

## Technical Sessions

### M1-1LS-1 (*Optical Communications and Networking-I*)

Session time	Mon, Dec 18 14:30 - 16:00
Location	VLTC-L201
Chaired by	Lena Wosinska (Chalmers University of Technology, Sweden)
Paper	Paper details
1	<p><i>Effect of Gain Flattening Filter Placement for Nonlinear-Impairment Mitigation in Multiband Optical Transport Network</i></p> <p>Rana K. Jana (Indraprastha Institute of Information Technology, New Delhi, India); Anand Srivastava (Indraprastha Institute of Information Technology Delhi, India); Andrew Lord (British Telecom, United Kingdom (Great Britain)); <b>Abhijit Mitra</b> (IIIT-Delhi, India)</p> <p>[1570949925]</p>
2	<p><i>ML-DSP: Machine Learning-Assisted Dynamic Spectrum Partitioning in Elastic Optical Networks</i></p> <p>Dilwar Hussain Barbhuiya (Tezpur University, India); Sanjib K. Deka (Tezpur University, India); <b>Bijoy Chand Chatterjee</b> (South Asian University, India); Nityananda Sarma (Tezpur University, India)</p> <p>[1570944794]</p>
3	<p><i>LSTM-based Channel Estimator for Optical IRS-Assisted non-Linear VLC Systems</i></p> <p><b>Anupma Sharma</b> (Indian Institute of Technology Indore, India); Prakhar Keshari (IIT Indore, India); Vimal Bhatia (Indian Institute of Technology Indore, India)</p> <p>[1570948871]</p>
4	<p><i>Optical RIS Empowered Hybrid RF-VLC V2X Communication Systems: A Promising New Frontier for Smart Transportation Applications</i></p> <p>Gurinder Singh (IIIT DELHI, India); Tathagat Pal (IIIT-Delhi, India &amp; University of Southern California, USA); Vivek A Bohara (Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi), India); Anand Srivastava (Indraprastha Institute of Information Technology Delhi, India)</p> <p>[1570946474]</p>

M1-2LS-2 (AI/ML for Communications and Networking-I)

Session time	Mon, Dec 18 14:30 - 16:00
Location	VLTC-L203
Chaired by	Deepak Nadig (Purdue University, USA)
Paper	Paper details
1	<p><i>Transfer Learning for Brain-Computer Interfaces in Cyber-Physical Systems</i></p> <p><b>Ekansh Gupta</b> (Georgia Institute of Technology, USA); Mohit Agarwal (Georgia Institute of Technology, USA); Raghupathy Sivakumar (Georgia Institute of Technology, USA)</p> <p>[1570933774]</p>
2	<p><i>Deep Q-learning Network Solution for Subjective Computational Task Scheduling in Edge Platforms</i></p> <p>Babatunde Awoyemi (University of Pretoria, South Africa); <b>Mduduzi C. Hlophe</b> (University Of Pretoria, South Africa); Bodhaswar TJ Maharaj (University of Pretoria, South Africa)</p> <p>[1570948667]</p>
3	<p><i>A Comparative Study of Unsupervised Learning Techniques and Natural Language Processing in Network Traffic Classification</i></p> <p><b>Yayathi Pavan Kumar S</b> (Indian Institute of Technology Ropar Punjab, India); Sudeepta Mishra (Indian Institute of Technology - Ropar, Punjab, India); Venkata Krishna Chaithanya Manam (Purdue University, USA)</p> <p>[1570950468]</p>
4	<p><i>Efficient Pose Estimation in Social Insects Residing in Colonies Using DeepPoseKit</i></p> <p>Viral Bambori (The LNM Institute of Information Technology, India); Yash Ghatiya (The LNM Institute of Information Technology, India); Tathya Sethi (The LNM Institute of Information Technology, India); <b>Abhishek Sharma</b> (The LNM Institute of Information Technology, India); Sanjeev Sharma (IIT (BHU) Varanasi, India)</p> <p>[1570941727]</p>

M1-3LS-3 (*M-Healthcare and Emergency Communications*)

Session time	Mon, Dec 18 14:30 - 16:00
Location	VLTC-L204
Chaired by	Subhasri Duttagupta (Amrita Vishwa Vidyapeetham, India)
Paper	Paper details
1	<p><i>Stochastic On-Time Arrival Path Prediction and Dynamic Programming for Criticality Aware Mobile Healthcare System</i></p> <p>Himanshu Singh (Indian Institute of Technology (BHU), Varanasi, India); Moirangthem Biken Singh (Indian Institute of Technology Varanasi, India); Akash Patel (IIT BHU Varanasi India, India); <b>Ajay Pratap</b> (Indian Institute of Technology (BHU) Varanasi, India)</p> <p>[1570945470]</p>
2	<p><i>IoT based Wearable Glasses for Visually Impaired Users</i></p> <p><b>Lakshmi Boppana</b> (National Institute of Technology, Warangal, India); Keerthi Kiran Attigadda (National Institute of Technology, Warangal, India); Pranay Teja Banothu (NIT, Warangal, India); Laxmi Priya Paila (National Institute of Technology, India)</p> <p>[1570945043]</p>
3	<p><i>Criticality-Driven Scheduling for UAV-Assisted Remote Health Monitoring System</i></p> <p>Moirangthem Biken Singh (Indian Institute of Technology Varanasi, India); Himanshu Singh (Indian Institute of Technology (BHU), Varanasi, India); <b>Ajay Pratap</b> (Indian Institute of Technology (BHU) Varanasi, India)</p> <p>[1570945468]</p>
4	<p><i>A blockchain-based Verifiable Aggregation for Federated Learning and Secure Sharing in Healthcare</i></p> <p><b>Shubhasri Roy</b> (IIIT Kalyani Nadia West Bengal, India); Debasish Bera (IIIT Kalyani, Nadia &amp; IIIT Kalyani, India)</p> <p>[1570945423]</p>

M1-4LS-4 (Security, Privacy, and Trust-I)

Session time	Mon, Dec 18 14:30 - 16:00
Location	VLTC-L205
Chaired by	Usha Jain (Manipal University Jaipur, India)
Paper	Paper details
1	<p><i>Efficient Public Data Auditing Scheme for Healthcare Systems using ECC-Based Attribute-Based Signature in Cloud Storage</i></p> <p>Vasudev Chakka (S. V. National Institute of Technology, Surat, India); Divyanth Pavuluri (S. V. National Institute of Technology, Surat, India); Karthik Kumar Reddy Sagili (S. V. National Institute of Technology, Surat, India); Shreyas Akkaladevi (S. V. National Institute of Technology, Surat, India); Sourabh Bhaskar (S. V. National Institute of Technology, Surat, India); <b>Shrinivas Patil</b> (S. V. National Institute of Technology, India); Keyur Parmar (Indian Institute of Information Technology Vadodara, India)</p> <p>[1570934911]</p>
2	<p><i>OptiTuneD: An Optimized Framework for Zero-Day DNS Tunnel Detection Using N-Grams</i></p> <p><b>Neha Sharma</b> (Indian Institute of Technology (BHU) Varanasi, India); Mayank Swarnkar (Indian Institute of Technology Varanasi, India)</p> <p>[1570944905]</p>
3	<p><i>Tracking PII ex-filtration: Exploring decision tree and neural network with explainable AI</i></p> <p><b>Rishika Kohli</b> (Indian Institute of Technology Jammu, India); Shreyas Chatterjee (Indian Institute of Technology Jammu, India); Shaifu Gupta (Indian Institute of Technology Jammu, India); Manoj Singh Gaur (Indian Institute of Technology Jammu, India)</p> <p>[1570945183]</p>
4	<p><i>ZETA: A Zero-Trust Security based Forensic-Ready Solution for Perimeter-less Enterprise Networks</i></p> <p><b>Maruthi S. Inukonda</b> (IIT Hyderabad &amp; Freelancing Opensource Solutions Architect, India); Jatin S Tarachandani (Indian Institute of Technology Hyderabad, India); Imtiaz Ahmed (IITH, India); Bheemarjuna Reddy Tamma (IIT Hyderabad, India); Sparsh Mittal (IIT Roorkee, India)</p> <p>[1570951023]</p>

M2-1LS-5 (*Intelligent Meta-Surfaces*)

Session time	Mon, Dec 18 16:30 - 18:00
Location	VLTC-L201
Chaired by	Manish Kumar (Dhirubhai Ambani Institute of Information and Communication Technology, India)
<b>Paper</b>	<b>Paper details</b>
1	<p><i>Performance Analysis of Active Intelligent Reflecting Surface-Assisted System: BER and Sum-Rate Evaluation</i></p> <p><b>Sanjeev Sharma</b> (IIT (BHU) Varanasi, India); Kuntal Deka (IIT Guwahati, India); Cedric Adjih (INRIA, France); Alok Kumar (Jaypee University of Information Technology, India)</p> <p>[1570933416]</p>
2	<p><i>DRL-Based Beamforming Design in RIS-Aided Multi-user Wireless Networks</i></p> <p>Keshav Singh (National Sun Yat-sen University, Taiwan); Hasan Albinsaid (King Abdullah University of Science and Technology, Saudi Arabia); <b>Sandeep Kumar Singh</b> (Motilal Nehru National Institute of Technology Allahabad, India); Cunhua Pan (Southeast University, China); Sudip Biswas (Indian Institute of Information Technology, Guwahati, India)</p> <p>[1570934515]</p>
3	<p><i>Multi-user MIMO communications for IRS-assisted Spatial Modulation Systems</i></p> <p>Kunnathully Sadanandan Sanila (IIT Goa, India); <b>Neelakandan R</b> (IIT Goa, India)</p> <p>[1570950397]</p>
4	<p><i>Channel Characteristics-based Control of RIS-assisted Communications</i></p> <p><b>Amit Kumar Shrivastava</b> (Koneru Lakshmaiah Education Foundation, Hyderabad, Telangana, India); Arzad Kherani (Indian Institute of Technology, Bhilai, India)</p> <p>[1570933822]</p>

M2-2LS-6 (IoT Networks-I)

Session time	Mon, Dec 18 16:30 - 18:00
Location	VLTC-L203
Chaired by	Diptendu Sinha Roy (National Institute of Technology Meghalaya, India)
Paper	Paper details
1	<p><i>An Unified Data Compression Framework in an IoT Network: Towards Performance Improvement</i></p> <p>Om Jee Pandey (Indian Institute of Technology BHU, India); <b>Roshan Kumar</b> (Indian Institute of Technology Kanpur, India); Rajesh Hegde (IIT Dharwad, India)</p> <p>[1570943832]</p>
2	<p><i>Enhancing LoRaWAN-based Connectivity for Scalable Smart City Applications</i></p> <p><b>Parag Kulkarni</b> (UAE University, United Arab Emirates); Bivin Pradeep (UAE University, United Arab Emirates, United Arab Emirates); Usman Raza (Waymap, United Kingdom (Great Britain)); Abderrahmane Lakas (UAE University, United Arab Emirates)</p> <p>[1570945339]</p>
3	<p><i>Energy Efficient Workflow Scheduling Algorithm for Latency-Sensitive Applications using Cloud-Fog Collaboration</i></p> <p><b>Prashant Shukla</b> (NIT, Raipur, India); Sudhakar Pandey (NIT Raipur, India)</p> <p>[1570933847]</p>
4	<p><i>Securing Smart Home IoT Network Against DNS Flooding Attack using P4</i></p> <p><b>Suvrima Datta</b> (International Institute of Information Techonology, Naya Raipur, India); Venkanna U. (IIIT Naya Raipur, India)</p> <p>[1570945501]</p>

M2-3LS-7 (Aerial and Satellite Communications)

Session time	Mon, Dec 18 16:30 - 18:00
Location	VLTC-L204
Chaired by	Ajay Pratap (Indian Institute of Technology (BHU) Varanasi, India)
Paper	Paper details
1	<p><i>Cooperative UAV Trajectory Planning for Plume Wrapping of a Spherical Dome</i></p> <p><b>Baisakhi Chatterjee</b> (North Carolina State University, USA); Rudra Dutta (North Carolina State University, USA)</p> <p>[1570934532]</p>
2	<p><i>A Collaborative Lightweight Malicious Drone Detection System in Sensitive Areas</i></p> <p><b>Gullipalli Suneetha</b> (National Institute of Technology Calicut, India); Arun Raj Kumar P (NIT Calicut, India)</p> <p>[1570944052]</p>
3	<p><i>Self-Organized Drone Placement for the Surveillance of Uneven Surface</i></p> <p>Dibakar Saha (National Institute of Technology Raipur, India); <b>Ayushman Tiwari</b> (National Institute of Technology, Raipur, India)</p> <p>[1570933876]</p>
4	<p><i>Trajectory Planning for adaptive bitrate applications of UAVs</i></p> <p><b>Sonali Chaudhari</b> (North Carolina State University, USA); Rudra Dutta (North Carolina State University, USA)</p> <p>[1570935568]</p>

M2-4LS-8 (*Software Defined Networks*)

Session time	Mon, Dec 18 16:30 - 18:00
Location	VLTC-L205
Chaired by	Byrav Ramamurthy (University of Nebraska-Lincoln, USA)
Paper	Paper details
1	<p><i>Improving Energy Efficiency In Open RAN Through Dynamic CPU Scheduling</i></p> <p><b>Saish Pramod Urumkar</b> (Technological University Dublin, Ireland); Byrav Ramamurthy (University of Nebraska-Lincoln, USA); Sachin Sharma (Technological University Dublin, Ireland)</p> <p>[1570945419]</p>
2	<p><i>SDN-Based Seamless Mobility Management for B5G Services in High-Speed Railways</i></p> <p><b>Amar Sinha</b> (IIIT, Naya Raipur, India); Venkanna U. (IIIT Naya Raipur, India); Debanjan Das (IIIT Naya Raipur, India); Rajarshi Mahapatra (IIIT Naya Raipur, India)</p> <p>[1570938466]</p>
3	<p><i>Availability-Aware VNF Placement for uRLLC Applications in MEC-Enabled 5G Networks</i></p> <p><b>Samaresh Bera</b> (Indian Institute of Technology Jammu, India)</p> <p>[1570950408]</p>
4	<p><i>Isolation Aware CU-DU Mapping for Multi-Tenant 5G O-RAN Slices</i></p> <p><b>Nabhasmita Sen</b> (IIT Hyderabad, India); Antony Franklin A (Indian Institute of Technology Hyderabad, India)</p> <p>[1570951108]</p>



T1-1LS-9 (*Communications/Information Theory*)

Session time	Tue, Dec 19 14:30 - 16:00
Location	VLTC-L201
Chaired by	Sandeep Kumar Singh (Motilal Nehru National Institute of Technology Allahabad, India)
<b>Paper</b>	<b>Paper details</b>
1	<p><i>Performance of Orthogonal and Non-Orthogonal Space Time Block Code Through the Underwater Wireless Optical Channels</i></p> <p><b>Prasad Naik Ramavath</b> (National Institute of Technology Rourkela, India); Raghavendra M a n s (National Institute of Technology Karnataka, India); Udupi Sripathi (NITK, Surathkal, India); Savidhan C S Shetty (National Institute of Technology Karnataka, India)</p> <p>[1570931289]</p>
2	<p><i>On Performance Evaluation of Channel Codes over Satellite Channels</i></p> <p><b>Shubham Srivastava</b> (Indian Institute of Technology Kanpur, India); Adrish Banerjee (Indian Institute of Technology, Kanpur, India); Abhishek K Gupta (Indian Institute of Technology Kanpur, India)</p> <p>[1570951054]</p>
3	<p><i>Blind Estimation of Polar Encoder Parameters</i></p> <p>Aman Gupta (IIT Indore, India); <b>Swaminathan Ramabadran</b> (Indian Institute of Technology Indore, India)</p> <p>[1570932926]</p>
4	<p><i>Statistical Analysis of Underwater Acoustic Channel</i></p> <p>Nabajyoti Nath (Indian Institute of Technology Guwahati, India); <b>Sonali Chouhan</b> (Indian Institute of Technology Guwahati, India)</p> <p>[1570950347]</p>

T1-2LS-10 (*Signal Processing for Communications*)

Session time	Tue, Dec 19 14:30 - 16:00
Location	VLTC-L203
Chaired by	Vishal Murgai (Samsung R&D Institute, Bengaluru, India)
<b>Paper</b>	<b>Paper details</b>
1	<p><i>Deep-Learning based Equalization of Highly Compressed Faster Than Nyquist Signals</i></p> <p><b>Shubham Paul</b> (Indian Institute of Technology Madras, India); Nambi Seshadri (UC San Diego, USA); David Koilpillai (Indian Institute of Technology Madras, India)</p> <p>[1570945742]</p>
2	<p><i>Robust Linear Decentralized Estimation in IoT Networks Relying on Imperfect CSI</i></p> <p>Kunwar Pritiraj Rajput (SnT, University of Luxembourg, Luxembourg); <b>Bhavani Shankar Mysore R</b> (Interdisciplinary Centre for Security, Reliability and Trust &amp; University of Luxembourg, Luxembourg)</p> <p>[1570947761]</p>
3	<p><i>Direction of Arrival Estimation using Uniform Linear Sensor Array with Salp Swarm Optimizer</i></p> <p>Geetha P (Malaviya National Institute of Technology Jaipur, India); <b>Satyasai Jagannath Nanda</b> (Malaviya National Institute of Technology Jaipur, India); Rajendra Prasad Yadav (Malaviya National Institute of Technology Jaipur, India)</p> <p>[1570950716]</p>
4	<p><i>New Quaternary Cross Z-Complementary Sets with Flexible Sequence Lengths</i></p> <p><b>Shibsankar Das</b> (Indian Institute of Technology Kanpur, India); Adrish Banerjee (Indian Institute of Technology, Kanpur, India)</p> <p>[1570951059]</p>

T1-3LS-11 (*Optical Communications and Networking-II*)

Session time	Tue, Dec 19 14:30 - 16:00
Location	VLTC-L204
Chaired by	TBD
Paper	Paper details
1	<p><i>Experimental Investigation of the Atmospheric Turbulence Effects on FSO Communication Systems</i></p> <p><b>Abhinaba Ghosh</b> (Indian Institute of Technology Delhi, India); Gyandeep Verma (Indian Institute of Technology Delhi, India); Sonali Garg (HFCL Limited, India); Abhishek Dixit (Indian Institute of Technology Delhi &amp; IBBT, India)</p> <p>[1570942467]</p>
2	<p><i>Lock-in Amplifier based Alignment for Free Space Optical Communication</i></p> <p><b>Akhil Muvvala</b> (Indian Institute of Technology Madras, India); Saravana Vilashini M (IIT Madras, India); Anil Prabhakar (IIT Madras, India)</p> <p>[1570945448]</p>
3	<p><i>System Engineering Methodology for Satellite based QKD Architecture</i></p> <p><b>Sambuddha Majumder</b> (Indian Space Research Organisation, India); Adarsh Jain (Space Applications Centre, India); Abhishek Khanna (Space Applications Centre, India); M. Senthilkumar (ISRO, India); Dinesh Kumar Singh (SAC, ISRO, India)</p> <p>[1570949304]</p>
4	<p><i>An Effective Strategy for Link Upgrade from C to C+L Band in Elastic Optical Backbone Networks</i></p> <p>Ramanuja Kalkunte (University of California, Davis, USA); Forough Shirin Abkenar (University of California Davis, USA); Rana K. Jana (Indraprastha Institute of Information Technology, New Delhi, India); Davide Aureli (INPS, Italy); Sifat Ferdousi (University of California, Davis, USA); Anand Srivastava (Indraprastha Institute of Information Technology Delhi, India); <b>Abhijit Mitra</b> (IIIT-Delhi, India); Massimo Tornatore (Politecnico di Milano &amp; University of California, Davis, Italy); Biswanath Mukherjee (University of California, Davis, USA)</p> <p>[1570950801]</p>
5	<p><i>ULTRA: Machine Learning Optimized TRA For Enhanced Resource Allocation in MCF-based SDM-EONs</i></p> <p><b>Shrinivas Petale</b> (George Washington University, USA); Egemen Erbayat (The George Washington University, USA); Suresh Subramaniam (George Washington University, USA)</p> <p>[1570948792]</p>

T2-1LS-12 (*Performance Analysis of Communications Systems-I*)

Session time	Tue, Dec 19 16:30 - 18:00
Location	VLTC-L201
Chaired by	Rishu Raj (Trinity College Dublin, Ireland)
Paper	Paper details
1	<p><i>Performance Analysis of RIS-Aided Two-Way Communications Under Hardware Impairments and Rayleigh Fading</i></p> <p><b>Suneel Yadav</b> (Indian Institute of Information Technology, India); Radhika Gour (IIIT Allahabad, India); George C. Alexandropoulos (University of Athens, Greece); Devendra Singh Gurjar (National Institute of Technology Silchar, India)</p> <p>[1570933239]</p>
2	<p><i>On the Performance of Rate-Splitting Multiple Access in Coordinated Direct and Relay Transmission</i></p> <p><b>Supriya Kumari</b> (Indian Institute of Technology Delhi, India); Seshan Srirangarajan (Indian Institute of Technology Delhi, India); Vimal Bhatia (Indian Institute of Technology Indore, India)</p> <p>[1570951060]</p>
3	<p><i>Implementation and Performance Analysis of NOMA on Software Defined Radio</i></p> <p>Vimal Bhatia (Indian Institute of Technology Indore, India); <b>Shubham Bisen</b> (Indian Institute of Technology Indore, India)</p> <p>[1570950137]</p>
4	<p><i>Effects of Imperfect CSI and Imperfect SIC on artificial noise assisted precoded multiuser secure NOMA-GSM</i></p> <p><b>Shekhar Pratap Singh</b> (IIT Roorkee, India); Pyari Mohan Pradhan (IIT Roorkee, India)</p> <p>[1570948815]</p>

T2-2LS-13 (*Testbed and Prototype Implementation*)

Session time	Tue, Dec 19 16:30 - 18:00
Location	VLTC-L203
Chaired by	Sonali Chouhan (Indian Institute of Technology Guwahati, India)
Paper	Paper details
1	<p><i>TSDSI Standards Driven Implementation of Smart Radio Environment</i></p> <p><b>Amit Kumar Shrivastava</b> (Koneru Lakshmaiah Education Foundation, Hyderabad, Telangana, India); Satish Kumar (International Institute of Information Technology, Bangalore, India); Khushboo Sahu (Indian Institute of Technology, Bhilai, India); Bhavesh Sonwani (Indian Institute of Technology, Bhilai, India); Dixit Sharma (International Institute of Information Technology, Naya Raipur, India); Dipti Sakshi Srivastava (Indian Institute of Technology (ISM), Dhanbad, India); Navneet Garg (Indian Institute of Technology, Indore, India); Arzad Kherani (Indian Institute of Technology, Bhilai, India); Vimal Bhatia (Indian Institute of Technology Indore, India); Soumava Mukherjee (Indian Institute of Technology Jodhpur, India); Samrat Mukhopadhyay (IIT ISM Dhanbad, India); Priyanka Das (International Institute of Information Technology Bangalore, India); Rajarshi Mahapatra (IIIT Naya Raipur, India); Debanjan Das (IIIT Naya Raipur, India); Brejesh Lall (Indian Institute of Technology Delhi, India) [1570933983]</p>
2	<p><i>IoT Driven Smart Greenhouse: A Cost-Effective and User-Centric Automation Solution For Agriculture</i></p> <p><b>Ishtiaque Ahmed Toke</b> (Independent University, Bangladesh); Mahir Mohammad Faisal Rahman (Independent University, Bangladesh); Md Fahad Monir (Independent University, Bangladesh); Tarem Ahmed (Independent University, Bangladesh (IUB), Bangladesh); Khondkar Ayaz Rabbani (Associate Professor, Bangladesh)</p> <p>[1570945008]</p>
3	<p><i>A Proof-of-Concept Demonstration of Hybrid Li-Fi/Wi-Fi Network on a Prototype Testbed</i></p> <p><b>Saswati Paramita</b> (IIIT-Delhi, India); Anand Srivastava (Indraprastha Institute of Information Technology Delhi, India); Vivek A Bohara (Indraprastha Institute of Information Technology, Delhi (IIIT-Delhi), India); Abhijit Mitra (IIIT-Delhi, India); M Hari Ramamoorthy (ERNET India, India); Hai Krishna Atluri (ERNET India, India); Paventhan Arumugam (ERNET India, India)</p> <p>[1570950357]</p>
4	<p><i>3GPP-based Testbed for Edge Computing; Architecture, Implementation and Application Deployment</i></p> <p><b>Syed Majed Ashraf</b> (Indian Institute of Technology Delhi, India); Ashish Singh Patel (National Institute of Technology Mizoram, India); Arzad Kherani (Indian Institute of Technology, Bhilai, India); Brejesh Lall (Indian Institute of Technology Delhi, India)</p> <p>[1570945450]</p>

T2-3LS-14 (AI/ML for Communications and Networking-II)

Session time	Tue, Dec 19 16:30 - 18:00
Location	VLTC-L204
Chaired by	Sandeep Kumar Singh (Indian Institute of Technology, Roorkee, India)
Paper	Paper details
1	<p><i>Distributed Weighted Fuzzy C-Means Clustering for Wireless Sensor Network Data Analysis</i></p> <p>Anita Panwar (Malaviya National Institute of Technology Jaipur, India); <b>Satyasai Jagannath Nanda</b> (Malaviya National Institute of Technology Jaipur, India)</p> <p>[1570949517]</p>
2	<p><i>Communication-Efficient Federated Learning for Real-time Applications in Edge Networks</i></p> <p><b>Neha Singh</b> (Indian Institute of Information Technology Lucknow, India); Tanmay Tripathi (Manipal University Jaipur, India); Mainak Adhikari (Indian Institute of Information Technology Lucknow, India)</p> <p>[1570933993]</p>
3	<p><i>Intelligent Online Caching Strategy in 6G-Enhanced Automated Vehicular Communications</i></p> <p>Prajwalita Saikia (National Sun Yat Sen University Taiwan, Taiwan); Guan-Yi Wang (National Sun Yat-sen University, Taiwan); Keshav Singh (National Sun Yat-sen University, Taiwan); <b>Sandeep Kumar Singh</b> (Motilal Nehru National Institute of Technology Allahabad, India); Chih-Peng Li (National Sun Yat-sen University, Taiwan); Sudip Biswas (Indian Institute of Information Technology, Guwahati, India)</p> <p>[1570934506]</p>
4	<p><i>OptFog: Optimized Mobility-Aware Task Offloading and Migration Model for Fog Networks</i></p> <p>Mehbub Alam (Indian Institute of Information Technology Guwahati, India); <b>Rakesh Matam</b> (Indian Institute of Information Technology Guwahati, India); Ferdous Barbhuiya (Indian Institute of Technology Guwahati, India)</p> <p>[1570945058]</p>

W1-1LS-15 (*Edge Technologies*)

Session time	Wed, Dec 20 14:30 - 16:00
Location	VLTC-L201
Chaired by	Dinesh Singh (Motilal Nehru National Institute of Technology Prayagraj, India)
Paper	Paper details
1	<p><i>Control Requirements Aware Resource Allocation for Edge-cloud based AGV</i></p> <p><b>Shreya Tayade</b> (German Research Center for Artificial Intelligence, Germany); Hans D. Schotten (University of Kaiserslautern, Germany); Hans Dieter Schotten (Deutsches Forschungszentrum für Künstliche Intelligenz GmbH, Germany)</p> <p>[1570950501]</p>
2	<p><i>Energy Optimization in B5G Networks with Predictive Allocation of Base Stations in Edge Server Placement</i></p> <p>Vaibhav Tiwari (National Institute of Technology Meghalaya, India); <b>Diptendu Sinha Roy</b> (National Institute of Technology Meghalaya, India); Chandrasen Pandey (National Institute of Technology Meghalaya, India)</p> <p>[1570942624]</p>
3	<p><i>Cost-aware and Time-Varying Request Rate-based Dynamic Cache Provisioning over CCDN</i></p> <p><b>Rohit Kumar Gupta</b> (Malaviya National Institute of Technology Jaipur &amp; Manipal University Jaipur, India, India); Arka Prokash Mazumdar (Malaviya National Institute of Technology, India)</p> <p>[1570948860]</p>
4	<p><i>Proactive Fault Tolerant Service Management in Edge Computing</i></p> <p><b>Supriya Dilip Tambe</b> (Indian Institute of Technology Hyderabad, India); Antony Franklin A (Indian Institute of Technology Hyderabad, India)</p> <p>[1570950681]</p>

W1-2LS-16 (*Performance Analysis of Communications Systems-II*)

Session time	Wed, Dec 20 14:30 - 16:00
Location	VLTC-L203
Chaired by	Shibsankar Das (Indian Institute of Technology Kanpur, India)
Paper	Paper details
1	<p><i>Performance Analysis of Cache Enabled Wireless NOMA Ultra Dense Networks Using PPP</i></p> <p>Abhinav Singh Parihar (Indian Institute of Technology Indore, India); Vimal Bhatia (Indian Institute of Technology Indore, India); <b>Navneet Garg</b> (Indian Institute of Technology, Indore, India)</p> <p>[1570945494]</p>
2	<p><i>Impact of Nonlinear Power Amplifier on BER Performance of OTFS Modulation</i></p> <p><b>Sanjeev Sharma</b> (IIT (BHU) Varanasi, India); Amit Singh (IIT Varanasi, India); Kuntal Deka (IIT Guwahati, India); Cedric Adjih (INRIA, France)</p> <p>[1570943616]</p>
3	<p><i>Minimizing Outage Probability and BER using Cooperative NOMA in Dual Base Station Systems</i></p> <p>Nirbhay Tyagi (Indian Institute of Space Science and Technology, India); Abdul Rahim, V C (Indian Institute of Space Science and Technology, India); <b>Chris Prema</b> (Deemed &amp; Indian Institute of Space Science and Technology, Trivandrum, India)</p> <p>[1570950346]</p>
4	<p><i>Precoded OTFS for Vehicular IoTs based on Quantized CSI at Transmitter</i></p> <p><b>Rakesh R T</b> (National Institute of Technology Calicut, India)</p> <p>[1570950581]</p>



W1-3LS-17 (*Energy Efficiency and Harvesting*)

Session time	Wed, Dec 20 14:30 - 16:00
Location	VLTC-L204
Chaired by	Suneel Yadav (Indian Institute of Information Technology, India)
Paper	Paper details
1	<p><i>Energy-Efficient Computation Offloading with Adaptive Modulation Index and Deadline-Aware Task Allocation in Multi-Access Edge Computing</i></p> <p><b>Sonali Chouhan</b> (Indian Institute of Technology Guwahati, India) [1570950365]</p>
2	<p><i>E2-DMAC: An Energy Efficient-DSME MAC protocol for Wireless Cluster Tree Network</i></p> <p><b>Kaushik Ray</b> (National Institute of Technology, Meghalaya, India); Soumen Moulik (National Institute of Technology, Meghalaya, India) [1570943155]</p>
3	<p><i>Hole Transport Layer Free Photovoltaic Cell Based on Inorganic Perovskite for Indoor Energy Harvesting for IoT Applications</i></p> <p><b>Nikhil Deep Gupta</b> (Visvesvaraya National Institute of Technology, Nagpur, India); Harshit Kumar (VNIT Nagpur, India) [1570947258]</p>
4	<p><i>Towards Sustainable Economic Zones with UAV-assisted Real-time Energy Replenishment in Wireless Rechargeable Sensor Networks</i></p> <p>Riya Goyal (NSUT, New Delhi, India); <b>Abhinav Tomar</b> (Netaji Subhas University of Technology, New Delhi, India); Gaurav Singal (Netaji Subhas University of Technology Delhi, India) [1570945756]</p>

W1-4LS-18 (Emerging Technologies-I)

Session time	Wed, Dec 20 14:30 - 16:00
Location	VLTC-L205
Chaired by	Sourav Kanti Addya (National Institute of Technology Karnataka, India)
Paper	Paper details
1	<p><i>Error Analysis of Molecular Communications System with Hybrid Channel Transmission Scheme</i></p> <p><b>Nihit Bhatnagar</b> (Birla Institute of Technology and Science Pilani, India); Sandeep Joshi (Birla Institute of Technology &amp; Science (BITS), Pilani, India)</p> <p>[1570931466]</p>
2	<p><i>RT-HIL Testbed for evaluating and validating a switchover to MPLS/IP Communication for Mission Critical Applications in Smart Grid Infrastructure</i></p> <p><b>Mayur V Parulekar</b> (Veerмата Jijabai Technological Institute, India); Faruk Kazi (VJTI, Mumbai, India); Imran Jamadar (Veerмата Jijabai Technological Institute, India)</p> <p>[1570943424]</p>
3	<p><i>Empirical Evaluation of DASH Streaming over Multipath TCP in a Mixed Traffic Environment</i></p> <p><b>Abhinaba Rakshit</b> (National Institute of Technology Karnataka, Surathkal, India); Dayma Khan (National Institute of Technology Karnataka, Surathkal, India); Mohit P. (National Institute of Technology, Surathkal, India)</p> <p>[1570950688]</p>
4	<p><i>Reliable key generation for authentication and encryption using RO PUF on FPGA</i></p> <p>Manav Bhavesh Shah (VJTI, Mumbai, India); <b>Parul Viresh Sindhwad</b> (VJTI, Mumbai, India); Faruk Kazi (VJTI, Mumbai, India)</p> <p>[1570933560]</p>

W2-1LS-19 (IoT Networks-II)

Session time	Wed, Dec 20 16:30 - 18:00
Location	VLTC-L201
Chaired by	TBD
Paper	Paper details
1	<p><i>VMAP: Matching-based Efficient Offloading in IoT-Fog Environments with Variable Resources</i></p> <p>Jui V Morey (National Institute of Technology Karnataka, India); Anurag Satpathy (Missouri University of Science and Technology, USA); <b>Sourav Kanti Addya</b> (National Institute of Technology Karnataka, India)</p> <p>[1570944613]</p>
2	<p><i>MPS: Multihop Path Selection method for Vehicular Fog Computing</i></p> <p>Niharika Keshari (Motilal Nehru National Institute of Technology Allahabad, India); Anchal Yadav (Motilal Nehru National Institute of Technology Allahabad, India); <b>Dinesh Singh</b> (Motilal Nehru National Institute of Technology Prayagraj, India)</p> <p>[1570939284]</p>
3	<p><i>Optimizing UAV Swarm Communication in Urban Scenarios: An Enhanced Fuzzy LEACH Algorithm Based Approach</i></p> <p>Sandeep Joshi (Birla Institute of Technology &amp; Science (BITS), Pilani, India); Shayan Majumder (BITS Pilani, India)</p> <p>[1570948646]</p>
4	<p><i>Enabling Secure UAV-Assisted IoT Communications with RF Energy Harvesting in the Presence of Eavesdropper</i></p> <p>Gaurav Kumar Pandey (National Institute of Technology Silchar, India); Devendra Singh Gurjar (National Institute of Technology Silchar, India); <b>Suneel Yadav</b> (Indian Institute of Information Technology, India); Dragana Krstić (University of Niš, Serbia); Yuming Jiang (Norwegian University of Science and Technology, Norway)</p> <p>[1570939294]</p>

W2-2LS-20 (Security, Privacy, and Trust-II)

Session time	Wed, Dec 20 16:30 - 18:00
Location	VLTC-L203
Chaired by	TBD
Paper	Paper details
1	<p><i>Secure Firmware based Lightweight Trusted Platform Module (FLTPM) for IoT Devices</i></p> <p>Vishal Jitendrakumar Rathod (Centre for Development of Advanced Computing (C-DAC), India); Afzal Warsi (Centre for Development of Advanced Computing (C-DAC), Bangalore, India); <b>Shubham Malav</b> (Centre for Development of Advanced Computing (C-DAC), Bangalore, India); Shrikrishna Chippalkatti (Centre for Development of Advanced Computing, India); Haribabu Pasupuleti (Centre for Development of Advanced Computing, India); Sudarsan S D (Centre for Development of Advanced Computing (CDAC), India)</p> <p>[1570945608]</p>
2	<p><i>Detecting toxic comments from highly skewed social media data</i></p> <p>Abhradeep Datta (Indian Institute of Technology, Guwahati, India); B Monish Kumar (Indian Institute of Technology Guwahati, India); <b>Ashok Singh Sairam</b> (Indian Institute of Technology Guwahati, India)</p> <p>[1570950349]</p>
3	<p><i>A Lightweight Security Solution for Mitigation of Hatchetman Attack in RPL-based 6LoWPAN</i></p> <p><b>Girish Sharma</b> (Malaviya National Institute of Technology Jaipur Rajasthan India &amp; Manipal University Jaipur, India); Jyoti Grover (Malaviya National Institute of Technology Jaipur, India); Abhishek Verma (Babasaheb Bhimrao Ambedkar University Lucknow, India)</p> <p>[1570945126]</p>
4	<p><i>A Post-Quantum End-to-End Encryption Protocol</i></p> <p><b>Shashvat Sharma</b> (Malaviya National Institute of Technology Jaipur, India); Meenakshi Tripathi (Malaviya National Institute of Technology Jaipur, India); Harish Kumar Sahu (Defense Research Development Organization, India); Ashish Karan (Indian Air Force, India)</p> <p>[1570941597]</p>

W2-3LS-21 (*Network Analysis*)

Session time	Wed, Dec 20 16:30 - 18:00
Location	VLTC-L204
Chaired by	Shrinivas Petale (George Washington University, USA)
Paper	Paper details
1	<p><i>Outage and Ergodic Capacity Analysis in UAV-RIS Assisted NOMA-D2D Network</i></p> <p><b>Sayanti Ghosh</b> (National Institute of Technology Durgapur, India); Abhijit Bhowmick (VIT University, Vellore, TN, India); Sanjay Dhar Roy (National Institute of Technology Durgapur, India); Sumit Kundu (National Institute of Technology, Durgapur, India)</p> <p>[1570944933]</p>
2	<p><i>Optimal Network and Application-Aware End-to-End Slicing in Next-Generation Networks</i></p> <p><b>Sumanta Patro</b> (TCS Research &amp; Innovation, India); Hemant Kumar Rath (Tata Consultancy Services, India); Muralidharan Menon (TCS, India)</p> <p>[1570939039]</p>
3	<p><i>A simple and lightweight mutual authentication protocol for Wireless Sensor Network</i></p> <p><b>Usha Jain</b> (Manipal University Jaipur, India, India); Sauhard Vyas (Manipal University Jaipur, India)</p> <p>[1570943513]</p>
4	<p><i>Enhancing UAV Systems via Task Offloading at the Edge</i></p> <p><b>Rajashekhhar Reddy Tella</b> (Indian Institute Technology Dharwad, India); Andrea Marotta (University of L'Aquila &amp; WEST Aquila SRL, Italy); Piero Castoldi (Scuola Superiore Sant'Anna, Italy); Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy); Koteswararao Kondepu (Indian Institute of Technology Dharwad, India)</p> <p>[1570944649]</p>

W2-4LS-22 (Emerging Technologies)

Session time	Wed, Dec 20 16:30 - 18:00
Location	VLTC-L205
Chaired by	Sridhar Iyer (KLE Technological University Dr MSSCET, India)
Paper	Paper details
1	<p><i>In-motion Underwater Sidescan Sonar Image Segmentation using Dynamic NSGA-II Algorithm</i></p> <p>Aakansha Agarwal (Malaviya National Institute of Technology Jaipur, India); <b>Satyasai Jagannath Nanda</b> (Malaviya National Institute of Technology Jaipur, India)</p> <p>[1570950475]</p>
2	<p><i>A Comprehensive Framework for Clustering in 6G Cell-Free Networks</i></p> <p>Afonso José de Faria (Universidade Federal de Itajubá (UNIFEI), Brazil); <b>José Marcos C. Brito</b> (Inatel, Brazil); Danilo Spadoti (Universidade Federal de Itajubá - UNIFEI, Brazil)</p> <p>[1570945111]</p>
3	<p><i>Dynamic Spectrum Assignment Techniques based on Power Awareness for 6G Wireless Systems</i></p> <p>Anita Patil (SG Balekundri Institute of Technology, India); <b>Sridhar Iyer</b> (KLE Technological University Dr MSSCET, India)</p> <p>[1570942123]</p>
4	<p><i>Utilizing Acyclic Matching for Enhancing Current flow in Diamond Ladder Structures</i></p> <p><b>Saffren S</b> (Sathyabama Institute of Science and Technology, India); Angel D (Assistant Professor, India)</p> <p>[1570948494]</p>