

# 2013 IEEE International Conference on Signal Processing, Computing and Control (2013 IEEE ISPCC)

26-28 September 2013

## Detailed Technical Program Schedule

Thursday, September 26, 2013

## **Inaugural Session**

1 Session Name: Inaugural Session

1.1 Session Time: 9:30 am - 10:00 am

1.2 Venue: LT – 3

#### Session No.: 1A

2 Session Name: Signal Processing 1

2.1 Session Time: 10:30 am - 11:30 am

2.2 Venue: CR-A

2.3 List of Papers

- 2.3.1 An Efficient Compression Algorithm and a Novel File Format for Satellite Vibration Test Data
  - Nagendra Bellur, Dr. N K Misra, and Dr. A M Khan.
- 2.3.2 Yarn Parameterization Based on Image Processing
  - Subhasish Roy, Anindita Sengupta, Surajit Sengupta and Raktim Maity.
- 2.3.3 Coherent Detection of Turbo Coded OFDM Signals Transmitted through Frequency Selective Rayleigh Fading Channels
  - Kasturi Vasudevan.
- 2.3.4 Noise Removal in Single Channel Hindi Speech Patterns by Using Binary Mask Thresholding Function in Various Mother Wavelets
  - Sachin Singh, Manoj Tripathy and R. S. Anand.

## Session No.: 1B

3 Session Name: Networks & Communication 1

3.1 Session Time: 10:30 am - 11:30 am

3.2 Venue: CR-B

3.3 List of Papers

- 3.3.1 Clustering with Multiple Receiving Antennas in Downlink FDD CoMP Systems
  - Paolo Baracca, Federico Boccardi and Nevio Benvenuto.
- 3.3.2 RFID Applications to the Optimization of Discrete Manufacturing Process
  - Cesar Da Costa, and Lais Reis de Oliveira.
- 3.3.3 Two Way LMS Coding for Adaptive Channel Estimation Over Fast Frequency Selective Channel
  - Venkat S, Srinivas Karedla, Dr. Ch. Santhi Rani, and V. V. Rama Krishna.
- 3.3.4 Investigation of Switch and Stay Combiner Performance Over 'Independent' and 'i.i.d.' K Fading Channels
  - Suyash Srivastava, Pradeep Ummiti, Maleyur Raju Shreyas, Gowtham N R, and Manoj B R.

## Session No.: 1C

- 4 Session Name: Control and Automation 1
- 4.1 Session Time: 10:30 am 11:30 am
- 4.2 Venue: CR-C
- 4.3 List of Papers
- 4.3.1 Application Performance Monitoring and Prediction
  - Meenakshi Panwar, Mandar Sahasrabudhe and Sagar Chaudhari.
- 4.3.2 Optimal Adaptive Sliding Mode Controller for Linear Uncertain Systems
  - Madhulika Das, and Chitralekha Mahanta.
- 4.3.3 Spectral Analysis to Detect Mixed Eccentricity Fault in Saturated Squirrel Cage Induction Motor
  - Chaouch Abdellah, and Bendiabdellah Azeddine.

## **Keynote Session**

5 Session Name: Keynote 1 (PROF. JOHN SORAGHAN)

5.1 Session Time: 11:30 am to 1:00 pm

5.2 Venue: LT - 3

## Workshop Session

6 Session Name: Workshop on Amateur Radio Part - 1 (Mr. Miroslav Skoric)

6.1 Session Time: 2:30 pm to 3:30 pm

6.2 Venue: LT - 3

#### Session No.: 2A

7 Session Name: VLSI & Embedded Computing 1

7.1 Session Time: 4:00 pm - 5:00 pm

7.2 Venue: CR-A

#### 7.3 List of Papers

- 7.3.1 Compact Models for Double Gate Hetero Gate Dielectric Nano Scale Tunnel FET
  - Brinda Bhowmick, S. Baishya, and C. Joishy.
- 7.3.2 Clock Distribution Networks- A Case Study Using Multi VDD and Multi Threshold Level Converters
  - Shubham Paliwal, Yogesh Kumar, Praveen Sahu and S. K. Balasubramanian.
- 7.3.3 System Level Hardware Testing of A High Speed MAP Decoder Implemented on FPGA
  - Rahul Shrestha, and Roy Paily.
- 7.3.4 System on Chip Approach for Onboard Computer
  - Shubham Agarwal, Rajiv Bhatia, N Padmavathi, S Sudhakar, and S Udupa.

#### Session No.: 2B

- 8 Session Name: Artificial Intelligence and Neural Networks 1
- 8.1 Session Time: 4:00 pm 5:00 pm
- 8.2 Venue: CR-B
- 8.3 List of Papers
- 8.3.1 An Approach for Prioritizing Supplier Selection Criteria Through Consensus Building using Analytic Hierarchy Process and Fuzzy Set theory
  - Arpan Kar
- 8.3.2 Multiple Classifiers Systems with Granular Neural Network
  - Saroj K. Meher and D. Arun Kumar
- 8.3.3 Short Term Prediction of Forbush Decrease Indices with Adaptive Neuro Fuzzy Inference Systems
  - Sankar Patra, Subhash Panja and Koushik Ghosh
- 8.3.4 Fractional Order Modeling of Continuous High Order MIMO Systems
  - Sunil Kumar Mishra and Dinesh Chandra.

### Session No.: 2C

9 Session Name: Signal Processing 2

9.1 Session Time: 4:00 pm - 5:00 pm

9.2 Venue: CR-C

9.3 List of Papers

- 9.3.1 Learning Based Single Frame Super Resolution Using Lorentzian Error Norm and Gabor Filter
  - Jignasha Valvi and Chirag Paunwala.
- 9.3.2 Real Time Object Tracking Using Color Based Probability Matching
  - Deval Jansari, Shankar Parmar, and Geetali Saha.
- 9.3.3 Stacked Cylindrical Dielectric Resonator Antenna with Metamaterial as a Superstrate for Enhancing the Bandwidth and Gain
  - Bhagirath Sahu, Mayank Aggarwal, Rajesh Singh and Pankaj Tripathi.
- 9.3.4 A Robust Motion Compensation Algorithm for Isar Imaging of Sea Surface Targets by Airborne Radar
  - Bibhuti Mohapatra, Vinod K Jaisaval, and Suchith Rajagopal.

### Session No.: 2D

10 Session Name: Signal Processing 3

10.1 Session Time: 4:00 pm - 5:00 pm

10.2 Venue: CR-D

10.3 List of Papers

10.3.1 Geometric Feature Based Recognition of Facial Expressions Using ANN

• Parna Kundu and Ravindra Singh.

10.3.2 Improved Language Identification using Sampling Rate Compensation and Gender based Language Models for Indian languages

Deepak Joshi and Shiv Dutt Joshi.

10.3.3 An Efficient Pilot Pattern Design for Channel Estimation in OFDM Systems

Darshan Adakane and Kasturi Vasudevan.

10.3.4 Sparse De – Convolution of Space Charge Signal in PEA Method

• Ashish Gupta and Chakradhar Reddy Chandupatla.

Friday, September 27, 2013

#### Session No.: 3A

11 Session Name: Signal Processing 4

11.1 Session Time: 9:30 am - 10:30 am

11.2 Venue: CR-A

11.3 List of Papers

11.3.1 A Hybrid Fourier/Wavelet Technique for Improved ECG Signal Approximation

• Roopak R. Tamboli, D. S. Srikanth Reddy, and Soumya Jana.

#### 11.3.2 Wavelet Entropy Based EEG Analysis for Seizure Detection

Yatindra Kumar, M.L Dewal, and R. S Anand.

## 11.3.3 Enhancement of Speech Signals Corrupted by Impulsive Noise Using Wavelets and Adaptive Median Filtering

• Prateek Swamy, Uttara Kumari and Rohini Hallikar.

## 11.3.4 Texture Analysis Based Segmentation and Classification of Oral Cancer Lesions in Color Images Using ANN

• Belvin Thomas, Dr. Vinod Kumar, and Dr. Sunil Saini.

### Session No.: 3B

12 Session Name: Control and Automation 2

12.1 Session Time: 9:30 am - 10:30 am

12.2 Venue: CR-B

12.3 List of Papers

12.3.1 Highly Sensitive C – Shaped Load Link for Measuring Very Small Loads

• Surendra M Jain, Mahboob Ahmed, Deepak Kumar and Alok Jain.

## 12.3.2 Design and Optimization of Temperature Controller for High Pressure Rated Modified CSTR System

 Thiruppathi Keppayan, Kirubagaran R., Lakshmi Ponnusamy, and Atmanand M. A.

## 12.3.3 Under Frequency Load Shedding for Power Systems with High Variability and Uncertainty

 Tharangika Bambaravanage, Asanka S Rodrigo, Lidula N. Widanagama Arachchige and Sisil Kumarawadu.

### Session No.: 3C

- 13 Session Name: Networks & Communication 2
- 13.1 Session Time: 9:30 am 10:30 am
- 13.2 Venue: CR-C
- 13.3 List of Papers
- 13.3.1 Hybrid Security Classification Approach to Attacks in WiMAX
  - Mohammad Hossein Ahmadzadegan and Mohammed Elmusrati.
- 13.3.2 Compressive Sensing Techniques Applied to Narrowband Power Line Communication
  - Javier Matanza, Sadot Alexandres and Carlos Rodriguez Morcillo.
- 13.3.3 Green Cooperative Communication Techniques for Intelligent Transportation System
  - Vinod Mogadala, Swaminathan Ramabadran and Rajarshi Roy.
- 13.3.4 Sidelobe Suppression Using Differential Coding an OFDM Cognitive Radios
  - Ravinder Randhawa, and Anshul Tyagi.

## **Keynote Session**

- 14 Session Name: Keynote 2 (PROF. RAJENDAR BAHL)
- 14.1 Session Time: 11:00 am to 12:00 pm
- 17.2 Venue: LT 3

### Session No.: 4A

15 Session Name: Networks & Communication 3

15.1 Session Time: 12:00 noon - 1:00 pm

15.2 Venue: CR-A

15.3 List of Papers

15.3.1 ICI Analysis for FRFT - OFDM Systems in Doubly Selective Fading Channels

Sandeep Kumar Arya and Ashutosh Singh.

15.3.2 Role of Middleware to Fulfill Non Functional Requirements (Reliability And QOS) in Multi Session Pervasive Computing Application

• Ajit Tewari, Shailendra Tripathi, Ravi P Gorthi, and Vikas Bajpai.

15.3.3 Performance Analysis of Non - Coherent IR - UWB Receivers

• Ranjay Hazra, and Anshul Tyagi.

15.3.4 Efficacy of Power of Two Choices Technique for Data Evacuation Process in Sensor Networks for Post-Disaster Relief Operations

Chittaranjan Debata and Rajarshi Roy

### Session No.: 4B

16 Session Name: VLSI & Embedded Computing 2

16.1 Session Time: 12:00 noon - 1:00 pm

16.2 Venue: CR-B

16.3 List of Papers

16.3.1 A Low – Voltage, Low - Power 4 – Bit BCD Adder, Designed Using the Clock Gated Power Gating, and the DVT Scheme

• Dipankar Saha, Subhramita Basak, Sagar Mukherjee, and C. K. Sarkar.

#### 16.3.2 Triple Well Subthreshold CMOS Logic using Body – Bias Technique

Vandana Niranjan, Ashwni Kumar and Shail Bala Jain.

## 16.3.3 Enhanced Reduction of Ground Bounce Noise in Low Leakage CMOS Multiplier with Combinational MTCMOS Circuit

Bipin Verma, Shyam Akashe and Shyam Singh.

#### 16.3.4 Multiphase Sinusoidal Oscillators using Dual Output CCIIs

Vijay Dixit, Rajeev Gupta, and Kirat Pal.

### Session No.: 4C

17 Session Name: Signal Processing 5

17.1 Session Time: 12:00 noon - 1:00 pm

17.2 Venue: CR-C

17.3 List of Papers

17.3.1 Image Mosaicing Based on Self Adaptive Optical Flow Metric

Shankar Parmar.

## 17.3.2 Speech Signal Analysis Using Fourier – Bessel Expansion and Hilbert Transform Separation Algorithm

• Purshottam Singh Rathore, Ajay Boyat, and Brijendra Joshi.

## 17.3.3 Data Processing of Single Burst Signals from Laser Doppler Velocity Sensors for Turbulent Flow Measurements

• Dishank Upadhyay.

#### 17.3.4 A Novel Uplink Model for Multi – User MIMO – OFDM for IEEE 802.16m

• Shuvabrata Bandopadhaya, Abinash Das and Jibendu Sekhar Roy.

#### Session No.: 4D

- 18 Session Name: Control and Automation 3
- 18.1 Session Time: 12:00 noon 1:00 pm
- 18.2 Venue: CR-D
- 18.3 List of Papers
- 18.3.1 Robustness Analysis Using Prediction Based Control Strategy for An Industrial Process
  - Pradeep Juneja and Amiya Ray.
- 18.3.2 Design and Implementation of Position Controller for Electro Hydraulic Drives in Turbine Control Systems
  - Bhavya Muniraju and Ugra Roy.
- 18.3.3 Fixed Order Robust H2 Stability Augmentation for Micro Air Vehicle Design and Validation
  - Meenakshi M, and M. Seetharama Bhat.
- 18.3.4 Multiple Sliding Surface Control for Systems with Mismatched Uncertainties
  - Mayuresh Patil, Divyesh Ginoya, S B Phadke, and P D Shendge.

## **Keynote Session**

- 19 Session Name: Keynote 3 (DR. ANDREA CONTI)
- 19.1 Session Time: 2:30 pm to 3:30 pm
- 19.2 Venue: LT 3

## Workshop Session

- 20 Session Name: Workshop on Amateur Radio Part 2 (Mr. Miroslav Skoric)
- 20.1 Session Time: 4:00 pm to 5:00 pm
- 18.2 Venue: LT A or Corridor

Saturday, September 28, 2013

### Session No.: 5A

21 Session Name: Networks & Communication 4

21.1 Session Time: 9:30 am - 10:30 am

21.2 Venue: CR-A

21.3 List of Papers

- 21.3.1 A Sender Initiate Based Hierarchical Load Balancing Technique for Grid Using Variable Threshold Value
  - Neeraj Rathore and Inderveer Chana.

## 21.3.2 Microstrip Planar Array Antenna with Improved DGS Structure for Multiband Operation

• Shikha Khanna, Paras Chawla and Rajesh Khanna.

## 21.3.3 Hierarchical Cluster Based Routing Protocol with High Throughput for Wireless Sensor Networks

Tripti Singh, Neha Gupta, and jasmine Minj.

#### 21.3.4 VillageComm: A Mobile Network Architecture for Rural Areas

Quamar Niyaz and Ash Mohammad Abbas.

#### Session No.: 5B

22 Session Name: Artificial Intelligence and Neural Networks 2

22.1 Session Time: 9:30 am - 10:30 am

22.2 Venue: CR-B

22.3 List of Papers

22.3.1 SVRF Approach Towards Object Based Classification of Remotely Sensed Imagery

• Arun P V.

22.3.2 Using Artificial Neural Networks and Analytic Hierarchy Process for the Supplier Selection Problem

Arpan Kar.

22.3.3 Performance Comparison of LQR and ANFIS Controller for Stabilizing Double Inverted Pendulum Systems

Vijay Mohan and Narinder Bhangal.

22.3.4 Gait Biometrics: A Vision Based Approach for Cloths Invariant Walking Pattern Classification

• Soumabha Bhowmick, Anup Nandy, Pavan Chakraborty and Gora Chand Nandi.

### Session No.: 5C

23 Session Name: Signal Processing 6

23.1 Session Time: 9:30 am - 10:30 am

23.2 Venue: CR-C

23.3 List of Papers

## 23.3.1 Joint Watermarking and Fingerprinting Approach for Colored Digital Image in Double DCT Domain

• Vineet Mehan, Renu Dhir and Yadwinder Brar.

## 23.3.2 Digital Image Security Improvement by Integrating Watermarking and Encryption Technique

• Shilpa P Metkar, and Milind V. Lichade.

#### 23.3.3 Realization of CDTA based Frequency Agile Filter

 Neeta Pandey, Rajeshwari Pandey, Richa Choudhary, Aseem Sayal, and Manan Tripathi.

#### 23.3.4 Feature Level Fusion of Face and Fingerprint Modalities Using Gabor Filter Bank

Madhuri Arunkumar Joshi, Amit Deshmukh and Sheetal Pawar.

#### Session No.: 5D

- 24 Session Name: Networks & Communication 5
- 24.1 Session Time: 9:30 am 10:30 am
- 24.2 Venue: CR-D
- 24.3 List of Papers
- 24.3.1 Antenna Array Pattern Failure Correction Using Differential Evolution Algorithm
  - Narwant Singh Grewal, Manjeet Singh Patterh, and Munish Rattan.
- 24.3.2 A Medical Node Based Privacy Approaches for Preventing Selective Jamming in Wireless Networks
  - Ramisetty Rajeswararao and Alluri Kumar Raju.
- 24.3.3 A Prediction Based Handover Trigger in Overlapped Heterogeneous Wireless Networks
  - Sudesh Pahal, Brahmjit Singh and Ashok Arora.
- 24.3.4 A Novel Coalesce Model of Game Theory to Enhance QOS of Cell Edge Use
  - Khaleel Ahmad, and Gaurav Kumar.

## **Keynote Session**

- 25 Session Name: Keynote 4 (PROF. SURENDRA PRASAD)
- 25.1 Session Time: 11:00 am to 12:00 pm
- 26.2 Venue: LT 3

## Workshop Session

- 26 Session Name: Workshop on Amateur Radio Part 3 (Mr. Miroslav Skoric)
- 26.1 Session Time: 12:00 noon to 1:00 pm
- 27.2 Venue: LT A or Corridor

### Session No.: 6A

27 Session Name: Control and Automation 4

27.1 Session Time: 2:30 pm - 3:30 pm

27.2 Venue: CR-A

27.3 List of Papers

27.3.1 Synchronization of A Class of Non – Identical Chaotic Systems Via DSC Approach

• Manoj Kumar Shukla, Ankit Bansal, and Bharat Sharma.

## 27.3.2 Design and Development of Microcontroller Driven, Portable, Low – Cost HVDC Source

• Alampratap Tiwana and Chakradhar Reddy Chandupatla.

## 27.3.3 Extended-Routh's Stability Approach for the Analysis of Nonlinear Discrete Time Systems

Basant Kumar Sahu, Madan M. Gupta, and Bidyadhar Subudhi.

#### 27.3.4 Dither Control for Dahl Model Based Hysteresis Compensation

• Saikat Kumar Shome, Mangal Prakash, Arpita Mukherjee and Uma Dutta.

### Session No.: 6B

28 Session Name: Signal Processing 7

28.1 Session Time: 2:30 pm - 3:30 pm

28.2 Venue: CR-B

28.3 List of Papers

- 28.3.1 Comparison of Different Classifiers for Script Identification from Handwritten Document
  - Obaidullah Sk, Kaushik Roy and Nibaran Das.
- 28.3.2 Nonlinear Estimation Using Transformed Gauss Hermite Quadrature Points
  - Abhinoy Singh, and Shovan Bhaumik.
- 28.3.3 ECG Signal Denoising Based on Empirical Mode Decomposition and Moving Average Filter
  - Sonali Jha, Omkar Singh and Ramesh Sunkaria.
- 28.3.4 Enhanced Data Hiding Method Using DWT Based on Saliency Model
  - Chirag Agarwal, Arindam Bose, Somnath Maiti, Nurul Islam and Subir Kumar Sarkar

### Session No.: 6C

29 Session Name: Networks & Communication 6

29.1 Session Time: 2:30 pm - 3:30 pm

29.2 Venue: CR-C

29.3 List of Papers

#### 29.3.1 Design of Stub Based Ultra Wideband Filter with Low Insertion Loss

• Robin Kalyan, Sonia Sharma, and Dr. Chandra C. Tripathi.

#### 29.3.2 Vacate on Demand Algorithm in Cognitive Radio Networks

Mohd Asifuddola, Sharwan Ram, Ghulam Rasool Begh and Gulam Mohd Rather.

#### 29.3.3 Design and Development of a W – Band Crossbar Mixer at 94 GHz

• Sanjeev Shah, Vinay Negi, Sandeep Singh and Saurabh Tomar.

#### 29.3.4 An Access Strategy Selection in Cognitive Radio Networks and QOS Provisioning

• Manish Kumar, Aditya Trivedi and Karri Guru Govind.

#### Session No.: 6D

30 Session Name: Signal Processing 8

30.1 Session Time: 2:30 pm - 3:30 pm

30.2 Venue: CR-D

30.3 List of Papers

30.3.1 Hybrid Approach for Video Compression Based on Scene Change Detection

• Ankita Chauhan, Rohit R Parmar, Shankar Parmar and Sahida Chauhan.

30.3.2 Acquisition of GPS L1 Signals Using Cooley – Tukey FFT Algorithm

 Venkata Ratnam Devanaboyina, Ashish Pasha, Swathi Puvvada, and Venu Gopala Rap Matcha.

30.3.3 A Blind Audio Watermarking Algorithm Robust Against Synchronization Attacks

Arashdeep Kaur, Malay Kishore Dutta, K M Soni and Nidhi Taneja.

## Valedictory Session

31 Session Name: Valedictory Session

31.1 Session Time: 3:30 pm

31.2 Venue: LT – 3