

2015 International Conference on Technologies for Sustainable Development

(ICTSD 2015)

**Mumbai, India
4-6 February 2015**



**IEEE Catalog Number: CFP15IDP-POD
ISBN: 978-1-4799-8188-5**

Contents

1. Heat Transfer Enhancement in Solar Air Heater having Multi-Arc Shape Artificial Roughness with gap....1
S. A. Nagalkar, Dr. A. B. Kanase-Patil
2. Experimental Investigation of a Passive Solar Still with Paraffin Wax as Latent Heat Storage....7
Ashish Kumar, Ajeet Kumar Rai, Radhesh Garg
3. Recent investigations in solar flat plate collectors....13
P A Kulkarni, S P Sabnis, R Sarangi
4. Effect of collector efficiency on Levelized Electricity cost of 200 MW Solar Chimney Power Plant in India....19
Zainab Akhtar, K.V.S S. Rao
5. Structural, electrical and photoelectrochemical properties of calcined SnO₂/TiO₂ nanocomposite films for solar cell applications....25
Azam Mayabadi, H. M. Pathan, S. R. Jadkar
6. Hybrid Engine....29
Zaki Syed, Siddharth Singh, Siddesh Venkateswaran, Adwait Bandiwdekar
7. Air Conditioner using Peltier Module....34
Allwin Jose, Alan D'souza, Sarvesh Dandekar, Jitesh Karamchandani, Pavan Kulkarni
8. Solar steam power generator...38
Michaelnavin, Kunal Magar, Aaron Abhishek, Joslyn Fernandes, Pavan Kulkarni.
9. Experimental Study of a Shell and Tube Heat Exchanger for Performance Enhancement....41
Jenifer Kasmir, Sandeep M Joshi
10. Analysis of different roughness coefficients' variation in an open channel with vegetation....44
K. Panigrahi, K. K. Khatua
11. RF Spectroscopy Technique for Soil Nutrient Analysis....49
Sulaxana R. Vernekar, Ingrid Anne P. Nazareth, Jivan S. Parab, Gourish M. Naik.
12. A Review of Radioactive Waste Management....53
Nikunj Khelurkar, Sunay Shah, Dr. Hansa Jeswani
13. Novel sprayable biodegradable polymer membrane to minimise soil evaporation....59
Raju Adhikari, Keith L. Bristow, Philip S. Casey, George Freischmidt, John W. Hornbuckle
14. Biosorption of Methylene Blue from an aqueous solution using French green beans and Lotus Stem....63
Dhruv Mehta, Dhruv Sehgal, Dhruv Katoria, Potsangbam Albino Kumar
15. Assessment of Spatial Variability of Soil Physical and Hydraulic Properties in Netravati Catchment, Karnataka State, INDIA....70
B. P. Ganasri, G. S. Dwarakish

16. Upliftment of Socio-Economical Life Style of Farmers through Farmer's Data Network....76
Tanuja R.Patil, Rajashekhar G.Patil, Diwakar Kulkarni, Shamshuddin K
17. Open source hardware based automated gardening system using low-cost soil moisture sensor....80
A. K. Tripathy, A.Vichare, R. R. Pereira, V. D. Pereira, J. A. Rodrigues
18. Dehumidification of Air in Recirculated Air Test Rig Using Heat Pipes....86
Abhishek Pokharankar, Ganesh Narawade, Joel Rodrigues and Omkar Koyande, R. K. Sarangi
19. Analysis of Industrial Waste for Energy Generation with reference to Uttarakhand, India....89
Harangad Deep Singh Bhalla
20. A Review of RF Energy Harvesting Systems in India....95
Jasmine Jose, Sherin George, Lydia Bosco, Juliet Bhandari, Freda Fernandes, Ashwini Kotrashetti
21. Use of Sullage for Non-Potable Purpose....99
Prashant Tayde, Chaitanya Shastri, Bhoomi Shah, Nitesh Sankpa, Nitin Asab, Dr. Hansa Jeswani
22. Groundwater Assessment and Feasibility of Artificial Recharge Structures on Over-Exploited Miniwatersheds of MR-12, Osmanabad District....104
Mustaq Ahmad Jabir shaikh, Farjana Birajdar
23. A Review of Emerging Trends on Water Quality Measurement Sensors....109
Jyotirmoy Bhardwaj, Karunesh K Gupta, Rajiv Gupta
24. Pressure Surge Analysis In Pump Systems....115
Amiya Kumar Tripathy, Prasanna Nambiar, Aaron Pereira, Sammy D'souza, Larsen Rodrigues
25. Transient Analysis of Water Supply Mains....120
Amiya Kumar Tripathy, Prasanna Nambiar, Derick Melito, Aaron Baptista, Ashley Christopher, Piyush
26. Design and Implementation of Water Environment Monitoring System using GSM Technology....126
Ms. Aparna M. Telgote, Mr. Vishnu Narayanan, Mr. Navid Ahmed N. Dave
27. Cyclic Activated Sludge Technology for Recycling of Sewage....130
Rasika Shastri, Praveen Singh Charan
28. Sustainable solar powered vacuum membrane distillation for water treatment....133
Muttucumaru Sivakumar, Mohammad Ramezaniapour
29. Hot Spot Analysis using NDVI Data for Impact Assessment of Watershed Development....139
Sreedhar Acharya Nallan, Leisa J. Armstrong, Amiya Kumar Tripathy, Pardhasaradhi Teluguntla
30. Hydraulic Ram Pump: Maximizing Efficiency....144
Dr.Prasanna Nambiar, Amol Shetty, Amogh Thatte, Shubham Lonkar and Vishtasp Jokhi

31. Surge Analysis in Piping Systems: Analysis of Valve Characteristics....148
Bradley Dsouza, Aaron Dsouza, Purva Chaudhari, Snehal Bandal, Kshitija Jadhav, Bosco Dmello
32. Design of conical helical coil heat exchanger for waste heat recovery system....152
Sandeep M Joshi, Anand S R
33. Implementation of Six Sigma with ISO in the Indian Textile Industry for Improvement in Performance....160
Sachidanand S. More, Dr. Maruti S. Pawar
34. Effect of speckle on wide band of frequency components of an image....164
Sanjay Shitole, Y. S. Rao, B. Krishna Mohan
35. Framework For User Identification Using Writeprint Approach....168
Abhishek M.Murkute, Jayant Gadge
36. Intrusion Detection Using Keystroke Dynamics & Fuzzy Logic Membership Functions....173
Mahalaxmi Sridhar, Siddhesh Vaidya, Piyush Yawalkar
37. Near Real Time Vehicle Tracking Using GIS....183
Nilakshi Joshi, Amiya Kumar Tripathy, Suryakant Sawant, Tanvi Patel, Sailee Waghmare, Blessy Clusher
38. Adaptive Parametric Estimator for Complex Valued Images....189
Abha Chaturvedi, Roshni Sharma, Damini Wadekar, Ashwini Bhandwalkar, Sanjay Shitole
39. Cloud Computing using OCRP and Virtual Machines for Dynamic Allocation of Resources....195
Abhishek Vichare, Zenia P. Gomes, Noella Fernandes, Flavio Cardoza
40. Anti-Phishing Using Hadoop-Framework....200
Mayura Gavahane, Derick Sequeira, Abhishek Pandey, Anush Shetty
41. Knowledge Extraction From Online Feedback System Using Ontology....204
Sana Shaikh, Prashant Sonawane, Rajesh Patil, Rohit Neeraj
42. Opinion Mining from User Reviews....209
Amiya Kumar Tripathy, Revathy Sundararajan, Chinmay Deshpande, Pankaj Mishra, Neha Natarajan
43. A Study of Learning Affected by Subjects Related to the Environment in IT Engineering Course....214
Prasad Padalkar
44. A Summarizer System Based on a Semantic Analysis of Web Documents....216
Angelin Florence, Vijaya Padmadas
45. Generating Personalized Job Role Recommendations for the IT Sector through Predictive Analytics and Personality Traits....222
Imran Ali Mirza, Shainila Mulla, Rishit Parekh, Satej Sawant, Krishna Mohan Singh
46. Screen Sharing Application for Mobile Phones....226

Alifiya Bhanpurawala, Dhananjay Kalbande, Aishwarya Venkatesh, Subhashree Chowdhury

47. Fingerprint Authentication using Gabor Filter based Matching Algorithm....230

Satishkumar Chavan, Parth Mundada, Devendra Pal

48. Fabrication of Varying Depth profile Polydimethylsiloxane Micro-cantilever beam....236

Prof. (Dr.) Vilas B. Shinde, Deepika Gupta

49. Energy Aware Mobility Prediction in Wireless Sensor Networks....240

Sibashrit Pattnaik, Arunanshu Mahapatro

50. A Low Powered Auto-titrator using pH Endpoint Detection....245

G. T. Haldankar, Payal Shah

51. Mind-Controlled Wheelchair using an EEG Headset and Arduino Microcontroller....248

Imran Ali Mirza, Amiya Tripathy, Sejal Chopra, Michelle D'Sa

52. Design and Development of Printed Sierpinski Carpet, Sierpinski Gasket and Koch Snowflake Fractal Antennas for GSM and WLAN Applications....253

Pratik Lande, Daison Davis, Nigel Mascarenhas, Freda Fernandes, Ashwini Kotrashetti

53. Voice Operated Intelligent Fire Extinguishing Vehicle....258

Madhavi Pednekar, Joel Amanna, Jino John, Abhishesh Singh, Suresh Prajapati

54. Application of Stair Climbing Robot....262

Krishna Khandelwal, Rajit Patel, Aditya Shenoy, Saif Farooquee, Gejo George

55. Electronic Guidance System For The Visually Impaired -A Framework....267

Namita Agarwal, Anosh Iyer, Sonalakshi Naidu, Snedden Rodrigues

56. Comparisons of Robert, Prewitt, Sobel operator based edge detection methods for real time uses on FPGA....272

Girish N. Chaple, R. D. Daruwala, Manoj S. Gofane

57. Modularity in design: a review....276

Rajasaheb Vasawade, Bhagyesh Deshmukh, Vijay Kulkarni

58. One Wheel Motorized Skateboard....280

Hansel H. Remedios, Shreeprasad S. Manohar

59. Weight optimization of an Automobile bumper....284

Manohar Damle, Shreeprasad S. Manohar

60. Optimization of Product, Tool & Process Design Concept Through SMED Technique....288

Sanket S.Lingayat, Sudhakar S.Ambhore, Rushabh S.Vasani, Surajit Sharma

61. Design and Development Of a Go Kart....294

Tyrone Machado, Prof. Vijay Kulkarni, A. Arora, D. Suvarna, F. Dongre, I. Khot, N. D'souza, V. Giri

62. Vertical Axis Wind Turbine....299

Pranit Nagare, Rammohan Shettigar, Arnav Nair, Pratibha Kale, Dr. Prasanna Nambiar

63. Solar Electric Recumbent Trike....305
Thomas Tom, Thomas Chacko, Shruthi Lokanathan, Joanna Joy, Prof. Vijay Kulkarni
64. Monitoring Vehicles and Pollution on Road Using Vehicular Cloud Environment....309
Sumit A. Khandelwal, Ashwini B. Abhale
65. The Smart Guide Cane: An Enhanced walking cane for assisting the visually challenged....315
Melvin Varghese, Kean Rodrigues, Shreeprasad Manohar, Vinayak Kodkarni.
66. Local development in the context of territoriality face to globalization....320
Dolores Pereira Ribeiro Coutinho, Josemar de Campos Maciel, Pedro Pereira Borges
67. Rethink development face to three pressing demands....324
Josemar de Campos Maciel, Heitor Romero Marques, José Manfro
68. Finger Braille: Tactile Communication For Differently Abled....328
Amiya Kumar Tripathy, Michelle D'Sa, Roweena Alva, Jonita Fernandes, Ann Lisa Joseph
69. Travolution-An Embedded System in Passenger Car for Road Safety....333
Amiya Kumar Tripathy, Sejal Chopra, Samantha Bosco, Srinidhi Shetty, Firdos Sayyed
70. Voice For The Mute....339
Amiya Kumar Tripathy, Dipti Jadhav, Steffi A. Barreto, Daphne Rasquinha, Sonia S. Mathew
71. Open Road Tolling in India by Pattern Recognition....345
Dipti Jadhav, Manoj Sabnis
72. Effective and Efficient Landslide Detection System to Monitor Konkan Railway Tracks....350
Satishkumar Chavan, Shobha Pangotra, Sneha Nair, Vinayak More, Vineeth Nair
73. Development of a Tractor Operated Soil Compaction Measurement Device....356
Manoj Kumar, Hemant Dadhich, Sushmita M. Dadhich
74. Wi Lights -A Wireless Solution To Control Headlight Intensity....360
Amiya Kumar Tripathy, Deepali Kayande, Joel George, Jerome John, Bejoy Jose
75. On Road: A car assistant application....365
Akhila V Khanapuri, Anagha Shastri, Gareth D'souza, Shannon D'souza
76. Personalized Recommendation Engine Using HADOOP....371
Uma Sahu, Amiya Kumar Tripathy, Apurva Chitnis, Karen Aubrey Corda, Sharon Rodrigues
77. Observing morphological changes in natural land form through archived satellite images....377
Priya Mendiratta, Dr Shirish Gedam
78. Urban Tree Canopy Detection Using Object-Based Image Analysis for Very High Resolution Satellite Images : A Literature Review....383
Sarika Yadav, Imdad Rizvi, Shailaja Kadam
79. Visual Surveillance Using Absolute Difference Motion Detection....389
Shraddha G. Mhatre, Satishkumar Varma, Rupali Nikhare

80. Large Scale Behavioral Targeting using Course Management System....394
P. J. Kannukadan, M. G. Hadawale, A. M. Kadam, K. Deherkar, Dr. Amiya Kumar Tripathy
81. Selection of Node Density with Cluster in SPIN for Data Centric Wireless Sensor Network....400
Ashutosh Tripathi, Narendra Yadav, Reena Dadhich
82. Response of Blood Urea using RF Scalar Network Analyzer....406
Ingrid Anne P. Nazareth, Sulaxana R. Vernekar
83. Forecast of Malaria in Rural Area Using Satellite Imagery and GIS....410
Nilakshi Joshi, Amiya Kumar Tripathy, Chrisyl D'souza, Pamela Mathias, Kevin Joseph
84. Electronic Recording System - Heart Disease Prediction System....416
Sana Shaik, Amit Sawant, Shreerang Paradkar, Kedar Patil
85. Mobile Based Healthcare Management using Artificial Intelligence....421
Amiya Kumar Tripathy, Rebeck Carvalho, Keshav Pawaskar, Suraj Yadav, Vijay Yadav
86. MediAssistEdge – Simplifying diagnosis procedure & Improving patient doctor connectivity....427
Amiya Kumar Tripathy, Rebeck Carvalho, Ajit Puthenputhussery, Nikita Chhabhaiya, Bijoy Anthony
87. Super Resolution Techniques for Medical Image Processing....433
Jithin Saji Isaac, Dr. Ramesh Kulkarni
88. Detection of Adverse Drug Events through Data Mining Techniques....439
Amiya Kumar Tripathy, Nilakshi Joshi, Harshal Kale, Mario Durando, Loyal Carvalho