2017 Twenty-third National Conference on Communications (NCC 2017)

Chennai, India
2-4 March 2017
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Mischa Dohler (King's College London, United Kingdom)

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PT-3: Plenary Talk - III

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Richard Baraniuk (Rice University, USA)

S1A-Comm: Coding and Information Theory - III

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Saurabh Saxena (IIT Madras, India)

A Miniaturized Wideband Bandpass Filter Based on 3λ/4 Resonator Loaded with Stepped Impedance  508
Satya Krishna Idury (Indian Institute of Information Technology Design And ManufacturingKancheepuram, India); Rusan Kumar Barik (IIITDM, India); Sholapettag Subramanian Karthikeyan (IIITDM, Kancheepuram, India)

Symmetric Tri-band Balun Architecture with a Systematic Design Procedure  513
Rahul Gupta (IIIT Delhi, India); Ajay Yadav (Keysight, India); Mohammad Hashmi (IIITD, India)

Design of Compact 180^0 Hybrid Coupler for Unequal Power Division Ratio Using a High Slow Wave Structure  518
Kanaparthi V Phani Kumar (IIITD&M Kancheepuram, India); Rusan Kumar Barik (IIITDM, India); Satya Krishna Idury (Indian Institute of Information Technology Design And ManufacturingKancheepuram, India); Sholapettag Subramanian Karthikeyan (IIITDM, Kancheepuram, India)

Balanced-to-Unbalanced Out-of-Phase Wilkinson Equal Power Divider  523
Amar Nath Yadav (Indian Institute of Information Technology Guwahati, India); Ratnakrit Bhattacharjee (Indian Institute of Technology, Guwahati, India)
# S3C-SP: Speech and Language Processing

**Invited Talk: Document Extraction and Understanding  N/A**
Shajith Ikbal (IBM Research, India)

**Pause Insertion in Assamese Synthesized Speech Using Speech Specific Features  527**
Bidisha Sharma and S. R. Mahadeva Prasanna (Indian Institute of Technology Guwahati, India)

**Pitch Prediction from Mel-Frequency Cepstral Coefficients Using Sparse Spectrum Recovery  533**
Achuth Rao MV and Prasanta Kumar Ghosh (Indian Institute of Science, India)

**A Semi-Automatic Method for Transcription Error Correction for Indian Language TTS Systems  539**
Swetha Tanamala (IIT Madras, India); Jeena J Prakash (Indian Institute of Technology, India); Hema A Murthy (Indian Institute of Technology Madras, India)

**Prosodic Differential for Narrow-focus Word-stress in Speech Synthesis  545**
Anusha Kamat, Abhishek Krishnamurthy and D. N. Krishna (PES Institute of Technology - Bangalore South Campus (PESIT-BSC), Bangalore, India); Ramasubramanian Viswanathan (PES Institute of Technology, Bangalore South Campus, India)

# S3D-SP: Image Processing and Computer Vision

**Invited Talk: SAVI - Synthetic Apertures for Long-range, Sub-diffraction Visible Imaging Using Fourier Ptychography  N/A**
Oliver Cossairt (Northwestern University, USA)

**Simultaneous Blur Map Estimation and Deblurring of A Single Space-variantly Defocused Image  551**
Latha H. Narayan (Indian Institute of Technology & IIT Kharagpur West Bengal, India); Kranti K Parida (IIT Kharagpur, India); Rajiv Ranjan Sahay (, India)

**Local Segment-based Dense Depth Reconstruction from Very Sparsely Sampled Data  557**
Chandra Shaker Balure (National Institute of Technology Karnataka Surathkal, India); Arnav Bhavsar (IIT Mandi, India); Ramesh M Kini (National Institute of Technology Karnataka, Surathkal, India)

**Optic Disc Detection Using Vessel Characteristics and Disc Features  563**
Ambika Sharma and Monika Aggarwal (IIT Delhi, India); Brejesh Lall (Indian Institute of Technology Delhi, India)

**A Study of Interdependence Between Vessel Enhancement and Registration for Lung 4D-CT  569**
Tejas Lunawat, Suramyra Gupta and Arnav Bhavsar (IIT Mandi, India)

# S4A-Comm: Cognitive Networks

**Invited Talk: Joint Transceiver Design for QoS-Constrained MIMO Two-Way Non-Regenerative Relaying Using Geometric Programming  N/A**
Rohit Budhiraja (IIT Madras, India)

**Active Interference Cancellation Based Optimal Power Loading for OFDM Cognitive Radio  575**
Manoranjan Rai Bharti (Indian Institute of Technology Roorkee, India); Debashis Ghosh (Indian Institute of Technology (IIT) Roorkee, India)

**On Optimal Power Allocation for Energy Efficient Multicasting over Cognitive Radio Fading Channels  581**
Sangeeta Bhattacharjee (Indian Institute of Engineering Science and Technology, Shibpur, India); Tamaghna Acharya (Indian Institute of Engineering Science and Technology Shibpur, India); Uma Bhattacharya (Bengal Engineering & Science University, Shibpur, India)
**S4B-Networks: Wireless Networks and Applications**

*Invited Talk: Strategic and Computational Trade-offs in Endogenous Coalition Formation*  
Viswanadha Reddy (IITM, India)

*CAIL: Cross-calibration for Accurate Indoor Localization Without Extensive Site Survey*  
Shweta Sood, Geetali Tyagi, Vinayak Naik and Rizwana Ahmad (IIIT Delhi, India)

*Realistic Directional Antenna Suite for CoJoa Simulator*  
Shamanth Nagaraju (BITS PILANI K. K. BIRLA GOA CAMPUS, India); Vishwesh Rege (UCSD, USA); Lucy J Gudino (BITS Pilani, K K Birla Goa Campus, India); Ramesha C K (Birla Institute of Technology(BITS)Pilani, K. K. Birla Goa Campus, India)

**S4C-Comm: Coding and Information Theory - IV**

*Non-constructive Lower Bounds for Binary Asymmetric Error Correcting Codes*  
Parthe Pandit (University of California, Los Angeles, USA); Ankur A. Kulkarni (Indian Institute of Technology Bombay, India)

*Analyzing Secrecy of Delay-Constrained System in Cooperative Relay Environment Using Rateless Codes*  
Sonam Jain (Indian Institute of Technology Delhi, Hauz Khas, India); Sarbani Ghose (Indian Statistical Institute Kolkata, India); Ranjan Bose (Indian Institute of Technology, India)

*Generalized Fano and non-Fano Networks*  
Niladri Das and Brijesh Kumar Rai (Indian Institute of Technology Guwahati, India)

**S4D-SP: Signal Processing - III**

*Automatic Modulation Classification by Exploiting Cyclostationary Features in Wavelet Domain*  
Sushant Kumar (IIIT Delhi, India); Vivek A Bohara (Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi, India)); Sumit Jagdish Darak (IIIT-Delhi, India)

*Role of Voice Activity Detection Methods for the Speakers in the Wild Challenge*  
Sarfaraz Jelil, Rohan Kumar Das, S. R. Mahadeva Prasanna and Rohit Sinha (Indian Institute of Technology Guwahati, India)

*Detection of Global Abnormal Events in Crowded Scenes*  
N Patil (Indian Institute of Technology Kharagpur, India); Prabir Kumar Biswas (Indian Institute of Technology Kharagpur, India)