Marrakesh, Morocco, June 19th—23rd, 2023



IWCMC 2023 Technical Sponsors

The Executive & Organizing Committees of IWCMC 2023 Conference greatly appreciate the IEEE technical Sponsorship

• <u>Technical Sponsors: IEEE and IEEE ComSoc TCs: WTC, IoT-AHSN & Communications Software TC</u>



<u>Financial Sponsors: Technology Innovations Institute (TII), Abu Dhabi,</u>
 <u>UAE & University of Mohammed VI Polytechnique (UM6P), BenGuerir,</u>
 Morocco

Technology Innovation Institute

UM6P University





Marrakesh, Morocco, June 19th—23rd, 2023

====== Monday, June 19th, 2023 =======

IMPORTANT NOTE: All Tutorials on Monday will be held in the UM6P University (Ben Guerir Campus) and NOT in the Hotel. Those interested in attending the Tutorials all day Monday and the Welcome Reception (Monday evening at 6:00PM) MUST ride the bus at 8:30AM (Monday morning) to be transported free of charge from the Grand Mogador Menara Hotel, Marrakech to the UM6P University Campus. All other conference activities (the rest of the week) will be held in the Grand Mogador Menara Hotel in Marrakesh.

Welcome Remarks @ the UM6P University Campus: Ali Kattani, Youssef Iraqi & Ismail Berrada (UM6P, Morocco)

Tutorial 1 — (10:00 - 13:00)

Speakers: Yuli Yang (University of Lincoln, UK)

➤ Title: Metasource-Based Physical Layer Security for Future Wireless Networks

Chair: Mohsen Guizani (MBZUAI, UAE), mguizani@gmail.com

Meeting Link: https://mbzuai-ac-ae.zoom.us/j/99790234954?pwd=UUtKS0QyeWtMTE1kM1JyU3VIdGRaZz09

Meeting ID: 997 9023 4954 Passcode: 923131

Tutorial 2 — (10:00 - 13:00)

Speakers: Trung Q. Duong & Antonino Masaracchia (Queens University Belfast, UK)
 Title: Digital Twin for 6G: Taxonomy, Research Challenges, and the Road Ahead

Chair: Dr. Youssef Iraqi (UM6P, Morocco), Youssef.IRAQI@um6p.ma

Meeting Link:

https://teams.microsoft.com/l/meetup-

join/19%3ameeting_N2FjZmlxMjltNzE1Zi00Zjk2LWlwYzUtMGUxZTFhZjZiMGMy%40thread.v2/0?context={"Tid"%3a"e0ba2eba-5425b24b-f0f4845bcf62"%2c"Oid"%3a"12ed4946-a526-4f25-93db-e7204608eaaa"}

LUNCH BREAK

13:00 -14:00

Tutorial 3 — (14:00 - 17:00)

Speakers: Abdullatif Albaseer, Mohamed Abdullah, & Ala Alfuqaha (HBKU, Qatar)

> Title: Advancing the Frontiers of Semantic Communication: A Comprehensive Exploration

of Techniques, Applications, and Future Prospects

> Chair: Adel Serhani (University of Sharjah, UAE), serhaniadel@gmail.com

Meeting Link:

https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetup-

join%2F19%3Ameeting_ODNmZmYxMmEtMzlyYS00YzkxLTg4NDAtMzllNDI2ZTA5NjBm%40thread.v2%2F0%3Fcontext%3D%257b%252522%253a%2522f0869253-be00-4a37-9c77-37742cb15c38%2522%252c%252c0id%2522%253a%2522f562c8cd-2f9c-45f3-bc52-

fea8584483b7%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=3c659089-f65e-4227-836c-

c4881886b405&directDI=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

Meeting ID: 380 372 317 054 Passcode: gZYXJW

Tutorial 4 — (14:00 - 17:00)

> Speakers: Moayad Aloqaily (MBZUAI, Abu Dhabi, UAE)

Title: Empowering Decentralized Metaverse Security

Chair: Dr. Loubna Mekouar (UM6P, Morocco), Loubna.MEKOUAR@um6p.ma

Meeting Link: https://mbzuai-ac-ae.zoom.us/my/maloqaily

WELCOME RECEPTION (at the UM6P University Campus)

18:00 - 19:00

Room: 2

Room: 1

Room: 2

Room: 1

Marrakesh, Morocco, June 19th—23rd, 2023

Tuesday, June 20th, 2023

Tuesday Morning Sessions (TM) — (9:00 11:00)

Session Title: Wireless Networks I Room 1 IN-PERSON TM-1
 Session Chairs: Marcos Seruffo (Federal University of Para, Brazil), seruffo@ufpa.br
 https://meet.google.com/bnn-ehaj-zdx

1570887477: A Real-Time Link Quality Estimation Method for IEEE 802.15.4 Based Wireless Sensor Network and IoT Devices; Selcuk Okdem (Erciyes University, Turkey); Hongchi Shi (Texas State University, USA)

1570887731: Design and Evaluation of a K8s-based System for Distributed Open-Source Cellular Networks; Javier Palomares, Jr.; Estefania Coronado (Fundació i2CAT, Internet Innovació Digital a Catalunya, Spain); David Rincón (U. Politecnica de Catalunya, Spain); Muhammad Siddiqui (Fundació i2CAT, Internet i Innovació Digital Catalunya, Spain)

1570886939: A Fast and Efficient Codebook-Based RIS Phase Configuration Method; Abdullah Haskou; Hamidreza Khaleghi (B-com, France)

1570877910: Enhanced MAB Algorithm for Cooperative Communication in Narrowband PLC Channel Corrupted by Impulsive Noise, Wided Belhaj Sghaier (University of Carthage, Tunisia)

1570887973: A Novel Load Balancing Strategy for Network Functions in Telecommunication Networks; Tingxiang Shi, Lu Zhang; Falu Xu and Liping Li; Leyi Zhang (ZTE Corporation, China)

1570891365: Resilience Study of Small Cell-Based Powering Deployment for Heterogeneous Networks; Hao Ran Chi; Ayman Radwan (Instituto de Telecomunicações, Portugal)

1570892266: A Hybrid CNN-SVM Prediction Approach for Breast Cancer Ultrasound Imaging; Sara Guizani, Nadra Guizani and Soumaya Gharsallaoui (University of Texas at Arlington, USA)

Session Title: Vehicular Networks I Room 2 IN-PERSON TM-2
 Session Chair: Fakhri Karray (MBZUAI, UAE), fakhri.karray@mbzuai.ac.ae
 Mtg Link: https://meet.google.com/ngx-xdxk-fhi

1570891950: Secure and Privacy-Preserving E-Mobility Service Based on Blockchain and Hybrid Smart Contract; Boutaina Jebari (U. of Ibn Tofail, Morocco); Mounir Ghogho (UIR, Morocco); Khalil Ibrahimi (U. of IBN Tofail, Morocco)

1570895257: Integrated Sensing and Communication based Breath Monitoring using 5G Network; Zhe Zhao, Ruiqi Liu and Junqiang Li (ZTE Corporation, China)

1570889771: On Localization of Sources of Hazards Using Search Agents; Nada Abughanam, Tamer Khattab and Amr Mohamed (Qatar University, Qatar)

1570884778: Performance Analysis of High-Definition Map Distribution in VANET; Jeffrey Redondo Sarmiento, Zhenhui Yuan and Nauman Aslam (Northumbria University, UK)

1570891316: Deep Reinforcement Learning Based Handover Management for Vehicular Platoon; Arwa Amaira (U. Sousse) **1570888058**: A Threat-Aware and Efficient Wireless Charging Scheme for IoT Networks; Michael Mahamat; Ghada Jaber; Abdelmadjid Bouabdallah (Universite de Technologie - Compiegne, France)

1570891120: Real-Time Detection of Crop Leaf Diseases Using Enhanced YOLOv8 algorithm; Houda Orchi (Hassan II U. & ENSEM, Morocco); Mohamed Sadik (ENSEM/UH2C, Morocco); Mohammed Khaldoun (GREENTIC/ENSEM/UH2C Morocco, Morocco); Essaid Sabir (University of Quebec at Montreal, Canada)

Session Title: 5GloT-1 (5GloT'2023 Symposium)

Session Chair: Fei Qi (China Telecom Research Institute), qif1@chinatelecom.cn

Mtg Link: https://us06web.zoom.us/i/85438249829?pwd=STFkd2wwVHdiV2IrY0ImSzVObndLZz09

Meeting ID: 854 3824 9829 **Passcode:** 742002

1570882603: MIMO-assisted HAPS as IMT Base Station for Downlink Spectrum Efficiency Enhancement, Yuetian Zhou; Jie Wang (China Telecom Research Institute, China)

1570882633: Actor-Critic Based DRL Algorithm for Task Offloading Performance Optimization in Vehicle Edge Computing, Bingxin Wang; Lei Liu; Jie Wang (China Telecom Research Institute, China)

1570883340: 5G Emergency Cell Network Solution Based on Satellite Assistance, Pingping Lin; Jinyang Yu; Weiliang Xie (China Telecom Research Institute, China)

1570886961: Blockchain Based 6G Computing Power Network for SAGIN, Zhengmao Li; Bo Lei; Min Wei (China Telecomm Research Institute, China)

1570887286: Attribute-based Blockchain Dynamic Failure Traceability in Multi-vendor Disaggregated Optical Networks, Wei Liu; Jun Li; Chao Li; Qiuyan Yao; Hui Yang; Jie Zhang (BUPT, China)

1570883511: Interference Compatibility Study between Air to Ground System and Satellite Fixed Service, Jie Wang (China Telecom Research Institute, China); Lei Liu (Beijing Research Institute of China Telecom, China)

1570892215: Boosting Handover Process for Smart Mobility Using Anomaly Detection in Open RAN, Zineb Mahrez (National High School for Electricity and Mechanics, Morocco); Maryam Ben driss (ENSEM, Morocco); Essaid Sabir (University of Quebec at Montreal, Canada); Walid Saad (Virginia Tech, USA); Elmahdi Driouch (Université du Québec à Montréal, Canada)

Session Title: UAVs (AAUSS Symposium)

Online TM-4

Online

TM-3

Session Chair: Anis Koubaa (PSU, KSA), akoubaa@psu.edu.sa

Session Co-Chairs: Wadii Boulila, wboulila@psu.edu.sa & M.A. Abd Mutalib asyraf@psu.edu.sa

Meeting Link: https://us06web.zoom.us/j/88384002019?pwd=dVMxNWdQSURDUklwemROeDFESmJiQT09

Meeting ID: 883 8400 2019 **Passcode**: 018242

1570873891: Contactless Human Activity Detection using Deep Learning with Flexible and Scalable Software Define Radio; Muhammad Zakir Khan (University of Glasgow, UK); Jawad Ahmad (Edinburgh Napier University, UK); Wadii Boulila (PSU, KSA); Matthew Broadbent (Edinburgh Napier University, UK); Syed Aziz Shah (Coventry University, UK); Anis Koubaa (PSU, KSA); Qammer H Abbasi (University of Glasgow, UK)

1570877889: Introducing Natural Language-based Instruction Protocol for Intelligent Machine Collaborations; Haobing Gong, Hui Gao, Yuting Feng and Caixia Yuan (BUPT, China)

1570885304: Fast Robot Hierarchical Exploration Based on Deep Reinforcement Learning; Shun Zuo; Jianwei Niu and Lu Ren; Zhenchao Ouyang (Beihang University, China)

1570887500: A Machine Learning Based Method for Object Detection and Localization Using a Monocular RGB Camera Equipped Drone; Abdulrahman Javaid (Yokogawa Saudi Arabia, KSA); Miswar Syed and Uthman Baroudi (KFUPM, KSA)

1570888227: Auxiliary Training Based Channel Estimation for RIS Aided UAV Communications in Disaster Scenarios; Kejia Bian and Dongyang Xu (Xi'an Jiaotong University, China)

1570888081: Joint Beamforming and Trajectory Optimization for UAV Communication Assisted by Intelligent Reflecting Surface; Jie Li (Xidian University, China); Jing Li (Xidian University, China); Defeng Ren (Xi'an UPT, China); Yun Rui (East China Normal University, China)

> Session Title: Multimedia (Multimedia Symposium)

Online TM-5

Chairs: Xin Wei & Liang Zhou (Nanjing UPT), xwei@njupt.edu.cn

Mtg Link: https://zoom.us/j/6135131790?pwd=dDBXM003VzBmdXFzemhEcHRQQW42QT09

Mtg ID: 6135131790 Password: 061920

1570875639: Spherical Convolution-based Saliency Detection for FoV Prediction in 360-degree Video Streaming; Shuai Peng, Jialu Hu, Zitong Li, Han Xiao, Shujie Yang and Changgiao Xu (BBUPT, China)

1570877960: DLCCB: A Dynamic Labeling Based Covert Communication Method on Blockchain; Jingtian Liu; Zhonghui Wu; Zhuoyuan Li, Menglin Li, Shujie Yang, Han Xiao and Changqiao Xu (BUPT, China)

1570877963: An Innovative Resource-based Dynamic Scheduling Video Computing and Network Convergence System; Qimiao Zeng and Ge Chen (China Telecom Research Institute, China); Zitong Li and Hongye Jiang (BUPT, China); Yirong Zhuang, Jinxia Hai and Qing Pan (China Telecom Research Institute)

1570877966: Design and Application of High Fidelity IPTV CDN Test-bed Based on User Viewing Behavior Model; Jinxia Hai, Qimiao Zeng and Yirong Zhuang (China Telecom Research Institute, China)

1570887675: A BIER Multicast-based Low Latency Live Streaming System; Qing Pan, Qimiao Zeng, Yirong Zhuang and Ge Chen (China Telecom Research Institute)

1570888070: Cross-Modal Hashing for Material Surface Properties Fusion; W. Zhao (Nanjing UPT, China); Q. Xu (The 28th Research Institute of China Electronics Technology Group Corporation, China); H. Wang, Z. Ye (Nanjing UPT, China) **1570892042**: Cross-Scale Haptic Object Recognition for Intelligent Robot; A. Li; W. Lu, H. Wang, X Wei (Nanjing UPT, China)

Session Title: 5G and Beyond (ET5GA Workshop)
 Session Chair: Mtg Link: 5G and Beyond (ET5GA Workshop)
 Mtg Link: 5G and Beyond (ET5GA Workshop)
 Mtg Link: 5G and Beyond (ET5GA Workshop)
 TM-6
 <

Meeting ID: 819 0028 2901 Passcode: 913790

1570888233: DDPG Performance in THz Communications over Cascaded RISs: A Machine Learning Solution to the Over-Determined System; Muhammad Jamal Shehab (Politecnico di Torino, Italy); Ahmed Badawy, Mohamed Elsayed and Tamer Khattab (Qatar University, Qatar); Daniele Trinchero (Politecnico di Torino, Italy)

1570888171: A Deep Learning based Multi-edge-type decoding algorithm for 5G NR LDPC codes; Tianyu Du; Hao Ju; Yin Xu; Dazhi He and Wenjun Zhang (Shanghai Jiao Tong University, China)

1570887926: Evaluation on User Equipment Chip for Deep Learning based Channel Estimation in 5G Advanced System; Yichen Zhao (China Mobile Group Device Co., Ltd, China); Mingfeng Xu and Yang Li (China Academy of Information and Comm. Technology, China); Jiasong Mu (China Mobile Group Device Communications Ltd, China); Jiamo Jiang (CAICT, China); Hengjiang Wang (China Mobile Group Device Communications Ltd, China)

1570888799: ε-QLMR: ε-greedy based Q-Learning algorithm for Multipath Routing in SDN networks; Houda Hassen and Soumaya Meherzi; Zouhair Ben Jemaa (ENIT, Tunisia)

1570890107: Strategy optimization and evolution analysis for congestion alleviation in deterministic networks; Qiuyue Gao (China Telecom Research Institute, China); Jinyan Li (China Telecom Technology Innovation Center, China); Yang Liu (China Telecom Research Institution, China); Yanxia Xing (China Telecom, China)

1570890665: DEN-Based Converged Architecture for RAN and Distributed CN toward 6G; Jiaying Zong and Xuan Huang (China Telecom Research Institute, China); Yang Liu (China Telecom Research Institution, China); Qingtian Wang (China Telecom Research Institution & China Telecom, China); Yanxia Xing (China Telecom, China)

1570888333: Enhanced Sliding Window Superposition Coding for Industrial Automation; Bohang Zhang, Zhaojun Nan, Sheng Zhou and Zhisheng Niu (Tsinghua University, China)

Session Title: Transceiver Design and Optimization (Comm. Theory Symp.)
Online

Session Chair: Shahid Mumtaz (Portugal), raoshahid30@gmail.com

Co-Chair: Sherif Busari, sherifbusari@av.it.pt

Meeting Link:

https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetup-

join%2F19%3Ameeting Mzk0NjRjODktMzNmOC00NDRiLWE3MjUtOTQzMzQyMzk3Y2Jj%40thread.v2%2F0%3Fcontext%3D

%257b%2522Tid%2522%253a%25224ad8f924-e806-434b-a99e-

fb776da065bf%2522%252c%2522Oid%2522%253a%252230a524b8-ee26-4dd9-a1ae-

73d01ee50491%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=1ec4ee27-d8a0-4344-8812-

4f5e335c169c&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

Meeting ID: 356 451 175 608 **Passcode**: bBP2hC

1570894372: A Reliable AMF Scaling and Load Balancing Framework for 5G Core Networks; Ali Chouman, Dimitrios Manias and Abdallah Shami (Western University, Canada)

1570880631: An Efficient Maximum Subcarrier Power Detection Scheme for OFDM-IM Systems; Yuhao Lian; Mingjun Ying, Shuyu Wang; Yuhua Wang (CQUPT, China)

1570888096: A Modified Interference Approximation Method for Channel Estimation in FBMC/OQAM Systems; Shiyi Li and Defeng Ren; Jing Li (Xi'an University of PT, China); Yun Rui (East China Normal University)

1570889820: System Architecture and Evaluation Method for NOMA-Based Integrated Broadcast and Communication Networks; Linhui Chang and Fang Yang; Jian Song; Changshuo Ge; Wenbo Ding (Tsinghua University, China)

1570887776: A Double Square Slot Antenna for 5G Small-Area Wireless Access Points in Street Furniture; Tiago Oliveira; João Ricardo Reis; Telmo R. Fernandes (Polytechnic of Leiria & Instituto de Telecom., Portugal); Samuel Rocha Madail and José Salgado (Altice Labs. SA, Portugal); Rafael Caldeirinha (Polytechnic of Leiria & Instituto de Telecom., Portugal)

1570873093: The Reverse Voltage and Amplifier Saturation Effects on the Nonlinear Characteristics of Avalanche Photodiode; Shanchi Wu and Jiaqi Wei; Chen Gong; Weijie Liu (USTC, China); Xu Li (Huawei, China)

1570892064: Anti-jamming Transmission in NOMA-based Multi-cell Satellite-terrestrial Integrated Networks; C. Han (National U. of Defense Tech., China); H. Cao (HK Polytechnic University, HK); Z. Lin; K. An (National U. of Defense Tech., China); S. Garg (Ultra Electronics, Canada); G. Kaddoum (University of Québec, Canada); S. Singh (Ultra Electronics, Canada)

Session Title: Intelligent Transportation (FITS Workshop)

Online

TM-8

Room: 1

Session Chair: Driss Benhaddou (University of Houston, USA), dbenhaddou@uh.edu

Meeting Link: https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetup-

join%2F19%3Ameeting_OTFmNWRiMzktOTU4Zi00N2Q3LWFhOTgtMzU4NmY0NDJiMmNh%40thread.v2%2F0%3Fcontext%3b%2522Tid%2522%253a%2522170bbabd-a2f0-4c90-ad4b-0e8f0f0c4259%2522%252c%2522Oid%2522%253a%25220347691678-476b-8d61-ac3777b7e42d%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=6e43858a-2f8e-4419-953bbb8135df80ed8&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

1570887608: Optimizing Traffic Flow with Policy iteration method: A Study on 9-intersection network Management; Amal Mebah (Zayed University, UAE), Jalel Ben Othman (Centrale Supélec & University of Sorbonne Paris Nord, France)
1570888438: Decentralized Road Conditions Assessment for Smart Mobility Management in Abu Dhabi; Abdurhman Albasir (Zayed University, UAE); Jalel Ben Othman (CentraleSupélec & University of Sorbonne Paris Nord, France)
1570891212: Simulating Vehicular Mobility: A Comprehensive Framework Using MATLAB SimEvents; Hala A Hachemane (Zayed University, UAE); Jalel Ben Othman (CentraleSupélec & University of Sorbonne Paris Nord, France)
1570888199: Topology-Aware-based Traffic Prediction Mechanism for Elastic Cognitive Optical Networks; Jianxing Li; Fu Wang; Haipeng Yao, Feng Tian, Xiaoli Yin and Qi Zhang (BUPT, China)

Coffee Break — (11:00 - 11:30)

OPENING REMARKS 1 — (11:30 - 11:45)

Presented By: Dr. Ali Kattani, Dr. Ismail Berrada and Dr. Youssef Iraqi (UM6P, Morocco)

KEYNOTE 1 — (11:45 - 13:00)

> Speaker: Prof. Mérouane Debbah, FIEEE, Technology Innovation Institute (TII), Abu Dhabi, UAE

> Title: Large Language Models for Wireless: The Next Big Thing?

Chairs: Dr. Youssef Iraqi (UM6P, Morocco), <u>Youssef.IRAQI@um6p.ma</u>

Meeting Link: https://mbzuai-ac-ae.zoom.us/j/97167705531?pwd=WTNqQWdJenVNUGJlc2Vac01palhCZz09

Meeting ID: 971 6770 5531 **Passcode**: 665071

LUNCH BREAK — (13:00 – 14:00)

Tuesday Afternoon Sessions (TA) — (14:00 - 16:30)

Session Title: Blockchain and Privacy Room 1 IN-PERSON TA-1
 Session Chair: Soumaya Cherkaoui (Polytechnique Montreal, Canada), soumaya.cherkaoui@polymtl.ca
 https://meet.google.com/jep-hnfk-pji

1570887284: Distributed Twins in Edge Computing: Blockchain and IOTA; Anwar Sadad; Muazzam A. Khan Khattak (Quaidi-Azam University, Pakistan); Baraq Ghaleb (Edinburgh Napier University, UK); Fadia Khan (Wah Engineering College, Pakistan); Maha Driss; Wadii Boulila (PSU, KSA); Jawad Ahmad (Edinburgh Napier University, UK)

1570892211: Federated Learning Meets Blockchain to Secure the Metaverse; Hajar Moudoud (Universite de Sherbrooke, Canada); Soumaya Cherkaoui (Polytechnique Montreal, Canada)

1570893149: Defending Emotional Privacy with Adversarial Machine Learning for Social Good; Shawqi Mohammed Al-Maliki; Mohamed M. Abdallah (HBKU, Qatar); Junaid Qadir (QU, Qatar); Ala Al-Fugaha (HBKU, Qatar)

1570886697: LDPC and ultra-massive multi-input multi-output for secrecy in 6G; D. Benzid; M. Kadoch (U. Quebec, Canada) 1570890343: ChaGame: A Serious Game for Educational Information About Chagas Disease in the Brazilian Amazon; Paulo André Ignacio Pontes; Leandro Oliveira and Dilma Sousa; Fernando Augusto Ribeiro Costa; Fernanda Chocron; Marianne Eliasquevici; Marcos Seruffo (Federal University of Para, Brazil)

1570891440: A Gamification and Biofeedback-based Serious Game for Adherence to Physical Activity; Lucas de Lima Bastos; Camilo Henrique Martins dos Santos; Iago Medeiros (Federal University of Pará, Brazil); Italo A M Feitas (Ludus Studio, Brazil); Denis Lima Rosário and Marcos Seruffo; Eduardo Cerqueira (Federal University of Para, Brazil)

1570890847: Scheduling of Charging Electric Vehicles based on Battery Capacity; Sghaier Guizani, Sanabel AlNourani and Sobhi Mejjaouli (Alfaisal University, Saudi Arabia)

1570891102: An Overview of Funded Research Projects in The MENA Region on Intelligent Transportation Systems; Zaina Maqour (Mohammed V University & ENSIAS, Morocco); Hanan El Bakkali (NHSI and Systems Analysis, Morocco); Driss Benhaddou (University of Houston, USA); Houda Benbrahim; Wahiba Abou-zbiba; Hajar El Gadi (Mohammed V University in Rabat, Morocco); Ala Al-Fugaha (HBKU, Qatar); Muhammad Anan; Abd-Elhamid Taha (Alfaisal Univ., KSA)

Session Title: 5G Room 2 IN-PERSON TA-2

Session Chairs: Antonino Masaracchia (Queen's University Belfast, UK), <u>A.Masaracchia@qub.ac.uk</u> Meeting Link:

https://teams.microsoft.com/l/meetup-

join/19%3ameeting YjQ4M2NIOTYtYTFmNC00MzlhLWIxM2YtNThjNzkxYzZjMjcz%40thread.v2/0?context=%7b%22Tid%22% eaab77ea-b4a5-49e3-a1e8-d6dd23a1f286%22%2c%22Oid%22%3a%222d61c57a-7527-4092-9674-63864aa1ef73%22%7d

1570891446: Design and Development of Private 5G Standalone Network for Vertical Industries; Samira Homayouni (R&D, Austria); Mario Paier, Gregor Stangelmayer and Christian Kaipl (Hutchison Drei Austria, Austria); Clemens Sulz (Technische Univ. Wien, Austria); Thomas Schweeger (ZTE, Austria); Johannes Rehak (Hutchison Drei Austria, Austria)

1570887581: Clustering-Enabled Tracking Areas Design for Beyond-5G Networks: A Live Network Demo; Brahim Aamer (INPT, Morocco); Hatim Chergui (i2CAT Foundation, Spain); Mustapha Benjillali (INPT, Morocco)

1570877897: On the Impact of Residual Transmitter Distortions in 5G Massive MIMO Base Stations; Łukasz Skomra (Wrocław UST & Nokia, Poland); Björn Jelonnek (Nokia, Germany); Kamil Staniec (Wroclaw UST, Poland)

1570891463: Deep Learning based Microstrip Patch Array Antenna Structure for MIMO 5G Wireless Communication; Khaled Aliqab, Ammar Armghan and Meshari Alsharari (Jouf University, KSA)

1570887804: Low-Latency Internet Traffic Identification using Machine Learning with Trend-based Features; Ramazan Enisoglu and Veselin Rakocevic (University of London, UK)

1570880743: Quantum Deep Reinforcement Learning for 6G Mobile Edge Computing-based IoT Systems, J. Adu Ansere (Sunyani Technical University, Ghana); T. Duong (Queen's University Belfast, UK); S. Khosravirad (Nokia - Bell Labs, USA); V. Sharma; A. Masaracchia (Queen's University Belfast, UK); O. Dobre (Memorial University, Canada)

1570888410: A Discrete Passive Beamforming Technique for an IRS-aided MISO System with Imperfect CSI; Yasaman Omid; S. M. Mahdi Shahabi; A. Nallanathan (QMUL, UK)

Session Title: 5GIoT-2 (5GIoT'2023 Symposium)

Online TA-3

Session Chair: Weiliang Xie, ChinaTelecom, xiewl@chinatelecom.cn

Tencent Mtg Link: https://meeting.tencent.com/dm/2vJSp7sybLc8

Meeting ID: 438-216-729

1570883492: Airborne Computing Platform Based Joint Offload and Deployment Optimization Algorithm, Jie Wang (China Telecom Research Institute, China); Lei Liu (Beijing Research Institute of China Telecom, China); Weiliang Xie (China Telecom Beijing Research Institute, China)

1570882638: MIMO-assisted HAPS as IMT Base Station for Uplink Spectrum Efficiency Enhancement, Yuetian Zhou; Jie Wang (China Telecom Research Institute, China)

1570887298: High-Precision Deterministic Networks-based Federated Learning Scheme in Metro Optical Network, Wei Liu; Chao Li; Bowen Bao; Qiuyan Yao; Hui Yang; Jie Zhang (BUPT, China)

1570887745: Throughput Optimization of IoT System in Disaster Scenario Based on Reinforcement Learning, Shuangli Wu (University of Chinese Academy of Sciences, China)

1570888188: D-S Evidence Theory Information Fusion Methods and Applications, Pingping Lin (China Telecom Res. Inst., China); Weiliang Xie (China Telecom Beijing Research Inst., China); Jinyang Yu (Research Inst. of China Telecom, China) 1570890144: Deep Reinforcement Learning Based on Parked Vehicles-Assisted for Task Offloading in Vehicle Edge Computing, Bingxin Wang (Beijing Research Institute, Telecom Corporation Limited, China); Jie Wang (China Telecom

Research Institute, China); Lei Liu (Beijing Research Institute of China Telecom, China)

Session Title: IoT and WSN Applications (IoT & WSNs Symposium)

Online

TA-4

> Session Chair: Peng Yu, BPUT, yupeng@bupt.edu.cn

Mtg Link: https://us06web.zoom.us/j/82908536865?pwd=bWIPc1RXeTlwZVpSamt3NGtCbkFPUT09

Mtg ID: 829 0853 6865 Password: 367891

1570891119: Edge cloud-enabled FIS-based Road Weather Management System for Connected and Autonomous Vehicles, Abdul Mutallib Shaik; Binod Vaidya; Hussein T. Mouftah (University of Ottawa, Canada)

1570877200: Design of a Wearable Patch Antenna and Channel Modeling for Internet of Bodies Application, Marwen Amiri; Abdelaziz Hamdi; Aref Meddeb (University of Sousse, Tunisia)

1570879557: Correlation Between Types of Obstacles and Stress Level of Blind People in Outdoor Navigation, Youssef Keryakos; Youssef Bou Issa (Universite Antonine, Lebanon); Michel Salomon; Abdallah Makhoul (University of Franche-Comté & FEMTO-ST, France)

1570888214: Mobile and Web Applications Clones: A Comprehensive Study, Sumaya Alhashmi; Aysha Alneyadi; Maryam Alshehhi; Hanane Lamaazi (UAEU, UAE)

1570888267: Temperature Regulating Autonomous Solar Shade (TRASS), Steven Steele; Jorge Diaz Rodriguez; Amir Moghadam; Yusun Chang; Razvan Voicu (Kennesaw State University, USA)

Session Title: Intrusion Detection (Security Symposium)

Online TA-5

> Session Chair: Yuli Yang (University of Lincoln, UK), yang-yuli@hotmail.com

Meeting Link: https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetupjoin%2F19%3Ameeting ODBjM2IzZmQtMmMxZS00OTY1LThkZTAtOTY0OWYwMzA2NjRh%40thread.v2%2F0%3Fcontext%3I

b%2522Tid%2522%253a%2522a129f8cb-49b0-4d6b-8d79-889050da9198%2522%252c%2522Oid%2522%253a%25221e47f286bd-4e78-86c5-0171c96f4074%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=d9484651-3639-4cde-82d8-5ba5d3d2eb11&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

Meeting ID: 380 440 128 543 **Passcode**: K7ugH5

1570888183: Design of Autonomous Wireless Sensor Network Using Mobile Robots for Intrusion Detection and Border Surveillance; Wided Mahjoub; Cherifa Nakkach; Tahar Ezzedine (ENIT, Tunisia)

1570890583: L-IDS: A Lifelong Learning Approach for Intrusion Detection; Hossein Doroud; Omar Alkhateeb; Elnaz Alizadeh Jarchlo; Falko Dressler (TU Berlin, Germany)

1570890584: Work Balancing vs. Load Balancing for Network IDS Parallelization; Hossein Doroud (TU Berlin, Germany); Tobias Wiese (Paderborn University, Germany); Felix Erlacher (Cancom a+d, Innsbruck, Austria); Falko Dressler (TU Berlin, Germany)

1570891447: NFC-IDS: An Intrusion Detection System Based on RF Signals for NFC Security; Yang Yuwei; Yijie Xun; Yumeng Yan; Jiajia Liu; ZiTeng Jin (Northwestern Polytechnical University, China)

1570882356: QL vs. SARSA: Performance Evaluation for Intrusion Prevention Systems in Software-Defined IoT Networks; Christian Miranda; Georges Kaddoum (University of Québec, Canada)

1570892209: A Comprehensive Study of Intrusion Detection within IoT-based Smart Cities: Synthesis, Analysis and a Novel Approach; Mehdi Houichi; Faouzi Jaïdi; Adel Bouhoula (SUPCOM, Tunisia)

Session Title: Learning in Vehicular Networks (Vehicular Symp.)

Online TA-6

Session Chair: Hai Jiang (University of Alberta, Canada), hai1@ualberta.ca

Meeting Link: https://ualberta-ca.zoom.us/j/92520570252?pwd=d1FuWXVmUIUrWG4wMk5iVEN5RXNZdz09

Meeting ID: 925 2057 0252 Passcode: 489643

1570888261: Machine Learning approach for task offloading strategy in IoV, Namory Fofana (SUPCOM, Tunisia); Asma Ben Letaïfa (MEDIATRON, Tunisia); Abderrezak Rachedi (University Gustave Eiffel, France)

1570891116: Scalable Multi-Task Learning R-CNN for Object Detection in Autonomous Driving, Sonam Rinchen, Binod Vaidya and Hussein T. Mouftah (University of Ottawa, Canada)

1570891356: Explainable Trust-aware Selection of Autonomous Vehicles Using LIME for One-Shot Federated Learning, Gaith Rjoub (Princess Sumaya Univ. for Technology, Jordan); Jamal Bentahar (Concordia University, Canada); Omar Abdel Wahab (Polytechnique Montréal, Canada)

1570888067: Conditional Privacy-preserving Authentication and Message Dissemination Scheme using Timestamp based Pseudonyms for VANETs, Avesha Siddigua Dina: D. Maniyannan (University of Kentucky, USA)

1570891068: Vehicle Routing Model to Avoid Street Congestions Using Distributed Systems; Khorchani Besma; Kaouthar Sethom (INNOVCOM, Tunisia)

1570888193: FlameNet: A Real-Time, Lightweight Fire & Smoke Detection Solution for Internet of Vehicles, Koustav Kumar Mondal; Debasis Das (IIT Jodhpur, India)

Session Title: Al-CSC (AICSC Symposium)

Session Chair: Leyi Zhang (ZTE, China), levi.zhang@zte.com.cn
Meeting Link: https://meeting.tencent.com/dm/4wcSHb8RSP3I

Meeting ID: 755-965-870

1570890640: Analysis Report on the Coexistence of IMT Base Stations in 1800 MHz Band for Civilian UAVs with Other Systems in Neighboring Frequencies; Lei Liu (Beijing Research Institute of China Telecom, China); Bingxin Wang (Beijing Research Institute, Telecom Corporation Limited, China); Jie Wang (China Telecom Research Institute, China)

1570891175: Performance Evaluation between the RIS and Full/Half-Duplex Relay; Yuetian Zhou; Fang Nan (China Telecom Research Institute, China)

1570875186: Automated and Secure Control of Industrial Internet of Things: from WSN to Open RAN Solutions; C.J. Tselikis (Hellenic Telecommunications and Post Commission, Greece)

1570891453: Estimating Mushroom Yield and Quality Using Computer Vision; Driss Benhaddou, Venkatesh Balan, Fatima Marchant and Alessandro De La Garza (University of Houston, USA)

1570888213: Routing Protocols with RF Energy Harvesting for WSN, Rahil Bensaid (SUPCOM, Tunisia); Adel Ben Mnaouer (CUD, UAE); Hatem Boujemaa (SUPCOM, Tunisia)

> Session Title: Network architectures and solutions (ET5GA Workshop)

Online TA-8

Online

TA-7

Session Chairs: Richie Liu (ZTE, China), richie.leo@zte.com.cn

Xianghui Han (ZTE, China), han.xianghui@zte.com.cn

Meeting Link: https://meeting.tencent.com/dm/k9jlldBM3IFH Meeting ID: 275-694-145, Pass: 062014

1570887977: Dependency-aware Microservice Deployment and Resource Allocation in Distributed Edge Networks; Jizhe Zhou, Guangchao Wang and Wei Zhou (China Academy of Information and Communications Technology, China)

1570888315: Traffic Offloading Solutions Based on DNN and UL CL in 5G-Adv Network; Yaping Cao; Dongfeng Mao; Ying Sun and Huiguang Chen; Huan Deng; Dan Xu (China Telecom Research Institute, China)

1570888304: Research on uRLLC E2E high reliability solution for vertical industry scenarios; Ying Sun, Yaping Cao and Feifei Wang (China Telecom Research Institute, China)

1570890867: A Novel Labeling Scheme for Neural Belief Propagation in Polar Codes; Qi Chen and Hao Ju; Yin Xu; Dazhi He and Wenjun Zhang (Shanghai Jiao Tong University, China)

1570873355: Compatibility Study between IMT-2020 in 40.5-43.5 GHz and Uncoordinated Fixed Satellite Service Earth Station in 39.5-40.5 GHz; Jiangtao Chen, Dong Zhou, Liyuan Zhong and Danyang Li (ZTE Corporation, China)

GALA DINNER (Centre de formation UM6P Marrakech)

20:00 - 23:00

Location:

https://www.google.com/maps/place/Centre+de+formation+UM6P+Marrakech/@31.6801772,-7.9739533,15z/data=!4m6!3m5!1s0xdafed93e6e35569:0x19102a65347815cd!8m2!3d31.6801772!4d-7.9739533!16s%2Fq%2F11cnbtqcw9?entry=ttu

Marrakesh, Morocco, June 19th—23rd, 2023

Wednesday, June 21st, 2023

Wednesday Morning Sessions (WM) — (9:00 - 11:00)

Session Title: Network Security and Intrusion Detection Room 1 IN-PERSON WM-1
 Session Chair: Mohamed-Lamine Messai (University of Lyon 2, France), mohamed-lamine.messai@univ-lyon2.fr
 Meeting Link: https://visio.univ-lyon2.fr

1570888168: Intrusion Detection System for CubeSats: A Survey; Otman Driouch; Slimane Bah (Ecole Mohammadia d'Ingenieurs); Zouhair Guennoun (Mohammed V University, Morocco)

1570887436: An Effective Replica Node Detection Scheme in IoT Networks; Bacem Mbarek (Masaryk University, Brno, Czech Republic); Meriem Soula (University of Carthage, Tunisia); Tomáš Pitner (Masaryk University, Czech Republic); Aref Meddeb (University of Sousse, Tunisia)

1570891484: IoMT Security Model based on Machine Learning and Risk Assessment Techniques; Sondes Ksibi; Faouzi Jaïdi; Adel Bouhoula. (SupCom, Tunisia)

1570888235: Semi Embedded Architecture for a mobile indoor localization system; Youssef Ibnatta (Hassan II University, Morocco); Mohammed Khaldoun (GREENTIC/ENSEM/UH2C, Morocco); Mohammed Sadik (ENSEM, Morocco); Othmane Benhmammouch (International University of Casablanca, Morocco)

1570891421: Computation Offloading for Industrial Internet of Things: A Cooperative Approach, Samira Chouikhi; Moez Esseghir; Leila Boulahia (University of Technology of Troyes, France)

1570887781: Non-Cooperative Resource Allocation Game-Theoretic Approach in Underwater Acoustics; Gharsalli Khouloud (SUPCOM, Tunisia); Pierre-Jean Bouvet (ISEN Yncréa Ouest, France)

1570891483: A Deep Learning Dual-Stream Framework for Fall Detection; Sara Mobsite; Nabih Alaoui; Mohammed Boulmalf; Mounir Ghogho (IUR, Morocco)

> Session Title: QoS on Edge/Cloud Computing Room 2 IN-PERSON WM-2

Session Chair: Paulo André Ignacio Pontes (Federal University of Para, Brazil), <u>paulo.pontes@ifpa.edu.br</u>
Mtg Link: https://meet.google.com/bqh-kxsq-zxd

1570888182: A Practical Study of QoE on Cloud Gaming in 5G Networks; Huai-Sheng Huang (National Taipei University, Taiwan); Yen-Shuo Su (Fu Jen Catholic University, Taiwan)

1570877942: Assessing Distributed Consensus Performance on Mobile Cyber-Physical System Swarms; Jiayi Chen; Maxime Vacheron; Bruno Chianca Ferreira; Guthemberg Silvestre (ENAC, France)

1570891113: Audiovisual Groupcast QoE Enhancement by Switching Unsolicited Retry and Block Ack over a Wireless LAN; Minoru Ishida and Toshiro Nunome (Nagoya Institute of Technology, Japan)

1570891433: A Complete Transmitted Message in DTNs with a Stable Coalition in Dynamic Structures; Younes Larabi; Khalil Ibrahimi (University of IBN Tofail, Morocco); Jalel Ben Othman (CentraleSupélec & University of Sorbonne Paris Nord, France); El Mehdi Amhoud (Mohammed VI Polytechnic University, Morocco)

1570888263: Predicting Customer Quality of Service for a Large Fixed Broadband Service Provider; Douglas Cuba (Fluminense Federal University, Brazil); Adita Kulkarni (SUNY, USA); Antonio Rocha (Fluminense Federal University, Brazil) 1570888949: Convergence Analysis for Wireless Federated Learning with Gradient Recycling; Zhixiong Chen, Wenqiang Yi and Yuanwei Liu; A Nallanathan (QMUL, UK)

Session Title: Al-CSC-1 (5GloT'2023 Symposium) Online WM-3

Session Chair: Lei Liu, ChinaTelecom, liulei6@chinatelecom.cn

Mtg Link: https://us06web.zoom.us/j/83481475433?pwd=Q1hVY2M0RXY0R0M2ZUdRblZsWXZLQT09

Meeting ID: 834 8147 5433 **Passcode:** 859978

1570878423: Enhanced Smart Advertising through Federated Learning; Rasool Seyghaly (Polytechnic University of Catalonia & Craxx, Spain); Jordi Garcia (UPC BarcelonaTech (CRAAX), Spain); Xavi Masip-Bruin (Universitat Politècnica de Catalunya (UPC) & CRAAX, Spain); Mohammad Mahmoodi Varnamkhasti (AROUND Company, Iran)

1570890439: 2.1GHz Dynamic Spectrum Sharing Scheme for 4G/5G Mobile Network, Pingping Lin; Zhirong Zhang; Li Xiao (China Telecom Research Institute, China)

1570890441: Task Offloading Optimization Based on Actor-Critic Algorithm in Vehicle Edge Computing, Jie Wang (China Telecom Research Institute, China); Lei Liu; Bingxin Wang (Beijing Res. Institute, Telecom Corporation Limited, China)

1570890444: Multi-operator Inter-network Roaming Networking Solution and Trials, Pingping Lin; Jinyang Yu; Zhirong Zhang (China Telecom Research Institute, China)

1570890635: Interference Mitigation Technology Solution for 5G Base Stations to Satellite Earth Stations, Lei Liu; Bingxin Wang (Beijing Research Institute, Telecom Corporation Limited, China)

1570891474: Machine Learning Algorithms for Enhancing Intrusion Detection Within SDN/NFV; Amina Sahbi; Faouzi Jaïdi (SUPCOM, Tunisia); Adel Bouhoula (Arabian Gulf University, Bahrain)

1570895469: Telco Market Dynamics under Strategic Pricing and Multi-Attribute QoS Within Cloud Facilities; Samira Habli (Hassan II University of Casablanca, Morocco); Mandar Datar (INRIA, France); Rachid El-Azouzi (University of Avignon, France); Essaid Sabir (University of Quebec at Montreal, Canada)

> Session Title: Practical and Regulatory aspects of future networks (ET5GA Workshop) Online WM-4

Session Chairs: Richie Leo (ZTE Corporation), richie.leo@zte.com.cn

Mengnan Jian (ZTE Corporation), jian.mengnan@zte.com.cn

Meeting Link:https://meeting.tencent.com/dm/fAnZEKfl4aJsMeeting number:761-934-907Password: 7930

1570870338: The Sharing Studies between IMT-2020 and Fixed-Satellite Service in the 6GHz band; Danyang Li, Dong Zhou, Ying Sun, Liyuan Zhong and Jiangtao Chen (ZTE Corporation, China)

1570873179: Coexistence Study of IMT-2020 in 10-10.5 GHz and Earth Exploration-Satellite Service (passive) in 10.6-10.7 GHz; Jiangtao Chen, Dong Zhou, Liyuan Zhong and Danyang Li (ZTE Corporation, China)

1570886792: Innovative Solutions and Applications of 5G Smart Factory for Chip Packaging; Cheng Li; Lu Na (China Telecom Corporation, China); Yang Li (China Telecom Research Institute, China); Yao Wei (Research Institute of China Telecom, China); Ning Jin (China Telecom Research Institute, China)

1570888173: IPv6+ Video Service Solution Based on Metropolitan Area Cloud Network; Huan Li, Huiguang Chen, Jinyang Li, Lili Jiang, Songqi Tian, Sibo Wang, Yanjiao Zhao and Dong Wang (China Telecom Research Institute, China)

1570875367: Coexistence of FSS (space-to-Earth) and IMT systems in the 3 GHz Band; Ying Sun, Liyuan Zhong, Dong Zhou and Danyang Li (ZTE Corporation, China)

1570891382: Efficient Pandemic Infection Detection Using Wearable Sensors and Machine Learning; Ayah Abdel-Ghani, Zaineh Abughazzah, Mahnoor Akhund, Khalid Abualsaud and Elias Yaacoub (Qatar University, Qatar)

Session Title: Resource Allocation in Vehicular Networks (Vehicular Symp.)
Online
WM-5

Session Chair: Leyi Zhang (ZTE, China), levi.zhang@zte.com.cn Meeting Link: https://meeting.tencent.com/dm/v0hbyNkUgLz0

Meeting ID: 716-293-293

1570888075: VADtalk: An Internet of Vehicles Platform Facilitating Anomaly Detection Modeling and Deployment for Self-Driving Vehicles, Yi-Cheng Lu; Shun-Ren Yang (NTHU, TW); Phone Lin (NTU, Taiwan); Chih-Wei Huang (NCU, Taiwan)

1570880769: Preventive Time Slot Allocation MAC Protocol for Vehicular Networks, Khaled Abid; Hicham Lakhlef; Abdelmadjid Bouabdallah (U. of Technology of Compiegne, France)

1570880840: Per-Zone Resource Reuse for NR Sidelink Based Vulnerable Road User Protection, Qiang Fu, Jiajia Liu and Jiadai Wang (Northwestern Polytechnical University, China)

1570891029: Multi-RAT integration in Heterogeneous Vehicular Communication Networks (HVCNets), Takwa Omri; Ridha Bouallegue (SUPCOM, Tunisia)

1570891397: 4D MIMO Radar with 360° field of view: a practical validation, Samuel Viegas; João Ricardo Reis; Rafael F. S. Caldeirinha (Polytechnic of Leiria, Portugal)

1570877816: Exploring the Risk Factors Influencing the Road Accident Severity: Prediction with Explanation; Mohammed Akallouch (Sidi Mohamed Ben Abdellah University, Morocco); Khalid Fardousse and Afaf Bouhoute (USMBA, Morocco); Ismail Berrada (Faculty of Science Fez, Morocco)

Session Title: Satellite Networks (Satellite Symposium)
Online WM-6

Session Chair: Chunxiao Jiang (Tsinghua University), chx.jiang@gmail.com

Session Co-Chair: Jun Du (Tsinghua University), jundu@tsinghua.edu.cn

Meeting Link: https://meeting.tencent.com/dm/b8IIB8XS29ZA Meeting ID: 745-265-350

1570872986: Resource Allocation and Orchestration of Slicing Services in Softwarized Space-Aerial-Ground Integrated Networks; Haotong Cao (Nanjing UPT, China); Shigen Shen (Huzhou University, China); Yongan Guo (Nanjing UPT, China); Sheng Wu (BBUPT, China); Hongxia Zhang; Peiying Zhang (China University of Petroleum)

1570877334: Ku Band Waveguide Diplexer for Satellite Communication Links; Hicham Setti (University of Abdelmalek Esaidi Larache, Morocco); Abdelwahed Tribak (INPT, Morocco); Asmae Maimouni; Hanan Fawaz Akhdar (University of Imam Muhammad Bin Saud, KSA); Tomás Fernández (University of Cantabria, Spain)

1570888246: Autonomous SkyCube Testbench using UAV-Assisted Ka-Band OFDM Transceiver; Hasan Tariq, Tamer Khattab and Farid Touati (Qatar University, Qatar)

1570890313: Artificial Intelligence and Blockchain-Based Trading Framework for Satellite Images; Faiza Hashim; Alramzana Nujum Navaz, Nazar Zaki and Khaled Shuaib (UAEU, UAE); Mohamed Adel Serhani (Univ. of Sharjah, UAE)

1570890897: User-Driven Flexible and Effective Link Connection Design for Mega-Constellation Satellite Networks; Guojie Fan, Hewu Li, Jun Liu, Qian Wu and Zeqi Lai (Tsinghua University, China); Lu Lu (Mobile Research Institute, China); Zheng Shaowen (Mobile Research Institute, China)

1570890992: A Multi-Region Division Routing Algorithm Based on Fuzzy-Shortest-Path-First for LEO Satellite Networks; Shangyi Li; Fu Wang (Beijing Institute of Technology & BUPT, China); Haipeng Yao (BUPT, China); Ze Dong (Beijing Inst. of Technology, China); Tao Dong (Space Star Tech. Co., LTD, China); Jie Yin (Beijing Inst. of Satellite Information Eng., China) 1570891001: Code-Aided Carrier Synchronization with Adjustable Operating Ranges for Satellite Communications; Taiyi Chen, Yafeng Zhan and Haoran Xie (Tsinghua University, China); Xiaolong Xiao (State Grid Jiangsu Electric Power Co., LTD. Reserch Institute, China)

Session Title: Mobile Computing (Mobile Computing Symposium)
Online
WM-7

Session Chairs: Ahmed Refaey and K. Elgazzar (Canada), ahmed.refaey@gmail.com

Meeting Link: https://meet.google.com/teb-ooiz-mxv

1570887703: Chord-based distributed middleware architecture for Internet of Things; Ghofrane Fersi (ENIS, Tunisia); Amine Ben Hammouda (ReDCAD, Tunisia); Faouzi Derbel (Leipzig University of Applied Sciences, Germany)

1570888237: Secure and Energy-Efficient Communication for Internet of Drones Networks: A Deep Reinforcement Learning Approach; Noor Aboueleneen; Abdulmalik Alwarafy; Mohamed M. Abdallah (HBKU, Qatar)

1570888272: Proposal Generation Process for Ensuring the Negotiation within the Cloud Environment; Fairouz Fakhfakh (FSEGS, Tunisia); Raouia Bouabdallah (FSS, Tunisia)

1570891562: DiCent: A Distributed Credit Incentive Mechanism for Opportunistic Networks; Daniel de M. C. Christiani; Jefferson Simoes (Federal University of the State of Rio de Janeiro - UNIRIO, Brazil); Antonio A Rocha (Fluminense Federal University, Brazil); Carlos Alberto Vieira Campos (Federal University of the State of Rio de Janeiro, Brazil)

1570894744: HDFRL-empowered Energy Efficient Resource Allocation for Aerial MEC-enabled Smart City Cyber Physical System in 6G; Mohammed Abegaz (HBKU, Qatar); Nahom Abishu Hayla (University of Electronic Science & Technology of China); Aiman Erbad (HBKU, Qatar); Mohsen Guizani (MBZUAI, UAE)

1570891426: Real-time Imitation of Autonomous MCG Node using Dual ECG Probing IoT Node Suitable for Delivery by UAV; Hasan Tariq, Khalid Abualsaud; Elias Yaacoub (Qatar University, Qatar); Rana Abualsaud (Columbia-Presbyterian Hospital, USA); Tamer Khattab (Qatar University, Qatar); Abdurrazzak Gehani (Al-Ahli Hospital, Qatar)

> Session Title: Smart and Sustainable Environments (SCCC Symposium)

Online WM-8

Session Chairs: Bassem Ouni (TII, UAE), <u>Bassem.Ouni@tii.ae</u> Meeting Link:

https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetup-

join%2F19%3Ameeting ODNmZmYxMmEtMzlyYS00YzkxLTg4NDAtMzllNDI2ZTA5NjBm%40thread.v2%2F0%3Fcontext%3D%257b%25 2522%253a%2522f0869253-be00-4a37-9c77-37742cb15c38%2522%252c%2522Oid%2522%253a%2522f562c8cd-2f9c-45f3-bc52-fea8584483b7%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=3c659089-f65e-4227-836c-

c4881886b405&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

Meeting ID: 380 372 317 054 Passcode: gZYXJW

12 |

1570885239: Acute Inhalation Injury Signatures in Breathing Rate Abnormalities in Domestic Environment using RF Sensing; Najah A. Abu Ali (UAEU, UAE); Mubashir Rehman (COMSATS University, Pakistan); Muhammad Bilal Khan; Mohammad Hayajneh; Shayma Alkobaisi (UAEU, UAE)

1570888055: Urban Macrocell Propagation Model Proposed for Future 5G Rollout; Mamadou Bagayogo; Soumaya Hamouda; Rim Barrak (SUPCOM, Tunisia)

1570888180: A Hybrid Aggregation Approach for Federated Learning to Improve Energy Consumption in Smart Buildings; Aline Abboud (EDST & UHA, Lebanon); Mohamed-El-Amine Brahmia (CESI LINEACT, France); Rocks Mazeraany (Lebanese U., Lebanon); Abdelhafid Abouaissa (U. of Haute Alsace, France); Ahmad M. Shahin (Lebanese U., Lebanon)

1570891084: REED: Enhanced Resource Allocation and Energy Management in SDN-Enabled Edge Computing-Based Smart Buildings; M. Abdul Ibrar, A. Erbad, M. Abegaz (HBKU, Qatar); A. Akbar (Abdul Wali Khan U., PK); M. Houchati (Iberdrola Innovation Middle East, Qatar); J. M. Corchado (BISITE Research Group U. of Salamanca & Air Institute, Spain) 1570887094: An Overview of Low Earth Orbit Satellite Routing Algorithms; Chengcheng Li; Yasheng Zhang (The 54th Reasearch Institute of CETC Shijiazhuang); Zixuan Cui; Yi Zhang; Jiamin Liu (China University of Petroleum, China); Zilong

Yu (Xian Technological University, China); Peiying Zhang (China University of Petroleum, China)

1570891424: Millimeter-Waves Non-linearities Study and Throughput Measurements in Indoor Corridor and Stairwell Environments for B5G Radio Communications; Mamadou Bagayogo; Soumaya Hamouda; Rim Barrak (SUPCOM, Tunisia)

Coffee Break — (11:00 - 11:30)

KEYNOTE 2 — (11:30 - 12:30)

Room: 1

> Speaker: Prof. Mohamed-Slim Alouini, FIEEE & FOPTICA, KAUST, KSA

➤ **Title:** Towards Extreme Band Communications

> Chair: Dr. Ismail Berrada (UM6P, Morocco), Ismail.BERRADA@um6p.ma

Meeting Link: https://abet-org.zoom.us/j/3424989370?pwd=V3ZNc093U2QyaEFrcnlrMVB2MzFoZz09

LUNCH BREAK — (13:00 – 14:00)

Wednesday Afternoon Sessions (WA) — (14:00 - 16:30)

> Session Title: Security and Privacy

Room 1

IN-PERSON

WA-1

Session Chair: Muhammad Waqas, engr.waqas2079@gmail.com Meeting Link:

https://teams.microsoft.com/l/meetup-

Meeting ID: 311 824 133 20 Passcode: WMATKJ

1570892595: A Novel Method of Network Security Measurement Based on Indicators; Kunpeng Cao; Leyi Zhang (ZTE Corporation, China)

1570887984: A New Scalable Distributed Homomorphic Encryption Scheme for High Computational Complexity Models, Amar Almaini; Jakob Folz and Dominik Woelfl (Deggendorf Institute of Technology, Germany); Ahmed Y Al-Dubai (Edinburgh Napier University, UK); Martin Schramm and Michael Heigl (Deggendorf Institute of Technology, Germany)

1570878316: Exploring Adversarial Graph Autoencoders to Manipulate Federated Learning in The Internet of Things; Kai Li (CISTER Research Unit, Portugal); Xin Yuan (CSIRO, Australia); Jingjing Zheng (CISTER, Portugal); Wei Ni (CSIRO, Australia); Mohsen Guizani (MBZUAI, UAE)

1570891272: A Self-Healing Pairwise Key Pre-Distribution Scheme in IoT-based WSNs; Mohamed-Lamine Messai (University of Lyon, France)

1570888064: Intelligent Systems for XSS attack detection: A brief survey; Maryam Et-tolba; Charifa Hanin; Abdelhamid Belmekki (National Institute of Posts and Telecommunications, Morocco)

1570891333: A Survey on Securing 6G Wireless Communications based Optimization Techniques; Ammar Kamal Abasi; Moayad Aloqaily (MBZUAI, UAE); Bassem Ouni (TII, UAE); Mohsen Guizani (MBZUAI, UAE); Mérouane Debbah (TII, UAE); Fakhri Karray (MBZUAI, UAE)

Session Title: Protocols Room 2 IN-PERSON WA-2

Session Chair: Raed Mesleh (Jordan), r.mesleh@psut.edu.jo

Meeting Link: https://us05web.zoom.us/j/86560981661?pwd=cTVjeDlqYmNBQUVSbEV2OTdqQXpadz09

Meeting ID: 865 6098 1661 **Passcode**: 3u6r4M

1570887956: A Novel Autonomous Time-Slotted LoRa MAC Protocol with Adaptive Frame Sizes; Hanan Jabr Alahmadi; Fatma Bouabdallah (KSU, KSA); Baraq Ghaleb and Ahmed Y Al-Dubai (Edinburgh Napier University, UK)

1570890668: MELONS - A Modular and Extendable Simulator for LoRaWAN Network; Mi Chen (U. Paris Est Creteil, LACL, France); Lynda Mokdad (U. de Paris 12, France); Jalel Ben Othman (CentraleSupélec & U. of Sorbonne Paris Nord, France) 1570882153: Digital Communication Software-Defined Radio-Transceiver Implementation Using MATLAB and USRP; Anas Alashqar (German Jordanian University, Jordan); Raed Mesleh (Princess Sumaya University, Jordan); Mustafa Alshawaqfeh (German Jordanian University, Jordan)

1570887990: Distance Vector and Prominent Reliable Path Selection based Stochastic Routing in Distributed Internet of Things; Quswar Abid; Ghulam Abbas; Zaiwar Ali and Ziaul Haq Abbas (GIK, Pakistan); Shanshan Tu (BUT, China); Youssef Harrath; Muhammad Waqas (University of Bahrain, Bahrain)

1570888197: Hierarchical Name-based Routing for Content Provider Mobility in ICN; Yanbin Sun and Jianxun Zhou (Guangzhou University, China); Bo Hu, Xiaoming Zhou and Wei Song (State Grid Liaoning Electric Power Supply Co Ltd, China); Mohan Li and Zhihong Tian (Guangzhou University, China)

1570877524: Overview of single-stage object detection models: from Yolov1 to Yolov7; Yasmine Ghazlane (Euromed University, Morocco); Maha Gmira (Euromed University, Morocco); Hicham Medromi (Université Hassan II Aïn Chock Casablanca, Morocco)

1570890555: New Architecture Conception for Water Distribution Network in Smart Home; Mohammed El Hanjri (ENSIAS, Mohammed V University in Rabat, Morocco); Amine Abouaomar (Al Akhawayn University in Ifrane, Morocco); Abdellatif Kobbane (ENSIAS, Mohammed V University in Rabat, Morocco)

Session Title: AI-CSC-2 (5GIoT'2023 Symposium)

Online WA-3

Session Chair: Jie Wang, ChinaTelecom, wangi158@chinatelecom.cn

Mtg Link: https://us06web.zoom.us/j/81648737248?pwd=a0dWeVIITVpmZU5Ja2IvMTBrS1VZQT09

Meeting ID: 816 4873 7248 **Passcode**: 927790

1570891130: Dynamic Spectrum Sharing Based on Federated Learning and Multi-Agent Actor-Critic Reinforcement Learning, Tongtong Yang; Wensheng Zhang; Yulian Bo; Jian Sun (Shandong); Cheng-Xiang Wang (Southeast University, China)

1570891199: A Specific Emitter Identification Approach Based on Multi-Head Attention Mechanism, Yulian Bo; Wensheng Zhang; Tongtong Yang; Mingyan Jiang; Jian Sun (ShanDong University, China)

1570892116: Cyclic Code Word Embedding and Chi-Squared Test-Based Attention Mechanism for Deep Learning-Based Server Fault Detection, Yiyang Xiong (China Telecom Research Institute, China)

1570892592: Efficient Transmission and Secure Sharing of Sensing data under Distributed ISAC Conditions, Mu Junsheng; Zexuan Jing; Yuanhao Cui; Xiao jun Jing; Quan Zhou; Wenjiang Ou yang (BUPT, China)

1570889203: Physical Layer Round Trip Latency Analysis and Estimation for 5G NR, Yong Zhao; Weiliang Xie (China Telecom Beijing Research Institute, China)

1570891486: Towards a Reliable and Smart Approach for Detecting and Resolving Security Violations within SDWN; Amina Sahbi; Faouzi Jaïdi (SUPCOM, Tunisia); Adel Bouhoula (Arabian Gulf University, Bahrain)

Session Title: Machine and Deep Learning in IoT (IoT & WSNs Symposium)
Online
WA-4

> Session Chair: Ziad Salem (Joanneum Research, Austria), Ziad.Salem@joanneum.at

Mtg Link: https://meet.goto.com/200113037 Mtg ID: 200-113-037 Access Code: 200-113-037

1570891047: The Impact of the Application of Deep Learning Techniques with IoT in Smart Agriculture, Oumayma Jouini; Kaouthar Sethom (INNOVCOM, Tunisia)

1570886699: Efficient Fall Detection using Bidirectional Long Short-Term Memory, Gael S. Mubibya; Jalal N Almhana; Zikuan Liu (Universite de Moncton, Canada)

1570891487: FLARE: Detection and Mitigation of Concept Drift for Federated Learning based IoT Deployments, T. Chow (King's College, UK); U. Raza (Waymap Ltd., UK); I. Mavromatis (Toshiba Europe, UK), A. Khan (Toshiba Europe, UK)

1570891478: False Alarm Reduction in WSN Surveillance Application through Machine Learning techniques, Takwa Allaoui; Tahar Ezzedine: Mohamed hechmi Jeridi (ENIT. Tunisia)

1570891530: Reinforcement Learning-Based Grant-Free Mode Selection for O-RAN Systems, Hao-Wei Hsu; Yen-Chen Lin; Chih-Wei Huang (NCU, Taiwan); Phone Lin (NTU, Taiwan); Shun-Ren Yang (NTHU, Taiwan)

1570888022: Self-Adaptative Routing Algorithm for IoT-Enabled Wireless Sensor Network, Mouna EL Amari; Sarra Guefrachi (U. of Moncton, Canada); Mohsen Nasri (U. of Science, Tunisia); Habib Hamam (U. of Moncton, Canada)

Session Title: Communications Network Analysis and Demos (Comm. Theory Symp.)
Online
WA-5

Session Chair: Shahid Mumtaz (Portugal), raoshahid30@gmail.com Sherif Busari (Portugal), sherifbusari@av.it.pt

Meeting Link:

https://teams.microsoft.com/dl/launcher/launcher.html?url=%2F %23%2Fl%2Fmeetup-

join%2F19%3Ameeting_MWE1ZTlhYzktZDRINC00NTBmLTkyN2YtMWlyMTk1YTU3NDYz%40thread.v2%2F0%3Fcontext%3D

<u>%257b%2522Tid%2522%253a%25224ad8f924-e806-434b-a99e-</u>

fb776da065bf%2522%252c%2522Oid%2522%253a%252230a524b8-ee26-4dd9-a1ae-

73d01ee50491%2522%257d%26anon%3Dtrue&type=meetup-join&deeplinkId=b0c0fd90-9e0f-4cf5-9f79-

7ae6e7fa85b7&directDl=true&msLaunch=true&enableMobilePage=true&suppressPrompt=true

1570895655: Dual-Hop Robust Distributed Collaborative Beamforming Over Nominally Rectangular WSNs in Slightly to Moderately Scattered Environments; O. Ben Smida (NISR, Canada); Sofiene Affes (INRS-EMT, Canada)

1570891302: Communication Interruption Analysis for Air-water Wireless Optical Communication; Yang Chi (Tsinghua University & (BNRist), China); Fang Yang (Tsinghua University, China)

1570888053: Implementation of a Large-Scale Virtual-RAN Providing a mMTC Service; Mihia Kassi (University of Carthage, Tunisia); Soumaya Hamouda (Mediatron Lab. Sup'Com. University of Carthage Tunis, Tunisia)

1570891117: Application of Ray Tracing for Beyond-line-of-sight Maritime Communication in Evaporation Ducts; Bingwei Shu, Wensheng Zhang and Yubei He (Shandong University, China); Jian Sun (ShanDong University, China); Cheng-Xiang Wang (Southeast University, China & Purple Mountain Laboratories, China)

1570892564: QoS-OLSR 2.0: A Quality-of-Service Optimized Link State Routing protocol for Mesh Networks; H. Abualola, M. Kadadha, R. Mizouni, S. Singh; H. Otrok (KU, UAE); M. Baddeley (TII, UAE); Francis Betene (TII, UAE); J-P Giacalone (TII, UAE)

Session Title: Propagation and Applications (Wireless Nets Symp.)

Online WA-6

Session Chair: Lei Feng, BUPT, fenglei@bupt.edu.cn

Meeting Link: https://us06web.zoom.us/j/85007184123?pwd=QmJ1RkdJMWxPZ1VRdVhuTHVqYW53QT09

Meeting ID: 850 0718 4123 Passcode: 583590

1570878940: A Low Complexity Mixed-Field Sources Parameter Estimation Framework at Sub-Nyquist Sampling Rates; Baoqiang Liang; Qian Xu; Chen Wang; Yulong Gao (HIT, China)

1570888255: Efficient Universal Indoor Multicharacteristic Propagation model for indoor environments; Sławomir Nowak; Michal Gorawski; Mariusz Slabicki; Krzysztof Grochla (Institute of Theoretical and Applied Informatics, Poland)

1570888240: Performance Analysis of Cooperative LoRa with Dual Hop DF Relaying and Best Relay Selection; Takoua Mahjoub (SUPCOM, Tunisia); Adel Ben Mnaouer (CUD, UAE); Hatem Boujemaa; Maymouna Ben Said (SupCom, Tunisia)

1570881453: A VLP scheme for Underground River Measurement USVs; XinYue Xie; Deyue Zou (Dalian University of Technology, China); Yuan Liu (National Institute of Metrology, China)

1570888242: Enhancing Data Collection in Vehicular Network through Clustering Optimization; Chérifa Boucetta (U. de Reims Champagne-Ardenne & Crestic, France); Frédéric Lassabe; Oumaya Baala (UTBM, CNRS, Inst. FEMTO-ST, France) **1570886825**: RL-based Distributed Parametric Resource Allocation Scheme for Multi-Hop IAB Networks; Xiaowu Ou (SJTU, China); Jingyi An (XJU, China)

> Session Title: IoT Security (Security Symposium)

Online WA-7

> Session Chair: Moayad Aloqaily (MBZUAI, UAE), Moayad.Aloqaily@mbzuai.ac.ae

> Meeting Link: https://mbzuai-ac-ae.zoom.us/my/malogaily

1570880601: Data Security and Anonymous Mutual Authentication In 6G/IoT Healthcare System: Emergency Case; Sarra Jebri (University of Gabes, Tunisia); Arij Ben Amor (University of Tunis-Elmanar, Tunisia); Mohamed Abid (University of Gabes, Tunisia); Ammar Bouallegue (National School of Engineers of Tunis, Tunisia)

1570887197: Virtualized Security for Industry 4.0 ViSI 4.0; Intissar Jamai (ENSI, Tunisia); Lamia Benazzouz (CRISTAL, Tunisia); Leila Azzouz Saidane (ENSI, Tunisia)

1570887573: A HMAC-based Lightweight Blockchain for the Internet of Medical Things, Sergey Panasenko (Company Aktiv, Moscow, Russia)

1570888098: Secure Wireless Sensor Networks for Anti-Jamming Strategy Based on Game Theory; Zina Chkirbene; Ridha Hamila (QU, Qatar); Aiman Erbad (HBKU, Qatar)

1570877916: loT botnet detection using deep learning, Sana Rabhi; Tarek Abbes (ENETCOM, Tunisia); Faouzi Zarai (Sfax University, Tunisia)

1570894378: Towards Mutual Trust-Based Matching For Federated Learning Client Selection; Osama Wehbi (MBZUAI, UAE); Omar Abdel Wahab (Polytechnique Montréal, Canada); Azzam Mourad (NYU AD, UAE); Hadi Otrok (KU, UAE); Hoda Al Khzaimi (NYU AD, UAE); Mohsen Guizani (MBZUAI, UAE)

1570887191: Effectiveness of Authentication Schemes in IoT Networks with Different Structural Topologies; Chi Ho Lau (City University of HK); Fan Yan (HK Metropolitan University); Sammy Chan (City University of HK)

> Sessi	on Title:	eHealth Symposium	Online	WA-8
Sessi	on Chair:	Augusto Neto, Federal University of Rio Grande do Norte, Brazil	augusto@dimap.ufr	n.br
Meetir	g Link:	http://meet.google.com/znv-eksf-wsv		

1570891076: Octa Pillars-based Approach to Select the Best Blockchain-based Solutions in Healthcare Information Exchange; Joseph Saad Merhej (University of Haute Alsace, France); Hassan Harb (American University of the Middle East, Kuwait); Abdelhafid Abouaissa (University of Haute Alsace, France); Lhassane Idoumghar (University of Haute Alsace & IRIMAS Institute, France); Samir Ouchani (CESI & Computer Security Laboratory, France)

1570891142: Embattle The Security of E- Health System Through A Secure Authentication and Key Agreement Protocol; Darshan Singh; Mohammad Wazid (Graphic Era Deemed to be University, India); Devesh Singh (Graphic Era University, India); Ashok Kumar Das (International Institute of Information Technology, India); Joel J. P. C. Rodrigues (Senac Fac of Ceará, Brazil & Instituto de Telecomunicações, Portugal)

1570891455: Full interpretability CBMIR to Help minimize radiologist analysis search time; Abdelbaki Souid (ENIG, University of Gabes, Tunisia); Ben othman Soufiene (Hammam Sousse, University of Sousse Tunisia); Mohamed Hamroun (3IL XLIM University of Limoges, France); Hedi Sakli (EITA Consulting, France)

1570891464: DL Methods for Skin Lesions Automated Diagnosis In Smartphone Images; Marwen Sakli; Chaker Essid M. Bassem Ben Salah (Carthage University, Tunisia); Hedi Sakli (EITA Consulting, France)

1570891476: New Frontiers in Medical Biometrics, Diagnostics, and Therapeutics: Biofield Analysis and Medical Body Area Networks; Manish Wadhwa (Salem State University, USA)

1570891501: Lung cancer detection and nodule type classification using image processing and machine learning; Dorsaf Hrizi (SUP'COM, Tunisia)

NIGHT OUT (On Your Own)

Marrakesh, Morocco, June 19th—23rd, 2023

Thursday, June 22nd, 2023

Thursday Morning Sessions (ThM) — (9:00 - 11:00)

IN-PERSON ThM-1 **Session Title:** Energy and Power Room 1 Session Chair: A. Refaey (Manhattan College, USA), K. Elgazzar (OTU, Canada), ahmed.refaey@gmail.com

https://meet.google.com/teb-ooiz-mxv Meeting Link:

1570892245: Performance Optimization of Energy-Harvesting Underlay Cognitive Radio Networks Using Reinforcement Learning: D. Tashman; S. Cherkaoui (Polytechnique Montreal, Canada); W. Hamouda (Concordia University, Canada)

1570891461: City Scale Digital Twins for Mobility Emissions Evaluation; Azza A Faiad (Cities OS IIc, USA); Sarah M. Abdel-Ghany (Alexandria University, Egypt): Mohammed Ayachi: Shehab Ahmed (KAUST, Saudi Arabia)

1570890551: RIS Energy Efficiency Optimization with Practical Power Models; Zhiyi Li, Jida Zhang, Jieao Zhu and Linglong Dai (Tsinghua University, China)

1570891386: Power Allocation in Device-to-Device Communications based-Stackelberg Game Theory; Sameh Najeh; Ammar Bouallegue (Supcom, Tunisia)

1570891049: Power Control approach in HetNets Based-Qlearning technique; Khaled Hmidi; Sameh Najeh; Ammar Bouallegue (Supcom, Tunisia)

1570887976: A 2-Competitive Online Algorithm for Mobile Charger Path Planning in Wireless Rechargeable Sensor Networks; Ammar Gharaibeh (German Jordanian Univ., Jordan); Haitham Al-Obiedollah (Hashemite Univ., UK)

1570888184: Energy Frauds Characterization based on Information Theory Quantifiers; Lucas de Lima Bastos; B Santos Martins; Iago Medeiros; Denis Lima Rosário; Andre Aquino; Eduardo Cerqueira (Federal Univ. of Para, Brazil)

IN-PERSON ThM-2 Session Title: Machine Learning Methods

Session Chair: Ayman Radwan (University of Aveiro, Portugal), aradwan@av.it.pt https://videoconf-colibri.zoom.us/j/99148762316?pwd=TnhVTkE2djFPZVYxY21iYW1HNWZrQT09 Meeting Link:

1570892183: Towards Cell-Free Networking: Analytical Study of Ultra-Dense On-Demand Small Cell Deployment for Internet of Things, Ayman Radwan; Hao Ran Chi (Univ. of Aveiro, Portugal)

1570875985: Comparison of Machine Learning Algorithms for Position-Oriented Human Fall Detection: Ziad Salem, Felix Lichtenegger, Andreas P. Weiss, Claude Leiner and Christian Sommer; Christian Krutzler (Joanneum Research, Austria)

1570892246: In-network Latency Nowcast Using Data Stream Learning Models; Carlos David Ribeiro Pasco; Flavia Cristina Bernardini (Universidade Federal Fluminense); Antonio A Rocha (UFF), Brazil

1570890293: Factor Graph-based Deep Reinforcement Learning for Path Selection Scheme in Full-duplex Wireless Multihop Networks; Zhihan Cui; Aung Thura Phyo Khun; Yuto Lim; Yasuo Tan JAIST, Japan)

1570891469: Monopole Antenna Modeling and Optimization for 5G Communication System using Machine Learning; Meshari Alsharari, Ammar Armghan and Khaled Aliqab (Jouf University, KSA)

1570888057: Preserving Privacy in Mobile Crowdsensing within Intelligent Transportation System: Current Research and Future Challenges; Zaina Magour (Mohammed V University & ENSIAS, Morocco); Hanan El Bakkali (NHS of Information and Systems Analysis, Morocco); Driss Benhaddou (University of Houston, USA); Houda Benbrahim, Hajar Elgadi and Wahiba Abou-zbiba (Mohammed V University, Morocco)

Session Title: AI-CSC-3 (5GIoT'2023 Symposium) **Online ThM** -3

Latif Khan (MBZUAI, UAE), latif.u.khan2@gmail.com **Session Chair:**

Meeting Link: https://mbzuai-ac-ae.zoom.us/j/98704109914?pwd=QzRLbU85YVJvTIM2MURSUDIEMi8xdz09

987 0410 9914 **Passcode**: 054918 Meeting ID:

1570892133: A Robust Text Information Hiding Model Based on Quick Response Code, Zhijie Yao; Jingyu Wang; Xiaojun Jing: Mu Junsheng (BUPT, China)

1570892560: Blockchain-based Reputation Management Framework for Crowdsourced Last-mile Delivery, Maha Kadadha;

Rabeb Mizouni; Shakti Singh; Hadi Otrok (Khalifa University, UAE); Azzam Mourad (LAU, Lebanon)

1570883565: Design of 6G Space-Ground Integrated Network Architecture Based on Ground Core Network, Jie Wang; Y. Zhou (China Telecom Research Institute, China); B. Wang (Beijing Research Institute, Telecom Corporation Limited, China) **1570888174:** Analysis of IMT in the 1765-1785 MHz band for the coexistence of civil UAVs with broadband TDD private network systems, Jie Wang (China Telecom Research Institute, China); Lei Liu; Bingxin Wang (Beijing Research Institute, Telecom Corporation Limited, China)

1570890825: FZCHS: A Fuzzy based Zone-Clusters Heads Selections for Heterogeneous Wireless sensor networks, Kamel Khedhiri (ENIT, Tunisia)

1570891389: Dynamic EM Ray Tracing for Large Urban Scene with Multiple Receivers; Ruichen Wang; Dinesh Manocha (University of Maryland, USA)

Session Title: Integrated Air-space-ground Networks (ET5GA Work.)
 Session Chair: Leyi Zhang & Richie Leo (ZTE Corporation), leyi.zhang@zte.com.cn
 Meeting Link: https://meeting.tencent.com/dm/QdIDPfoa9TC7
 Mtg ID: 148-404-507
 Pass: 186019

1570887387: Mobility Management for Novel Cooperative Two-Layer Satellite Network; Xuan Huang and Jiaying Zong; Yang Liu (China Telecom Research Institution, China)

1570888223: Research on Novel Type of Non Terrestrial Network for 6G; Wen Qi, Heng Wang and Xu Xia; Chengli Mei Yang Liu; Yanxia Xing (China Telecom, China)

1570887505: NB-IoT Uplink Synchronization by Change Point Detection of Phase Series in NTNs; Jiaqi Jiang (Shanghai Jiao Tong University, China); Yihang Huang (Nokia Shanghai Bell, China); Yin Xu; Runnan Liu; Dazhi He and Xiaowu Ou (Shanghai Jiao Tong University, China)

1570887960: Research on Roaming Architecture in Future Integrated Satellite-Terrestrial Network; Heng Wang, Wen Qi and Xu Xia; Chengli Mei; Yanxia Xing; Yang Liu (China Telecom, China)

1570888088: A network Architecture for Carrying Terminal Functions on 5G and 6G Satellites; Jing Jia, Heng Nie and Song Bai; Xu Xia; Yang Liu; Yanxia Xing (China Telecom, China)

1570889451: Hopping Beam and Signal Fence for Satellite Communication in 6G Space-to-Ground Integration; Xu Xia (China Telecom Research Institute, China)

1570887999: CPF: Bridging Time-Sensitive Networks into Large-Scale LEO Satellite Networks, Fu Wang; Wenji He; Zhipei Li; Haipeng Yao (BUPT, China)

Session Title: Optimization/Modeling & Smart Communities (SCCC Symp.)
 Session Chair: Chérifa Boucetta (Université de Reims, France), cherifa.boucetta@univ-reims.fr
 Mtg Link: https://univ-reims-fr.zoom.us/j/99510243621

1570892218: Link failure prediction in LoRa networks, A. Strzoda; K. Grochla; P. Glomb (IITiS PAN, Poland)

1570891425: FR-SLR, forwarder reduction in SLR routing protocol through zone splitting, Carole Al Mawla; Eugen Dedu; Kamal Beydoun (U. Bourgogne Franche-Comté, France); Dominique Dhoutaut (Lebanese U., Lebanon)

1570887637: Queries stream optimization in WSN with Machine learning, Abbassi Kamel; Tahar Ezzedine (ENIT, Tunisia)

1570891045; Multi-Device Rate Maximization for IRS-Based Smart Home; Yanchen Wang; Yeiun He (Shenzhen U., China)

1570889586: Classifying Customer Complaints of a Large Fixed Broadband Service Provider using Machine Learning; Venicius Rocha, Junior (Federal Fluminense University, Brazil); Adita Kulkarni (SUNY Brockport, USA); Antonio A Rocha (Fluminense Federal University, Brazil)

1570890307: Four-level knowledge graph contrastive learning structure for smart-phone application recommendation; Xin Yang, Yu Li and Wenhui Ai (University of Tsukuba, Japan); Maiko Shigeno (Japan)

1570888190: DFFNet: Deep Federated Radio Fingerprinting Based on Fractional Wavelet Scattering Network; Tiantian Zhang, Dongyang Xu; Pinyi Ren (Xi'an Jiaotong University, China)

Coffee Break — (11:00 - 11:30)

KEYNOTE 3 — (11:30 - 12:30)

Speaker: Prof. Hao Li, MBZUAI, Abu Dhabi, UAE

> **Title:** Empowering the Metaverse Through Generative Al

Chair: Moayad Aloqaily (MBZUAI, UAE), Moayad.Aloqaily@mbzuai.ac.ae

Meeting Link: https://mbzuai-ac-ae.zoom.us/my/maloqaily

LUNCH BREAK — (13:00 – 14:00)

Thursday Afternoon Sessions (ThA) — (14:00 - 16:30)

Session Title: Vehicular Networks II
Room 1
IN-PERSON
ThA-1

Session Chair: Muhammad Waqas, engr.waqas2079@gmail.com

Meeting Link:

https://teams.microsoft.com/l/meetup-

Meeting ID: 347 602 646 589. **Passcode**: 4d5WBR

1570888271: A Reinforcement Learning Based Approach for Controlling Autonomous Vehicles in Complex Scenarios, Badr Ben Elallid (UMI of Meknes, Morocco); Miloud Bagaa (Université du Québec à Trois-Rivières, Canada.); Nabil Benamar (UMI, Morocco); Nabil Mrani (UMI, Morocco)

1570891248: Stackelberg Game-Based Offloading Strategy for Digital Twin in Internet of Vehicles; Weibo Qin (Beijing University of Technology, China); Chao Zhang, Haipeng Yao, Tianle Mai; Shan Huang; Dong Guo; Ran Gao (BUPT, China) 1570887989: Cloud-based Smart Parking System using Internet of Things; Shanshan Tu (Beijing U. of Technology, China); Muhammad Ayaz, Abdullah Arshad, Usman Iftikhar, Youssef Harrath; Muhammad Waqas (University of Bahrain, Bahrain) 1570891279: Dynamic Assignment of Software-Defined Controllers in Vehicular Networks: An Evolutionary Game Approach; Shufang Ji; Dong Guo; Ran Gao; Tianle Mai (BUPT, China)

1570891312: PPO-ABR: Proximal Policy Optimization-based deep reinforcement learning for Adaptive BitRate streaming; Mandan Naresh, Paresh Saxena and Manik Gupta (BITS Pilani, India)

> Session Title: Communications Theory Room 2 IN-PERSON

> Session Chairs: Jakob Rostovski (Tallinn University of Technology, Estonia), <u>jakob.rostovski@taltech.ee</u>
Meeting Link:

https://teams.microsoft.com/l/meetup-

join/19%3ameeting YTBiN2ZhOTQtOWQ1My00NjhlLWFiZWltMWY5ZjdiMGE2M2Vm%40thread.v2/0?context=% 2Tid%22%3a%223efd4d88-9b88-4fc9-b6c0-c7ca50f1db57%22%2c%22Oid%22%3a%22344eca4d-b0f1-47e0-bcf0fb128ee97cf%22%7d

Meeting ID: 330 484 211 639 **Passcode:** scjaF9

1570877894: Real-Time Gait Anomaly Detection Using SVM Time Series Classification; Jakob Rostovski; Andrei Krivošei; Alar Kuusik; Muhammad Mahtab Alam; Ulvi Ahmadow (Tallinn University of Technology, Estonia)

1570892075: A High Isolation Linear Subharmonic Mixer for Q-Band Application; G. Srivastava; D. Bhatt (IIT Roorkee, India) **1570885726**: On the Effect of RIS Phase Quantization on Communications System Performances; Abdullah Haskou and Hamidreza Khaleghi (B-com, France)

1570894433: Low-Complexity Coding, Modulation and Pulse Shaping for SkyCubesNet CubeSat Transceivers; Tamer Khattab; Amr Zeedan (Qatar University, Qatar)

1570887729: Power Penalty Analysis of IM-DD Free Space Optical Communication Channel in the Presence of Turbulence; Lamiae Bouanane; Fouad Abbou; Farid Abdi (LSSC, FST, USMBA, Morocco); Kevin Smith (Al Akhawayn University); Abdelouahab Abid (Comprehensive Technology Company, KSA)

> Session Title: IlloT (5GloT'2023 Symposium)

Online ThA -3

ThA-2

Room: 1

Session Chair: Xiaoyin Zhao, ChinaTelecom, zhaoxy5@chinatelecom.cn

Mtg Link: https://us06web.zoom.us/j/89895182994?pwd=aVpGWlpSL2x1RVJxMnhxbE92VHlrZz09

Meeting ID: 898 9518 2994 **Passcode:** 999085

1570891167: Analysis of interference from UAV system to adjacent 3.5GHz land-based radar system, Jie Wang (China Telecom Research Institute, China); Lei Liu (Beijing Research Institute of China Telecom, China); Weiliang Xie (China Telecom Beijing Research Institute, China)

1570888285: Enhancing LoRaWAN Class B: A Pseudo-Random Access Mechanism with Orthogonality Awareness; Rafik Louati (University of Carthage, Tunisia); Mariem Thaalbi (ISIT'COM, Tunisia); Nabil Tabbane (SupCom, Tunisia)

1570892039: Coop. Platoons scheduling strategy in real case based on machine learning, Anis Boubakri (ENSI, Tunisia)

1570891797: Proxy-CPM: A collaborative high definition map update for autonomous and connected vehicles, Anis Boubakri (ENSI, Tunisia)

1570890226: Securing Fog Computing-based Industry 4.0 Communication Using Authenticated Key Agreement Scheme, Amit Kumar Mishra; Mohammad Wazid; Devesh Singh (Graphic Era University, India); Ashok Kumar Das (International Institute of Information Technology, India); Mohsen Guizani (MBZUAI, United Arab Emirates)

1570888279: Non-coherent Optical FBMC Signals based on Extended Gaussian Function well Time-Frequency Localized filters; Mohammed Bahaaelden and Beatriz Ortega (Universitat Politècnica de València, Spain); Rafael Perez-Jimenez (Universidad de Las Palmas de Gran Canaria, Spain)

1570887946: Enhancing the Efficiency of UAV Swarms Communication in 5G Networks through a Hybrid Split and Federated Learning Approach; Wenji He; Haipeng Yao; Fu Wang; Zunliang Wang (BUPT, China); Zehui Xiong (SUTD, Singapore)

Session Title: Cloud Computing & Blockchain (Security Symposium)

Online ThA-4

Session Chair: Latif Khan (MBZUAI, UAE), latif.u.khan2@gmail.com

Meeting Link: https://mbzuai-ac-ae.zoom.us/j/92355091349?pwd=MC9NWHRYdG1kbVl2NUJyeU0zZ1ZWUT09

Meeting ID: 923 5509 1349

Passcode: 574797

1570888050: I4AS-Cloud: Identification, Authentication and Authorization as a Service Cloud Computing; Mariem Bouchaala (NSCS, Tunisia); Rihab Boussada (Sesame University, Tunisia); Leila Azzouz Saidane (ENSI, Tunisia)

1570888589: Quantum Integrated (C+G+Q)PU Split Architecture; Bharat S Rawal (Benedict College, USA)

1570890201: zk-BeSC: Confidential Blockchain Enabled Supply Chain Based on Polynomial Zero-Knowledge Proofs; Jaouaher Zouari Nasri; Helmi Rais (Expleo Group, France)

1570890287: Lifeline Consensus: Protect Small-scale Blockchain from Typical Attacks; K. Chen; Jie Luo (beihang U., China) 1570891293: New secure access control model for cloud computing based on Chaotic systems; Omessead BenMbarak (SUPCOM, Tunisia); Anis Naanaa (ENIT, Tunisia)

1570888037: Privacy and Tracking in the Emerging Mobile Applications; Rihab Boussada (Sesame University, Tunisia); Mariem Bouchaala (NSCS, Tunisia); Leila Azzouz Saidane (ENSI, Tunisia)

Session Title: 5G & AI (Wireless Nets Symp.)

Online ThA-5

Session Chair: Osama Wehbi (MBZUAI, UAE), osama.wehbi97@gmail.com

Meeting Link: https://polymtl.webex.com/meet/osama.wehbi

1570888009: Design of MEC-based Architecture Integrating ProSe and NOMA for Public Safety Users in 5G and Beyond Cellular Networks; Sarkis Moussa; Abderrahim Benslimane (U. of Avignon, France)

1570888321: Reinforcement Learning-Based Network Management based on SON for the 5G Mobile Network; Xizhe Qiu; Chen-Yu Chiang; Phone Lin (NTU, Taiwan); Shun-Ren Yang (NTHU, Taiwan); Chih-Wei Huang (NCU, Taiwan)

1570891275: C-Block: A Secure and Robust Framework for Authentication Handover in 5G HetNets based on Edge-enabled SDN/NFV Environments, Asad Faraz Khan; Priyadarsi Nanda (U. of Tech. Sydney)

1570887056: Transmission Order Optimization of Coded Distributed Computing in Heterogeneous Wireless Multiple-Access Network; Y. Wu; Shushi Gu; Qinyu Zhang (HIT, China); Ning Zhang (U. of Windsor, Canada); Wei Xiang (LaTrobe U., Australia) **1570890359**: A Federated Learning and DQN based Cooperative Resource Allocation Algorithm for Multi-Service MEC Networks; Feifan Zhou; Shurui Jiang; Jun Zheng; Feng Yan (Southeast U., China)

1570887528: Distributed Compressed Sensing Reconstruction Algorithm Based on Attention Mechanism and GRU; Xiaodong Li; Yulong Gao; Gang Wang (HIT, China)

Session Title: ML in Communication Systems (General Symp.)

Online ThA-6

Session Chair: Mario Chahoud (MBZUAI, UAE), Mario.Chahoud@mbzuai.ac.ae

Meeting Link: https://mbzuai.webex.com/meet/mario.chahoud

1570895535: Towards On-Demand Deployment of Multiple Clients and Heterogeneous Models in Federated Learning; Mario Bassam Chahoud (MBZUAI, UAE); Hani Sami (Concordia University, Canada); Azzam Mourad (LAU, Lebanon); Hadi Otrok (Khalifa University, UAE); Jamal Bentahar (Concordia University, Canada); Mohsen Guizani (MBZUAI, UAE)

1570894741: Adaptive ResNet Architecture for Distributed Inference in Resource-Constrained IoT Systems; Fazeela Mazhar

Khan, Emna Baccour, Aiman Erbad and Mounir Hamdi (HBKU, Qatar)

1570895965: PARAFAC Decomposition based Channel Estimation for RIS-aided Multi-User MISO Wireless Communications; Chaima Beldi; Ali Dziri (Le CNAM, FR); Fatma Abdelkefi (SUPCOM, TN); Hmaied Shaiek (CNAM, FR)

1570896087: Distributed Multi-Cell Power Control with NAF Reinforcement Learning; YuanZhi Sun, Ming Chen, Jiahui Zhao, Haowen Sun, Yijin Pan and Yihan Cang (Southeast University, China)

1570897412: Nonlinear Signal Estimation using Semi-blind Mutually Reference Equalizer in Convolutive Mixture; Abdulmajid Lawal (KFUPM, Saudi Arabia); Karim Abed-Meraim (University of Orleans & PRISME Lab., France); Azzedine Zerguine; Ali Muqaibel (KFUPM, Saudi Arabia)

1570891471: Determinants of Electric Vehicle Adoption and Integration with Public Transportation through Park-and-Ride; Mulham Fawakherji and Driss Benhaddou (University of Houston, USA); Bruce Race (Director for Center of Sustainability and Resilience, USA); Bryan Carroll and Wilfredo Santamaria (Metropolitan Transit Authority of Harris County, USA)

1570888120: Toward Reliable Mobile CrowdSensing Data Collection: Image Splicing Localization Overview; Wahiba Abouzbiba, Houda Benbrahim (Mohammed V University, Morocco); Hanan El Bakkali (NHS of Information and Systems Analysis, Morocco); Hajar El Gadi (Mohammed V University in Rabat, Morocco); Zaina Maqour (Mohammed V University & ENSIAS, Morocco); Driss Benhaddou (University of Houston, USA)

NIGHT OUT (On Your Own)

Marrakesh, Morocco, June 19th—23rd, 2023—Friday, June 23rd, 2023

Friday Morning Sessions (ThM) — (09:30 - 12:30)

> Session Title: Emerging Topics in Wireless Networks in IoT (IoT & WSNs Symp.) Online FrM-2

Session Chair: Haoran Xie (Tsinghua University, China), xiehr20@mails.tsinghua.edu.cn

VooV Mtq Link: https://meeting.tencent.com/dm/FQ4xnklvTCFO; Mtq ID: 578-848-537 (Tencent)

1570890930: The Passport: A Single-Node Authentication System for Heterogeneous Voice-Controlled IoT Networks, Zaid Shakir Al-Attar; Tarek Abbes; Faouzi Zerai (ENETCOM, Tunisia)

1570891565: A Lightweight and Blockchain-Based Registration and Authentication Mechanism for Resource-Constrained Embedded Devices in tSIP-Based Phone-of-Things (PoT) Systems, H. Khalil; K. Elgazzar (Ontario Tech University, Canada) 1570887790: Veterinary Drone: Blockchain-Based System for Cattle Health Monitoring, K. Hwerbi (TelecomSudParis, FR); I. Amdouni (ENSI, Tunisia); Anis Laouiti (TelecomSudParis, FR); Cedric Adjih (INRIA, FR); Leila Azzouz Saidane (ENSI, Tunisia) 1570880846: Fault Tolerance Technique Using Bidirectional Hetero-Associative Memory for Self-Reconfigurable Programmable Matter, Abdallah Makhoul; Jad Bassil (U. of Bourgogne Franche-Comté (UBFC), France)

1570891140: Blockchain Scalability Solved via Quintessential Parallel Multiprocessor; K. Kaur (California State Univ., USA) **1570891405**: PRAHA - Price based demand Response framework for smArt Homes: Application to smart grids; Bashar Chreim; Moez Esseghir; Leila Boulahia (University of Technology of Troyes, France)

>	Session Title:	Blockchain/security in Wireless Systems (General Symposium)		Online	FrM-3
>	Session Chair:	Fanqin Zhou, BUPT, fqzhou2012@bupt.edu.cn			
	Mtg Link:	https://meeting.tencent.com/dm/lktq2W2RiUsQ	Mtg ID: 170-766-777	•	

1570895964: Revolutionizing Collectibles Trading with Youtooz's Blockchain-Based Platform; Mawadah Almuhnna, Nuha Bahatheq, Dalal Aldossary and Nidal Nasser (Alfaisal University, KSA)

1570892044: HN-mPBFT: A Healthy Node based Modified Secure and Fast Consensus Mechanisms for Internet of Vehicles; Amritesh Kumar; Monu Nagar; Lokendra Vishwakarma; Debasis Das (IIT Jodhpur, India)

1570897171: Federating Learning Attacks: Maximizing Damage while Evading Detection; A. Gouissem (University of Doha for Science and Tech., Qatar); T. Khattab (QU. Qatar); M. Abdallah (HBKU, Qatar); A. Mohamed (QU. Qatar)

1570897206: Autonomous Intent Detection for Intent-Driven Satellite Network; Tangyi Li, Ying Ouyang, Lulu Zhang, Yufei Bai and Chungang Yang (Xidian University, China)

1570897207: Resilience In-Band Control Path Routing in Blockchain-Based Multi-Domain SDN; Xingpeng Lei, Yanbo Song, Pengcheng Li, Yao Wang and Chungang Yang (Xidian University, China)

1570891036: Wheat leaf disease detection using CNN in Smart Agriculture; O. Jouini; K. Sethom (INNOVCOM, Tunisia)

Session Title:	Smart Health (Smart Health Work.)	Online	FrM-4
Session Chair:	A. Gouicem & K. Abialsaud (QU, Qatar), gwicem.alaa@gmail.co	om, k.abualsaud@g	<u>u.edu.qa</u>
Mtg Link:	https://qu.webex.com/meet/k.abualsaud		

1570878138: Impact of Availability Attacks On Enabling IoT Based Healthcare Applications; Abdullah Ali Al-Abadi (ENIS, Tunisia); Mbarka Belhaj Mohamed (ENIG, Tunisia); Ahmed Fakhfakh (ENET, Tunisia)

1570888036: WPT-enabled Multi-UAV Path Planning for Disaster Management Using Deep Q-Network; Adel Merabet; Abderrahmane Lakas; Abdelkader Nasreddine Belkacem (UAE University, UAE)

1570888277: Toward Interoperability of NFT Marketplaces; Ela Mannai; Hella Kaffel Ayed (U. of Tunis El Manar, Tunisia)

1570890020: BC-FL Location-Based Disease Detection in Healthcare IoT; Ali Riahi and Amr Mohamed (Qatar University, Qatar); Aiman Erbad (HBKU, Qatar)

1570891303: Multi-valued Model Checking a Smart Glucose Monitoring System with Trust; Ghalya Alwhishi; Jamal Bentahar (Concordia University, Canada); Ahmed Elwhishi (University of Doha for Science and Technology, Qatar)

END OF SESSIONS