

NCC2015_program – NCC 2015 – Program Summary

Day 0 (27th February, Friday)				
9.30AM -11.00 AM	Tutorial AM1 (SH1)	Tutorial AM2 (SH2)	Tutorial AM3 (SH3)	
15min	Break			
11.15 AM - 12.45AM	Tutorial AM1 (SH1)	Tutorial AM2 (SH2)	Tutorial AM3 (SH3)	
12.45 PM - 1.55PM	Lunch Break			
2.00PM - 3.30PM	Tutorial PM1 (SH1)	Tutorial PM2 (SH2)	Tutorial PM3 (SH3)	Tutorial PM4 (SH4)
15min	Break			
3.45PM - 5.15PM	Tutorial PM1 (SH1)	Tutorial PM2 (SH2)	Tutorial PM3 (SH3)	Tutorial PM4 (SH4)
45min	Tea Break			
6:00PM - 6:30 PM	Inaugural Function in VMCC Main Auditorium			
6:30PM - 7:30PM	Plenary Talk by Tom Richardson (Qualcomm, USA) (VMCC Main Auditorium)			
7:45 PM	Dinner			
Day 1 (28th February, Saturday)				
8.45AM - 9.45AM	Plenary Talk by Anurag Sharma (IIT Delhi) (VMCC Main Auditorium)			
20min	Tea Break			
10.05AM - 11.15AM	C1:Games in Communication Systems (SH1)	NW1: Resource Provisioning (SH2)	S1: Speech Synthesis (SH3)	S2: Image Processing - I (SH4)
10min	Tea Break			
11.25AM - 12.55PM	C2: Information Theory (SH1)	NW2: LTE Networks (SH2)	S3: Speech Recognition (SH3)	C3: Microwave Devices (SH4)
12.45PM - 1.55PM	Lunch Break			
2.00PM - 3.40PM	C4: Coding Theory and Techniques (SH1)	NW3:Wireless Networks (SH2)	S4: Signal Processing (SH3)	S5: Bio-Signal Processing (SH4)
10min	Tea Break			
3.50PM - 5.10PM	C5: Performance Analysis of Wireless Systems (SH1)	NW4: MAC Layer (SH2)	S6: Music Processing (SH3)	C6: Circuits for Communication (SH4)
20min	Tea Break			
5.30PM - 6.30PM	Plenary Talk by Devavrat Shah (MIT) (VMCC Main Auditorium)			
7:30 PM	Conference Banquet Dinner			

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Day 2 (1st March, Sunday)				
8.45AM - 9.45AM	Plenary Talk by Martin Wainwright (UC Berkeley) (VMCC Main Auditorium)			
20min	Tea Break			
10.05AM-11.55AM	C7: Physical Layer Techniques (SH1)	NW5: Localisation and Small World Networks (SH2)	S7: Image Processing - II (SH3)	C8: Optical Communication (SH4)
10min	Tea Break			
12.05PM-01.00PM	Poster Session (23 papers) (VMCC First Floor Foyer)			
1.00PM - 1.55PM	Lunch Break			
2.00PM - 3.40PM	C9: Spectrum Sensing and Sharing (SH1)	NW6: Haptic & Optical Networks and Network Traffic (SH2)	S8: Speech Analysis and Modelling (SH3)	C10: Antennas (SH4)
20min	Tea Break			
4.00PM - 7.30PM	NI 5G Workshop (VMCC Hall 21)			
7.40PM - 8.00PM	Closing ceremony (VMCC Main Auditorium)			
8.00 PM	Dinner			
	SH1 - Seminar Hall 1, VMCC	SH2 - Seminar Hall 2, VMCC	SH3 - Seminar Hall 3, VMCC	SH4 - Seminar Hall 4, VMCC

NCC2015_program – Tutorials

Tutorial	Title	Speaker	Venue
February 27th, Friday, 9:30am - 12:45pm			
AM1	Combinatorial Optimization in Wireless Communication	Prof. Rahul Vaze, TIFR, Mumbai	Seminar Hall 1
AM2	Spatial Field Acquisition Using Sensors	Prof. Animesh Kumar, IIT Bombay	Seminar Hall 2
AM3	Network Infrastructure for the Internet of Things and M2M Communication	Prof. Biplab Sikdar, NUS, Singapore	Seminar Hall 3
February 27th, Friday, 2:00pm - 5:15pm			
PM1	Lattice Coding: From Theory To Practice	Prof. Navin Kashyap, IISc, Bangalore	Seminar Hall 1
PM2	Full Duplex Wireless Communication Systems	Prof. Radha Krishna Ganti, Prof. Aniruddhan S., IIT Madras	Seminar Hall 2
PM3	Machine Learning for Computer Vision	Prof. C. V. Jawahar, IIIT Hyderabad	Seminar Hall 3
PM4	Dynamic Network Cartography	Prof. Ketan Rajawat, IIT Kanpur	Seminar Hall 4

NCC2015_program – Communications Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
C1: Games in Communication Systems			
28th February, 2015, Saturday: 10:05 am - 11:15 am			
Chair: Sibi Raj B. Pillai, IIT Bombay			
Venue: Seminar Hall 1			
1	161	Krishna Chaitanya A (IISc, Bangalore); Utpal Mukherji (IISc, Bangalore) and Vinod Sharma (IISc, Bangalore)	Algorithms for Stochastic Games on Interference Channels
2	522	Amitalok J Budkuley (IIT Bombay)	Jamming in Fading Multiple Access Channels
3	Invited	Sidharth Jaggi (CUHK, Hong Kong)	Communication in the presence of jammers with limitations: Towards a general theory
C2: Information Theory			
28th February, 2015, Saturday: 11:25 am - 1:05 pm			
Chair: Rakesh K. Bansal, IIT Kanpur			
Venue: Seminar Hall 1			
1	146	M. Ashok Kumar (IISc, Bangalore); Rajesh Sundaresan (IISc, Bangalore)	Relative α -Entropy Minimizers Subject to Linear Statistical Constraints
2	275	Ajaykrishnan Nageswaran and Navya Prem (NIT Karnataka); Vinod M Prabhakaran (TIFR, Mumbai); Rahul Vaze (TIFR, Mumbai)	Critical Database Size for Effective Caching
3	Invited	Aditya Gopalan (IISc, Bangalore)	Learning to act in unknown, complex Markov Decision Processes
4	Invited	Himanshu Tyagi (IISc, Bangalore)	The sample complexity of estimating Rényi entropy
C3: Microwave Devices			
28th February, 2015, Saturday: 11:25 am - 12:55 pm			
Chair: Jayanta Mukherjee, IIT Bombay			
Venue: Seminar Hall 4			
1	50	Devkinandan Chaurasiya (IIT Kanpur); Somak Bhattacharyya (IIT Kanpur); Saptarshi Ghosh and Praneeth Munaga (IIT Kanpur); Kumar Vaibhav Srivastava (IIT Kanpur)	An Ultra-Thin Triple Band Polarization-Insensitive Metamaterial Absorber for C-Band Applications
2	152	Debapratim Ghosh (IIT Bombay); Girish Kumar (IIT Bombay)	A Four Branch Microstrip Coupler with Improved Bandwidth and Isolation
3	276	Ashwani Sharma (University of Deusto, Spain); Ignacio J Garcia Zuazola (Loughborough University, Spain); Asier Perallos (Fundacion Deusto, Spain); John Batchelor (University of Kent, United Kingdom)	Widespread Near-Field with Robust H-field Using NDTC Antennas in Multipurpose Applications
4	Invited	Uday Khankhoje (IIT Delhi)	Scattered electromagnetic fields and their bandlimited properties

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Serial Number	Paper Number	Author List (Affiliation)	Paper Title
C4: Coding Theory and Techniques			
28th February, 2015, Saturday: 2:00 pm - 3:40 pm			
Chair: Adrish Banerjee, IIT Kanpur			
Venue: Seminar Hall 1			
1	274	Pranab Basu (IISc, Bangalore) and Navin Kashyap (IISc, Bangalore)	On Linear Subspace Codes Closed Under Intersection
2	278	Gaurav Kumar Agarwal (IISc, Bangalore); Birenjith Padmakumari Sasidharan (IISc, Bangalore); P Vijay Kumar (IISc, Bangalore & University of Southern California, USA)	An Alternate Construction of an Access-Optimal Regenerating Code with Optimal Sub-Packetization Level
3	523	Srinivas Avasarala (IIT Hyderabad); Soumya Jana (IIT Hyderabad); Prabhakar Akella (IIT Hyderabad)	Rate-Distortion Function for Finite Block Codes: Analysis of Symmetric Binary Hamming Problem
4	Invited	Rakesh K. Bansal (IIT Kanpur)	On Large Deviation Property of Recurrence and Waiting Times
C5: Performance Analysis of Wireless systems			
28th February, 2015, Saturday: 3:50 pm - 5:10 pm			
Chair: Swades De, IIT Delhi			
Venue: Seminar Hall 1			
1	117	Devendra Singh Gurjar (IIT Indore) and Prabhat Kumar Upadhyay (IIT Indore)	Outage Performance of Zero-Forcing Based MIMO Two-Way Relaying with Channel Estimation Error
2	195	Mukesh Kumar Mishra (ABV- Indian Institute of Information Technology and Management, Gwalior); Aditya Trivedi (ABV-Indian Institute of Information Technology and Management Gwalior)	Performance Analysis of Two Tier Cognitive Heterogeneous Cellular Network
3	363	Sahasranand K R (IISc, Bangalore) and Vinod Sharma (IISc, Bangalore)	Performance of Spectrum Sensing Algorithms Under Fading, Electromagnetic Interference and Outliers
4	449	Subhajit Majhi (University of Waterloo, Canada); Sanket Sanjay Kalamkar (IIT Kanpur) and Adrish Banerjee (IIT Kanpur)	Secondary Outage Analysis of Amplify-and-Forward Cognitive Relays with Direct Link and Primary Interference
C6: Circuits for Communication			
28th February, 2015, Saturday: 3:50 pm - 5:10 pm			
Chair: Kalpana Dhaka, IIT Guwahati			
Venue: Seminar Hall 4			
1	215	Prahlad Kishore (IIT Madras); Bhaskar Ramamurthi (IIT Madras)	Design and Implementation of a Multi-Terminal Channel Emulator on LTE TestBed
2	222	Priya Singhal (Indraprastha Institute Of Information Technology, Delhi); Parag Aggarwal (Indraprastha Institute of Information Technology, Delhi); Vivek A Bohara (Indraprastha Institute of Information Technology, Delhi)	Analysis of Carrier Aggregated OFDM Signals in Presence of Dual Band Power Amplifiers

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Serial Number	Paper Number	Author List (Affiliation)	Paper Title
3	383	Sandip Das (IIT Kharagpur) and Indrajit Chakrabarti (IIT Kharagpur); Suvra Sekhar Das (IIT Kharagpur)	Hardware Implementation of Frequency Domain Link Adaptation for OFDMA Based Systems
4	160	Rajib Jana (IIT Guwahati); Ratnajit Bhattacharjee (IIT Guwahati)	A Tri-mode Low Cross-polarized Circular Matched Feed for Offset Reflector Antenna System
C7: Physical Layer Techniques			
1st March 2015, Sunday: 10:05 am - 12:15 am			
Chair: Srikrishna Bhashyam, IIT Madras			
Venue: Seminar Hall 1			
1	201	Chaitanya K Matcha (IISc, Bangalore) and Shayan Garani (IISc, Bangalore)	Exact Analysis of the Performance of Viterbi Detector for ISI Channels with Quantized Inputs
2	208	Aparna Vishnu N. (Indian Institute of Technology, Madras & ISRO Inertial Systems Unit); Srikrishna Bhashyam (Indian Institute of Technology Madras)	Co-ordinate Interleaved Amplify-and-forward Relaying with a Multi-antenna Relay
3	345	Karra Dheeraj and Andrew Thangaraj (IIT Madras); Radha Krishna Ganti (Indian Institute of Technology Madras)	Equalization in Amplify-Forward Full-Duplex Relay with Direct Link
4	494	Arti Mk (Indian Institute of Technology - Delhi)	Imperfect CSI Based Maximal Ratio Combining in Shadowed-Rician Fading Land Mobile Satellite Channels
5	228	Kamal Singh (IIT Bombay) and Sibi Raj B Pillai (IIT Bombay)	Decentralized Power Adaptation in Ergodic Fading Multiple Access Channels
6	Invited	Radha Krishna Ganti (IIT Madras)	A linearization technique for self-interference cancellation in full-duplex radios
C8: Optical Communication			
1st March 2015, Sunday: 10:05 am - 11:55 am			
Chair: Arvind Mishra, Sterlite Technologies			
Venue: Seminar Hall 4			
1	116	Nitin Bhatia (IIT Bombay) and Joseph John (IIT Bombay)	Wavelength Sensitivity of the Excited Single Mode in the Output Multimode Fiber of an SMm Structure
2	308	Saikrishna Reddy K (IIT Madras); Colm Browning (Dublin City University, Ireland) and Liam Barry (Dublin City University, Ireland); Deepa Venkitesh (IIT Madras)	Demonstration of a 30 Gbps Intensity Modulation Direct Detection OFDM-based Passive Optical Network
3	372	Siddharth Varughese (IIT Madras), Varughese Mathew (IIT Madras) and Smaranika Swain (IIT Madras); Deepa Venkitesh (IIT Madras); David Koilpillai (IIT Madras)	200G System with PDM-16QAM: Performance Evaluation and Trade-offs
4	433	Ankur Bansal (Netaji Subhas Institute of Technology, University of Delhi, New Delhi); Prabhat Kumar Sharma (ITM University, Gurgaon); Manav Bhatnagar (Indian Institute of Technology Delhi)	Optimal and Suboptimal Decoding for SIM-BPSK Over Gamma-Gamma FSO Links with an Erroneous Relay
5	Invited	Kumar Appaiah (IIT Bombay)	Detector and Mode Subset Selection for DSP Based Multimode Fiber Links

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Serial Number	Paper Number	Author List (Affiliation)	Paper Title
C9: Spectrum Sensing and Sharing			
1st March 2015, Sunday: 2:00 pm - 3:40 pm			
Chair: Ranjan K. Mallik, IIT Delhi			
Venue: Seminar Hall 1			
1	218	Sanjay Ghosh (IISc, Bangalore); Arun Pachai Kannu (IIT Madras)	Relay Placement and Spectrum Sharing Strategies for Soft and Fractional Frequency Reuse Schemes
2	252	Kukil Khanikar (IIT Guwahati) and Rohit Sinha (IIT Guwahati); Ratnajit Bhattacharjee (IIT Guwahati)	Sparse Coding Based Spectrum Sensing in Presence of Multiple Frequency Hopping Primary Users
3	319	Rahul Jain (Indian Institute of Technology Delhi India); Swades De (Indian Institute of Technology Delhi)	User-Adaptive Layer and Power Allocation for Video Multicast Over Wireless
4	467	Sanjeev Gurugopinath (C. M. R. Institute of Technology)	Energy-Based Bayesian Spectrum Sensing Over K- μ and K- μ Extreme Fading Channels
5	473	Saptarshi Ghosh (Indian Institute of Engineering Science and Technology Shibpur); Tamaghna Acharya (Indian Institute of Engineering Science and Technology Shibpur); Subhankar Chatterjee (Indian Institute of Engineering Science and Technology Shibpur); Santi Prasad Maity (Bengal Engineering & Science University, Shibpur)	On Optimal Power Sharing for Joint Sensing and Data Transmission in Cooperative Cognitive Radio Networks
C10: Antennas			
1st March 2015, Sunday: 2:00 pm - 3:40 pm			
Chair: Girish Kumar, IIT Bombay			
Venue: Seminar Hall 4			
1	114	Anil Kamma (IIT Bombay); Kaustubh Chhabilwad (Indian Institute of Technology, Bombay); Shrikanth Reddy (IIT Bombay)	A Novel Compact Dual Band Antenna Using Modified Elliptical Ring Monopole
2	138	Amrita Mardikar (R G P V University, Bhopal) and Ravi Mohan (R G P V University, Bhopal); Mahima Arrawatia (IIT Bombay) and Girish Kumar (IIT Bombay)	Dual Band Dual Circular Ring Monopole Antennas
3	144	Sanampudi Venkatrami Reddy (IIT Kanpur); Kushmanda Saurav (IIT Kanpur); Debdeep Sarkar (IIT Kanpur) and Kumar Vaibhav Srivastava (IIT Kanpur)	Microstrip-Fed Monopole Antennas Loaded with Symmetric ENG Unit Cells
4	168	Hemant Suthar (IIT Kanpur) and Debdeep Sarkar (IIT Kanpur); Kushmanda Saurav (IIT Kanpur); Kumar Vaibhav Srivastava (IIT Kanpur)	Gain Enhancement of Microstrip Patch Antenna Using Near-zero Index Metamaterial (NZIM) Lens
5	295	Chandu DS (IIITDM, Kancheepuram); Sholampettai Subramanian Karthikeyan (IIITDM, Kancheepuram); Kanaparthi V Phani Kumar (IIITDM, Kancheepuram)	Reduction of Mutual Coupling in a Two Element Patch Antenna Array Using Sub-Wavelength Resonators

NCC2015_program – Networks Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
NW1: Resource Provisioning			
28th February, 2015, Saturday: 10:05 am - 11:15 am			
Chair: Ness Shroff			
Venue: Seminar Hall 2			
1	309	Satya Kumar V (IISc, Bangalore); Vinod Sharma (IISc, Bangalore)	Joint Routing, Scheduling and Power Control Providing QoS for Wireless Multihop Networks
2	Invited	Jayakrishnan Nair (IIT Bombay)	On Competitive Provisioning of Online Resources
3	125	Sonu K Mishra (IIT Guwahati); Soumya Indela (IIT Guwahati); Sanjay Kumar Bose (IIT Guwahati); Wen-De Zhong (NTU, Singapore)	Network Routing for Streaming Applications Using Systematic Rateless Codes
NW2: LTE Networks			
28th February, 2015, Saturday: 11:25 am - 12:45 pm			
Chair: Manoj Choudhury			
Venue: Seminar Hall 2			
1	462	Mahima Mehta (Intel Mobile Communications Pvt. Ltd.); Nadeem Akhtar (Centre of Excellence in Wireless Technology); Abhay Karandikar (IIT Bombay)	Impact of HandOver Parameters on Mobility Performance in LTE HetNets
2	170	Syama Varma R and Krishna M. Sivalingam (IIT Madras); Li-Ping Tung and Ying-Dar Lin (National Chiao Tung University, Taiwan)	Analytical Model for Power Savings in LTE Networks Using DRX Mechanism
3	465	Mahima Mehta (Intel Mobile Communications Pvt. Ltd.); Nadeem Akhtar (Centre of Excellence in Wireless Technology); Abhay Karandikar (IIT Bombay)	Enhanced Mobility State Estimation in LTE HetNets
4	466	Shashi Ranjan (IIT Bombay); Pravjyot Singh Deogun (IIT Bombay); Mahima Mehta (Intel Mobile Communications Pvt. Ltd.); Punit Ashok Rathod (IIT Bombay); Nadeem Akhtar (Centre of Excellence in Wireless Technology); Abhay Karandikar (IIT Bombay)	A Self-Configured Vertical Handover Algorithm for LTE and WLAN Interworking
NW3: Wireless Networks			
28th February, 2015, Saturday: 2:00 pm - 3:40 pm			
Chair: Rahul Vaze			
Venue: Seminar Hall 2			
1	459	Satyam Agarwal (IIT Delhi); Swades De (IIT Delhi)	A Persistent Link Layer Transmission Strategy for Efficient Dynamic Spectrum Access
2	194	Sripada Kadambar (IIT Bombay); Tejas Prakash Bodas (IIT Bombay)	Joint Channel Allocation and Routing in Wireless Mesh Networks
3	399	Vijay Rao (IIT Delhi) and Priyesh Papinisseri (IIT Delhi); Subrat Kar (IIT Delhi)	Adaptive Transmission Power Protocol for Heterogeneous Wireless Sensor Networks

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Serial Number	Paper Number	Author List (Affiliation)	Paper Title
4	310	Madhavan Kalyanaraman (Wipro Technologies Ltd); Swaminathan Seetharaman (Wipro Ltd); Srikanth Subramanian (AU-KBC Research Centre, Chennai)	Integrated Approach for Proxy-Mobile-IPv6 (PMIPv6) Based IP Flow Mobility and Offloading
5	506	Sreejith V (BITS Pilani, KK Birla Goa Campus); Anupama K r (BITS Pilani K K Birla, Goa Campus); Lucy Gudino (BITS Pilani K K Birla Goa Campus); Suriyadeepan R (BITS Pilani, K K Birla Goa Campus)	A Fast Exploration Technique in WSN for Partition Recovery Using Mobile Nodes
NW4: MAC Layer			
28th February, 2015, Saturday: 3:50 pm - 5:10 pm			
Chair: Neelesh Mehta			
Venue: Seminar Hall 2			
1	305	Naresh Vattikuti (Uurmi Systems Pvt. Ltd), Himanshu Sindhwal (Uurmi Systems Pvt. Ltd) and Malleshham Dasari (Uurmi Systems Pvt. Ltd); Bheemarjuna Reddy Tamma (IIT Hyderabad)	Delay Sensitive TDMA Slot Assignment in Ad Hoc Wireless Networks
2	69	Abhay Samant (National Instruments, USA); Venkataramana Badarla (IIT Jodhpur); Sandeep Yadav (IIT Jodhpur); Mythili Vutukuru (IIT Bombay); Paul Khanna (National Instruments, USA) and Erik Luther (National Instruments, USA)	Latency and Cost Requirements of Systems for Teaching MAC Protocols
3	359	Peruru Swamy (IIT Madras), Radha Krishna Ganti (IIT Madras) and Krishna P Jagannathan (IIT Madras)	Spatial CSMA: A Distributed Scheduling Algorithm for the SIR Model with Time-varying Channels
4	413	Anil K Jacob (NIT Calicut); Lillykutty Jacob (NIT Calicut); Geethu S Kishore (NIT Calicut)	Contention Versus Polling Access in IEEE 802.15.6: Delay and Lifetime Analysis
NW5: Localisation and Small World Networks			
1st March, 2015, Sunday: 10:05 pm - 11:45 pm			
Chair: Krishna Sivalingam			
Venue: Seminar Hall 2			
1	233	Pratyush Sinha (IIT Kanpur), Sudhir Kumar (IIT Kanpur) and Rajesh M Hegde (IIT Kanpur)	Sniper Localization Using Passive Acoustic Measurements Over an Ad-hoc Sensor Array
2	265	Bodhibrata Mukhopadhyay (IIT Delhi) and Sanat Sarangi (IIT Delhi); Subrat Kar (IIT Delhi)	Performance Evaluation of Localization Techniques in Wireless Sensor Networks Using RSSI and LQI
3	367	Nagarathna (Anna University Chennai); Valli S (Anna University Chennai)	An Adaptive Refresh Distributed Model for Estimation and Efficient Tracking of Dynamic Boundaries
4	248	Abhishek Chakraborty (Indian Institute of Space Science and Technology); Manoj Bs (Indian Institute of Space Science and Technology & California Institute of Telecommunication and IT)	An Efficient Heuristics to Realize Near-Optimal Small-World Networks
5	515	Vineeth Bala Sukumaran (R & D Department, Flytxt), Jobin Wilson (R & D Department, Flytxt) and Prateek Kapadia (R & D Department, Flytxt)	On Power-Law Decay Exponents and Barabasi Models for Subscriber Usage Behaviour in Mobile Networks

NCC2015_program – Networks Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
NW6: Haptics & Optical Networks and Network Traffic			
1st March, 2015, Sunday: 2:00 pm - 3:40 pm			
Chair: Ashutosh Gore			
Venue: Seminar Hall 2			
1	456	Vineet Gokhale (IIT Bombay); Subhasis Chaudhuri (IIT Bombay); Onkar Dabeer (TIFR, Mumbai)	HolP: A Point-to-Point Haptic Data Communication Protocol and Its Evaluation
2	404	Vaibhav P Singh (IIT Madras) and Nitin Chandrachoodan (IIT Madras); Anil Prabhakar (IIT Madras)	Designing a Passive Star Optical Network for the India-Based Neutrino Observatory
3	63	Neeraj Sharma (Panjab University)	Enhanced Spectral Efficiency for Intensity Modulated DWDM Systems
4	291	Sandeep Kumar Singh (IDA, TU Braunschweig, Germany & IIT Madras); Manivasakan (IIT Madras)	Performance Analysis of Virtual Optical Bus Networks
5	307	Jayeeta Datta (IIT Indore) and Neha Kataria (IIT Indore); Neminath Hubballi (IIT Indore)	Network Traffic Classification in Encrypted Environment: A Case Study of Google Hangout

NCC2015_program – Signal Processing Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
S1: Speech Synthesis			
28th February, 2015, Saturday: 10:05 am - 11:15 am			
Chair: K. Sri Rama Murty, IIT Hyderabad			
Venue: Seminar Hall 3			
1	196	Nitya Tiwari (IIT Bombay); Prem C. Pandey (IIT Bombay)	Speech Enhancement Using Noise Estimation Based on Dynamic Quantile Tracking for Hearing Impaired Listeners
2	507	Parakrant Sarkar (IIT Kharagpur); K. Sreenivasa Rao (IIT Kharagpur)	Data-Driven Pause Prediction for Speech Synthesis in Storytelling Style Speech
3	Invited	Hema Murthy (IIT Madras)	Building text to speech synthesis systems for Indian languages
S2: Image Processing - I			
28th February, 2015, Saturday: 10:05 am - 11:15 am			
Chair: Sumohana Channappayya, IIT Hyderabad			
Venue: Seminar Hall 4			
1	64	Akash Bapat (UNC Chapel Hill, USA); Adit Ravi (IIT Madras); Shanmuganathan Raman (IIT Gandhinagar)	An Iterative, Non-local Approach for Restoring Depth Maps in RGB-D Images
2	80	Ashish V. Vanmali (IIT Bombay & University of Mumbai); Samrudha G Kelkar (IIT Bombay) and Vikram M. Gadre (IIT Bombay)	Multi-Exposure Image Fusion for Dynamic Scenes Without Ghost Effect
3	Invited	Chandra Sekhar Seelamantula, (IISc, Bangalore)	Risk Estimation Without Using Stein's Lemma - Application to Image Denoising
S3: Speech Recognition			
28th February, 2015, Saturday: 11:25 am - 12:55 am			
Chair: Hema Murthy, IIT Madras			
Venue: Seminar Hall 3			
1	223	Sriranjani R (IIT Madras); Machireddy Reddy (IIT Madras); Umesh S (IIT Madras)	Improved Acoustic Modeling for Automatic Dysarthric Speech Recognition
2	519	Kallola Rout (IIT Hyderabad) and Raghavendra Reddy Pappagari (IIT Hyderabad); Sri Rama Murty Kodukula (IIT Hyderabad)	Experimental Studies on Effect of Speaking Mode on Spoken Term Detection
3	238	Sriranjani R (IIT Madras) and Murali Karhick B (IIT Madras); Umesh S (IIT Madras)	Investigation of Different Acoustic Modeling Techniques for Low Resource Data
4	324	Nisha Meenakshi (IISc, Bangalore); Prasanta Kumar Ghosh (IISc, Bangalore)	Automatic Gender Classification Using the Mel Frequency Cepstrum of Neutral and Whispered Speech: a Comparative Study
S4: Signal Processing			

NCC2015_program – Signal Processing Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
28th February, 2015, Saturday: 2:00 pm - 3:40 pm			
Chair: Mrityunjoy Chakraborty, IIT Kharagpur			
Venue: Seminar Hall 3			
1	230	Karthikeyan Natarajan (IIT Madras) and Nitin Chandrachoodan (IIT Madras)	Non-Uniform DFT Implementation for Channel Simulations in GPU
2	33	Ribhu Chopra (IIT Roorkee); Debashis Ghosh (IIT Roorkee); Daljit Kumar Mehra (IIT Roorkee)	Cooperative Spectrum Sensing for Cognitive Radios Using Jointly Adaptive FRESH Filters
3	246	Himakshi Choudhury (IIT Guwahati); Subhasis Mandal (IIT Guwahati), Sanjeevan Devnath (IIT Guwahati) and S. R. Mahadeva Prasanna (IIT Guwahati); Suresh Sundaram (IIT Guwahati)	Comparison of Assamese Character Recognizer Using Stroke Level and Character Level Engines
4	479	Satish Mohanty (BITS, Pilani) and Karunesh Gupta (BITS, Pilani)	Multi-Channel Vibro Acoustic Fault Analysis of Ball Bearing Using Wavelet Based Multi-Scale Principal Component Analysis
5	524	Kiran Kumar Vupparaboina (IIT Hyderabad); Roopak R. Tamboli (IIT Hyderabad & Cyber Physical Systems Healthcare Project); Shenu PM (IIT Hyderabad); Soumya Jana (IIT Hyderabad)	Laser-based Detection and Depth Estimation of Dry and Water-Filled Potholes: A Geometric Approach
S5: Bio-Signal Processing			
28th February, 2015, Saturday: 2:00 pm - 3:40 pm			
Chair: Vikram M. Gadre, IIT Bombay			
Venue: Seminar Hall 4			
1	212	Jyoti Prakash Medhi (IIT Guwahati); Samarendra Dandapat (IIT Guwahati)	Automatic Detection of Fovea Using Property of Vessel Free Region
2	397	S Mohan Naidu (IIT Bombay), Uttam Bagal (IIT Bombay) and Prem C. Pandey (IIT Bombay); Suhas Hardas (Hardas Heart Care); Niranjana Khambete (Sree Chitra Tirunal Institute for Medical Sciences and Technology)	Monitoring of Stroke Volume Through Impedance Cardiography Using an Artificial Neural Network
3	481	Jiss Nallikuzhy (IIT Guwahati); Samarendra Dandapat (IIT Guwahati)	Enhancement of the Spatial Resolution of ECG Using Multi-scale Linear Regression
4	436	Nivitha Varghees V (Amrita Vishwa Vidyapeetham); Ramachandran K I (Amrita Vishwa Vidyapeetham)	Heart Murmur Detection and Classification Using Wavelet Transform and Hilbert Phase Envelope
S6: Music Processing			
28th February, 2015, Saturday: 3:50 pm - 5:10 pm			
Chair: Preeti Rao, IIT Bombay			
Venue: Seminar Hall 3			
1	264	Kaustuv K. Ganguli (IIT Bombay & ITC Sangeet Research Academy); Preeti Rao (IIT Bombay)	Discrimination of Melodic Patterns in Indian Classical Music
2	445	Jom Kuriakose (IIT Madras); Chaitanya Kumar (Microsoft India Development Center, Hyderabad); Padi Sarala (IIT Madras); Hema A Murthy (IIT Madras); Umayalpuram Sivaraman (Freelance Mrudangam Artist, Chennai)	Akshara Transcription of Mrudangam Strokes in Carnatic Music

NCC2015_program – Signal Processing Track

Serial Number	Paper Number	Author List (Affiliation)	Paper Title
3	398	Manoj Kumar (IIT Madras); Jilt Sebastian (IIT Madras); Hema A Murthy (IIT Madras)	Musical Onset Detection on Carnatic Percussion Instruments
4	256	Banriskhem K. Khonglah (IIT Guwahati), Rajib Sharma (IIT Guwahati) and S. R. Mahadeva Prasanna (IIT Guwahati)	Speech Vs Music Discrimination Using Empirical Mode Decomposition
S7: Image Processing - II			
1st March, 2015, Sunday: 10:05 pm - 11:55 pm			
Chair: Shanmuganathan Raman, IIT Gandhinagar			
Venue: Seminar Hall 3			
1	173	Venkatanath Neeluri (Uurmi Systems Private Limited), Praneeth Dendi (Uurmi Systems Private Limited) and Maruthi Chandrasekhar Bh (Uurmi Systems Private Limited); Sumohana Channappayya (IIT Hyderabad); Swarup Medasani (Uurmi Systems, USA)	Blind Image Quality Evaluation Using Perception Based Features
2	78	Sadhana Reddy Sadu (IIT Hyderabad), Manasa K (IIT Hyderabad) and Sumohana Channappayya (IIT Hyderabad)	Video Packet Priority Assignment Based on Spatio-Temporal Perceptual Importance
3	113	Sai Chowdary Gullapally (IIT Gandhinagar); Sri Raghu Malireddi (IIT Gandhinagar) and Shanmuganathan Raman (IIT Gandhinagar)	Dynamic Object Localization Using Hand-held Cameras
4	84	Joy Prabhakaran (IIITB) and Poonacha G (IIITB)	A New Decimation and Interpolation Algorithm and an Efficient Lossless Compression Technique for Images
5	254	Naman Bansal (IIT Gandhinagar); Shanmuganathan Raman (IIT Gandhinagar)	Regularized Tone Mapping Using Edge Preserving Filters
S8: Speech Analysis and Modeling			
1st March, 2015, Sunday: 2:00 pm - 3:40 pm			
Chair: Samudravijaya K, TIFR, Mumbai			
Venue: Seminar Hall 3			
1	74	Rajib Sharma (IIT Guwahati) and S. R. Mahadeva Prasanna (IIT Guwahati)	Characterizing Glottal Activity From Speech Using Empirical Mode Decomposition
2	402	Jilt Sebastian (IIT Madras); Manoj Kumar (IIT Madras) and Hema A Murthy (IIT Madras)	Pitch Estimation From Speech Using Grating Compression Transform on Modified Group-Delay-gram
3	443	Mayur Jagtap (IIT Bombay); Preeti Rao (IIT Bombay)	Enhancing Speech Intelligibility Based on Noise Characteristics
4	190	Rohan Kumar Das (IIT Guwahati); Debadatta Pati (NIT Nagaland); S. R. Mahadeva Prasanna (IIT Guwahati)	Different Aspects of Source Information for Limited Data Speaker Verification
5	269	Mousmita Sarma (Gauhati University); Sree Nilendra Gadre (IIT Guwahati); Biswajit Dev Sarma (IIT Guwahati); S. R. Mahadeva Prasanna (IIT Guwahati)	Speaker Change Detection Using Excitation Source and Vocal Tract System Information

NCC2015_program – Poster Session

Serial Number	Paper Number	Author List (Affiliation)	Paper Title	Track
Poster Session				
1st March, 2015, Sunday: 12:05 pm - 1:00 pm				
Chair: Joseph John, IIT Bombay				
Venue: VMCC First Floor Foyer				
1	6	Yadandla Aditya (IIT Hyderabad), G V S S Praneeth Varma (IIT Hyderabad), and G V V Sharma (IIT Hyderabad)	Maximum Likelihood Detection for Decode and Forward Cooperation with Interference	Communications
2	61	Saikat Majumder (NIT Raipur) and Shirish Verma (NIT Raipur)	Iterative Decoding of FEC Based Multiple Description Codes for Image Transmission Over Wireless Channel	Communications
3	85	Ashish Gupta (Indian School of Mines Dhanbad), Sameer Sharma (Indian School of Mines Dhanbad) and Raghvendra Kumar Chaudhary (Indian School of Mines Dhanbad)	A Compact CPW-fed Metamaterial Antenna for High Efficiency and Wideband Applications	Communications
4	88	Suman Deb (IIT Guwahati); Samarendra Dandapat (IIT Guwahati)	A Novel Breathiness Feature for Analysis and Classification of Speech Under Stress	Signal Processing
5	124	Bhanu Priya (IIT Guwahati) and Samarendra Dandapat (IIT Guwahati)	Linear Transformation on Speech Subspace for Analysis of Speech Under Stress Condition	Signal Processing
6	155	Jatin Chakravarti (Institute of Technology, Nirma University) and Yogesh N Trivedi (Nirma University)	Performance Analysis of MISO Systems with Antenna Selection Over Correlated Channels	Communications
7	171	Ramkrishna Bharath (IIT Hyderabad), M Srinivas (IIT Hyderabad), Pachamuthu Rajalakshmi (IIT Hyderabad) and Chalavadi Krishna Mohan (IIT Hyderabad)	Sparseland Model for Speckle Suppression of B-mode Ultrasound Images	Signal Processing
8	179	Abhijit Bhatnagar (Amazon India Development Center & Samsung Research Institute); Akshat Sehgal (Samsung Research Institute)	User Dictionary Merge for Enhancing Smart Phone Auto Prediction	Networks
9	183	Hrishikesh Sharma (Innovation Labs, Tata Consultancy Services Ltd.); P. Balamuralidhar (Tata Consultancy Services)	A Communication Approach for Aerial Surveillance of Long Linear Infrastructures in Non-urban Terrain	Communications
10	268	Sarang Dhongdi (BITS Pilani, K K Birla Goa Campus), Anupama K. R (BITS Pilani, K K Birla Goa Campus), Rohit Agrawal (BITS Pilani, K K Birla Goa Campus) and Lucy Gudino (BITS Pilani, K K Birla Goa Campus)	Simulation and Testbed Implementation of TDMA MAC on Underwater Acoustic Sensor Network	Networks
11	298	Subhasis Mandal (IIT Guwahati), S. R. Mahadeva Prasanna (IIT Guwahati) and Suresh Sundaram (IIT Guwahati)	Curvature Point Based HMM State Prediction for Online Handwritten Assamese Strokes Recognition	Signal Processing
12	300	Bighnaraj Panigrahi (Tata Consultancy Services), Hemant Kumar Rath (Tata Consultancy Services) and Anantha Simha (Tata Consultancy Services)	Interference-aware Discovery and Optimal Uplink Scheduling for D2D Communication in LTE Networks	Networks
13	313	Srikanth Raj Chetupalli (IISc) and Thippur V. Sreenivas (IISc)	Successive Approximation Algorithm for LPC Estimation Using Sparse Residual Constraint	Signal Processing
14	318	Athar Ravish Khan (Jawaharlal Darda Institute of Engineering and Technology Yavatmal); Sanjay M. Gulhane (Indian Institute of Technology, Kharagpur); Umesh Kaware (Jawaharlal Darda Institute of Engineering and Technology Yavatmal)	High Data Rate MBOFCDM-UWB System for Underground Mine Channel	Communications
15	338	Abhijit Bhowmick (NIT, Durgapur), Sanjay Dhar Roy (NIT, Durgapur) and Sumit Kundu (NIT, Durgapur)	A Hybrid Cooperative Spectrum Sensing for Cognitive Radio Networks in Presence of Fading	Communications
16	350	Madhusmita Mohanty (IIT Bhubaneswar), Udit Satija (IIT Bhubaneswar), Barathram. Ramkumar (IIT Bhubaneswar) and M Sabarimalai Manikandan (IIT Bhubaneswar)	Digital Modulation Classification Under Non-Gaussian Noise Using Sparse Signal Decomposition and Maximum Likelihood	Communications
17	355	Soumik Ghosh (IIT Bombay), Gaurang Naik (IIT Bombay), Animesh Kumar (IIT Bombay) and Abhay Karandikar (IIT Bombay)	OpenPAWS: An Open Source PAWS and UHF TV White Space Database Implementation for India	Networks
18	411	Jobish John (IIT Bombay), Vinay Palaparthi (IIT Bombay), Shahbaz Sariq (IIT Bombay), Maryam Shojaei Baghini (IIT Bombay) and Gaurav S Kasbekar (IIT Bombay)	Design and Implementation of a Soil Moisture Wireless Sensor Network	Networks

NCC2015_program – Poster Session

Serial Number	Paper Number	Author List (Affiliation)	Paper Title	Track
19	470	Niladri Das (IIT Guwahati) and Brijesh Kumar Rai (IIT Guwahati)	On the Number of Sources and Terminals of Sum-Networks with Capacity p/q	Communications
20	482	Anurag Singh (IIT Guwahati), Jiss Nallikuzhy (IIT Guwahati) and Samarendra Dandapat (IIT Guwahati)	Compressed Sensing Framework of Data Reduction At Multiscale Level for Eigenspace Multichannel ECG Signals	Signal Processing
21	485	Pulkit Sharma (IIT Mandi), Vinayak Abrol (IIT Mandi) and Anil Kumar Sao (IIT Mandi)	Supervised Speech Enhancement Using Compressed Sensing	Signal Processing
22	498	Samar Shailendra (TCS Innovation Labs), Bighnaraj Panigrahi (Tata Consultancy Services), Hemant Kumar Rath (Tata Consultancy Services) and Anantha Simha (Tata Consultancy Services)	A Novel Overlay Architecture for Information Centric Networking	Networks
23	504	Kumar Karunakaran (IIT Bombay), Archit Gupta (IIT Bombay), Rushabh Shah (IIT Bombay & Panchsheel Research Pvt Ltd), Abhay Karandikar (IIT Bombay) and Prasanna Chaporkar (IIT Bombay)	On Analyzing Indian Cellular Traffic Characteristics for Energy Efficient Network Operation	Networks