2011 International Conference on Communication and Industrial Application

(ICCIA 2011)

Kolkata, West Bengal, India 26 – 28 December 2011



IEEE Catalog Number: CFP1135R-PRT **ISBN:**

978-1-4577-1915-8

List of Papers - ICCIA2011

Instrumentation & Control

- 1. Online Identification of Fractional Order Models with Time Delay : An Experimental Study''''3 Saptarshi Das, Nijam Ud-Din,Molla, Indranil Pan, Anindya Pakhira and Amitava Gupta
- 2 Control of Nuclear Reactor Power with Thermal-Hydraulic Effects via Fuzzy PIλDμ Controllers'''8 Saptarshi Das, Indranil Pan, Basudev Majumder, Shantanu Das and Amitava Gupta
- 3 E-Tongue Based Classification and Authentication of Mineral Water Samples following Principal'''33 Component Analysis and Sammon's Nonlinear Mapping

Palash Kundu and Madhusree Kundu

- Fuzzy Logic Based System to Diagnose Internal Faults of Power Transformer''''38
 U. Mohan Rao and Vijay Praneeth Reddy
- 5 Problems Associated with Active and Reactive Power Measurement using a Novel Technique ''''43 and Its Remedy

Rumpa Saha

- 6 Water hammer protection in water supply system: a new approach with implementation """47 Joyanta.Kumar.Roy, Prosanta.Kumar.Roy & P. Basak,
- 7 Chemical Dosing Calculator for Water Industry ""53

Joyanta Kumar Roy, Joydeep Roy and Sumit Nandi

Communication & Network Security

- 8 Constant Aspect Ratio based (2, 2) Visual Cryptography through Meaningful Shares (CARVCMS)'''58 Jyotsna Kumar Mandal and Subhankar Ghatak,
- 9 Framework for design with Leon3 system and testing with SHA-1 algorithm'''62
 Madhulika Mohanty, Deepanjana Deb, Aravind Konidala, Ashish Mishra and Solomon R. Kota
- 10 CCSDS Complied Data Handling System for Mini Satellite''''66" "
 Chayan Dutta, Lalitkrushna Thakar and Jeeja K H.
- 11 Improved cluster based route discovery algorithm for Ad-hoc networks''''6:Chandrima Chakraborty and Rituparna Chaki

- 12 Information and communication technology in Foreign Exchange Management ""74Sushil K Pareek, Prof. Dr. Ashok K Saha & B.K.Ghosh.
- 13 Generation and Fabrication of authenticated song signal through preserving balance ratio of song's ''''78 components

Uttam Mondal and Jyotsna K Mandal

Stochastic Seed Based Cryptographic Technique Using Dual Formula Key''''82
 Rajdeep Chowdhury,Somsubhra Gupta and Arijit Saha

Microwave & Antenna

15 CAD Model to Compute the Input Impedance of Cavity Backing Triangular Patch Antenna For '''87 Wireless Applications

Manotosh Biswas and Archana Shukla

Fast and accurate CAD model to compute the input impedance of circular patch antenna used for ""8:
 Mobile Communication

Sourav Banik and Manotosh Biswas,

- 17 Novel DMS based UWB Antenna with band rejection characteristics''''93 Sourav Moitra, Sayantani Roy, Chandan Kumar Ghosh and Susanta Paru
- Analysis of DC Properties of SDR IMPATT Structure by Double Iterative Method Designed at "97
 Different Microwave Frequency Bands

Arpan Deyasi and Swapan Bhattacharyya

- 19 Analysis of a Novel Shaped Microstrip Patch Antenna with Multiple Resonating Frequencies'''9; Arnab Pattanayak, Dr. Debasree Sarkar, and Dr.Partha Pratim Sarkar.
- 20 CGIs dedication procedure and method on IE equipment in NPPs '''! 4

Su Cheol Moon and Kern Joong Kim

Soft Computing, Computational Intelligence, Image Processing & Applications

21 Hierarchical Clustering based Facial Expression Analysis from Video Sequence'''! 8" Soma Mitra, Chandrani Saha and Apurba Das

- 22 A Full-Reference Image Quality Metric for Objective Evaluation in Spatial Domain'''''; 3 Akshat Jain and Vikrant Bhateja
- 23 A Modified PSNR Metric based on HVS for Quality Assessment of Color Images''''';8 Prateek Gupta, Priyanka Srivastava, Satyam Bhardwaj and Vikrant Bhateja
- 24 A Genetic Algorithm based Steganography in Frequency Domain (GASFD)"""322 Amrita Khamrui and Jyotsna Kumar Mandal
- 25 Bio-Inspired Computational Technique to Multiobjective Optimal Planning of Electric Power '''326 Generation and Dispatch

Debjani Chakraborti, Papun Biswas and Anirban Mukhopadhyay

26 Authentication of images Through Non Convoluted DCT'''32:

Madhumita Sengupta and Jyotsna Kumar Mandal

Bio Engineering, Biometrics & Applications

- 27 Measuring Human Biopotentials to Ascertain Parameters for Health ""334 Aditi Bhattacharya, Dibyendu Basu, Bhaswati Goswami and Ratna Ghosh
- 28 Binary Coding of Arrhythmic Beats for Generation of Simplified Classification Rule''''338 Saurabh Pal,Samiul alam and Mandhuchhanda Mitra
- 29 Time Plane ECG Feature Extraction Using Hilbert Transform, Variable Threshold and Slope '''33; Reversal Approach

Sourav Mukhopadhyay, Madhuchhanda Mitra and Sucharita Mitra

30 A new technique for the classification of premeditative and meditative states''''345 Anilesh Dey, Sayan Mukherjee, Sanjay Palit, D.K. Bhattacharyya and D.N.Tibarewala

Cognitive Radio, ICT, HCI & Applications

- 31 A New Fuzzy Rule Based Power Management Scheme for Spectrum Sharing in Cognitive Radio''''348 Anilesh Dey, Sushovan Biswas and Saradindu Panda
- 32 **Do Malaysians use ICT Tools When Listened to their Preferred Music?''''352** Salwani Mohd Daud, Salina Daud, Zainab Rasol and Norihan Abu Hassan

33 Implementation and Performance Analysis of an Efficient FFT Pruning Algorithm for NC-OFDM''''358
 Based Cognitive Radio System

Niladri Mandal and Himadri Mandal

- On the Coexistence of Cognitive Radio and Cellular Networks: An Outage Analysis '''364
 Sanjay Dhar Roy and Sumit Kundu
- 35 Throughput Maximization Problem for Random Allocation of Channels in a Cognitive Radio '''369 Network

Subhasree Bhattacharjee, Pijush Basak, Arnab Gupta, Amit Konar and Suman Bhattacharjee

36 Designing a Human Computer Interface using Laser Track Pad (LTP) for the Physically Challenged "'373
 People

Arghya Ghosh, Chandan Garai, Prasun Hajra and Pranam Paul

Mobile Computing, Communication & Networking

- 37 Energy Efficient Clustering Hierarchy Protocol for Wireless Sensor Network''''377
 Anindita Ray and Debashis De
- 38 An Efficient Delay Elimination Protocol for Mobile Ad Hoc Networks''''37; Tanu Preet Singh, Prof. R.K Singh and Vishal Sharma
- 39 Replacement Strategies for Minimizing Maintenance Cost and Maximizing Sensor Network Lifetime ''386 Raju Dutta, Sajal Saha and Asish Mukhopadhyay
- 40 On the Impact of Energy Dissipation Model on Characteristic Distance in Wireless Networks''''392 Ashraf Hossain
- 41 AutoVeCoN: Automatic Vehicle Collision Notification and Intelligent Police Deployment System for "395
 Radio Flying Squad and Traffic Department
 Budhaditya Majumdar and Sumana Basu
- 42 **Micro-NEMO++: An Efficient Micro-Mobility Protocol for Network Mobility """39;** Manoj Kumar Rana, Avik Mitra and Bhaskar Sardar

VLSI, DSP and Devices

- 43 An Efficient Quadrature Mirror Filter Design for Audio Signal Processing Applications ""3: 6
 Supriya Dhabal, Srabani Chakraborty and Palaniandavar Venkateswaran
- 44 Harmonics And Interharmonics Estimation Of A Passive Magnetic Fault Current Limiter Using''''3: : Coiflet Wavelet Transform

Raju Patwary, Sabyasachi Datta and Soumyadeep Ghosh

45 Comparative thermal noise analysis of DG MOSFET using SiO₂, SiC-SiO₂, Si₃N₄-SiO₂, SiO₂-Al₂O₃''''³; 6 as dielectric layer

Suryadeepta Dash and Saradindu Panda

- 46 Evaluation of power efficient Adder and Multiplier circuits for FPGA based DSP application '''3;9 Subhankar Bhattacharjee, Sanjib Sil, Biswajit Basak and Amlan Chakrabarti
- 47 FPGA Based Smart Card Reader Design ''''424Bipin Chandra Mandi, P. Venkateswaran and R. Nandi
- 48 **Dynamics of Electromigration Induced Void in Submicron Cu Interconnects''''428** Arijit Roy