

# Twenty Second National Conference on Communications: NCC 2016

4<sup>th</sup> - 6<sup>th</sup> March 2016 | IIT Guwahati, Assam

## Final Technical Program Schedule

Friday, 4 <sup>th</sup> March 2016											
07:45   Breakfast (Conf. Center)	0830-1030 Hrs	Tea Break	1100-1200 Hrs	1200-1300 Hrs	Lunch Break (Conference Center Lobby)	1400-1600 Hrs	1600-1700 Hrs	Tea Break (Auditorium)	1730-1930 Hrs	Dinner (Conference Center Lobby)	2100 Hrs Onwards
	Tutorial-1 Prof. B. Sundar Rajan (Hall-2)		Industry Session-1	Industry Session-2		Industry Session-3 National Instruments "Hands-on SDR" (Hall-2)			Inauguration & Plenary Talk-I Prof. A. J. Paulraj (Auditorium)		JTG meeting (GH-Conf. Room)
	Tutorial-2 Dr. Chandra S. Seelamantula (Hall-3)		"Tutorial Talk on SDR" (Hall-2)	"Developing Nxt-Gen Wireless Comm Sys using MATLAB and Simulink" (Hall-2)		Industry Session-4	Industry Session-5				
	Tutorial-3 Dr. S. Shailendra (Hall-4)					MathWorks "SDR using MATLAB and Simulink" (System Simulation Laboratory)	Altair "LTE Antenna Design" (System Simulation Laboratory)				
Saturday, 5 <sup>th</sup> March 2016											
07:45   Breakfast (Auditorium)	0830-0930 Hrs	Tea Break	0945-1130 Hrs	1140-1325 Hrs	Lunch Break (Conference Center Lobby)	1400-1450 Hrs	1500-1630 Hrs	Tea Break	1645-1845 Hrs	1900-2030 Hrs	2030Hrs onwards
	Plenary Talk-II Prof. Biswanath Mukherjee (Auditorium)		Oral Com-1 (Hall-2)	Oral Com-2 (Hall-2)		Invited Talk-1 Prof. R. K. Mallik (Hall-2)	Oral Com-3 (Hall-2)		Industry Session-6 MathWorks "Video Processing on Raspberry Pi Using Simulink" (System Simulation Laboratory)	Cultural Program (Auditorium)	Conference Dinner (Conference Center Lobby)
			Oral NW-1 (Hall-4)	Oral NW-2 (Hall-4)		Invited Talk-2 Prof. S. Chaudhuri (Hall-3)	Oral SP-1 (Hall-3)				
			Poster SP-1 (Wing Area)	Poster SP-2 (Wing Area)			Poster NW (Wing Area)				
Sunday, 6 <sup>th</sup> March 2016											
07:45   Breakfast (Auditorium)	0830-0930 Hrs	Tea Break	0945-1200 Hrs	1200-1300 Hrs	Lunch Break (Conference Center Lobby)	1400-1515 Hrs	1515-1630 Hrs	1630 Hrs Onwards			
	Plenary Talk-III Prof. P. Vijay Kumar (Auditorium)		Oral SP-2 (Hall-3)			Oral Com-4 (Hall-2)	Oral Com-5 (Hall-2)	Valedictory session followed by High Tea (Hall-2)			
			Poster Com-1 (Wing Area)	Poster Com-2 (Wing Area)		Poster SP-3 (Wing Area)	Poster SP-4 (Wing Area)				
	Industry Session-7 National Instruments "Round Table on 5G Communication Networks" (Hall-2)										

**Saturday, March 05, 2016 | Oral Session: Com-1 (Communication Theory) | Session Timings: 0945-1130 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570220200	Lower Bounds for Interactive Function Computation via Wyner Common Information	Shijin Rajakrishnan and Sundara Rajan (IIT Madras, India); Vinod M Prabhakaran (Tata Institute of Fundamental Research, India)
1570220353	Coded Caching in Hybrid Networks	Abhinav Sridhar (National Institute of Technology Karnataka Surathkal, India); Nikhil Karamchandani (Indian Institute of Technology Bombay, India); Vinod M Prabhakaran (Tata Institute of Fundamental Research, India)
1570223391	A New Set of Codes with Swift Decoding for Overloaded Synchronous CDMA	Amiya Singh (National Institute of Technology, Rourkela, India); Poonam Singh (National Institute Of Technology, Rourkela, India); Arash Amini (Sharif University of Technology, Iran); Farokh Marvasti (Sharif university of Technology, Iran)
1570224848	A novel method for automatic modulation classification under non-Gaussian noise based on variational mode decomposition	Titir Dutta (Indian Institute of Technology Bhubaneswar, India); Udit Satija (Indian Institute of Technology, Bhubaneswar, India); Barathram. Ramkumar and M Sabarimalai Manikandan (Indian Institute of Technology Bhubaneswar, India)
1570226981	Analog Processing-Based Coherent Optical Receiver for 16-QAM Signals with 12.5 Gbd Baud Rate	Yogesh Patil and Atishay Sharma (IIT Bombay, India); Nandakumar Nambath (Indian Institute of Technology, Bombay, India); Shalabh Gupta (IIT Bombay, India)
1570227567	Reduced Dimension Superimposed Precoder Feedback For Interference Alignment	Navneet Garg and Govind Sharma (Indian Institute of Technology Kanpur, India)
1570231946	LFSR Identification using Groebner Bases	Saravanan Vijayakumaran (IIT Bombay, India)

**Saturday, March 05, 2016 | Oral Session: NW-1 (Networks) | Session Timings: 0945-1130 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570227441	VoIPFD: Voice Over IP Flooding Detection	Diksha Golait and Neminath Hubballi (Indian Institute of Technology Indore, India)
1570227477	Trace based application layer modeling in ns-3	Prakash Agrawal and Mythili Vutukuru (Indian Institute of Technology, Bombay, India)
1570227646	CCU: Algorithm for Concurrent Consistent Updates for a Software Defined Network	Radhika Sukapuram (Indian Institute of Technology, Guwahati, India); Gautam Barua (Indian Institute of Technology Guwahati, India)

1570228643	Intrusion Detection System for Identification of Throughput Degradation Attack on TCP	Ashish Bhandari (Samsung Research India Bangalore, India); Mayank Agarwal (Indian Institute of Technology Guwahati, India); Santosh Biswas (IIT Guwahati, India); Sukumar Nandi (Indian Institute of Technology, Guwahati, India)
1570231807	Asymptotic Approximations for TCP Compound	Sudheer Poojary (Indian Institute of Science, Bangalore, India); Vinod Sharma (Indian Institute of Science, India)
1570232136	CoSEL: Control-plane Only Scalable Efficient and Lightweight SDN Debugger	Nihal Srivastava (Indian Institute of Technology, Delhi, India); Gaurav Singh (IIT Delhi, India); Vinay Ribeiro (Indian Institute of Technology, Delhi, India); Huzur Saran (Indian Institute of Technology, India); Suresh Gupta (IIT Delhi, India)
1570232308	Model-Based Interference Cartography and Visualization	PN Karthik, Raksha Ramakrishna, Geethu Joseph, Chandra R Murthy, Joyson Sebastian and Neelesh B. Mehta (Indian Institute of Science, India)

**Saturday, March 05, 2016 | Poster Session: SP-1 (Signal Processing) | Session Timings: 0945-1130**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570222853	Convergence Rate Analysis of Smoothed LASSO	Subhadip Mukherjee and Chandra Sekhar Seelamantula (Indian Institute of Science, India)
1570223097	Low Complexity In-Loop Skin Tone Detection for ROI Coding in the HEVC Encoder	Piyali Goswami (Texas Instruments India Pvt. Ltd., India); Palanki Srikanth and Jasmin Rahiman (NITK Surathkal, India)
1570224053	Euclidean Auto Calibration of Camera Networks: Baseline Constraint Removes Scale Ambiguity	Kiran Kumar Vupparaboina (IIT Hyderabad, India); Kamala Raghavan Sadagopan (IIT Madras, India); Soumya Jana (Indian Institute of Technology, Hyderabad, India)
1570224615	Hardware Implementation of Quadtree Based Fractal Image Decoder	Mamata Panigrahy (Indian Institute of Technology, Kharagpur, India); Indrajit Chakrabarti (IIT Kharagpur, India); Anindya S. Dhar (Indian Institute of Technology, Kharagpur, India)
1570228554	Formant filters-based multi-band speech enhancement algorithm for intelligibility improvement	MP Actin Jeeva, Nagarajan T and P Vijayalakshmi (SSN College of Engineering, India)

1570226622	Landscaping of Random Forests through Controlled Deforestation	Kausik Das and Abhijit Guha Roy (Indian Institute of Technology Kharagpur, India); Jyotirmoy Chatterjee (IIT Kharagpur, India); Debdoot Sheet (Indian Institute of Technology Kharagpur, India)
1570226687	Image quality assessment for a selective-processing noise-aided iterative enhancement algorithm	Rajlaxmi Chouhan and Prabir Kumar Biswas (Indian Institute of Technology Kharagpur, India)
1570227021	An Efficient Formulation and Parameter Selection for Multiple Image Super-Resolution	Anjany Kumar Sekuboyina and Chandra Sekhar Seelamantula (Indian Institute of Science, India)
1570227315	Acoustic Echo Cancellation using a Multi-Resolution Non-Negative Matrix Factorization Method	Anshul Bansal (Cognizant Technology and Solutions, India); Sakshi Choukse (Indian Institute of Technology, Kanpur, India); Karan Nathwani (IIT KANPUR, France); Rajesh M Hegde (Indian Institute of Technology Kanpur, India)
1570227444	A Novel Image Enhancement Technique based on Statistical Analysis of DCT coefficients for JPEG Compressed Images	Jaspreet Bhatia and Manish Okade (National Institute of Technology (NIT), Rourkela, India)
1570227459	Integral Channel Feature based Arbitrary Object Tracking	Mayur Rajaram Parate, Saugata Sinha and Kishor Bhurchandi (Visvesvaraya National Institute of Technology, India)
1570227628	Compressive Sensing based Scalable Video Coding for Space Applications	Noor e Karishma Shaik and Batta Kota Naga Srinivasa Rao (Indian Institute of Technology Kharagpur, India); Indrajit Chakrabarti (IIT Kharagpur, India)
1570227658	Spectral Approaches for Motion Intensity Estimation in Video Coding	Ankit Ashokrao Bhurane (VNIT Nagpur, India); Harshal Nishar and Hardik Agarwal (IIT Bombay, India); Ashwin Kothari (VNIT Nagpur, India); Vikram M. Gadre (IIT Bombay, India)
1570227663	Sampling and Reconstruction of Time-Limited Signals Using Sum-of-Sincs Kernel	Satish Mulleti and Chandra Sekhar Seelamantula (Indian Institute of Science, India)
1570226515	Adaptive Propagation-based Skin Segmentation Method for Color Images	Biplab Chakraborty, Manas Bhuyan and Sunil Kumar (IIT Guwahati, India)

**Saturday, March 05, 2016 | Oral Session: Com-2 (Communication Networks) | Session Timings: 1140-1325 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570222963	On the Transmit Diversity of Time Successive SSK-BPSK System	Palani Maheswaran (Indian Institute of Information Technology Design and

		Manufacturing Kancheepuram, India); Mandha Damodaran Selvaraj (Indian Institute of Information Technology, Design and Manufacturing, India)
1570225427	Connectivity in CRNs with Bounded Treewidth Potential Graph and its Fixed Parameter Tractability	Akhil Sherawat (IIT Patna, India); Rajiv Misra (Indian Institute of Technology, India); Ram Narayan Yadav (Indian Institute of Technology Patna, India)
1570227353	Broadcast Channel with Confidential Messages and Secret Keys	Krishnamoorthy Iyer (IIT Bombay, India)
1570227605	Network Based Offloading in LTE WLAN Heterogeneous Networks	Mahima Mehta (Intel Mobile Communications India Pvt. Ltd., India); Arijit Bhattacharjee (Indian Institute of Technology Guwahati & Tata Consultancy Services Ltd, India); Nadeem Akhtar (Mojo Networks, India); Abhay Karandikar (IIT Bombay, India)
1570231729	A Taylor Series Approximation Technique for Self-Interference Cancellation in Full-Duplex Radios	Arjun Nadh (Indian Institute of Technology Madras, India); Ankit Sharma (Indian Institute of Technology - Madras, India); Sankaran Aniruddhan (Indian Institute of Technology Madras, USA); Radha Krishna Ganti (Indian Institute of Technology Madras, India)
1570232369	Path Loss Model for Indian Terrain - Empirical Approach	Hemant Kumar Rath (Tata Consultancy Services, India); Sonakshi Verma (IIT Guwahati, India); Anantha Simha (Tata Consultancy Services, India); Abhay Karandikar (IIT Bombay, India)
1570232514	Effective Ranging techniques in LTE	S Ramanan (Indian Institute of Technology MADRAS, India)

**Saturday, March 05, 2016 | Oral Session: NW-2 (Networks) | Session Timings: 1140-1325 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570220492	A Novel pCDC ROADM Architecture using MxN WSS	Ashwin A Gumaste (Indian Institute of Technology, Bombay, India); Snehalesh Mahale (IIT Bombay, India); Aniruddha Singh Kushwaha (IIT-Bombay, India); Nilesh Bajaj (IIT Bombay, India); Venkatesh Tamarapalli (Indian Institute of Technology Guwahati, India)

1570226511	SINR Based Limited Feedback Scheduling For MIMO-OFDM Heterogeneous Broadcast Networks	Prabina Pattanayak and Preetam Kumar (Indian Institute of Technology Patna, India)
1570227594	Analysis of Impartial Quality Measurements on Indian Broadband Connections	Prasad Talasila, Dhruv Shekhawat and Sukanto Guha (Birla Institute of Technology and Science, Pilani - KK Birla Goa Campus, India); Neena Goveas (BITS Pilani K K Birla Goa Campus, India); Bharat Deshpande (Birla Institute of Technology and Science, Pilani - KK Birla Goa Campus, India)
1570231723	Achievable Throughput in Relay-powered RF Harvesting Cooperative Sensor Networks	Deepak Mishra and Swades De (Indian Institute of Technology Delhi, India)
1570232450	Two-Tier Peer Selection Strategy to Minimize Delay in P2P Live Streaming Systems	Shilpa Budhkar and Venkatesh Tamarapalli (Indian Institute of Technology Guwahati, India)
1570232480	Image Analysis for Network based Agri Advisory System	Snehal Shete (IIT Mandi, India); Timothy A. Gonsalves (Indian Institute of Technology, Mandi, India); Devendra Jalihal (Indian Institute of Technology Madras, India)
1570232508	Base Station Switching With CoMP in Cellular Networks	Yoghitha R and Abhinav Kumar (Indian Institute of Technology Hyderabad, India)

**Saturday, March 05, 2016 | Poster Session: SP-2 (Signal processing) | Session Timings: 1140-1325 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570227725	A Smartphone App-Based Digital Hearing Aid with Sliding-Band Dynamic Range Compression	Nitya Tiwari (Indian Institute of Technology Bombay, India); Prem C. Pandey (IIT Bombay, India); Anurag Sharma (Quadro Devices Pvt. Ltd., Pune, India)
1570227727	Accurate Performance Analysis of a Fixed Point FFT	Pankaj Gupta (Wireless Connectivity Solutions, Texas Instruments India, India)
1570232467	Emotion-specific Features for Classifying Emotions in Story Text	Harikrishna DM (IIT-Kharagpur, India); K. Sreenivasa Rao (IIT KGP, India)
1570231911	E-Braille - A Self-learning Braille device	Mayuresh Shinde (University of Mumbai, India); Parag Wagh and Prafulla M Salunke (Mumbai University, India); Uday Prajapati (Mumbai University & Tema Engineering College, Nerul, Navi Mumbai, India); Vinayak Chaskar and Sanchit Telavane (Mumbai University, India); Vijaypal Yadav (University of Mumbai, India)
1570231920	Reliable Tempo Detection for Structural Segmentation in Sarod Concerts	Vinutha T. P. (Indian Institute of Technology

		Bombay, India); Suryanarayana Sankagiri (IIT Bombay, India); Preeti Rao (IIT-Bombay, India)
1570232026	<b>A Novel Approach to remove Random-valued Impulse Noise from Digital Image</b>	Govind Tanwar (Indian Institute of Engineering Science and Technology Shibpur, India); Sekhar Ranjan Bhadra Chaudhuri (Bengal Engineering and Science University, India)
1570232291	<b>Optimum Timing Interpolation Algorithm for 2-D Magnetic Recording Systems</b>	Eeshan Modak (Indian Institute of Science, India); Brijesh P Reddy (Applied Micro Circuits Corporation & Indian Institute of Science, India); Shayan Garani (Indian Institute of Science, Bangalore, India)
1570232324	<b>No-Reference Image Metric for Measurement and Visualization of Atmospheric Conditions</b>	Gaurav G. Bhosale (Uurmi Systems Pvt. Ltd., India); Ajinkya S. Deshmukh (Uurmi System Pvt. Ltd., India); Swarup Medasani (Chief Technology Officer & Uurmi Systems, USA)
1570232345	<b>Online Bengali Handwritten Numerals Recognition Using Deep Autoencoders</b>	Arghya Pal (Indian Institute of Technology Hyderabad, India); Banriskhem K. Khonglah (Indian Institute of Technology Guwahati, India); S R M Prasanna (IIT Guwahati, India); Hugo Rufiner (Universidad Nacional del Litoral, Argentina); Subhasis Mandal (Indian Institute of Technology Guwahati, India); Himakshi Choudhury (Indian Institute of Technology Guwahati, India); Vineeth Balasubramanian (Indian Institute of Technology Hyderabad, India)
1570232376	<b>Landmark Based Modification to Correct Distortions in Dysarthric Speech</b>	Shipla C p and Swathi V (Siddaganga Institute of Technology Affiliated to VTU, India); Veena Karjigi (SIT, Tumkur, India); Pavithra K s (Siddaganga Institute of Technology, affiliated to VTU, India); Saira Sultana (Siddaganga Institute of Technology Affiliated to VTU, India)
1570232393	<b>A Novel Quantized Gradient Direction based Face Image Representation and Recognition Technique</b>	Manisha Parlewar and Hemprasad Y Patil (Visvesvaraya National Institute of Technology, Nagpur, India); Kishor Bhurchandi (Visvesvaraya National Institute of Technology, India)
1570232419	<b>Exploring Different Acoustic Modeling Techniques for the Detection of Vowels in Speech Signal</b>	Avinash Kumar (NIT patna, India); Syed Shahnawazuddin (Indian Institute of Technology Guwahati, India); Gayadhar Pradhan (NIT patna, India)
1570232456	<b>On the Development of a Dynamic Virtual Reality System using Audio and Visual Scenes</b>	Sandeep Chitreddy (IIT Kanpur, India); G. S. S. Srinivas Rao and Rajesh M Hegde (Indian

		Institute of Technology Kanpur, India)
1570224768	Excitation modeling for HMM-based speech synthesis based on principal component analysis	Narendra N P (IIT-Kharagpur, India); M Kiran Reddy (Indian Institute of Technology Kharagpur, India); K. Sreenivasa Rao (IIT KGP, India)
1570232407	Sonority rise: Aiding backoff in syllable-based speech synthesis	Sai Krishna Rallabandi (International Institute of Information Technology, India); Ayushi Pandey (IIIT-Hyderabad, India); Sai Sirisha Rallabandi (International Institute of Information Technology, Hyderabad, India); Tejas Godambe (International Institute of Information Technology-Hyderabad, India); Suryakanth Gangashetty (IIIT Hyderabad, India)

**Saturday, March 05, 2016 | Oral Session: Com-3 (RF & Microwave) | Session Timings: 1500-1630 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570226526	Mode-Field Matched Twin Spot Launch for Enhancing Data Rates in Multimode Fibers	Thomas Joseph and Joseph John (IIT Bombay, India)
1570227030	CRLH TL-Unit Cell Loaded Tri-Band Circularly Polarized Crossed Dipole Antenna	Kushmanda Saurav (IIT Kanpur, India); Debdeep Sarkar (Indian Institute of Technology, Kanpur, India); Yogesh Pal Singh (IIT Kanpur, India); Kumar Vaibhav Srivastava (Indian Institute of Technology, Kanpur, India)
1570232105	Two Elements Dual Segment Cylindrical Dielectric Resonator Antenna Array with Annular Shaped Microstrip Feed	Gourab Das (Indian School of Mines Dhanbad, India); Anand Sharma (Indian School of Mines, Dhanbad, India); Ravi Kumar Gangwar (Indian School of Mines, India)
1570227450	On Energy Cooperation in Energy Harvesting Underlay Cognitive Radio Network	Kalpant Pathak (Indian Institute of Technology Kanpur, India); Adrish Banerjee (Indian Institute of Technology, Kanpur, India)
1570232448	Design and Analysis of Wearable Patch Antenna Array for MBAN Applications	Dinesh Rano (Indraprastha Institute of Information Technology, Delhi, India); Mohammad Hashmi (IIITD, India)
1570232449	A SSRR Based Multiband Antenna for Mobile Phone	Ajay Kumar and Muhmmad Alam (Aligarh Muslim University, Aligarh, India)



**Saturday, March 05, 2016 | Oral Session: Signal Processing (SP-1) | Session Timings: 1500-1630 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570220186	Dynamic Display of Vocal Tract Shape for Speech Training	Rahul Jain (IIT Bombay, India); K. S. Nataraj (Indian Institute of Technology, Bombay, India); Prem C. Pandey (IIT Bombay, India)
1570225973	Computing HRTFs using Spherical Near field Acoustic Holography for Rendering Spatial Audio	Ayushi Singhal (Indian Institute of Technology Kanpur, India); Sandeep Chitreddy (IIT Kanpur, India); Rajesh M Hegde (Indian Institute of Technology Kanpur, India)
1570227498	Group Delay Functions for Speaker Diarization	Mohit Yadav (TCS Research India, India); Anil Kumar Sao (IIT Mandi, India); Dileep Aroor Dinesh (Indian Institute of Technology Mandi (IIT Mandi), India); Padmanabhan Rajan (IIT Mandi, India)
1570227588	On the Use of Variational Mode Decomposition for Removal of Baseline Wander in ECG Signals	Eedara Prabhakararao (IIT Bhubaneswar, India); M Sabarimalai Manikandan (Indian Institute of Technology Bhubaneswar, India)
1570232120	Improved Acoustic Modeling Of Low-Resource Languages Using Shared SGMM Parameters Of High-Resource Languages	Neethu Mariam Joy (Dept. of Electrical Engineering, India); Basil Abraham and Navneeth K (IIT Madras, India); Umesh S (Indian Institute of Technology, Madras, India)
1570232470	A Deep Learning Approach to Fetal-ECG Signal Reconstruction	Priya Ranjan Muduli and Rakesh Gunukula (Indian Institute of Technology Kharagpur, India); Anirban Mukherjee (IIT Kharagpur, India)

**Saturday, March 05, 2016 | Poster Session: NW (Networks) | Session Timings: 1500-1630 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570222503	A Neural Network Based System for Intrusion Detection and Attack Classification	Basant Subba (Indian Institute of Technology, Guwahati, India); Santosh Biswas (IIT Guwahati, India)
1570227059	Energy and Bandwidth Efficient Multipath-Enhanced LOADng Routing Protocol	Deepthi Sasidharan (National Institute of Technology Calicut, Kerala, India); Lillykutty Jacob (National Institute of Technology Calicut, India)
1570227530	Algorithms for Faster Overlay Creation under High Growth Rate in Query Network based Overlaid Multicasting	Ashutosh Singh (Indian Institute of Technology Kanpur & Harcourt Butler Technological Institute, Kanpur, India); Yatindra Nath Singh (Indian Institute of Technology Kanpur, India); Anurag Dwivedi (Juniper Networks, India)
1570227593	Maximizing Dual Cell Connectivity Opportunities in LTE Small Cells Deployment	Vanlin Sathya (Indian Institute of Technology

		Hyderabad, India); Anil kumar Rangiseti (IIT HYDERABAD, India); Arun Ramamurthy and Bheemarjuna Reddy Tamma (IIT Hyderabad, India)
1570227614	Fuzzy logic based cell selection framework for downlink uplink decoupled cellular networks	S. Sandeep Kumar, Abhinav Kumar and Ketan Detroja (Indian Institute of Technology Hyderabad, India)
1570227671	Performance Analysis of an IEEE 802.11ac WLAN with Dynamic Bandwidth Channel Access	Sree Vasthav SV (IIT Madras, India); Srikanth Subramanian (Nanocell Networks, India); Venkatesh Ramaiyan (Indian Institute of Technology Madras, India)
1570227998	Denial of Service attack on Low Rate Wireless Personal Area Networks	Rakesh Matam (Indian Institute of Information Technology Guwahati, India); Somanath Tripathy (IIT Patna, India)
1570231738	Secure Transmission in Amplify-and-Forward Diamond Networks with a Single Eavesdropper	Siddhartha Sarma (Indian Institute of Science, India); Samar Agnihotri (Indian Institute of Technology Mandi, India); Joy Kuri (Indian Institute of Science, India)
1570231811	A Discrete Addressing Scheme for Wireless Sensor Networks based Internet of Things	Sarang Deshpande (Samsung R&D Institute (MS - IIT Madras), India); Ravi Shankar (Samsung R&D Institute (MTech - IIT Madras), India)
1570232097	A Crowd-Cloud Architecture for Big Data Analytics	Varun Mehta (Indian Institute of Technology Bombay, India); Zoheb Shaikh (Manipal Institute of Technology, India); Kesav Kaza (IIT Bombay, India); HD Mustafa (IIT Bombay & Transocean Inc & RIG Ltd., India); Shabbir N Merchant (IIT Bombay, India)
1570232342	Localization in Wireless Sensor Networks with Cognitive Small World Characteristics	Om Pandey (Indian Institute of Technology Kanpur, India); Ashutosh Kumar (Indian Institute of Technology, Kanpur, India); Rajesh M Hegde (Indian Institute of Technology Kanpur, India)
1570232414	Enhancements to OpenADN Platform for End-to-End Automated Service Delivery - A Practical Perspective	Deval Bhamare (Qatar University & Qatar University, India); Hagar Hussein, Abeer AlMarridi, Hafsa Al Tairi, Mohammed Samaka and Aiman Erbad (Qatar University, Qatar)
1570232422	Velocity Based Dynamic Flow Mobility in Converged LTE/Wi-Fi Networks	Prashant Sharma, Thomas Valerrian Pasca S, Naveen Kamath and Bheemarjuna Reddy Tamma (IIT Hyderabad, India)

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570219288	Source and Relay Transmit Antenna Selection in Two Hop Cooperative Communication Systems over $\kappa$ - $\mu$ Fading Channels	Brijesh Kumbhani (IIIT Kota, India); Rakhesh Singh Kshetrimayum (Indian Institute of Technology Guwahati, India)
1570221525	Power Control Over Gilbert-Elliot Channel With No Observable States	Rahul Meshram (Indian Institute of Technology Bombay, India)
1570222901	A Capacity-Achieving Coding Scheme for the AWGN Channel with Polynomial Encoding and Decoding Complexity	Shashank Vatedka (Indian Institute of Science, Bangalore, India); Navin Kashyap (Indian Institute of Science, India)
1570222907	Performance Evaluation of Satellite-to-Earth FSO Link in Presence of Turbulence and Weather Conditions for Different IM Schemes	Anjitha Viswanath (Indian Institute of Technology Delhi, India); V K Jain (IIT Delhi, India); Subrat Kar (Indian Institute of Technology, Delhi, India)
1570222984	Small size planar monopole antenna for high speed UWB applications	Nella Anvesh, Kumar (VNIT Nagpur, India); Abhay Gandhi (Viswesarayya National Institute of Technology, India)
1570224414	Indigenous Design and Development of Underwater Wireless Power Transfer System	Manikandan J and Vishwanath A (PES University (PESU), India); Agrawal VK (Director- CORI, PESIT, India); Manu Korulla (Naval Research Board (NRB), India)
1570224723	BER Performance of Communication Systems using SAW Correlators Encoded with Walsh and Gold Codes	Arijit Roy (Indian Institute of Technology Guwahati, India); Harshal Nemade (Indian Institute of Technology, India); Ratnajit Bhattacharjee (Indian Institute of Technology, Guwahati, India)
1570226462	Duopoly Models for Power Trading in Secure Cooperative Relay Networks	Khyati Chopra (Indian Institute of Technology Delhi, India); Ranjan Bose (Indian Institute of Technology, India); Anupam Joshi (UMBC, USA)
1570226666	Development and characterization of a high frequency low noise amplifier	Ashif Reza and Anuraag Misra (Variable Energy Cyclotron Centre, India); Indira Chatterjee (IIT Kharagpur, India); Parnika Das (Variable Energy Cyclotron Centre, India)
1570226725	<b>Bayesian Multiuser Detection for On-Off Random Access Channels</b>	<b>Rituraj Jodha (Tata Telecommunications Ltd., India); Priyadip Ray (Indian Institute of Technology, Kharagpur, USA)</b>
1570227240	On adaptive distributed storage systems based on functional MSR code	Brijesh Kumar Rai (IIT Guwahati, India)
1570227515	Multi Character Frequency based Encoding for Efficient Text Messaging in Indian Languages	Manu Seth (Loylty Rewardz Management Private Limited, India); Sourya Basu and Shivam Chaturvedi (Indian Institute of Technology, Kanpur, India); Rajesh M Hegde

		(Indian Institute of Technology Kanpur, India)
1570227689	Performance of 'Modified Switch and Examine' Diversity Combiner over Generalized Gamma Fading Channels	Manoj B R (IIT Delhi, India); Jibanananda Mishra (Orissa Engineering College, India); Pravas Ranjan Sahu (Indian Institute of Technology Bhubaneswar, India)

**Sunday, March 06, 2016 | Oral Session: SP-2 (Signal Processing) | Session Timings: 0945-1200 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570219647	Relative Frequency Maps for Face Recognition	Kannan Karthik (IIT Guwahati, India); Harshit Balaraman (Redmed Health Systems, IIIT Bangalore, India)
1570220338	Multiscale-SSIM Index based Stereoscopic Image Quality Assessment	Sameeulla Khan MD (Indian Institute Of Technology Hyderabad, India); Sumohana Channappayya (Indian Institute of Technology Hyderabad, India)
1570223061	Compressed Sensing of Respiratory Signals Promoting Joint-Sparsity	Ramakanth Reddy (IIT Kharagpur, India); Priya Ranjan Muduli (Indian Institute of Technology Kharagpur, India); Anirban Mukherjee (IIT Kharagpur, India)
1570231144	Robust Photoplethysmographic (PPG) Based Biometric Authentication for Wireless Body Area Networks and m-Health Applications	Tilendra Choudhary (Indian Institute of Technology Guwahati, India); M Sabarimalai Manikandan (Indian Institute of Technology Bhubaneswar, India)
1570231443	Automatic Silhouette Photography	Aalok Gangopadhyay (Indian Institute of Technology Gandhinagar, India); Shubham Pachori (IIT Gandhinagar, India); Shanmuganathan Raman (Indian Institute of Technology, Gandhinagar, India)
1570232318	Salient Keypoint Selection for Object Representation	Prerana Mukherjee (Indian Institute of Technology, Delhi, India); Siddharth Srivastava (Center for Development of Advanced Computing, India); Brejesh Lall (Indian Institute of Technology Delhi, India)
1570232396	An Efficient Face Model for Facial Expression Recognition	Sunil Kumar, Manas Bhuyan and Biplab Chakraborty (IIT Guwahati, India)
1570232427	Improved analysis of Diabetic Maculopathy Using Level set Spatial Fuzzy Clustering	Jyoti Prakash Medhi (Indian Institute of Technology Guwahati, India); Samarendra Dandapat (IITG, India)

1570232490	Segmentation of Carnatic Music Items using KL2, GMM and CFB Energy Feature	Krishnaraj Sekhar PV (Indian Institute of Technology, Madras, India); Sridharan Sankaran (Indian Institute of Technology - Madras & Tata Consultancy Services, India); Hema A Murthy (Indian Institute of Technology Madras, India)
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**Sunday, March 06, 2016 | Poster Session: Com-2 (Communication) | Session Timings: 1200-1300 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570231686	Performance Analysis of DCSK Modulation with Diversity Combining Not Requiring Channel State Information	Atul Kumar (Indian Institute of Technology Guwahati, India); Pravas Ranjan Sahu (Indian Institute of Technology Bhubaneswar, India); Jibanananda Mishra (Orissa Engineering College, India)
1570231745	Performance Analysis of Alamouti Diversity with Sub-optimum Transmit Antenna Selection using Delayed Feedback	Yogesh N Trivedi (Nirma University, India)
1570232018	A Compact Octagonal Shaped Fractal UWB Antenna using Minkowski Fractal Geometry with Bandwidth Enhancement	Shrivishal Tripathi (IIT Jodhpur, India); Akhilesh Mohan (Indian Institute of Technology Kharagpur, India); Sandeep Yadav (IIT Rajasthan, India)
1570232135	Opportunistic Interference Alignment in Multi-user MIMO Cognitive Radio Networks for Different Fading Channels	Sukriti Garg (The LNM Institute of Information Technology, Jaipur, INDIA, India); Monika Jain (The LNM Institute of Information Technology, India); Ranjan Gangopadhyay (The L.N.Mittal Institute of Information Technology, India); Divyang Rawal (LNMIIT, India)
1570232283	A CAD Assisted Design Methodology for Wideband Arbitrary Power Division Coupler Implemented in Microstrip Technology	Mohammad A Maktoomi (iRadio Lab, University of Calgary & CDRL, IIIT Delhi, New Delhi, Canada); Mohammad Hashmi (IIITD, India)
1570232314	A High Efficiency 2.4GHz RF to DC Converter using 130nm CMOS Cross-Coupled Rectifier	Sanjeev K and Manjunath Machnoor (Indian Institute of Science, India); Vinoy K (Prof, India); T Venkata Prabhakar (IISc, India)
1570232338	Channel Estimation in Rotating Polarization Based Wireless Communication Systems	Theeksha Athoor Perumal (IIT Madras, India); Radha Krishna Ganti, Ravinder D Koilpillai, Devendra Jalihal and Venkatesh Ramaiyan (Indian Institute of Technology Madras, India); Ken Takei (Hitachi, Ltd., Hitachi Research Laboratory, Japan)
1570232354	On the Etzion-Vardy (5,3) Projective Space Code	Anirban Ghatak (Indian Institute of Science, India)
1570232415	TDoA Based EKF Localization for LTE	Rohan Sriram (Indian Institute of Technology, India); Devendra Jalihal (Indian Institute of Technology Madras, India)
1570232424	Impact of NoC Interconnect Shorts on Performance Metrics	Biswajit R Bhowmik and Santosh Biswas (IIT Guwahati, India); Jatindra Kumar Deka (Indian Institute of Technology Guwahati, India)

**Sunday, March 06, 2016 | Oral Session: Com-4 (MIMO Communication) | Session Timings: 1400-1515 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570232329	Investigation on Dielectric Loaded Monopole Antennas for Dual Band Application	Anoop P (Indian Institute of Technology Guwahati, India); Ratnajit Bhattacharjee (Indian Institute of Technology, Guwahati, India)
1570220780	On Robust k-hop clustering in Ad-hoc Cognitive Radio Networks	Rajiv Misra (Indian Institute of Technology, India); Ram Narayan Yadav (Indian Institute of Technology Patna, India); Vinod Dosapati (IIT PATNA, India)
1570226560	Performance Analysis of MIMO-OSTBC based Selective DF Cooperative Wireless System with Node Mobility and Channel Estimation Errors	Neeraj Varshney and Aditya K Jagannatham (Indian Institute of Technology Kanpur, India)
1570227468	Coded Cooperation over Wireless Optical Links in Weak Turbulence with Misalignment Fading	Prabhat Kumar Sharma (Visvesvaraya National Institute of Technology, India); Parul Garg and Ankita Gupta (Netaji Subhas Institute of Technology, New Delhi, India)
1570227559	K-mean Clustering based Cooperative Spectrum Sensing in Generalized $\kappa - \mu$ Fading Channels	Vaibhav Kumar (The LNMIIT Jaipur, India); Deep Kandpal and Monika Jain (The LNM Institute of Information Technology, India); Ranjan Gangopadhyay (The L.N.Mittal Institute of Information Technology, India); Soumitra Debnath (The LNM Institute of Information Technology, India)

**Sunday, March 06, 2016 | Poster Session: SP-3 (Signal Processing) | Session Timings: 1400-1515 Hrs.**

<b>Paper ID</b>	<b>Title</b>	<b>Author(s) &amp; Affiliation(s)</b>
1570220414	Learned dictionaries for sparse representation based unit selection speech synthesis	Pulkit Sharma (IIT Mandi, India); Vinayak Abrol (IIT MANDI, INDIA, India); Anil Kumar Sao (IIT Mandi, India)
1570222838	Effectiveness of Polarity Detection for Improved Epoch Extraction from Speech	Govind D, Hisham PM and Pravena D (Amrita Vishwa Vidyapeetham, India)
1570232485	Blind Forensics Method for GOP Period Detection in Motion Compensated Video	Aniruddha Mazumdar, Perla Ramakrishna and Prabin Kumar Bora (Indian Institute of Technology Guwahati, India)
1570226581	Warping Path and Gross Spectrum Information for Speaker Verification under Degraded Condition	Deepshikha Mahanta, Anupama Paul, Ramesh Kumar Bhukya, Rohan Kumar Das, Rohit Sinha and S. R. Mahadeva Prasanna (Indian Institute of Technology Guwahati, India)

1570227678	Analysis of glottal stops using pitch synchronous integrated linear prediction residual	Sishir Kalita (IIT Guwahati, India); S. R. Mahadeva Prasanna (Indian Institute of Technology Guwahati, India); Samarendra Dandapat (IITG, India)
1570227707	Efficient Resampling of Speech/Audio Signals	Gutta Sreedevi and Praneeth Kurpad Narayanamurthy (Indian Institute of Science Bangalore, India); Chandra Sekhar Seelamantula (Indian Institute of Science, India)
1570230838	Spoken Term Detection from Continuous Speech Using ANN Posteriors and Image Processing Techniques	Ravi Shankar, Arpit Jain and Deepak KT (Indian Institute of Technology Guwahati, India); Vikram Cm (Indian Institute of Technology Guwahati, India); S. R. Mahadeva Prasanna (Indian Institute of Technology Guwahati, India)

**Sunday, March 06, 2016 | Oral Session: Com-5 (MIMO Communication) | Session Timings: 1515-1630 Hrs.**

Paper ID	Title	Author(s) & Affiliation(s)
1570227584	Sum Rate of K-User MIMO Interference Channel For Finite Constellation Inputs With Interference Alignment	Navneet Garg and Govind Sharma (Indian Institute of Technology Kanpur, India)
1570232100	Arbitrary Beamforming Based FSO MIMO System in Atmospheric Turbulence and Misalignment Errors	Prabhat Kumar Sharma (Visvesvaraya National Institute of Technology, India); Ankur Bansal (Netaji Subhas Institute of Technology, University of Delhi, New Delhi, India); Manav Bhatnagar (Indian Institute of Technology Delhi, India)
1570232418	On the Throughput Maximization of Cognitive Radio using Cooperative Spectrum Sensing over Erroneous Control Channel	Narasimha Rao Banavathu and Mohammed Zafar Ali Khan (Indian Institute of Technology, Hyderabad, India)
1570232440	SBL-Based Data-Aided Channel Estimation for Spatially Evolving STTC MIMO Systems	Amrita Mishra (IIT Kanpur, India); Aditya K Jagannatham (Indian Institute of Technology Kanpur, India)
1570232521	Hardware Implementation of MIMO OFDMA Test Bed and its Application Towards Channel Characterization on Indoor Lab Test Environment	Sandip Das (IIT Kharagpur, India); Suvra Sekhar Das (Indian Institute of Technology Kharagpur, India); Indrajit Chakrabarti (IIT Kharagpur, India)

**Sunday, March 06, 2016 | Poster Session: SP-4 (Signal Processing) | Session Timings: 1515-1630 Hrs.**

Paper ID	Title	Author(s) & Affiliation(s)
1570232380	Class Specificity and Commonality based Discriminative Dictionary for Speaker Verification	Nagendra Kumar and Rohit Sinha (Indian Institute of Technology Guwahati, India)

1570232401	<b>Zero Time Windowing Analysis of Hypernasality in Speech of Cleft Lip and Palate Children</b>	Akhilesh Dubey (Indian Institute of Technology, Guwahati, India); S. R. Mahadeva Prasanna (Indian Institute of Technology Guwahati, India); Samarendra Dandapat (IITG, India)
1570232411	<b>IIIT-S CSSD: A Cough Speech Sounds Database</b>	Vishwanath Pratap Singh and J Rohith (Indian Institute of Technology Guwahati, India); Yash Mittal (Jaypee University of Information Technology, Solan, India); Vinay Kumar Mittal (Indian Institute of Technology Chittoor, Sri City, India)
1570232416	<b>Enhancements in Assamese Spoken Query System: Enabling Background Noise Suppression and Flexible Queries</b>	Abhishek Dey, Syed Shahnawazuddin and Deepak KT (Indian Institute of Technology Guwahati, India); Siddika Imani (Indian Institute Of Technology Guwahati, India); S. R. Mahadeva Prasanna and Rohit Sinha (Indian Institute of Technology Guwahati, India)
1570232442	<b>Mask Region Grow Segmentation Algorithm for Low-Computing Devices</b>	Shitala Prasad (Indian Institute of Technology, Roorkee, India); Sateesh Kumar Peddoju (Indian Institute of Technology Roorkee, India); Debashis Ghosh (Indian Institute of Technology (IIT) Roorkee, India)
1570231733	<b>Multiresolution Inter-sample and Inter-lead Eigen Error Features for Classification of Cardiac Diseases</b>	Rajesh Tripathy, RKT (IIT Guwahati, India); Samarendra Dandapat (IITG, India)
1570232473	<b>Unsupervised Subword Matching in Continuous Speech Using Canonical Correlation Analysis</b>	Saurabhchand Bhati and Sri Rama Murty Kodukula (Indian Institute of Technology Hyderabad, India)