery.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM110	**eAID**	ICACIEM.2017.110

Efficient Gas Detection in Unmanned Aerial Vehicles

Balasubramanian N[1], Nandhini S[2], Poovarasi S[3], Rohini S[4], Nandhini N[5]
[1]Assistant Professor, [2,3,4,5]UG Scholar, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *One of the most promising applications is the environmental monitoring (or risk assessment). We propose a battery-powered electronic Nose board that can be embedded with any type of drone. We evaluated the effectiveness of the sensing method by means of field experiments using the prototype as payload of a hex copter. The results show that the analysis of the target environmental parameters is not perturbed by the air flow generated by propellers. The system is suitable for any type of mobile carrier (UAVs or wheeled robots), thanks to its lightweight and compact form factor. To further extend the limited flight autonomy of the carrier, we developed an optimal monitoring algorithm for gas leakage localization, a simulating framework to evaluate its performance, and we provide a design space exploration for solar-powered drones.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM111

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.111

Experimental Study on Properties of Pervious Concrete

Kishore R[1], Nithyanandhan T[2], raja V[3], Sivachitrambalam U[4], S Manikandan[5]
[1,2,3,4]Fourth Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Pervious concrete (also called porous concrete, permeable concrete, no fines concrete and porous pavement) is a special type of concrete with a high porosity used for concrete flat applications allows water from precipitation and other sources to pass directly through, thereby reducing the run-off from a site and allowing ground water recharge. Pervious concrete is made using large aggregates with little to no fine aggregates. The concrete paste then coats the aggregates and allows water to pass through the concrete slab. Pervious concrete is traditionally used in parking areas, areas with light traffic, residential streets, pedestrian walkways, and green houses. It is an important application for sustainable construction and is one of many low impact development techniques used by builders to protect water quality. In this project we made pervious concrete in the ratios of 1:6, 1:8, and 1:10 and obtained the values of compressive strength, tensile strength, and water absorption for 7 &28 days. This result reveals that this concrete can be used as pavement in roads.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM112

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.112

Investigation on Fly Ash Brick Manufacturing by Replacing Partially Using China Clay (Ceramic Waste)

Gowtham R[1], Sathisivanesh R[2], Veera Vignesh E[3], Nandha Kumar N[4], S Arun[5]
[1,2,3,4]Fourth Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Brick a homogeneous mixture of clayey soil and water at appropriate proportions. As clayey soil when excavated from ground surface it reduces the ground water table in the nearby surroundings and also to minimize the usage of natural resources, so as an alternative for this problem was fly ash bricks made up of fly ash (30% to55%), ceramic waste (5% to 30%) and cement (40%) proves to be an replacement for conventional bricks. Fly ash, an industrial waste is available in greater extent in India. But only 45% of fly ash is being used and so fly ash serves an excellent replacement and conserves the natural integrity. The strength of the fly ash bricks are increased by 10% to20% when compared to conventional bricks. In that, fly ash bricks we are replacing the use of quarry dust by ceramic waste and brick waste powder. This report discuss about the study carried out on the replaced bricks.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM113

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.113

Experimental Study on conventional Concrete with Human Hair Fibre Reinforced Concrete

A Anandha Boopalan[1], G Manikandan[2], N Sivabalan[3], D Gowsik[4], S Satheesh[5]
[1,2,3,4]Final Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Fibre reinforced concrete can offer an opportune, practical and cheap to run method for overcome micro-cracks and a like type of deficiency. The concrete is weak in stress hence some actions must be adopted to beat this deficit. Human hair is strapping in tension; hence it can be used as a fibre reinforcement material. Hair Fibre (HF) an every second non-degradable matter is available in wealth and at a very not expensive cost. It also creates ecological problem for its decompositions. Present studies has been undertaken to study the outcome of human hair on plain cement concrete on the basis of its tensile and furious control to economize concrete and to reduce environmental problems. Experiments were conducted on concrete with various percentages of human hair fibre i.e. 0.25% by weight of concrete.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM114

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.114

Experimental Study on Solid Waste Materials in Concrete

Eswaraprabhu T[1], Kalairajapriyan G[2], Perumal K[3], Subash S[4], S Krishnakumar[5]
[1,2,3,4]Final Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Due to increase in Population and Industrialization, the amount of waste generation is increasing at an alarming rate. The demand of coarse aggregate, fine aggregate and cement used on concrete is increasing worldwide every year due to rapid infrastructural growth and urban development. Nowadays there is acute shortage of natural aggregates leading to serious scarcity problems. This thesis reports the use of combination of waste materials such as Fly ash, Boiler feed waste and Recycled coarse aggregate for replacements of Cement, Fine aggregate and coarse aggregate respectively in concrete in different proportions. The replacement percentage of waste materials in concrete has been fixed from the results of Design of Experiments.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM115	**eAID**	ICACIEM.2017.115

Investigation of SIFCON Concrete by Using Crimpled Steel Fibres

C Jayanth Kumar[1], R Balasubramanian[2], S Manikandan[3], S Santhosh Kumar[4], M Soundar Rajan[5]
[1,2,3,4,5]Final Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Slurry infiltrated fibrous concrete (SIFCON) is a recently developed construction material using steel fibres and cement matrix. The matrix consists of cement slurry and infiltration is usually accomplished by gravity flow. SIFCON is the combination of cement, fibre and water with some admixtures. SIFCON has both high strength as well as large ductility. The properties of SIFCON are achieved through an optimized combination of matrix properties, fibre content and interface characteristics between fibre and matrix. This experiment is carried out to study the compressive strength, flexural strength of SIFCON. The results are then compared with that of Conventional Concrete and Fibre Reinforced Concrete.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM116	**eAID**	ICACIEM.2017.116

Investigation of Concrete on effectively Using Lignin from Prosopis Juliflora as Partial Replacement of Sand

S Indhu Priya[1], K Kiruthika[2], R P Ranjani[3], S Suba[4], M Soundar Rajan[5]
[1,2,3]Final Year Students, [4]Third Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The construction industry relies heavily on the conventional materials such as cement, sand, and gravel for the production of concrete. Due to the growing concern of resources depletion and global pollution for this type of concrete production. The investigation is made on concrete by effectively using lignin from the barks of Prosopis juliflora tree. Lignin is a complex organic polymer obtained from the process of debarking from the Prosopis juliflora tree and the barks from trees are grinded into powder and partially replaced for the sand in the M20 grade of concrete with the percentage 10%, 20%, 30%.The cubes of size 150mmx150mmx150mm to check the compressive strength of concrete. All the specimens were cured for the period of 7 and 28 days before crushing. The results of lignin added concrete for 7days and 28days curing with lignin as partial replacement of sand were studied. The compressive strength of the cubes which are partially replaced with lignin of percentages of 10%, 20%, for the fine aggregate have 20% of increase in compressive strength while comparing to the conventional concrete.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM117	**eAID**	ICACIEM.2017.117

Estimation of Oceanic Salts Behaviour around the Concrete Structures

V Arun[1], M Mahendran[2], E Karthi[3], S Mohammed Ibramsha[4], C Senthilkumar[5]
[1,2,3,4]Fourth Year Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The development of chloride infiltration models is essential for the assessment of the service life of concrete structures uncovered to marine environment .Simple models are consequent from Fick's 2nd law of diffusion are at present the best way to guess chloride infiltration in practical situations. However these models need to be calibrating with investigational results. This paper presents an trial study where the parameters used in the infiltration model where calibrated to allow the guess of long term chloride content in concrete. The outcome showed that the concrete cover and concrete quality requirements stated in the present codes need to be increased so that an suitable service life can be achieve.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM118	**eAID**	ICACIEM.2017.118

Use of Quarry Dust to Replace Sand in Concrete - An Experimental Study

M Tamilarasan[1], R Vignesh[2], S Boopathi Raja[3], Su Saran Kumaar[4], S Prathaban[5]
[1,2,3,4]Fourth Year CSE Students, [5]Assistant Professor, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This experimental study presents the difference in the strength of concrete when replace sand by quarry dust from 0% to 100% in steps of 10%. M20 and M25 grades of concrete were taken for revise keeping a constant slump of 60mm. The compressive force of concrete cubes at the age of 7 and 28 days were obtained at room temperature. Also the temperature effect on concrete cubes at 100oC on 28th day of cast was carried out to check the loss of power. From test results it was found that the maximum compressive strength is obtained only at 50% replacement at area temperature and net strength after failure due to hike in temperature was above the recommended strength value due to 50% replacement itself. This result gives a clear picture that quarry dust can be used in concrete mixtures as a good alternate for natural river sand giving higher strength at 50% replacement.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM119	**eAID**	ICACIEM.2017.119

Study on Concrete with Human Hair Fibre Reinforced Concrete

Manikandan M[1], Manikandan S[2], Manisundar K S[3], Deepakraj G[4], Manivel A[5], Balasubramaniyam R[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The fibre reinforced concrete can offer a suitable, practical and inexpensive method for overcoming micro-cracks and similar type of deficiencies. Since concrete is weak in tension hence some actions must be adopted to overcome this shortage. Human hair is strong in worry; hence it can be used as a fibre reinforcement material. Hair Fibre (HF) an alternate non-degradable matter is available in profusion and at a very cheap cost. It also creates environmental problem for its decompositions. Present studies has been undertaken to study the effect of human hair on plain cement concrete on the basis of its compressive strength and cracking control to economize concrete and to reduce environmental problems. Experiments were conducted on concrete with various percentages of human hair fibre 0.25% by weight of concrete. For each combination of proportions of concrete are tested for their mechanical properties.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM120	**eAID**	ICACIEM.2017.120

Study on Slurry Infiltrated Fibrous Reinforced Concrete Beams

R Abu Hassain[1], K Aravinth Kumar[2], P Abdul Basith[3], V Anandraj[4], R Aneshkumar[5], M Barath[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Slurry infiltrated fibrous concrete (SIFCON) is moderately a new type high performance fibre reinforced concrete in which formwork moulds are filled to its capacity with fibres and the resulting fibre network is infiltrated by cement based slurry. Infiltration is naturally proficient by gravity flow. SIFCON possesses both high strength as well as large ductility. Because of its high tensile strength, ductility, superior impact and abrasion resistant, it has admirable potential doles in structural application like where it can be used either in the full structure. The aim of this present enquiry is to learning a new type of material, termed SIFCON.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM121	**eAID**	ICACIEM.2017.121

Behaviour of Concrete with Partial Replacement of Cement by Groundnut Shell Ash

K Dharmendhiran[1], R Dhinesh Babu[2], S Dhana Bharathi[3], M Ganesan[4], S Gokul Raj[5], S Kaviraj[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Use of groundnut shell ash as the partial replacement for cement in concrete production. 7days and 28 days compressive strength and density are calculated. The percentage replacement of OPC contrasts to the control 0% replacement about 15%. The results commonly show a decrease in density and compressive strength as the percentage replacement with GSA increases signifying less hydration with cement. Based on a general analysis of the results as well as the logical assessment to the acceptable standard, a percentage replacement of 10% is proposed for sustainable construction, especially in mass concrete construction.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM122	**eAID**	ICACIEM.2017.122

Experimental Study on Strength Characteristics of Geo Polymer Concrete Using Silica Fume

K Elango[1], S Harish Gowtham[2], G Manivel[3], S Mathanraj[4], M Mathivannan[5], S Nallasamy[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The increases in the production of Portland cement many causes greater concern because of high carbon content. This research focuses on complete elimination of Portland cement for production of concrete. Geo-polymer concrete utilizes an alternate material including fly ash as binding material in place of cement. This fly ash reacts with alkaline solution (e.g. NaOH) and Sodium silicate (Na2SiO3) to form a gel which binds the fine and coarse aggregates. fly ash as a base source material and silica fume as replacements of fly ash by 5%, 10%, 15%, 20%. Concrete cubes of 150 X 150 X 150 mm were prepared and cured under steam curing for 24 hours. Concrete cylinders of size 150 X 150 X 300mm and Concrete beams of size of 100 X100 X500 mm were also steam cured at 60°C. The silica fume was varied in proportion and results were compared with ordinary Geo-polymer concrete. And the respective strength gets achieved.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM123	**eAID**	ICACIEM.2017.123

Influence of Steel Slag on Mechanical Properties of Concrete

Jagadeswaran S[1], Jeningshon V[2], Prabhu K[3], Ramesh C[4], Manivel A[5], Sriram R[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In the current scenario, the disposal problem of industrial by-products has become an environmental issue due to the pollution caused. The fine aggregate was replaced with seven percentages (0%, 20%, 30%, 40%, 50%, 60% and 70%) and cement was replaced with 0, 10 and 15% of silica fume by weight. The compressive strength, split tensile strength, flexural strength were determined at 7, 28 days. The test results indicate significant improvement in the strength properties of plain concrete by the inclusion of steel slag and silica fume as partial replacement of fine aggregate and cement can be effectively used in structural concrete. Based on overall observations, it could be recommended that slag could be effectively utilized as fine aggregate in all the concrete applications.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM124	**eAID**	ICACIEM.2017.124

An Experimental Attempt in Concrete with Industry Sludge

Nanthakumar K[1], Pradeeprajan S[2], Pragadeesh I[3], Venkatesan S[4], Vignesh M[5], Anusuya S[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Leaving the industrial waste to the environment directly cause environmental problems. Waste can be used to produce new products or can be used as the admixtures so that natural resources are used more efficient and the environment is protected from waste deposits. Rapid Industrialization and Urbanization is causing serious environmental problems to the environment. One of the major concerns amongst these is safe and sound disposal of solid wastes. The treatment of effluents from the production of textile industries results in sludge generation from the treatment plant which poses a huge challenge for its disposal. Therefore, an attempt is made to initialize them in an effective way In this experimental investigation, an attempt has been made to investigate the behaviour of concrete and its mechanical properties with replacement of cement with textile sludge. The outcomes show there is a possibility in accommodating the sludge in concrete by solidification. This report is meant for discussion of beneficial utilization of textile industrial sludge waste with conventional building material in Construction application. From this study, the use of the textile sludge has identified for structural and non-structural applications by conducting future experimental studies.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM125

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.125

Experimental Study on the Behaviour of Retrofitting the RC beam Using GFRP and PFRP

Bargavi B[1], Barkavi Selvi B[2], Jeevitha P[3], Priya S[4], Priyanka R[5], Sathya C[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Fibre Reinforced Polymer (FRP) Composite is an alternative solution for strengthening of structure widely used in the world. Advantages given by this material is properly considered such as resistance against corrosion, no heavy additional equipment in application. It is economical to rehabilitate the structures using FRP sheets. This project deals with the study of retrofitting the RC beams using Glass fibre reinforced polymer (GFRP) and Polypropylene fibre reinforced polymer (PFRP). Seven beams of cross section 150 X 300mm and length of 1.5m were casted, one is control beam and remaining six beams were divided in to two groups, one group is strengthened at bottom and another group is strengthened at bottom and both sides of the beam (U shape). 1st one is monolithic wrapping of GFRP, 2nd is monolithic wrapping of PFRP and the 3rd is hybrid wrapping of both GFRP and PFRP. The effective use of GFRP and PFRP in strengthening of RC beams was studied by measuring the load carrying capacity, ductile behaviour and by observing failure modes. Tests results reveal that strengthened beams gives more load carrying capacity and also showed good ductile behaviour compared to control beam.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM126

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.126

Strength and Durability Characteristics of Incinerated Egg Shell Powder in Concrete

sharmila S[1], Sowmiya M[2], Roja G[3], Sumithra[4], Kirubhashini M[5], Poongodi P[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper reports the results of experiments evaluating the use of Incinerated Egg Shell Powder (IESP) from egg production industry as partial replacement for Ordinary Portland Cement in concrete. The egg shell powder was incinerated at 900^{0}C for 1 hour. The chemical composition of the IESP and the compressive strength, flexural strength and split tensile strength of concrete containing IESP was determined. The concrete used was of grade M20 and ratio of 1:1.5:3 and IESP was replaced partially by 10%, 20%, 30%, and 40% to the weight of cement. The compressive strength, flexural strength and split tensile strength was determined at curing ages 7 and 28 days. In this direction, an experimental investigation of compressive strength, split tensile strength and flexural strength was undertaken to use IESP and admixtures as partial replacement for cement in concrete.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM127	**eAID**	ICACIEM.2017.127

Teaching English through Digital World

S Johnson Karunakaran[1]
[1]Assistant Professor, Department of English, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Technology plays a vital role in teaching English. In the modern era, digitalization takes place in all the spheres of life. The technology enables our life much easier in the process of learning and teaching English. The teaching and learning experience have to be a pleasurable activity. Technology affects our life style in all the dimensions. The sole objective of teaching is to take the mankind intellectually to the finest level. The objective of this paper is the use of technology in teaching English. Several technological ways can be adopted for teaching the subjects in an interesting and effective way. In this paper, three major areas are focused in teaching English Language.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM128	**eAID**	ICACIEM.2017.128

Smart City Wireless Connectivity based on Water

Kavitha S[1], **Anees Nasrin M S**[2], **Lakshmi V**[3], **Manjula R**[4]
[1]Assistant Professor, [2,3,4]UG Scholar, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This Smart Water project is aimed at investigating the role of ICT in monitoring and efficiently managing urban water systems, in particular, exploring the deployment of sensors, communication technologies, and associated decision support systems in utility providers water networks geared toward addressing problems, such as leakage management, demand management, asset management, and so on. The European Commission under the aegis of the Framework Program (FP7) funded the Information and Communications Technology (ICT) Solutions for the Efficient Water Resources Management project. This article elaborates on the wireless connectivity considerations, proposes a total cost of ownership framework for evaluating candidate solutions, and highlights experiences from Smart Water case studies involving two utilities in Europe.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM129	**eAID**	ICACIEM.2017.129

Active Content Delivery Using Live Localization Scheme in Wireless Network

M Manikandan[1], M Jayaprakash[2]

[1,2]Associate Professor, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper proposed the efficient distribution of live and scheduled multimedia content to mobile users via a ubiquitous wireless Internet. The objective is to design and develop a dynamic content delivery system that (1) enables content owners to deliver their multimedia content to a large number of heterogeneous receivers, and (2) enables receivers to continuously receive that content, independent of their location and the network they connect to. Previous investigations into this topic have shown that multimedia content can be efficiently distributed through an overlay network that consists of multiple distributed proxy servers. In this paper, we extend this concept to the distribution of live and scheduled multimedia content through multiple aggregators. An aggregator is an intermediary content provider that aggregates live multimedia content from various content sources and delivers it to mobile users through a pool of proxy servers. The availability of the same content through multiple aggregators enables mobile users to switch from one aggregator to another, thus alternately receiving the same content from different aggregators. The service area of an aggregator may be restricted to a certain set of networks, in which case switching to such an aggregator also requires mobile hosts to handoff to a network that is part of the aggregator's service area. To support roaming users, aggregators establish application-level roaming agreements between each other. These agreements enable users to receive channels from multiple aggregators while having a subscription with only a few of them. The system transparently switches mobile hosts from one aggregator to another and executes handoffs on the mobile host's network interfaces. The system switches a mobile host to the aggregator that provides a certain channel in the best configuration, where 'best' is defined by the preferences of the end-user. Our analysis consists of two parts: (1) a heuristic analysis of the application and network-level delay components involved in a typical switch and an estimation of their best-case values, and (2) an empirical analysis of the delay introduced by SIP transactions under various 802.11 network conditions. The analysis shows that the Live Localization Scheme (LLS) usually experiences little delay, except at the very edge of an 802.11 cell. Based on our implementation and measurement work, we conclude that the LLS System is a feasible system that provides a clear contribution to the multimedia-everywhere vision.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM130	**eAID**	ICACIEM.2017.130

Shadow Elimination Using Traffic Video Surveillance

Murugan S[1], Sangeetha N [2], Sivasakthi S[3], Suguna T[4]

[1]Associate Professor, [2,3,4]UG Scholar, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Shadow detection and elimination is critical in traffic vision analysis, since shadow regions are often misclassified as object region. This leads to errors at segmentation stage and it results in poor tracking and a false classification of moving objects. This paper presents a novel shadow elimination approach that considers intensity properties through the histogram and texture features. First the segmentation of moving foregrounds is performed from background by using a background subtraction technique followed by K-means clustering. Then, we analyse the texture information and proximity in terms of similarity between a pair of segmented regions for determining shadow regions. At last step a Gaussian model is proposed to remove dynamic shadows. Experimental results validate the algorithm's performance.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM131

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.131

Amalgam Approach on Usages of Agent Technology

A Krishnakumar[1], P Praveenkumar[2], K Sathishkumar[3]
[1,2,3]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A search on Google for the keywords "intelligent agents' will return more than 330,000 hits; "multi-agent" returns almost double that amount as well as over 5,000 citations on www.citeseer.com. What is agent technology and what has led to its enormous popularity in both the academic and commercial worlds? Agent-based system technology offers a new paradigm for designing and implementing software systems. The objective of this tutorial is to provide an overview of agents, intelligent agents and multi-agent systems, covering such areas as: 1. what an agent is, its origins and what it does, 2. how intelligence is defined for and differentiates an intelligent agent from an agent, 3. how multi-agent systems coordinate agents with competing goals to achieve a meaningful result, and 4. how an agent differs from an object of a class or an expert system. Examples are presented of academic and commercial applications that employ agent technology. The potential pitfalls of agent development and agent usage are discussed.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM132

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.132

Privacy-Preserving-Outsourced Association Rule Mining on Vertically Partitioned Databases

G MoheshKumar[1], K S Kandapirabu[2]
[1]ME [CSE], [2]Associate Professor, Department of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In this paper, we employ association rule mining to preserve individual data privacy without overly compromising on the accuracy of the global data mining task. We focus on privacy-preserving mining on vertically partitioned databases. In such a scenario, data owners wish to apply the association rules or frequent item sets from a collective data set and disclose as little information about their (sensitive) raw data as possible to other data owners and third parties. Our solutions are designed for outsourced databases that allow multiple data owners to efficiently share their data securely to data miners without compromising on data privacy. Our solutions leak less information about the raw data than most existing solutions. There is a data owner who applies the rules to the files for security and uploads it into the storage, Data miners can view and download those files by sending the requests to the corresponding data owners who upload the files. There is a administrator, who controls the system as verifying the data owners.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM133	**eAID**	ICACIEM.2017.133

A Comparative Study of Teaching Competency and Organizational Citizenship Behaviour (OCB) of the Faculties Trained Through Formal System of Education and Those through Distance Education

S Jeevapria[1], P Kaviya[2], S Indhumathi[3], S Ranjani[4]
[1,2,3]Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *"A teacher affects eternity. He can never tell where his influence stops" observed Henry Adams. The study is focused on comparing the teaching competency and Organizational citizenship behaviour (OCB) of the faculties trained through formal system of education with distance education. Both the laypersons and the professional educators agree the "goodness" of the educational program me is determined to a large extent by teaching. The desirable educational outcomes are attainable only if competent faculties are there at the pivot to carry the programme in the right direction. The colleges may have excellent material resource in the form of equipment, buildings, textbooks, curriculum may be appropriately adapted to the community requirements but if the faculties are misfit or indifferent to their responsibilities the whole programme is likely to be ineffective and largely wasted.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM134	**eAID**	ICACIEM.2017.134

A Study on Effectiveness of Employees Safety and Health Measures

Surendar S[1], Subramani D[2], Manikandan P[3], Manikandan T[4], Prabakaran P[5], Prabakaran P[6]
[1,2,3,4]II Year, [5,6]I Year, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *We sought to determine the relative effectiveness of different methods of worker safety and health training aimed at improving safety knowledge and performance and reducing negative outcomes (accidents, illnesses, and injuries).Ninety-five quasi-experimental studies (n=20991) were included in the analysis. Three types of intervention methods were distinguished on the basis of learners' participation in the training process: least engaging (lecture, pamphlets, videos), moderately engaging (programmed instruction, feedback interventions), and most engaging (training in behavioural modelling, hands-on training).As training methods became more engaging (i.e., requiring trainees' active participation), workers demonstrated greater knowledge acquisition, and reductions were seen in accidents, illnesses, and injuries. All methods of training produced meaningful behavioural performance improvements. Training involving behavioural modelling, a substantial amount of practice, and dialogue is generally more effective than other methods of safety and health training. The present findings challenge the current emphasis on more passive computer-based and distance training methods within the public health workforce.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM135

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.135

Sensor Networks Considered Harmful

T Gopalakrishnan[1], C Ganesan[2], V Vengatesan[3], D Vignesh[4]
[1,2,3,4]III BE-[CSE], Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Link-level acknowledgements and hash tables, while key in theory, have not until recently been considered typical. Al-though this outcome might seem counterintuitive, it is derived from known results. In our research, we disprove the analysis of agents, which embodies the typical principles of random artificial intelligence. We concentrate our efforts on showing those operating systems [24] and the UNIVAC computer can agree to achieve this goal.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM136

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.136

Control System for People with Multiple Disabilities in Smart Homes

Suresh G[1], Jegadeeshkumar A[2], Kavipriyan S[3], Vinoth R[4], Samson A[5]
[1]Assistant professor, [2,3,4,5]UG-Scholars, Department of ECE,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Nowadays, home appliances manufacturers are increasingly relying on wireless sensor network and single chip embedded technologies to build smart environment. Many existing systems are already in the market; however, they were designed without envisioning the need of residents with special needs. This work presents a framework that enables the integration and control of devices within a smart home environment for residents with disabilities. The framework supports the integration of multiple control devices for different residents with different disabilities. Moreover, the work addresses the safety of the users by providing warnings and notifications in case of an emergency. A prototype was designed, implemented and tested.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM137	**eAID**	ICACIEM.2017.137

Socio-Political Concern in Mulk Raj Anand's Coolie

T Saranya[1]
[1]Assistant Professor, Department of English, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *India is belonging to the common wealth country. India has to face many major problems and domination. That is socio-political. Because the activities of society is upper class people treated lower class people brutal way. People one can fight with any problem in his or her life such as business loss, disease, unexpected problems etc. But he or she cannot go in harmony with a problem in this world. That is poverty which paves ways to many other problems to the individual and also for the society.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM138	**eAID**	ICACIEM.2017.138

Outsourced Parallel Search on Metric Information Resources

E Anithaa[1], **K Meiyalakan**[2], **N Manjula**[3]
[1]I-M.E-CSE, [2]Associate Professor, [3]Assistant professor, Department of CSE,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper considers a cloud computing setting in which similarity querying of metric data is outsourced to a service provider. The data is to be revealed only to trusted users, not to the service provider or anyone else. Users query the server for the most similar data objects to a query example. Outsourcing offers the data owner scalability and a low-initial investment. The need for privacy may be due to the data being sensitive (e.g., in medicine), valuable (e.g., in astronomy), or otherwise confidential. Given this setting, the paper presents techniques that transform the data prior to supplying it to the service provider for similarity queries on the transformed data. Our techniques provide interesting trade-offs between query cost and accuracy. They are then further extended to offer an intuitive privacy guarantee. Empirical studies with real data demonstrate that the techniques are capable of offering privacy while enabling efficient and accurate processing of similarity queries.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM139	**eAID**	ICACIEM.2017.139

Development of IOT Based Smart Security and Ubiquitous Controlled Agriculture System

Pooranapriya K[1], Buvanesh Kumar A[2], Karthikeyan R[3], Kathirvel S[4], Srisrinivasan K[5]
[1]Professor, [2,3,4,5]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *With new technological advancement in controlled-environment agriculture systems, the level of productivity has significantly increased. Agriculture systems are now more capable, reliable, and provide enhanced productivity. An agriculture environment can range from a single plant in a house, a backyard garden, a small farm, to a large farming facility. These agricultural automated systems will help in managing and maintain safe environment especially the agricultural areas. In this paper, we propose a smart Agriculture System (A gri Sys) that can analyse an agriculture environment and intervene to maintain its adequacy. The system deals with general agriculture challenges, such as, temperature, humidity, pH, and nutrient support. In addition, the system deals with desert-specific challenges, such as, dust, infertile sandy soil, constant wind, very low humidity, and the extreme variations in diurnal and seasonal temperatures. The system interventions are mainly intended to maintain the adequacy of the agriculture environment. For a reduced controller complexity, the adoption of fuzzy control is considered. The system implementation relies on state-of-art computer interfacing tools from National Instruments as programmed under LabVIE.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM140	**eAID**	ICACIEM.2017.140

An Advanced Secure System Using Enhanced Adaptive Acknowledge for WSNs

S Revathi[1], P J Shriidhar[2]
[1]ME Scholar, [2]Assistant professor, Department of CSE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The journey to wireless network from wired network has been a worldwide development in the past few decades. The mobility and scalability bring by wireless network made it achievable in many applications. Among all the contemporary wireless networks, Wireless sensor network is one of the most important and unique applications. On the contrary to traditional network architecture, WSN does not require a fixed network infrastructure; every single node works as both a transmitter and a receiver. Nodes communicate directly with each other when they are both within the same communication range. Otherwise, they rely on their neighbour's to relay messages. The self-configuring ability of nodes in WSN made it popular among critical mission applications like military use or emergency recovery. However, the open medium and wide distribution of nodes make WSN vulnerable to malicious attackers. In this case, it is crucial to develop efficient intrusion-detection mechanisms to protect WSN from attacks. With the improvements of the technology and cut in hardware costs, I am witnessing a current trend of expanding WSNs into industrial applications. To adjust to such trend, I strongly believe that it is vital to address its potential security issues. In this paper, we propose and implement a new intrusion-detection system named Enhanced Adaptive Acknowledgment.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM141

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.141

Data Intensive Using Mobile Relay Nodes in Wireless Sensor Networks for Energy Efficient Scheme

S Roshni[1], J Senthil Kumar[2]
[1]Research Scholar, [2]Supervisor, Anna University, Chennai, India

Abstract: *Wireless sensor networks (WSNs) are used in many data-intensive applications. Although, it faces the problem to send all the data sensed by the sensor nodes to the base station within an application's lifetime due to the limited power supplies. Several mobile nodes like data mules, robotics and mobile base station were used for minimizing power utilization. In this paper, several mobile nodes are studied and the low-priced throwaway mobile relays have been projected which reduce the energy utilization of those WSNs. This proposed work has two main aspects which differ from previous work. First, the mobile nodes are implemented in the low-priced mobile sensor platforms. Second, in the entire optimization framework, the power for both wireless transmission and mobility are reduced. The proposed Centralized Algorithm and Distributed Algorithm used in three stages, in first stage, a most favourable direction-finding tree is computed in which no nodes can move. In second stage, the topology of the routing tree is enhanced by adding new nodes. Finally, the nodes are relocated to get better the routing tree without altering the arrangement of that topology.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM142

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.142

Improving Data Reliability and Integration in Cloud Using PRCR

MohamedRafi A[1], Manikandan[2]
[1]Third Year Student, [2]Associate professor, Department of CSE,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In past a few years computer paradigm is shifted to remote data centres and the software and hardware services available on the basis of pay for use. This is called Cloud Computing, In which user have to pay for the services .Cloud provide the services – Software as a service, platform as a service and infrastructure as a service. These services provided through the remote data centres (since the data is scattered /distributed over the web.), as Software application and other services migrated on the remote data centre, management of these data centre in important. Data centre management faces the problem of storage space while storing redundant data and security problems. In this paper we are going to avoid redundant data using proactive replica checking and introducing Full homomorphism algorithm to improving security level of accessing cloud data.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM143	**eAID**	ICACIEM.2017.143

Light Fidelity (Li-Fi) - Connectionless Wireless Communication System

R Hencida[1], V Amutha[2], S Divya[3], B Mathimila[4]

[1]Third Year Students, B.E Computer Science Engineering, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Li-fi (Light Fidelity) is a method of transmitting data wirelessly using LED (light-emitting diode) technology. This technology has higher potential. It is very much possible to transmit the data via light by changing the flicker rate that gives different strings of 1 and 0, and its intensity is modulated so quickly that the human eyes cannot notice. Li-Fi has the advantage of being able to be used in sensitive areas such as in aircraft without causing interference. However, the light waves used cannot penetrate walls. In this technology the LED bulb will hold a micro-chip that will do the job of processing the data. The light intensity can be manipulated to send data by tiny changes in amplitude. This technology uses visible spectrum of light, a part of the electromagnetic spectrum that is still not greatly utilized. In fact the technology transfers thousands of streams of data simultaneously, in parallel, in higher speeds with the help of special modulation, using a unique signal processing technology. The light used to transmit the data is called D-light. Some applications of this technology are it can be used in the places where it is difficult to lay the optical fibre like hospitals. In operation theatre LiFi can be used for modern medical instruments. In traffic signals LiFi can be used which will communicate with the LED lights of the cars and accident numbers can be decreased. Thousand and millions of street lamps can be transferred to LiFi lamps to transfer data. In aircraft LiFi can be used for data transmission. It can be used in petroleum or chemical plants where other transmission or frequencies could be hazardous. And also there are four models available. Those are giga beam, giga dock, giga shower, giga mimo and giga spot. By this technology it is possible to achieve more than 10 Gbps that means theoretically, allowing a high definition film to be downloaded in 30 seconds. In future data for laptops, Smart phones, and tablets can be transmitted through the light in a room by using Li-Fi. If his technology can be put into practical use, every bulb can be used something like a Wi-Fi hotspot to transmit wireless data.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM144	**eAID**	ICACIEM.2017.144

An empirical Study on the Effect of Demonetization on Indian Stock Market with Special Reference to Nifty and Bank Nifty

Baggam Seshu Sailendra[1]

[1]Associate Professor, Department of Management Studies, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The Prime Minister Narendra Modi in his address to the nation on 8 November 2016 announced with immediate effect of Rs.500 and Rs.1000 currency notes will no more be valid after 31 December 2016, it was indeed a bold decision to cease black money and stop the circulation of fake currency notes. But it had an impact on the various other sectors such as Banking, stock market, Real estates, infrastructure etc. so this study focuses on how much impact it had on the NSE and Bank Nifty with the tools such as correlation and technical analysis. The data is collected from the secondary source which is the historical data from the NSE site. The performance of the indices is compared with other five indices of the Nifty.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM145	**eAID**	ICACIEM.2017.145

A Study on the Employee Retention with Special Reference to Aegis Limited, Chennai

V Bharath Kumar[1]
[1]Administrative officer, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Every organization invests time and money to groom a new joined, make him a corporate ready material and bring him at par with the existing employees. The organization is completely at loss when the employees leave their job once they are fully trained. So in this study it is attempted to identify the reasons for the employee to leave an organization. The researcher has used a questionnaire to gather the information from 150 respondents and the data analysis and interpretation was carried out using the tools Chi square, Rank correlation and simple percentage analysis.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM146	**eAID**	ICACIEM.2017.146

A Study on the Organizational Culture of Sakthi Sugars Ltd, Erode

Karthika K[1], **Boopathiraja P**[2], **Praveenkumar K**[3], **Ananthi M**[4], **Sarathkumar G**[5], **Sasikumar S**[6]
[1,2,3,4,5,6]First Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Matching individuals to organizations is a crucial part of success for any company. The match between people and the companies for which they work is determined by the kind of organizational culture that exists. Through this study it is attempted to understand the process of organisation culture prevailing in the organization. The researchers have used a descriptive study and tools used for analysis after the data collection with a questionnaire is chi square and weighted average methods.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM147	**eAID**	ICACIEM.2017.147

An Article on "Business Men are Made"

Prathap G[1], Iyanar P[2], Jayachandran D[3], Thirumalairajan M[4], Gopinath R[5], Jayasudharasan A[6]
[1,2,3,4,5,6]First Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *When you have a dream and it becomes a passion. Then it translates into success. The greatest Business personalities envisioned this success and put in an enormous amount of hard work to get there. This article clearly explain about creativity innovation ,skill and required motivation real – life business lessons to take a look at some of the great business personality of India, about their live and struggle about their hardships and ultimate success.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM148	**eAID**	ICACIEM.2017.148

A Study on Performance of Selected Equity Mutual Funds with Special Reference to Tata Mutual Funds

Amirtham A[1], Mythily M[2], Kumaresan M[3], Nagendran S[4], Kamalakkannan M[5], Sadhusundarsingh Y[6]
[1,2,3,4,5,6]First Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The study entitled "A Study on Performance of Selected Equity Funds with Special reference to TATA Mutual Funds" was conducted in Coimbatore. This study was undertaken to know the risk and return involved in various equity schemes with special reference to TATA mutual funds. The choice of Investment Avenue of individual investors mainly depends on annual income and the percentage of income allotted for savings. The study on performance of equity funds in mutual funds gives an idea of the investor's choice based on returns, rating of Mutual funds etc. In this study, I have comprehensively studied the risk, return and awareness about mutual fund and performance of the investor in various ways of investment avenues. The results have been derived out by the way of analysis and interpretation of the collected data using various criteria like purpose of investment, performance of various schemes and yield got out of the schemes.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM149	**eAID**	ICACIEM.2017.149

A Study on the Cash Management at Unifront Textiles, Coimbatore

Sagunthaladevi M[1], Ravi P[2], Murugan P[3], Premkumar S[4], Prakash S[5], Karthikeyan M[6]
[1,2,3,4,5,6]First Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The title of the project is "Cash Management in Unifront textiles processors (p) limited". The shareholders, creditors, managers and various other parties measure the performance the company through the cash management. This topic is relevant for a deep insight into the efficiency of the company in managing finance. It can exhibit the optimum amount of investment in the working capital.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM150	**eAID**	ICACIEM.2017.150

Water Quality Monitoring System Project Domain – Medical/Assistive Technologies

M Vetrivel[1], B Mohanraj[2], T S Pravin[3], R B Abishek[4], R Marriyappan[5]
[1,2,3,4,5]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In the developing country like India, requirement of safe and clean water is essential for good public and environmental health, but public water storage tanks are not cleaned in regular intervals. Water pollution is one of the severe problems that have a serious impact on public hygiene. The detection of impurities present in the water is of high priority to battle its effects. In this project, we propose a microcontroller based water quality monitoring system that receives input from various sensors like pH sensor, LED-LDR sensor to measure chemical and physical impurities present in public water storage tank and generates alarm to the authorities concerned when the amount of impurities in the storage tank crosses the threshold level. Advantage of this new microcontroller based water quality monitoring system is ability for continuous monitoring with options for early detection and enabling quick action responses, using inexpensive and easily available components.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM151

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.151

Molecular Modelling of Human Brain Function in Biological Technologies

Apsha S[1], Bharathi M[2], Geethanjali K A[3], Priya S[4], Srimathi K[5], Vishalatchi K[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Human brain is the most valuable creation of God. The man is intelligent because of the brain. "Blue brain" is the name of the world's first virtual brain. That means a machine can function as human brain. Today scientists are in research to create an artificial brain that can think, response, take decision, and keep anything in memory. The main aim is to upload human brain into machine. So that man can think, take decision without any effort. After the death of the body, the virtual brain will act as the man .So, even after the death of a person we will not lose the knowledge, intelligence, personalities, feelings and memories of that man that can be used for the development of the human society.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM152

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.152

Performance Evaluation and Comparison of Wireless Standards with MAC Protocols Based on Different Mobility Models

A Sindhuja[1], T Pavithra[2], T Kavitha[3], V Jayalaja[4], S Dharanivarshini[5], S Mahalakshmi[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Wireless systems continue to rapidly gain popularity. This fact is extremely true for data networks in the local and personal areas. Media Access Control (MAC) layer protocols have a critical role in making a typical Mobile ad hoc network and Personal ad hoc network more reliable and efficient. Choice of MAC layer protocol and other factors including number of nodes, mobility, traffic rate and playground size dictates the performance of a particular WLAN and WPAN. The aim of this paper is to analysis the performance of mobility models in IEEE802.11 MAC and IEEE 802.15.4 ZigBee MAC using NS2.34.These mobility models are RPGM, RWM, Freeway mobility and city section mobility model. Then extraction of the simulation results based on the performance metrics to calculate a Packet Delivery Ratio, data loss, end-to-end delay and Throughput.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM153	**eAID**	ICACIEM.2017.153

A Smart Control System based on Context and Human Speech

B Kopperundevi[1], P Suruthi[2], R Soundarya[3], K Vidhyavathi[4], S Priyanga[5], R Pushparani[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Traditionally, home appliances are controlled by switches or remote controllers manually. In order to control the appliances, a user has to be near the switches or carry remote controllers all the time. To alleviate this inconvenience, this paper proposes a control system for home appliances using human speech and context information. We present an architecture of the control system and a process to control home appliances composed of three steps: speech detection, speech recognition, and command execution. To validate our system, we show two useful case studies by testing it at POSTECH smart home and UPnP-OSGi simulator.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM154	**eAID**	ICACIEM.2017.154

Text to Audio for Visually Impaired by Braille Converter

Priyanka S[1], Ranjitha R[2], Showmya B[3], Sneka S[4], Suganthi P[5], Yasodha K[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This uses an algorithm which enables the user to convert the Text that we normally have in our day to day usage into Braille Script and thus gives impetus for the visually impaired to read that text . The Product that we will create will be very intuitive and simplistic in design that will enable the end user to feel familiar and at home with the product.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM155	**eAID**	ICACIEM.2017.155

An Ultra-Low Power Microprocessor Based Wireless ECG

Arthi P[1], Kalaivani K[2], Madhubala V[3], Punitha S[4], Nivethini G[5], Umamaheswari M[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *This paper presents the design of a fully integrated electrocardiogram (ECG) signal processor (ESP) for the prediction of ventricular arrhythmia using a unique set of ECG features and a naive Bayes classifier. Real-time and adaptive techniques for the detection and the delineation of the P-QRS-T waves were investigated to extract the fiducially points. Those techniques are robust to any variations in the ECG signal with high sensitivity and precision. Two databases of the heart signal recordings from the MIT Physic Net and the American Heart Association were used as a validation set to evaluate the performance of the processor. Based on application-specified integrated circuit (ASIC) simulation results, the overall classification accuracy was found to be 86% on the out-of-sample validation data with 3-s window size. The proposed architecture of this paper analysis the logic size, area and power consumption using Xilinx 14.2.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM156	**eAID**	ICACIEM.2017.156

Heat Transfer Enhancement Analysis of Micro Channel

Vetrichelvan G[1]
[1]Associate Professor, Department of Mechanical Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *In our research work it's considered Due to the high performance of electronics components, Heat Dissipation becomes a significant issue for stable operation of components. Micro channels provide very high heat transfer coefficients because of their small diameters. In this study, two dimensional fluid flow and heat transfer in a rectangular micro channel heat sink are analysed using FLUENT as solver with water as cooling fluid. With strong literature study it is found that down to 50 μm of hydraulic diameter, macro scale model can be applicable. Three channels of height 50 μm, 100 μm and 150 m*e *are considered. The study is mainly focused on Nussle Number and height effects on micro channel thermal performance. The highest temperature is encountered at the heated surface of the heat sink immediately above the channel outlet.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM157

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.157

Visible Light Communications for Li-Fi Technology Using PWM Signals

Divyalakshmi E[1], Pavithra B[2], Priya R[3], Priyanka S[4], Sugashini V[5], Vasuki R[6]
[1,2,3,4,5,6]UG Scholars, Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Wireless communication is the need of the hour, so there is a huge thirst for improvement of the means of communication. Motivated by the looming crisis of radio frequency (RF) spectrum, light fidelity (Li-Fi) which is a technology attached to the visible light communications (VLC) offers many key advantages and effective solutions to the problems posed in the last decade. Through this technology, data is transmitted by light thanks to the unique properties of white light emitting diode (LED) lamps switching. In this article, we created a scheme of transmission at the base of the pulse-width modulation (PWM). The information that we are going to transmit in our case is an audio signal generated by a mobile phone. We create a saw tooth signal that we compare with our audio signal in order to create a PWM signal. Then this modulated signal will be transmitted by LED in the form of a light signal that the photodiode (PD) detects and transforms it into an electrical signal. Finally, we demodulate the signal obtained by a simple first-order low-pass filter RC to receive the demodulated in the speakers and therefore the maximum frequency of the transmission is 87 KHz.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM158

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.158

A Study on Sixth Sense – Future Mini Embedded Computer

Vignesh Waran T[1], Elangovan P[2], Karthick Raj[3], Suresh S[4], Jayaprabhu S[5], Kanakaraj R[6]
[1,2,3,4,5,6]Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Sixth Sense is a wearable gestural interface device developed by Pranav Mistry, a PhD student in the Fluid Interfaces Group at the MIT Media Lab. It is similar to Tele-pointer. The Sixth Sense prototype comprises a pocket projector, a mirror and a camera contained in a pendant like, wearable device. Both the projector and the camera are connected to a mobile computing device in the user's pocket. The projector projects visual information enabling surfaces, walls and physical objects around us to be used as interfaces; while the camera recognizes and tracks user's hand gestures and physical objects using computer vision based techniques. The software program processes the video stream data captured by the camera and tracks the locations of the colour markers (visual tracking fiducially) at the tip of the user's fingers. The movements and arrangements of these fiducially are interpreted into gestures that act as interaction instructions for the projected application interfaces. Sixth Sense supports multi-touch and multi-user interaction.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM159

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.159

A Secured Image Sharing on Social Websites

G Aarthi[1], P Jayaprabha[2]
[1]Associate Professor, [2]Professor/HOD, Department of MCA,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *With the increasing volume of images users share through social sites, maintaining privacy has become a major problem, as demonstrated by a recent wave of publicized incidents where users inadvertently shared personal information. In light of these incidents, the need of tools to help users control access to their shared content is apparent. Toward addressing this need, an Adaptive Privacy Policy Prediction (A3P) system proposed to help users compose privacy settings for their images. It examines the role of social context, image content and metadata as possible indicators of users' privacy preferences. The proposed system called two-level framework which according to the user's available history on the site, determines the best available privacy policy for the user's images being uploaded. Our solution relies on an image classification framework for image categories which may be associated with similar policies and on a policy prediction algorithm to automatically generate a policy for each newly uploaded image, also according to users' social features. Over time, the generated policies will follow the evolution of users' privacy attitude. We provide the results of our extensive evaluation over 5,000 policies, which demonstrate the effectiveness of the system, with prediction accuracies over 90 per cent.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM160

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.160

A Study on Performance Appraisal with Special Reference to CRI Pumps, Coimbatore

Rajeshkanna R[1], Kanmanirajan T[2], Gokul S[3], Manigandan M[4], Lakshmipriya R[5], Sathya S[6]
[1,2,3,4,5,6]Second Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The study focuses about the title "A study on performance appraisal with special reference to CRI pumps, Coimbatore". Performance analysis identifies the strengths and weakness of the employees by properly establishing relationships between employee and company. The researcher used descriptive research design in this research. The study aims assessing the performance ability position of the employee it is analysed by using statistical tool chi-square test.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM161	**eAID**	ICACIEM.2017.161

Biodiesel Prepared By Trans-esterification Technique from Waste Cooking Oil (Yam Frying Oil)

N Ashokkumar[1], V Bharathkumar[2]
[1]PG Scholar, Department of Mechanical Engineering, [2]Administrative Officer,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Squander cooking oils (WCO), which contain a lot of free unsaturated fats delivered in eateries, are gathered by the natural assurance office in many parts of the world and ought to be arranged reasonably. Because of the high cost of the new vegetable oil, squander cooking oil pulled in specialist to deliver bio-diesel from waste cooking oil since it is accessible with moderately shabby cost. In this venture paper, the Trans esterification of waste cooking oil with methanol and in addition the fundamental employments of the unsaturated fat methyl esters is looked into. The cooking oil was trans esterified with methanol utilizing potassium hydroxide as impetus to acquire bio-diesel by Magnetic Stirrer creation method was done. Comes about which acquired are altogether similar to immaculate diesel and gives preferable execution over routine diesel fuel.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM162	**eAID**	ICACIEM.2017.162

Good House Keeping Technique Using 5 S

Shanmugam Deepak[1], Gokulnath P[2], Prabhakaran E[3], Kavin S[4], Antony Rajkumar J[5], Balakrishnan N[6]
[1,2,3,4,5,6]Department of ECE, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *5S is amongst the first and fundamental steps implemented by an enterprise towards the path of implementing Total Quality Management and continuous improvement at the operation level. 5S is a process designed to organize the workplace, keep it clean, maintain effective and standard conditions. It instils the discipline required to enable each individual to achieve and maintain a world-class environment. The use of this tool was started in 1972 by Henry Ford in the United States as the CANDO programme: Cleaning up, Arranging, Neatness, Discipline and on-going improvement. The technique was popularized as 'Japanese 5S' in 1980 by Hiroyuki Hirano. Many enterprises have practiced the 5S and derived significant benefits from it. In particular, this technique has been widely practiced in Japan. Most Japanese 5S practitioners consider 5S useful not just for improving their physical environment, but also for improving their thinking processes too. In Japan it is also called 'workplace management'.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM163	**eAID**	ICACIEM.2017.163

A Study on Customer Satisfaction towards Ambal Auto, Erode

Anburanjithkumar K[1], Jayanthi G[2], Mahalakshmi R[3], Meenakshi S[4], Ranjithkumar N[5], Sathyavani R[6]
[1,2,3,4,5,6]Second Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Customer satisfaction is the main problem prevailing now-a-days in all the Companies. Satisfying the customers is the big gain for any company. Marketing managers have to analyse the taste and preferences of the customers in order to satisfy their needs. The present study is to analyse the Customer Satisfaction with special reference to Ambal Auto Ltd, Erode. Questionnaire method was used to know the views and suggestions of the customers.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM164	**eAID**	ICACIEM.2017.164

A Study on Brand Preference of Civil Engineers towards Agni Steel with Special Reference to Agni Steels, Erode

Seenu V[1], Palanisamy M[2], Roja E[3], Thilagavathi T[4], Namdhini S[5], Veni P[6]
[1,2,3,4,5,6]Second Year Students, Department of MBA, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *An identifying symbol, words, or mark that distinguishes a product or company from its competitors. Usually brands are registered (trademarked) with a regulatory authority and so cannot be used freely by other parties. For many products and companies, branding is an essential part of marketing. The researcher has adopted the descriptive research study. Descriptive research includes surveys and fact findings enquiries of different kinds. The data is then analysed by applying weighted average test.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM165	**eAID**	ICACIEM.2017.165

Raindrop Algorithm Based Controller for Chopper Driven PMDC Motor

K Samidurai[1], G Murugananth[2]
[1]Principal, Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India
[2]Ahalia School of Engineering and Technology, Palakkad, India

Abstract: *Permanent Magnet DC motors find wide applications in orthopaedic surgical systems. Conventional PI controller based chopper drive is being employed in these motor drives. To enhance the performance of the drive, this paper suggests, an efficient Raindrop algorithm based speed controller. The proposed drive system has been simulated using Mat lab/Simulink. The simulated results have been validated using a low cost PIC microcontroller based experimental setup. The comparative study demonstrates that the proposed system has an edge over the conventional drive systems.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM166	**eAID**	ICACIEM.2017.166

A New Class of Locally Closed Sets in bigeneralized Topological Spaces via Hereditary Classes

Binoy Balan K[1], Janaki C[2]
[1]Ahalia School of Engineering& Technology, India
[2]L R G Government Arts College for Women, India

Abstract: *The purpose of this paper is to introduce a new class of generalized closed sets in hereditary bigeneralized topological spaces. Also we have introduced a new version of locally closed sets and their characterizations are analysed.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM167

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.167

Asynchronous Power Management Using Grid Deployment Method for Wireless Sensor Networks in Critical Situation

Dheepika Rajamanickam[1], S Pavithra[2], K Rajalakshmi[3], N Udhaya[4], P J Shriidhar[5]
[1,2,3,4,5]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *A correct node operation and power administration are significant issues in the wireless sensor network system. Ultrasonic, dead reckoning, and radio frequency information is obtained by using localization mechanism and worked through a specific filter algorithm. In this paper, a well-organized grid deployment method is applied to split the nodes into multiple individual grids. The tiny grids are used for improved resolution and bigger grids are used to decrease the complexity of processing. The efficiency of each grid is obtained by environmental factors such as redeployed nodes, boundaries, and obstacles. To decrease the power usage, asynchronous power management method is designed. In network communication, power management method is applied by using an asynchronous awakening scheme and n-duplicate coverage algorithm is engineered for the coverage of nodes.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM168

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.168

Denial to "Analysis on Control Cloud Data Entrance Freedom and Ambiguity with Entirely Anonymous Attribute-Based Encryption"

P Praveen Kumar[1], T Tamilselvan[2], V Prabhakaran[3], K Meiyalakan[4]
[1,2,3,4]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Cloud computing is a revolutionary computing pattern, which enables flexible, on-demand, and low-cost usage of computing possessions, but the data is outsourced to some cloud servers, and various privacy concerns appear from it. Various schemes based on the attribute-based encryption have been proposed to secure the cloud storage. However, most work focuses on the data contents privacy and the entrance organize, while less attention is paid to the privilege control and the identity privacy. In our proposed we offer complete user security and data security. Encryption /Decryption algorithms are used for data security, for user the password is automatically generated by the system. If the user wants to upload the data the authority will send a 16 bit private key to the data owner. After putting this key data owner can upload his documents to the cloud, drop box is a public cloud here we are used.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM169	**eAID**	ICACIEM.2017.169

Survey and Research Challenges in Big Data

G Padmapriya[1], K Meiyalagan[2], N Manjula[3], C Akila[4], A D Jeishri[5]
[1]Professor & Head, [2]Associate Professor, [3,4,5]Assistant Professor, Department of CSE
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *There has been an ever-increasing interest in big data due to its rapid growth and since it covers diverse areas of applications. Hence, there seems to be a need for an analytical review of recent developments in the big data technology. This paper aims to provide a comprehensive review of the big data state of the art, conceptual explorations, major benefits, and research challenging aspects. In addition to that, several future directions for big data research are highlighted.*

ISBN	978-81-933235-1-9	**VOL**	01
Website	icaciem.org	**eMail**	icaciem@asdf.res.in
Received	10 – January – 2017	**Accepted**	28 - January – 2017
Article ID	ICACIEM170	**eAID**	ICACIEM.2017.170

Dynamic Routing in Wireless Sensor Networks Using Efficient Attribute Aided Data Aggregation Technique

K S Kandapirabu[1], P J Shriidhar[2]
[1,2]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *The most important issue in Wireless Sensor Networks (WSNs) is energy consumption. Data aggregation is a main method to conserve energy in WSN. It also minimizes the number of transmission and to save energy. Prior work based on static routing protocols which cannot dynamically forward packets according to network state or packet types. To make data aggregation more efficient packet attribute concept is introduced. Then propose the technique attribute aware data aggregation consisting of packet driven timing algorithm and a special dynamic routing protocol. A potential based dynamic routing is based on the concept of potential in physics and pheromone in ant colony which is elaborated to support an ADA strategy.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

`

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM171

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.171

Application of Agricultural Waste in Preparation of Sustainable Construction Material

Karthick A[1], Karthick M[2], Suresh Kumar P S[3], Vijayan G[4], Vijay A[5], Vidya P[6]
[1,2,3,4,5,6]Third Year Students, Department of Civil Engineering,
Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Due to rapid urbanization the manufacturing processes of conventional building materials pollutes air, water and land. Hence in order to fulfil the increasing demand it is required to adopt a cost effective, eco-friendly technologies by improving the traditional techniques with the usage of available local materials. Agro – industrial and other solid waste disposal is another serious issue of concern in most of developing countries. The present paper explores the potential application of agro-waste as an ingredient for alternate sustainable construction materials.*

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM172

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.172

Privacy Preserving Ranked Multi-Keyword Search for Multiple Data Owners in Cloud Computing

R Deepika[1], S Tamilselvi[2], J Nandhini[3], K S Kandapirabu[4]
[1,2]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *With the advent of cloud computing, it has become increasingly popular for data owners to outsource their data to public cloud servers while allowing data users to retrieve this data. For privacy concerns, secure searches over encrypted cloud data have motivated several research works under the single owner model. However, most cloud servers in practice do not just serve one owner; instead, they support multiple owners to share the benefits brought by cloud computing. In this paper, we propose schemes to deal with Privacy preserving Ranked Multi-keyword Search in a Multi-owner model (PRMSM). To enable cloud servers to perform secure search without knowing the actual data of both keywords and trapdoors, we systematically construct a novel secure search protocol. To rank the search results and preserve the privacy of relevance scores between keywords and files, we propose a novel Additive Order and Privacy Preserving Function family. To prevent the attackers from eavesdropping secret keys and pretending to be legal data users submitting searches, we propose a novel dynamic secret key generation protocol and a new data user authentication protocol. Furthermore, PRMSM supports efficient data user revocation. Extensive experiments on real-world datasets confirm the efficacy and efficiency of PRMSM.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]

International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017]

ISBN	978-81-933235-1-9
Website	icaciem.org
Received	10 – January – 2017
Article ID	ICACIEM173

VOL	01
eMail	icaciem@asdf.res.in
Accepted	28 - January – 2017
eAID	ICACIEM.2017.173

A Typical Sleep Scheduling Algorithm in Cluster Head Selection for Energy Efficient Routing in Wireless Sensor Networks

P J Shriidhar[1], V Mathivarmarajan[2]
[1,2]Vidyaa Vikas College of Engineering and Technology, Tiruchengode, India

Abstract: *Wireless sensor networks can provide low cost solution accompanied with limited storage, computational capability and power for verity of real-world problems and become essential factor when sensor nodes are arbitrarily deployed in a hostile environment. The cluster head selection technique is also one of the good approaches to reduce energy consumption in wireless sensor networks. The lifetime of wireless sensor networks is extended by using the uniform cluster head selection and balancing the network loading among the clusters. We have reviewed various energy efficient schemes apply in WSNs of which we concentrated on selection of cluster head approach and proposed an new method called Sleep Scheduling Routing with in clusters for Energy Efficient [SSREE]in which some nodes in clusters are usually put to sleep to conserve energy, and this helps to prolong the network lifetime. EASSR selects a node as a cluster head if its residual energy is more than system average energy and have less energy consumption rate in previous round. Then, an Performance analysis and compared statistic results of SSREE shows of the significant improvement over existing protocol LEACH, SEP and M-GEAR protocol in terms of lifetime of network and data units gathered at BS.*

This paper is prepared exclusively for International Conference on Advances & Challenges in Interdisciplinary Engineering and Management 2017 [ICACIEM 2017] which is published by ASDF International, Registered in London, United Kingdom under the directions of the Editor-in-Chief Dr K Samidurai and Editors Dr. Daniel James, Dr. Kokula Krishna Hari Kunasekaran and Dr. Saikishore Elangovan. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage, and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honoured. For all other uses, contact the owner/author(s). Copyright Holder can be reached at copy@asdf.international for distribution.

2017 © Reserved by Association of Scientists, Developers and Faculties [www.ASDF.international]