

WEDNESDAY March 1, 2017				
8:30-6:00	5G Workshop (IC&SR Auditorium)			
THURSDAY March 2, 2017				
	TUTORIALS			
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
9:00-10:30	A. Chockalingam (IISc Bangalore), LIFI, Mirrors and Wireless Communications	Rajesh Hegde (IIT Kanpur), Microphone Array Processing for Speech Enhancement and Source Separation	Harish Krishnaswamy (Columbia University), Millimeter-wave Circuit and System Design	Srikanth Subramanian (Nanocell Networks), IEEE 802.11ax; Next Gen. High-efficiency WLANs
10:30-10:45	Tea/Coffee Break (IC&SR Dining Hall)			
10:45-12:00	A. Chockalingam (IISc Bangalore), LIFI, Mirrors and Wireless Communications	Rajesh Hegde (IIT Kanpur), Microphone Array Processing for Speech Enhancement and Source Separation	Harish Krishnaswamy (Columbia University), Millimeter-wave Circuit and System Design	Srikanth Subramanian (Nanocell Networks), IEEE 802.11ax; Next Gen. High-efficiency WLANs
12:00-13:00	LUNCH (IC&SR Dining Hall)			
13:00-14:30	Amod Anandkumar & Tabrez Khan (Mathworks), Hands-On Tutorial – Prototyping MATLAB & Simulink models on DSPs, FPGAs, and SDRs	Uday Khankhoje (IIT Madras), Computational Electromagnetics and Remote Sensing	Kumar Appaiah (IIT Bombay), MIMO Optical Communications	Mitesh Khapra (IIT Madras), Deep Learning
14:30-14:45	Tea/Coffee Break (IC&SR Dining Hall)			
14:45-16:00	Amod Anandkumar & Tabrez Khan (Mathworks), Hands-On Tutorial – Prototyping MATLAB & Simulink models on DSPs, FPGAs, and SDRs	Uday Khankhoje (IIT Madras), Computational Electromagnetics and Remote Sensing	Kumar Appaiah (IIT Bombay), MIMO Optical Communications	Mitesh Khapra (IIT Madras), Deep Learning
16:00-17:30	National Instruments SESSION (IC&SR Auditorium)			
18:00-18:30	INAUGURATION (IC&SR Auditorium)			
18:30-19:30	Lecture-Demonstration by Sriram Parasuram: "Classical Music - A Powerful and Effective Communicative Medium" (IC&SR Auditorium)			
19:30	DINNER (IC&SR Dining Hall)			
	JTG MEETING			

**FRIDAY March 3, 2017**

<b>8:30-9:30 Plenary talk: Mischa Dohler, King's College London, "Internet of Skills - Where 5G, Robotics and AI Meet" (IC&amp;SR Auditorium)</b>				
<b>Friday</b>	<b>Session1 -F1A -Comm-Coding and Information Theory - I</b>	<b>Session1 - F1B-Networks - Protocols, Algorithms and Applications - I</b>	<b>Session1 - F1C- SP - Speech Processing - I</b>	<b>Session1 - F1D - SP - Computer Vision - I</b>
<b>Room</b>	<b>IC&amp;SR Auditorium</b>	<b>IC&amp;SR Hall 1</b>	<b>IC&amp;SR Hall 2</b>	<b>IC&amp;SR Hall 3</b>
<b>Session Chair</b>	<b>Navin Kashyap (IISc Bangalore)</b>	<b>Bheemarjuna Reddy Tamma (IIT Hyderabad)</b>	<b>Hema A Murthy (IIT Madras)</b>	<b>Shanmuganathan Raman (IIT Gandhinagar)</b>
<b>9:50-10:20</b>	<b>Invited:</b> Liam Barry (Dublin City University), All-optical wavelength conversion for fast reconfigurable optical networks	<b>Invited:</b> Parimal Parag (IISc Bangalore), Latency Analysis for Distributed Storage	<b>Invited:</b> Sri Garimella (Amazon), Overview of Amazon Echo's Speech Recognition System	<b>Invited:</b> Ashok Veeraraghavan (Rice University, USA), Computational Imaging: Beyond the limits imposed by lenses
<b>10:20-10:40</b>	On Fractional Linear Network Coding Solution of Multiple-Unicast Networks, Niladri Das and Brijesh Kumar Rai (Indian Institute of Technology Guwahati, India)	UDA: Fast Transport Protocol for D2D Networks over WiFi, Divyansh Singh, Veerendra Singh, Aniesh Chawla and Somit Pangtey (IIT Delhi, India); Vinay J. Ribeiro (IIT, Delhi, India)	Addressing Data Sparsity in DNN Acoustic Modeling, Seeram Tejaswi and Umesh S (IIT Madras)	Computationally Efficient Deep Tracker: Guided MDNet, Pallavi Venugopal, Deepak Mishra and Gorthi R K Sai Subrahmanyam (Indian Institute of Space Science and Technology)
<b>10:40-11:00</b>	A Linear Programming Based Channel Coding Strong Converse for the BSC and BEC, Sharu Jose and Ankur A. Kulkarni (Indian Institute of Technology Bombay, India)	Enhanced Transmission Control Protocol for Space Network: A COTS Implementation, Sangita Dhara (Indian Institute of Technology Kharagpur, India); Raja Datta (IIT, Kharagpur, India); Kalyankumar Bandyopadhyay (IIT Kharagpur, India)	A Comparative Study on the Effect of Different Codecs on Speech Recognition Accuracy Using Various Acoustic Modeling Techniques, Srinivasa Raghavan, Nisha Meenakshi, Sanjeev Kumar Mittal and Chiranjeevi Yarra (IISc Bangalore), Anupam Mandal and K R Prasanna Kumar (Center for AI and Robotics, Bangalore), Prasanta Kumar Ghosh (IISc Bangalore)	Non-negative Matrix Factorization Based Illumination Robust Meanshift Tracking, Gargi Phadke, Rajbabu Velmurugan and Shubham Dawande (IIT Bombay)
<b>11:00-11:20</b>	Coding Theorems Using Renyi Information Measures, Himanshu Tyagi (Indian Institute of Science, India)	Dual-mode TCP: An Alternative Approach for Delay Tolerant Networks, Gulshan Gupta (IIST, India); Sarath Babu (IIST, India); Manoj Bs (Indian Institute of Space Science and Technology & California Institute of Telecommunication and IT, India)	Investigative Study of Various Activation Functions for Speech Recognition, Hari Vydana and Anil Kumar Vuppala (IIIT Hyderabad)	Evaluation of Feature Channels for Object Tracking in RGB and Thermal Imagery Using Correlation Filter, Asha C. S. and V Narasimhadhan A (NIT Karnataka)
<b>11:20-11:40 Coffee-Break (IC&amp;SR Dining Hall)</b>				

Friday	Session2 -F2A -Comm - Channel Estimation	Session2 - F2B -Networks - Protocols, Algorithms and Applications - II	Session2 - F2C-SP - Music Signal Processing	Session2 - F2D-SP - Signal Processing for Radar and Communication
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Rajesh Sundaresan (IISc Bangalore)	Nikhil Karamchandani (IIT Bombay)	Padmanabhan Rajan (IIT Mandi)	Uday Khankhoje (IIT Madras)
<b>11:40-12:00</b>	Pilot Based Channel Estimation for Frequency Selective Multi-user MIMO MC-CDMA Systems, Apoorva Chawla (Indian Institute of Technology Kanpur, India); Naveen K.D Venkategowda (Korea University, Korea); Aditya K Jagannatham (Indian Institute of Technology Kanpur, India)	Enhancing Performance of Victim Macro Users via Joint ABSF and Dynamic Power Control in LTE HetNets, Deepa Martolia (IIT Hyderabad, India); Vanlin Sathya (University of Chicago, India); Anil kumar Rangiseti (IIT HYDERABAD, India); Bheemarjuna Reddy Tamma (IIT Hyderabad, India); Antony Franklin A (IIT Hyderabad, India)	Melodic Shape Stylization for Robust and Efficient Motif Detection in Hindustani Vocal Music, Kaustuv Kanti Ganguli (IIT Bombay & ITC Sangeet Research Academy), Ashwin Lele, Saurabh Pinjani and Preeti Rao (IIT Bombay), Ajay Srinivasamurthy (Idiap Research Institute), Sankalp Gulati (Universitat Pompeu Fabra)	BLMS and FBLMS-Based Adaptive Time Varying RCS Estimation and 2D-Imaging for Monostatic MIMO Radar Systems, Saumya Dwivedi, Archana Rawat and Aditya K Jagannatham (IIT Kanpur)
<b>12:00-12:20</b>	Frequency Synchronization and Channel Estimation for OFDM/OQAM Signals Transmitted Through Rayleigh Fading Channels, Prem Singh and Kasturi Vasudevan (Indian Institute of Technology Kanpur, India)	Maximizing the Throughput of Duty-Cycle Based Licensed-Assisted Access in the Unlicensed Band, Amudheesan Aadhithan N (IIIT Bangalore, India); Prashant K Wali (PESIT South Campus, India); Debabrata Das (IIIT - Bangalore, India)	Music Genre Classification by Fusion of Modified Group Delay and Melodic Features, Rajeev Rajan and Hema A Murthy (IIT Madras)	Approximations to Detectors for Gaussian Targets in Compound Gaussian Clutter Using MIMO Radar, Anish Turlapaty (VR Siddhartha Engineering College)
<b>12:20-12:40</b>	Optimal Pilot Design for Channel Estimation in Single/Multicarrier Block Transmission Systems, Manjeer Majumder, Ankit Kudeshia, Aditya K Jagannatham (IIT Kanpur, India)	Architectural Challenges and Solutions for Collocated LWIP - A Network Layer Perspective, Thomas Valerrian Pasca S, Amogh PC and Debashisha Mishra, Nagamani Dheeravath, Anil kumar Rangiseti, Bheemarjuna Reddy Tamma, Antony Franklin A (IIT Hyderabad, India)	An Approach to Transcription of Varnams in Carnatic Music Using Hidden Markov Models, Krishnaraj Sekhar PV (IIT Madras), Venkata Viraraghavan (TCS), Sridharan Sankaran (IIT Madras and TCS) and Hema A Murthy (IIT Madras)	GLRT Based Subspace Detector for Joint Target Detection and Imaging in Monostatic MIMO-OFDM Radar Systems, Saumya Dwivedi and Aditya K Jagannatham (IIT Kanpur)
<b>12:40 - 13:00</b>	A ML Detection for UWA Communication with Nakagami Fading and GG Noise, Snigdha Bhuyan, Siddharth Deshmukh, Ravi Tiwari (NIT Rourkela, India)	Sniffer-based Inference of the Causes of Active Scanning in WiFi Networks, Dheryta Jaisinghani, Vinayak Naik and Sanjit Kaul (IIIT Delhi, India); Sumit Roy (University of Washington, USA)	Raga Identification Using Locality Sensitive Hashing, Padmasundari G and Hema A Murthy (IIT Madras)	Implementation of Digital Pre-Distortion for Power Amplifier Linearisation in Software Defined Radio, Krishnakumar Sreedharan Pillai, Sagar S., Shine Kilacha Parambeth, Prem Krishnan N. (CDAC)
<b>13:00-14:20 LUNCH (IC&amp;SR Dining Hall)</b>				

Friday	Session3 - F3A-Comm-Cellular networks I	Session3 - F3B -Optical Communication	Session3 - F3C-SP - Speech and Audio Processing	Session3 - F3D-SP - Computer Vision - II
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Neelesh B. Mehta (IISc Bangalore)	Liam Barry (Dublin City University)	C. S. Ramalingam (IIT Madras)	Arnav Bhavsar (IIT Mandi)
14:20-14:50	<b>Invited:</b> Jishnu (Tejas Networks), Rethinking Communication Network Architecture	<b>Invited:</b> Ezra Ip (NEC Labs), Recent Advances in Mode-Division Multiplexed Transmission using Few-Mode Fibers	<b>Invited:</b> Mrityunjy Chakraborty (IIT Kharagpur), Sparse Adaptive Filters - an Overview and Some Emerging Trends	<b>Invited:</b> Aswin Sankaranarayanan (CMU), Unconstrained 3D Imaging
14:50-15:10	Sojourn Time Based Maximum Likelihood Estimator for Velocity Estimation in HetNets, Ravi Tiwari (NIT Rourkela, India); Siddharth Deshmukh (National Institute Of Technology, Rourkela, India)	Impact of Multimode Fiber Core Radius and Operating Wavelength in Mode-Field Diameter Matched Twin Spot Launching Technique, Thomas Joseph (IIT Bombay, India); Joseph John (IIT Bombay)	Fusion of Spectral and Prosodic Information Using Combined Error Optimization for Keyword Spotting, Laxmi Pandey, Kuldeep Chaudhary and Rajesh M Hegde (IIT Kanpur)	Hashing in the Zero Shot Framework, Shubham Pachori; Shanmuganathan Raman (IIT Gandhinagar)
15:10-15:30	Residual Energy Maximization in Cooperative Spectrum Sensing with Energy Harvesting, Avik Banerjee and Santi Prasad Maity (Indian Institute of Engineering Science and Technology, Shibpur, India)	Regeneration of 10 Gbps BPSK Signals Through Phase Sensitive Amplification Coupled with Injection Locking, Sai Kanth Dacha, Arjun Iyer and Aneesh Sobhanan (Indian Institute of Technology Madras, India); Deepa Venkitesh (IIT Madras, India)	Voice Activity Detection for Children's Read Speech in Noisy Conditions, Ankita Pasad, Kamini M Sabu and Preeti Rao (IIT Bombay)	Object Counting in a Single Surveillance Image, Jivnesh Sandhan, Amit Mitra and Venkatesh K Subramanian (IIT Kanpur)
15:30-15:50	Secrecy Outage of Cooperative Relay Network with and Without Eavesdropper's Direct Link, Khyati Chopra (IIT Delhi, India); Ranjan Bose (IIT Delhi, India); Anupam Joshi (UMBC, USA)	Multiplexing Using Principal Modes in Spliced MMFs with Mode Dependent Losses, Jinesh C Jacob and Kumar Appaiah (Indian Institute of Technology Bombay, India)	Mel-Scale Sub-band Modelling for Perceptually Improved Time-Scale Modification of Speech and Audio Signals, Neeraj Sharma, Shreepad Potadar, Srikanth Raj Chetupalli and Thippur V. Sreenivas (IISc Bangalore)	The Semantic Multinomial Representation of Images Obtained Using Dynamic Kernel Based Pseudo-concept SVMs, Shikha Gupta and Dileep Aroor Dinesh (IIT Mandi), Veena Thenkanidivoor (NIT Goa)
15:50-16:10	<b>Qualcomm talk and interaction with students</b>	Approximate Design Equation for Iris Width Calculation of Iris Substrate Integrated Waveguide (SIW) Bandpass Filters, Ramanand Sagar Sangam and Rakshesh Singh Kshetrimayum (Indian Institute of Technology Guwahati, India)	Hopfield Net Framework for Audio Search, Vandana Ladwani, Y Vaishnavi, R Shreyas, B. Vinay Kumar, N. Harisha, S. Yogesh, P Shivaganga and Ramasubramanian Viswanathan (PESIT - Bangalore South Campus )	
<b>16:10-16:30 Coffee-Break (IC&amp;SR Dining Hall)</b>				

Friday	Session4 - F4A-Comm-Coding and Information theory - II	Session4 - F4B-Networks - Resource Allocation and Optimization - I	Session4 - F4C-Comm - Cellular networks - II	Session4 - F4D-SP - Signal Processing - II
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Adrish Banerjee (IIT Kanpur)	Krishna P Jagannathan (IIT Madras)	Chandra R. Murthy (IISc Bangalore)	Rajesh M. Hegde (IIT Kanpur)
16:30-17:00	<b>Invited:</b> Klutto Milleth (CEWiT), Flexi-OFDMA waveform for 5G	<b>Invited:</b> Naveen K P (IIT Madras), Coverage Properties of One-Dimensional Infrastructure-Based Wireless Networks	<b>Invited:</b> Thas Nirmalathas (University of Melbourne), Integration of Optical-Wireless Networks for Broadband Mobile Networks	<b>Invited:</b> Praneeth Netrapalli (Microsoft Research), Parallelizing Stochastic Approximation Through Mini-Batching and Tail-Averaging
17:00-17:20	Precoder Quantization Vs Channel Quantization in Interference Channel with Limited Feedback, Navneet Garg and Govind Sharma (Indian Institute of Technology Kanpur, India)	Resource Pooling in Large-Scale Content Delivery Systems, Srinivas Kota (Indian Institute of Technology, Bombay, India); Sharayu Moharir and Nikhil Karamchandani (Indian Institute of Technology Bombay, India)	New Error Function Companding Technique to Minimize PAPR in LTE Uplink Communications, Shri Ramtej K (National Institute of Technology, Warangal, India); Anuradha S (NIT-Warangal, India)	Unsupervised Birdcall Activity Detection Using Source and System Features, Anshul Thakur and Padmanabhan Rajan (IIT mandi)
17:20-17:40	Feedback-Capacity of Degraded Gaussian Vector BC Using Directed Information and Concave Envelopes, Viswanathan Ramachandran (Indian Institute of Technology Bombay, India); Sibi Raj B Pillai (IIT Bombay, India)	Online Adaptation Models for Resource Usage Prediction in Cloud Network, Shaifu Gupta (Indian Institute of Technology Mandi); Dileep Aroor Dinesh (Indian Institute of Technology Mandi (IIT Mandi), India)	A New Amplify and Forward Relay Based OFDM Cooperative Communication System, Karunya Ch (Uurmi Systems Pvt Ltd, India); Aloob T (UURMI SYSTEMS, India); Nanda Kishore Chavali (Uurmi Systems Pvt. Ltd. & IIT Hyderabad, India); JameerAli MS (UURMI Systems, India)	Scattering Representation in Malayalam Character Recognition, Manjusha K, Anand Kumar M and Soman K P (Amrita Vishwa Vidyapeetham)
17:40-18:00	Jointly Broadcasting Data and Power with Quality of Service Guarantees, Krishnan P Deekshith (Indian Institute of Science, India); Trupthi Chougule, Shreya Turmari, Ramya Raju and Rakshitha Ram (PES Institute of Technology, India); Vinod Sharma (Indian Institute of Science, India)	Reducing Ping-Pong Handovers in LTE by Using A1-Based Measurements, Malhar Thakkar (Indian Institute of Technology Hyderabad, India); Lavish Agrawal (IIT Hyderabad, India); Anil kumar Rangiseti (IIT HYDERABAD, India); Bheemarjuna Reddy Tamma (IIT Hyderabad, India)	Evaluation of Spatial Correlation and Its Effect on Channel Capacity of Uniform Planar Antenna Array, Aritra Chatterjee (IIT KHARAGPUR, India); Sourav Chatterjee (Indian Institute Of Technology Kharagpur, India); Suvra Sekhar Das (Indian Institute of Technology Kharagpur, India)	A High Resolution ENF Based Multi-Stage Classifier for Location Forensics of Media Recordings, Pradyumna Suresha and Supriya Nagesh (Georgia Institute of Technology), Priyadarshini Savan Roshan (NIT Karnataka), Aditya Gaonkar P (Columbia University), Nisha Meenakshi and Prasanta Kumar Ghosh (IISc Bangalore)
18:30-19:30	<b>Plenary talk: S. Christopher, Secretary, Department of Defence R &amp; D, Chairman, DRDO (IC&amp;SR Auditorium)</b>			
19:30	<b>Banquet (Venue: Open Air Theatre)</b>			

**SATURDAY March 4, 2017**

<b>8:30-9:30 Plenary talk: Richard Baraniuk, Rice University, USA "A Probabilistic Theory of Deep Learning" (IC&amp;SR Auditorium)</b>				
<b>Saturday</b>	<b>Session1 -S1A -Comm-Coding and Information theory - III</b>	<b>Session1 - S1B-Networks-Resource Allocation and Optimization - II</b>	<b>Session1 - S1C-Comm -Performance Analysis</b>	<b>Session1 - S1D-SP - Speech Processing - II</b>
<b>Room</b>	<b>IC&amp;SR Auditorium</b>	<b>IC&amp;SR Hall 1</b>	<b>IC&amp;SR Hall 2</b>	<b>IC&amp;SR Hall 3</b>
<b>Session Chair</b>	<b>Dharmaraja Selvamuthu (IIT Delhi)</b>	<b>Venkatesh Ramaian (IIT Madras)</b>	<b>Sheetal Kalyani (IIT Madras)</b>	<b>Dileep Aroor Dinesh (IIT Mandi)</b>
<b>9:50-10:20</b>	<b>Invited:</b> Harish Krishnaswamy (Columbia University), Full Duplex Wireless: From Fundamental Physics and Integrated Circuits to Complex Systems and Networking	<b>Invited:</b> Sharayu Moharir (IIT Bombay), Revenue Maximization in Two-Sided Markets	<b>Invited:</b> Arvind Mishra (Sterlite), Development of Next Generation Broadband Access Technologies	<b>Invited:</b> Srikanth R (Microsoft India), Speech recognition in the Indian Context
<b>10:20-10:40</b>	Unequal Locality and Recovery for Locally Recoverable Codes with Availability, Sourbh Bhadane (Indian Institute of Technology Madras, India); Andrew Thangaraj (IIT Madras, India)	A Distributed Algorithm for Quality-of-Service Provisioning in Multihop Networks, Ashok Krishnan K. S. and Vinod Sharma (Indian Institute of Science, India)	Performance Analysis of Symbol Swapped Spatial Modulation, Palani Maheswaran (IIITD&M Kancheepuram, India); Mandha Damodaran Selvaraj (IIITD&M, India)	Acoustic and Language Modeling for Children's Read Speech Assessment, Hitesh R Tulsiani, Prakhar Swarup and Preeti Rao (IIT Bombay)
<b>10:40-11:00</b>	Sum-networks: Dependency on Characteristic of the Finite Field Under Linear Network Coding, Niladri Das and Brijesh Kumar Rai (Indian Institute of Technology Guwahati, India)	AMPS: Application Aware Multipath Flow Routing Using Machine Learning in SDN, Thomas Valerrian Pasca S and Siva sairam prasad Kodali (IIT Hyderabad, India); Kotaro Kataoka (Indian Institute of Technology Hyderabad, India)	Outage Analysis of DF Based SIMO-RF/FSO System with Selection Combining at Relay, Neha Singhal (Indira Gandhi Delhi Technical University, India); Ankur Bansal (Netaji Subhas Institute of Technology, University of Delhi, New Delhi, India); Ashwani Kumar (Indra Gandhi Delhi Technical University, India)	DNN Acoustic Models for Dysarthric Speech, Seeram Tejaswi and Umesh S (IIT Madras)
<b>11:00-11:20</b>	A Maximization Problem Related to Huffman Codes, Shivkumar Manickam and Navin Kashyap (Indian Institute of Science, India)	Truthful Reverse Auction for Relay Selection, with High Data Rate and Base Station Utility, in D2D Networks, Aditya Mvs (IIT Bombay, India); Pola Priyanka (IIT Bombay, India); Gaurav S. Kasbekar (IIT Bombay, India)	Performance of Multiuser Communication System Using Phase Coded Linear Chirp Modulation, Arijit Roy (IIT Guwahati, India); Harshal Nemade (IIT India); Ratnajit Bhattacharjee (IIT Guwahati, India)	Improving Children Speech Recognition in Acoustically Mismatched Condition Using Eigenvoices and Feature Projections, Hemant Kathania (NIT Sikkim), Syed Shahnawazuddin (NIT Patna) and Rohit Sinha (IIT Guwahati)
<b>11:20-11:40 Coffee-Break (IC&amp;SR Dining Hall)</b>				

Saturday	Session2 -S2A - Comm - Decentralized networks	Session2 - S2B-Comm-Antenna Design	Session2 - S2C-SP - Speech Processing - III	Session2 - S2D-SP - Signal Processing - II
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Himanshu Tyagi (IISc Bangalore)	Mohammad Hashmi (IIIT Delhi)	Shajith Ikbal (IBM IRL)	Hema A Murthy (IIT Madras)
<b>11:40-12:00</b>	Optimal Routing and Data Transmission for Multi-Hop D2D Communications Under Stochastic Interference Constraints, Sireesha Madabhushi (IISc Bangalore, India); Govind Gopal (UC San Diego, USA); Chandra R Murthy (Indian Institute of Science, India)	Gain Enhancement of a Microstrip Patch Antenna Using a Novel Frequency Selective Surface, Adeline Mellita and Chandu DS, Sholampettai Subramanian Karthikeyan (IIITDM, Kancheepuram, India)	Classification of Healthy Subjects and Patients with Essential Vocal Tremor Using Empirical Mode Decomposition of High Resolution Pitch Contour, Mekhala H S (RV College of Engineering), Yamini B K, Ketan J, Pal P and Shivashankar N (NIMHANS), Prasanta Kumar Ghosh (IISc Bangalore)	Distributed Asynchronous Localization over WSNs via Non-Convex Consensus ADMM, Sandeep Kumar and Ketan Rajawat (IIT Kanpur)
<b>12:00-12:20</b>	Random Access Retransmission Scheme for Power Limited Nodes, Karthik Nagasubramanian (Samsung Research Institute Bangalore, India); Muni Sreenivas Pydi (IISc Bangalore, India)	On-Body Resilient SIW Based Antenna for WBAN Applications, Divya Chaturvedi (NIT Trichy, India)	Perceptual Evaluation of Simulated Auditory Source Width Expansion, Arthi S (IISc Bangalore), Adhithya K R (NIT Calicut) and Thippur V. Sreenivas (IISc Bangalore)	Usefulness of Linear Prediction Residual Signal for Development of Replay Attacks Detection System, Madhusudan Singh (NIT Nagaland)
<b>12:20-12:40</b>	An Accurate Channel Model for Optimizing Effect of Non-LOS Component in RF Energy Transfer, Sidharth Kumar, Deepak Mishra and Swades De (IIT Delhi, India)	Multi-Constrained Array Synthesis Using Ant Lion Optimization with Penalty Function Method, Perna Saxena (VNIT, Nagpur, India); Ashwin Kothari (VNIT, Nagpur)	Exploration of Phase Information for Speech Emotion Classification, Suman Deb and Samarendra Dandapat (IIT Gandhinagar)	Vowel Onset Point Based Characterization of Velopharyngeal Activity Using Imaging Techniques, Protima Nomo Sudro, Vikram Cm and S. R. Mahadeva Prasanna (IIT Guwahati)
<b>12:40 - 13:00</b>	Realistic Indoor Path Loss Modeling for Regular WiFi Operations in India, Hemant Kumar Rath (Tata Consultancy Services, India); Sumanth Timmadasari (IIT Madras, India); Bighnaraj Panigrahi and Anantha Simha (Tata Consultancy Services, India)	Design of a Via-Less, Compact CPW-fed ZOR Antenna for WLAN Applications, Vivek Dhondiram Mundhe (Visvesvaraya National Institute of Technology, India); Joydeep Sengupta (Visvesvaraya National Institute of Technology, Nagpur & Visvesvaraya National Institute of Technology, Nagpur, India); Vinay Kumar (Visvesvaraya National Institute of Technology Nagpur, India)	Capturing Indian Phonemic Diversity with Multiple Posteriorgrams for Multilingual Query-by-Example Spoken Term Detection, Abhimanyu Popli (IIT Delhi & CDOT) and Arun Kumar (IIT Delhi)	Parameter Estimation of a Moving Acoustic Source: Linear Chirplet Transform Vs WVD (Sai Gunaranjan Pelluri; Thippur V. Sreenivas (IISc Bangalore))
<b>13:00-14:20 LUNCH (IC&amp;SR Dining Hall)</b>				

Saturday	Session3 -S3A-Comm- Communication theory	Session3 - S3B-Comm - Microwave Design	Session3 - S3C-SP - Speech and Language Processing	Session3 - S3D-SP - Image Processing and Computer Vision
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Radha Krishna Ganti (IIT Madras)	Kumar Appaiah (IIT Bombay)	Ramasubramanian Viswanathan (PESIT Bangalore South Campus)	Rajbabu Velmurugan (IIT Bombay)
14:20-14:50	<b>Invited:</b> Zhang Ping (Beijing University of Posts and Telecommunications), Load Balancing in Small Cell Networks Using User Equipment Transfer	<b>Invited:</b> Saurabh Saxena (IIT Madras), Wireline communication: The backbone of data transfer	<b>Invited:</b> Shajit Ikbal (IBM-IRL), Document Extraction and Understanding	<b>Invited:</b> Oliver Cossairt (Northwestern University), SAVI: Synthetic Apertures for long-range, sub-diffraction Visible Imaging Using Fourier Ptychography
14:50-15:10	Filterbank Multicarrier-QAM for MIMO Systems, Arjun R and Ishan Bhadauria (IIT Bombay, India); Harshal Shah (IIT BOMBAY, India); Vivek Sangwan (Indian Institute of Technology Bombay, India); Vikram M. Gadre (IIT Bombay, India)	A Miniaturized Wideband Bandpass Filter Based on $3\lambda/4$ Resonator Loaded with Stepped Impedance, Satya Krishna Idury (IIITD&M, Kancheepuram, India); Rusan Kumar Barik (IIITDM, India); Sholampettai Subramanian Karthikeyan (IIITDM, Kancheepuram, India)	Pause Insertion in Assamese Synthesized Speech Using Speech Specific Features, Bidisha Sharma and S. R. Mahadeva Prasanna (IIT Guwahati)	Simultaneous Blur Map Estimation and Deblurring of A Single Space-variantly Defocused Image, Latha H. Narayan, Kranti K Parida and Rajiv Ranjan Sahay (IIT Kharagpur)
15:10-15:30	Single-carrier Media-based Modulation in ISI Channels, Swaroop Jacob (Indian Institute of Science, Bangalore, India); A. Chockalingam (Indian Institute of Science, India)	Symmetric Tri-band Balun Architecture with a Systematic Design Procedure, Rahul Gupta (IIIT Delhi, India); Ajay Yadav (Keysight, India); Mohammad Hashmi (IIITD, India)	Pitch Prediction from Mel-Frequency Cepstral Coefficients Using Sparse Spectrum Recovery, Achuth Rao MV and Prasanta Kumar Ghosh (IISc Bangalore)	Local Segment-based Dense Depth Reconstruction from Very Sparsely Sampled Data, Chandra Shaker Balure (NIT Karnataka), Arnav Bhavsar (IIT Mandi) and Ramesh M Kini (NIT Karnataka)
15:30-15:50	On the Relation Between Non-linear Pre-equalization with Post-processing and Linear Beamforming for Single User MIMO System, Nanda Kishore Chavali (Uirmi Systems Pvt. Ltd. & IIT Hyderabad), Kiran Kuchi (IIT Hyderabad), Umaphathi Reddy (IIT Hyderabad)	Design of Compact $180^\circ$ Hybrid Coupler for Unequal Power Division Ratio Using a High Slow Wave Structure, Kanaparthi V Phani Kumar, Rusan Kumar Barik, Satya Krishna Idury, Sholampettai Subramanian Karthikeyan (IIITDM, Kancheepuram, India)	A Semi-Automatic Method for Transcription Error Correction for Indian Language TTS Systems, Swetha Thanamala, Jeena Prakash and Hema A Murthy (IIT Madras)	Optic Disc Detection Using Vessel Characteristics and Disc Features, Ambika Sharma (IIT Delhi)
15:50-16:10	A Non-coherent UWB Receiver Using Signal Cluster Sparsity, Sanjeev Sharma (Indian Institute of Technology, Indore, India); Vimal Bhatia (Indian Institute of Technology Indore, India); Anubha Gupta (Indraprastha Institute of Information Technology Delhi, India)	Balanced-to-Unbalanced Out-of-Phase Wilkinson Equal Power Divider, Amar Nath Yadav (Indian Institute of Information Technology Guwahati, India); Ratnajit Bhattacharjee (Indian Institute of Technology, Guwahati, India)	Prosodic Differential for Narrow-focus Word-stress in Speech Synthesis, Anusha Kamat, Abhishek Krishnamurthy, D. Krishna and Ramasubramanian Viswanathan (PES Institute of Technology, Bangalore South Campus)	A Study of Interdependence Between Vessel Enhancement and Registration for Lung 4D-CT, Tejas Lunawat, Suramya Gupta and Arnav Bhavsar (IIT mandi)
<b>16:10-16:30 Coffee-Break (IC&amp;SR Dining Hall)</b>				



Saturday	Session4 -S4A -Comm-Cognitive networks	Session4 - S4B-Networks-Wireless Networks and Applications	Session4 - S4C-Comm-Coding and Information theory - IV	Session4 - S4D-SP - Signal Processing - III
Room	IC&SR Auditorium	IC&SR Hall 1	IC&SR Hall 2	IC&SR Hall 3
Session Chair	Swades De (IIT Delhi)	K. P. Naveen (IIT Madras)	Ranjan K. Mallik (IIT Delhi)	Rohit Sinha (IIT Guwahati)
<b>16:30-17:00</b>	<b>Invited:</b> Rohit Budhiraja (IIT Kanpur), Joint Transceiver Design for QoS-Constrained MIMO Two-Way Non-Regenerative Relaying Using Geometric Programming	<b>Invited:</b> Viswanadha Reddy (IIT Madras), Strategic and computational trade-offs in endogenous coalition formation	<b>16:30-16:50</b> Non-constructive Lower Bounds for Binary Asymmetric Error Correcting Codes, Parthe Pandit (University of California, Los Angeles, USA); Ankur A. Kulkarni (IIT Bombay, India)	<b>16:30-16:50</b> Automatic Modulation Classification by Exploiting Cyclostationary Features in Wavelet Domain, Sushant Kumar; Vivek A Bohara; Sumit Jagdish Darak (IIIT Delhi)
<b>17:00-17:20</b>	Active Interference Cancellation Based Optimal Power Loading for OFDM Cognitive Radio, Manoranjan Rai Bharti (IIT Roorkee, India); Debashis Ghosh (IIT Roorkee, India)	CAIL: Cross-calibration for Accurate Indoor Localization Without Extensive Site Survey, Shweta Sood, Geetali Tyagi, Vinayak Naik and Rizwana Ahmad (IIIT Delhi, India)	<b>16:50-17:10</b> 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 Institute of Technology, Delhi, India); Ranjan Bose (Indian Institute of Technology, India)	<b>16:50-17:10</b> 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 (IIT Guwahati)
<b>17:20-17:40</b>	On Optimal Power Allocation for Energy Efficient Multicasting over Cognitive Radio Fading Channels, 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)	Realistic Directional Antenna Suite for Cooja 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)	<b>17:10-17:30</b> Generalized Fano and non-Fano Networks, Niladri Das and Brijesh Kumar Rai (Indian Institute of Technology Guwahati, India)	<b>17:10-17:30</b> Detection of Global Abnormal Events in Crowded Scenes, N Patil (IIT Kharagpur)
<b>17:40-18:00</b>	Improved Estimation of TV White Spaces in India Using Terrain Data, Rakesh Gorrepati (IIIT-Hyderabad, India); Abhignya Eturu (Syracuse University, USA); Sachin Chaudhari (International Institute of Information Technology, India); Jan Oksanen (Aalto University, Finland)			