



## Day 3: Wednesday, July 10, 2024

1:00 – 3:00

	Track 1 – Session 1 (T1S1) <b>Room A201</b>	Track 2 – Session 1 (T2S1) <b>Room A202</b>	Track 4 – Session 1 (T4S1) <b>Room A203</b>	ComSoc Workshop <b>Room A204</b>
	<b>Chair: Dr. Ning Lu</b> (e-mail: ning.lu@queensu.ca)	<b>Chair: Dr. Mahmoud Ismail Ibrahim</b> (e-mail: mhbrahim@aus.edu)	<b>Chair: Dr. Haidy Elghamrawy</b> (e-mail: haidy.elghamrawy@rnc.ca)	<b>Chair: Güneş Karabulut-Kurt</b> (e-mail: gunes.kurt@polymtl.ca)
1:00 – 1:20	<b>Machine Learning-Assisted Partially Blind Handover Prediction in 5G Network Systems</b> Ibrahim Yazici; Emre Gures	<b>Performance Evaluation of Selection Combining over Shadowed Beaulieu-Xie Fading Channels</b> Refaat Mohamed; Mahmoud H. Ismail	<b>Implementing a Pragmatic Security Strategy for Cyber-Physical Systems (CPS)</b> Amrou Zyad Benelhaouare; Aziz Oukaira; Maroua Oumlaz; Ahmed Lakhssassi	<b>Enhancing HAP Networks with Reconfigurable Intelligent Surfaces</b> Islam Mohammad Tanash; Ayush Kumar Dwivedi; Taneli Riihonen; Fatemeh Rafiei Maleki
1:20 – 1:40	<b>IoT-Enabled Smart Parking System Using Artificial Intelligence and Optical Character Recognition</b> Mohammad Rafi Rashidi; Chris Cherian; Vipul Singh Negi; Suchismita Chinara	<b>GA-CRSK: Gradient Ascent Chirp Rate Shift Keying for High Data-Rate LoRa Communications</b> Sang won Shin; Mehmet Can Vuran	<b>Assessing Interference Impacts of 5G C-Band on Radar Altimeter Across Urban and Rural Macrocell Environments</b> Aisha Gamal Elsayem; Haidy Elghamrawy; Ali Massoud; Aboelmagd Noureldin	<b>Goal-Oriented Vessel Detection with Distributed Computing in a LEO Satellite Constellation</b> Antonio Mercado-Martínez; Beatriz Soret; Antonio Jurado Navas
1:40 – 2:00	<b>Machine Learning-Based Handover Parameter Estimation for Beyond 5G Communication Networks</b> Abdussamet Hatipoglu; Ibrahim Yazici; Mehmet Basaran; Mehmet Akif Yazici; Lutfiye Durak-Ata	<b>On the Performance of IM-OFDMA: Higher Spectral Efficiency and Reduced Computational Complexity</b> Heba Yaser; Saud Althunibat; Mazen Omar Hasna; Khalid A. Qaraqe	<b>Comparative Study of Indoor Performance Metrics in Ibra City's Mobile Broadband Networks, Oman</b> Majan Abdullah Al Jahdhami; Ayman A. El-Saleh; Abdurraqeb Alhammadi; Ibraheem Shayea	<b>High Altitude Platform Station-Greedy Clustering of Wireless Sensor Networks for the Massive IoT</b> Anastassia Gharib
2:00 – 2:20	<b>NR-V2X Quality of Service Prediction Through Machine Learning with Nested Cross-Validation Scheme</b> Ibrahim Yazici; Emre Gures	<b>Adaptive Switching Method for 5G Grant-Free URLLC Scheduling</b> Husne Sahan; Yusuf Islam Demir; Ahmet Yazar; Huseyin Arslan	<b>Efficient Wake-Up Strategy: UAV-Enabled Opportunistic Sensing in IoT Networks</b> Krishnendu S Tharakan; Omar Khalifa; Hayssam Dahrouj; Nour Kouzayha; Hesham ElSawy; Noha Al-Harathi; Zekeriya Aksoy; Jaafar Elmirghani; Tareq Y. Al-Naffouri	<b>Sailing the Cosmic Seas: Improving Dependability in IoT-Based Deep Space Exploration</b> Jason Gerard; Sandra Céspedes
2:20 – 2:40	<b>Trustworthy Aggregation for Aerial Federated Learning in Heterogeneous Client Environments</b> Mohamed Magdi Ads; Hesham ElSawy; Hazem Abbas; Hossam S. Hassanein	<b>Design and Implementation on FPGA of a Real-Time Secure Audio Communication System</b> Abdenour Kifouche; Mohamed Salah Azzaz; Youcef Alloun; Walid Merdaci	<b>Unsupervised Machine Learning for Anomaly Detection in Wi-Fi Based IoT Networks</b> Fatima tu Zahra; Yavuz S. Bostanci; Mujdat Soytkur	<b>Improved Adaptive Multi-Density DBSCAN Method for Radar Signal Sorting in Complex Electromagnetic Environment</b> Yi Wei; Yubi Qian; Xiaoxiao Zhuo
2:40 – 3:00	<b>Joint Power Control and Device Scheduling in Federated Learning with Energy Harvesting</b> Boyuan Zhang; Ning Lu			<b>Experimental Analysis of a Blockchain-Enabled Fintech Platform for Energy and Carbon Trading</b> Ameni Boumaiza

## Day 4: Thursday, July 11, 2024

9:00 – 11:00

### Track 1 – Session 2 (T1S2)

**Room A201**

**Chair: Dr. Abdallah Alma'aitah**  
(e-mail: ayalmaaitah@just.edu.jo)

### Track 2 – Session 2 (T2S2)

**Room A202**

**Chair: Enver Ozdemir**  
(e-mail: ozdemiren@itu.edu.tr)

### Track 4 – Session 2 (T4S2)

**Room A203**

**Chair: Dr. Khalid Elgazzar**  
(e-mail: khalid.elgazzar@ontariotechu.ca)

### Track 3 – Session 1 (T3S1)

**Room A204**

**Chair: Dr. Mohammad Al-Jarrah**  
(e-mail: mohammad.al-jarrah@manchester.ac.uk)

9:00 – 9:20	<b>Enhancing Industrial Efficiency: Early Detection of Fan Failures with IoT Technology</b> Mahmut Durgun; Zübeyir Şükrü Özkorucu	<b>Hybrid Reconfigurable Intelligent Surface Enabled Over-The-Air Index-Modulation</b> Emre Arslan; Ali T Dogukan; Fatih Kilinc; Ertugrul Basar	<b>Medical Self-Reporting with Adversarial Data Injection Modeled via Game Theory</b> Leonardo Badia; Valeria Bonagura; Federica Pascucci; Valentina Vadori; Enrico Grisan	<b>Localization Without GNSS for TDMA-Based Multi-Hop Networks</b> Ege Orkun Gamgam; Tolga Numanoglu
9:20 – 9:40	<b>Radar Sensing via Geometric Machine Learning over Riemannian Manifolds</b> Joarder Sadique; Imtiaz Nasim; Ahmed S. Ibrahim	<b>Scheduling Deadline-Constrained Traffic over Hybrid Channels</b> Golnaz Bashirian; Ning Lu	<b>Power Efficient Real-Time Traffic Signal Classification for Autonomous Driving Using FPGAs</b> Rashed Al Amin; Md Shahi Amran Hossain; Leon Tjard Schmid; Veit Wiese; Roman Obermaisser	<b>An Experimental Study on 5G Mobility Management: A Drive Test Approach</b> Ayman A. El-Saleh; Abdullaqeb Alhammad; Majan Abdullah Al Jahdhami; Adnan Kabbani; Ibraheem Shayea; Siva Priya Thiagarajah
9:40 – 10:00	<b>Age and Gender Prediction Using Paralinguistic Features of EEG Signals and Machine Learning</b> Reema Alam; Turky Alotaiby; Walaa Alsumari	<b>Communication Systems with Various Radio Access Schemes to Serve a UAV in Tropical Rain Areas</b> Walid Maulana Hadiansyah; Gamantyo Hendrantoro; Iwan Wirawan; Ahmad Sirojuddin	<b>Image Enhancement for Better VRU Detection in Challenging Weather Conditions</b> Ahmed A Elgazwy; Hossameldin Ouda; Ammar Elmoghazy; Ghadeer Abdelkader; Austin Page; Alaa Khamis; Khalid Elgazzar	<b>Multi-IMU and mmWave Radar Integration for Robust Land Vehicle Navigation</b> Eslam Mounier; Paulo Ricardo Marques de Araujo; Michael Korenberg; Aboelmagd Noureldin
10:00 – 10:20	<b>Indoor Human Counting Based on Range-Doppler Spectrum in the Presence of Material Penetration and Occlusion</b> Ilhan Aytutuldu; Zehra Bilici; Yakup Genc; Yusuf Sinan Akgul	<b>RIS-Assisted Hexagonal Receive QSM Technique with Perfect and Imperfect Channel Estimation</b> Fatih Cogen; Burak Ahmet Ozden; Erdogan Aydin	<b>IoT-Health: A Framework for Integrating IoT Devices for Monitoring Back Posture</b> Hisham Kazim; Ammar Shaheen; Mazen Eltawil; Raafat Aburukba	<b>Search Agents Assisted by Wireless Sensor Networks: Cooperation Algorithms and Performance</b> Nada Abughanam; Tamer Khattab; Amr Mohamed
10:20 – 10:40	<b>Distributed Task Offloading in Mobile Edge Computing Using Metaheuristics</b> Ala' A. Samarneh; Abdallah Alma'aitah	<b>A Practical Modeling Approach on the Reflectivity Characteristics of Reconfigurable Intelligent Surfaces</b> Ahmet F Coskun; Emre Arslan	<b>EBAnet: Improved Deep Learning Model for the Detection of Epidermolysis Bullusa Acquisita</b> Mohammad Tariqul Islam; Mais Alkhateeb; Saleh Musleh; Nady El Hajj; Tanvir Alam	<b>Navigating Signal Outages: Radar-Augmented 5G mmWave Wireless Positioning for Land Vehicles</b> Qamar Bader; Emma Dawson; Paulo Ricardo Marques de Araujo; Aboelmagd Noureldin
10:40 – 11:00				<b>Performance Evaluation of an ESPRIT-Inspired Algorithm Under A Novel Model of Gain-Phase Errors</b> Shuaishuai Han; Mohammad Ahmad Al-Jarrah, Dr.; Emad Alsusa

## Day 4: Thursday, July 11, 2024

11:30 – 1:30

	Track 1 – Session 3 (T1S3) <b>Room A201</b>	Track 2 – Session 3 (T2S3) <b>Room A202</b>	Track 4 – Session 3 (T4S3) <b>Room A203</b>	Track 3 – Session 2 (T3S2) <b>Room A204</b>
	<b>Chair: Dr. Sidney Givigi</b> (e-mail: sidney.givigi@queensu.ca)	<b>Chair: Dr. Hakan Çırpan</b> (e-mail: cirpanh@itu.edu.tr)	<b>Chair: Dr. Tamer Khattab</b> (e-mail: tkhattab@ieee.org)	<b>Chair: Dr. Umar Iqbal</b> (e-mail: um_ar@ieee.org)
11:30 – 11:50	<b>Continuous Action Learning Automata Game Optimizer Applied to Convolutional Neural Networks</b> James Lindsay; Sidney Givigi	<b>Delay Analysis of Multi-User URLLC Systems Under Finite Block-Length Regime</b> Hilal Turfan; Ömer Faruk Gemici; Ibrahim Hokelek; Hakan A. Çırpan	<b>High-Speed OFDM Baseband Modem for a Ka-Band 3U CubeSat Transceiver</b> Ali Al-Saifi; Amr Zeedan; Tamer Khattab	<b>An Efficient Localisation Algorithm in the Presence of Gain-Phase Defects</b> Shuaishuai Han; Mohammad Ahmad Al-Jarrah, Dr.; Emad Alsusa
11:50 – 12:10	<b>A Real-Time System for Monitoring and Managing Neuropsychiatric Symptoms in Dementia Patients</b> Abeer Badawi; Ahmed Badr; Somayya Elmoghazy; Sara Elgazzar; Khalid Elgazzar; Amer Burhan	<b>Performance Analysis of Beyond 5G Networks in the Presence of Spatial Correlation Between Reconfigurable Intelligent Surfaces and Base Stations</b> Mine Ardanuc; Mehmet Basaran; Sultan Aldirmaz Çolak; Lutfiye Durak-Ata	<b>Optimizing UAV Deployment for Enhanced Cellular Network Capacity: A Joint Optimization Approach</b> Aunas Manzoor; Mustafa Ozger; Cicek Cavdar	<b>Warped Fourth Order Cumulant Beamforming for Estimating DOA from Non-Uniform Linear Arrays of DIFAR Sonobuoys</b> Ali Massoud; Umar Iqbal; Aboelmagd Noureldin
12:10 – 12:30	<b>Beam Prediction in 5G and 6G Systems: A Deep Learning Approach</b> Shaimaa SE Hassanein; Omar Shouman; Elias Yaacoub; Tamer Khattab; Abdulaziz Al-Ali	<b>The Error Analysis of the Secret Key Generation Algorithm Using Analog Function Computation</b> Ertugrul Alper; Eray Guven; Gunes Karabulut Kurt; Enver Ozdemir	<b>Review and Analysis of Acetone Capacitive Readout Circuits for Vapor Acetone Sensing</b> Joel Georgeous; Lutfi Albasha; Ghaleb Husseini; Nasir Quadir	<b>Achieving Millimeter-Level Accuracy for Weight on Wheels (WoW) in Unmanned Aerial Systems (UAS)</b> Maaz Ali Awan; Ali Kara; Yaser Dalveren
12:30 – 12:50	<b>Green Resource Allocation in Cloud-Native O-RAN Enabled Small Cell Networks</b> Rana Sohaib; Syed Tariq Tariq Shah; Oluwakayode Onireti; Yusuf A. Sambo; Muhammad Ali Imran	<b>A Group Authentication Method for Public Transportation Platooning</b> Gunes Karabulut Kurt; Kubra Nari-Baykal; Enver Ozdemir	<b>Enhancing Road Quality Measurement: A Novel IoT-Based Method for IRI Calculation Using Tilt Angle Analysis</b> Mohamed Abdelraheem; Mahmoud Alyousify; Muhammad Hassan; Amr Nassr; Ali Ahmed	<b>Identifying Travel Modes Using GPS Trajectories: A Short Review</b> Samer Murrar; Mahmoud H. Outqut; Fatima Al-Haj
12:50 – 1:10	<b>Enabling Efficient Federated Learning via Ternary Quantization over Fading Channels</b> Ada İrem Pekdemir; Ferkan Yilmaz; Hakan A. Çırpan	<b>Outage Analysis of Orthogonal Time-Frequency Space Modulation in Nakagami-m Fading Channel</b> Emir Aslandogan; Hacı İlhan	<b>A Hybrid IoT-ML Based Electromagnetic Compatibility Monitoring and Prediction System for Biomedical Devices</b> Omar Gatera; Jean Pierre Nyakuli; Chiedza Hwata; Gerard Rushingabigwi; Twizere Celestin; Didacienne Mukanyiligira	<b>Assessing VHF Band Interference in Qatar in Support of Radar Subsurface Probing of Aquifers</b> Abdularahman Abunada; Iestyn Pierce; Tamer Khattab; Nizar Zorba; Essam Heggy
1:10 – 1:30	<b>Securing Cognitive IoT Networks: Reinforcement Learning for Adaptive Physical Layer Defense</b> Deemah Tashman; Soumaya Cherkaoui			

## Day 4: Thursday, July 11, 2024

2:30 – 4:50

	<b>Track 6 – Session 1 (T6S1)</b> <b>Room A201</b>	<b>Track 2 – Session 4 (T2S4)</b> <b>Room A202</b>	<b>Track 4 – Session 4 (T4S4)</b> <b>Room A203</b>	<b>Track 5 – Session 1 (T5S1)</b> <b>Room A204</b>
	<b>Chair: Dr. Mona El Abbasi</b> (e-mail: mke28@mail.aub.edu)	<b>Chair: Oğuz Kucur</b> (e-mail: okucur@gtu.edu.tr)	<b>Chair: Dr. Ahmad Al-Kabbany</b> (e-mail: alkabbany@myvrapeutic.com)	<b>Chair : Dr. Sohaib Solaija</b> (e-mail: solaija@gtu.edu.tr)
2:30 – 2:50	<b>Load-Balanced and Full-Coverage Beam Layout for Multibeam Satellite Systems</b> Yuan He; Kaiqiang Qi; Xuan Feng; Rui Chen	<b>Sparse Array Design for ISAC in the Presence of Beam-Squint</b> Ahmet M Elbir; Asmaa Abdallah; Abdulkadir Celik; Ahmed M. Eltawil	<b>A Telehealth System for Managing Faulty Neck Posture Using Sensors of Standalone Wearables</b> Ahmad Al-Kabbany	<b>Distributed Massive MIMO System with Dynamic Clustering in LEO Satellite Networks</b> Khaled Humadi; Gunes Karabulut Kurt; Halim Yanikomeroglu
2:50 – 3:10	<b>Optimization of Antenna Dimensions for Improved Frequency Response Using Machine Learning: A Survey</b> Mona El Abbasi; Karim Kaban; Mervat Madi	<b>Integrated Sensing and Communication with Power Amplifier Impairment</b> Huseyin Akca; Ebubekir Memisoglu; Hakan A. Çırpan; Huseyin Arslan	<b>ANFIS-Based Deployment for Precise Electricity Load Forecasting: A Netherlands Case Study</b> Fateme Marzbani; Ahmed Osman; Mohamed S. Hassan	<b>HAPS-Enabled V2X Architecture for Hyper Reliable and Low-Latency Communication (HRLLC) in 6G Networks</b> Ahmet Melih Ince; Ayşe Elif Canbilen; Halim Yanikomeroglu
3:10 – 3:30	<b>An Intelligent Auction-Based Framework for Electric Vehicles Charging Management Utilizing Reinforcement Learning and Blockchain</b> Alia Al sadawi; Eiman A Elghanam; Mohamed S. Hassan; Ahmed Osman	<b>Performance Investigation of UAVs Ad Hoc Networks with 3D Markov Chain Model</b> Salah Uddin; Muhammet Ali Karabulut; A. F. M. Shahen Shah; Haci Ilhan	<b>Mitigating Buffer Starvation: Addressing Head-Of-Line Blocking in Video Streaming for Enhanced Quality of Experience</b> Omar Khaled Farrag; Taha Landolsi; Mohamed S. Hassan; Mahmoud H. Ismail	<b>Outage and SER Analyses for Dual-Hop Inter-Satellite THz Communication</b> Evla Safahan Ahrzoglou; Eylem Erdogan; İbrahim Altunbaş
3:30 – 3:50	<b>An Overview of Challenges to Long-Term Sustainability and Scalability of RadioFrequency Fingerprinting</b> Harun Şenol Demiroğlu; Maaz Ali Awan; Ali Kara	<b>Unlocking MIMO Potential: Transmit Antenna Selection and Maximal Ratio Combining Meet Keyhole RIS for Enhanced Performance</b> Hakan Balaban; Ferkan Yilmaz; Oğuz Kucur	<b>A Content-Aware Deep Q-Learning Approach for Adaptive Video Streaming</b> Hala Amer; Mohamed S. Hassan; Mahmoud H. Ismail	<b>Multi-Gateway Hybrid Space-Ground Precoding for Multi-Beam Satellite Communications</b> Huda Ali; Yuan He; Xuan Feng; Kang Liu; Min Chen; Qing Su; Rui Chen
3:50 – 4:10	<b>A Case Study on the Optimal Design of Grid-Connected Photovoltaic Systems</b> Dima AL-Shaal; Osama Mostafa; Habib-ur Rehman; Mostafa Shaaban	<b>Unlocking Potential: Integrating Multihop, CRC, and GRAND for Wireless 5G-Beyond/6G Networks</b> Bora Bozkurt; Emirhan Zor; Ferkan Yilmaz	<b>Towards Attention-Based ANN Models for Tabular Data Regression: A Use Case of Water Desalination</b> Abdallah M Ragab; Omar Sheta; Tamer ElBatt; Essam Sh. Mohamed	<b>TOPSIS-FLC Algorithm for Optimal HO Triggering Points over HETNET</b> Waheeb Salim Abdulrab Tashan; Ibraheem Shayea; Sultan Aldırmaz Çolak; Huseyin Arslan
4:10 – 4:30	<b>On the Utilization of Autoformer-Based Deep Learning for Electric Vehicle Charging Load Forecasting</b> Maram Helmy; Eiman A Elghanam; Mohamed S. Hassan; Ahmed Osman	<b>Optimizing Radio Frequency Fingerprinting for IoT Device Authentication: A Study Towards Lightweight DL Models</b> Raif İyiparlakoğlu; Maaz Ali Awan; Yaser Dalveren; Ali Kara	<b>An Ultra-Wideband High-Gain Antipodal Antenna with Mitre Reflector for SatCom Applications</b> İbrahim Taha Gokce; Buse Nur Fidan; Huseyin Serif Savci; Atef Z. Elsherbeni	<b>Outage Analysis for a HAPS-Mounted IRS-Assisted Multi-User Communication System</b> Ahmed Benaya; Mohamed S. Hassan; Mahmoud H. Ismail; Taha Landolsi; Mohamed AlHajri
4:30 – 4:50		<b>A Statistical Channel Model for Underwater Acoustic Channel</b> Amal Samir; Ahmad A ElMoslimany; Mohamed Nafie; Amr El-Sherif; Tamer ElBatt		