

CommNet'23 Program

(*) Note: All times are Morocco local time (GMT+01)

[Conference Link 1](#): Plenary and Technical sessions that will be held in the Grand Amphitheater

[Conference Link 2](#): Plenary and Technical sessions that will be held in the Red Room

Monday December 11, 2023		
08:15-09:00	Registration	
09:00-09:45	Opening Ceremony	
09:45-10:15	Coffee break	
10:15-11:00	<p>Keynote Speaker 1: Prof. Lajos Hanzo, University of Southampton, UK Title: ” <i>On Pareto-Optimal Space, Air Ground Integrated Networking</i>” Session Chair: Prof. George K. Karagiannidis, Aristotle University of Thessaloniki, Greece</p>	
11:00-12:30	Technical Sessions	
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> <p><i>Session I</i> Networking and Security 1 Session Chair: Prof. Khalil Ibrahim, University Ibn Tofail, Kenitra, Morocco</p> </td> <td style="width: 50%; text-align: center;"> <p><i>Session II</i> PHY & Performance Analysis 1 Session Chair: Prof. Abdellatif Kobbane, ENSIAS, Mohammed V University in Rabat, Morocco</p> </td> </tr> </table>	<p><i>Session I</i> Networking and Security 1 Session Chair: Prof. Khalil Ibrahim, University Ibn Tofail, Kenitra, Morocco</p>
<p><i>Session I</i> Networking and Security 1 Session Chair: Prof. Khalil Ibrahim, University Ibn Tofail, Kenitra, Morocco</p>	<p><i>Session II</i> PHY & Performance Analysis 1 Session Chair: Prof. Abdellatif Kobbane, ENSIAS, Mohammed V University in Rabat, Morocco</p>	
12:30-14:15	Lunch	
14:15-15:00	<p>Keynote Speaker 2: Prof. Ali Ghayeb, Texas A&M University, Qatar, Doha Title: ” <i>LiFi Transceiver Design for 6G Wireless Networks</i>” Session Chair: Prof. Dan Kilper, Trinity College Dublin, Ireland</p>	
15:00-16:30	<p style="text-align: center;">Panel: “NextG over Unlicensed Spectrum”</p> <ul style="list-style-type: none"> • Panel Moderator: Prof. Mohamed-Slim Alouini, KAUST, Kingdom of Saudi Arabia <p>Panelists:</p> <ul style="list-style-type: none"> • Prof. Albert Lysko, Council for Scientific and Industrial Research (CSIR), South Africa • Prof. Luciano Leonel Mendes, Inatel: Santa Rita do Sapucaí, Brasil • Prof. Marja Matinmikko-Blue, University of Oulu, Finland • Prof. Umair Qayyum, WiFrost Inc., California, USA 	
16:30-17:00	Coffee break	
17:00-18:30	Technical Sessions	
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;"> <p><i>Session III</i> Artificial intelligence and Smart Applications Session Chair: Prof. Azeddine Elhassouny, ENSIAS, Mohammed V University in Rabat, Morocco</p> </td> <td style="width: 50%; text-align: center;"> <p><i>Session IV</i> PHY & Performance Analysis 2 Session Chair: Prof. Mohamed Chergui, CRMEF, Kenitra, Morocco</p> </td> </tr> </table>	<p><i>Session III</i> Artificial intelligence and Smart Applications Session Chair: Prof. Azeddine Elhassouny, ENSIAS, Mohammed V University in Rabat, Morocco</p>
<p><i>Session III</i> Artificial intelligence and Smart Applications Session Chair: Prof. Azeddine Elhassouny, ENSIAS, Mohammed V University in Rabat, Morocco</p>	<p><i>Session IV</i> PHY & Performance Analysis 2 Session Chair: Prof. Mohamed Chergui, CRMEF, Kenitra, Morocco</p>	

Tuesday December 12, 2023			
09:00-09:45	<p>Keynote Speaker 3: Prof. Hüseyin Arslan, Istanbul Medipol University, Istanbul, Turkey</p> <p>Title: <i>"6G Waveform Options"</i></p> <p>Session Chair: Prof. Faissal El Bouanani, ENSIAS, Mohammed V University in Rabat, Morocco</p>		
09:45-10:30	<p>Keynote Speaker 4: Prof. Roberto Di Pietro, King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia</p> <p>Title: <i>"Drones' Threats, Countermeasures, and Research Directions"</i></p> <p>Session Chair: Prof. Ali Ghrayeb, Texas A&M University at Qatar, Doha, Qatar</p>		
10:30-10:50	Coffee Break		
Technical Sessions			
10:50-12:20	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;"> <p><i>Session V</i></p> <p><i>Networking and Security 2</i></p> <p>Session Chair: Prof. Hanan El Bakkali, ENSIAS, Mohammed V University in Rabat, Morocco</p> </td> <td style="text-align: center; width: 50%;"> <p><i>Session VI</i></p> <p><i>PHY & Performance Analysis 3</i></p> <p>Session Chair: Prof. Saud Althunibat, Texas A&M University, Doha, Qatar</p> </td> </tr> </table>	<p><i>Session V</i></p> <p><i>Networking and Security 2</i></p> <p>Session Chair: Prof. Hanan El Bakkali, ENSIAS, Mohammed V University in Rabat, Morocco</p>	<p><i>Session VI</i></p> <p><i>PHY & Performance Analysis 3</i></p> <p>Session Chair: Prof. Saud Althunibat, Texas A&M University, Doha, Qatar</p>
<p><i>Session V</i></p> <p><i>Networking and Security 2</i></p> <p>Session Chair: Prof. Hanan El Bakkali, ENSIAS, Mohammed V University in Rabat, Morocco</p>	<p><i>Session VI</i></p> <p><i>PHY & Performance Analysis 3</i></p> <p>Session Chair: Prof. Saud Althunibat, Texas A&M University, Doha, Qatar</p>		
12:20-14:00	Lunch		
14:00-14:45	<p>Keynote Speaker 5: Prof. Dan Kilper, Trinity College Dublin, Ireland</p> <p>Title: <i>"Optical Networks for 6G"</i></p> <p>Session Chair: Prof. Saud Althunibat, Al-Hussein Bin Talal University, Jordan & Texas A&M University at Qatar, Qatar</p>		
Technical Sessions			
14:45-16:30	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;"> <p><i>Session VII</i></p> <p><i>IoT, Cloud and Fog Computing</i></p> <p>Session Chair: Prof. Sungchang Lee, Korea Aerospace University, Goyang, South Korea</p> </td> <td style="text-align: center; width: 50%;"> <p><i>Session VIII</i></p> <p><i>Networking and Security 3</i></p> <p>Session Chair: Prof. Mustapha Benjillali, National Institute of Posts and Telecommunications, Rabat, Morocco</p> </td> </tr> </table>	<p><i>Session VII</i></p> <p><i>IoT, Cloud and Fog Computing</i></p> <p>Session Chair: Prof. Sungchang Lee, Korea Aerospace University, Goyang, South Korea</p>	<p><i>Session VIII</i></p> <p><i>Networking and Security 3</i></p> <p>Session Chair: Prof. Mustapha Benjillali, National Institute of Posts and Telecommunications, Rabat, Morocco</p>
<p><i>Session VII</i></p> <p><i>IoT, Cloud and Fog Computing</i></p> <p>Session Chair: Prof. Sungchang Lee, Korea Aerospace University, Goyang, South Korea</p>	<p><i>Session VIII</i></p> <p><i>Networking and Security 3</i></p> <p>Session Chair: Prof. Mustapha Benjillali, National Institute of Posts and Telecommunications, Rabat, Morocco</p>		
16:30-16:50	Coffee Break		
Technical Sessions			
16:50-18:20	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 50%;"> <p><i>Session IX</i></p> <p><i>Networking and Security 4</i></p> <p>Session Chair: Prof. Fouad Ayoub CRMEF, Kenitra, Morocco</p> </td> <td style="text-align: center; width: 50%;"> <p><i>Session X</i></p> <p><i>PHY & Performance Analysis 4</i></p> <p>Session Chair: Prof. Hussain Ben-Azza, ENSAM, Moulay Ismail University, Meknès, Morocco</p> </td> </tr> </table>	<p><i>Session IX</i></p> <p><i>Networking and Security 4</i></p> <p>Session Chair: Prof. Fouad Ayoub CRMEF, Kenitra, Morocco</p>	<p><i>Session X</i></p> <p><i>PHY & Performance Analysis 4</i></p> <p>Session Chair: Prof. Hussain Ben-Azza, ENSAM, Moulay Ismail University, Meknès, Morocco</p>
<p><i>Session IX</i></p> <p><i>Networking and Security 4</i></p> <p>Session Chair: Prof. Fouad Ayoub CRMEF, Kenitra, Morocco</p>	<p><i>Session X</i></p> <p><i>PHY & Performance Analysis 4</i></p> <p>Session Chair: Prof. Hussain Ben-Azza, ENSAM, Moulay Ismail University, Meknès, Morocco</p>		
19:00	Gala Dinner		

Wednesday December 13, 2023 (Online Sessions)	
08:30-10:30	<p style="text-align: center;">Tutorial: “Large Language Models In Wireless Networks: Fundamentals, Applications, and Future Prospects”</p> <ul style="list-style-type: none"> • Prof. Merouane Debbah, Khalifa University, Abu Dhabi, UAE • Dr. Lina Bariah, Technology Innovation Institute, Abu Dhabi, UAE • Dr. Qiyang Zhao, Technology Innovation Institute, Abu Dhabi, UAE
10:30-11:15	<p style="text-align: center;">Keynote Speaker 6: Prof. Marco Di Renzo, Paris-Saclay University, Paris, France Title:” Reconfigurable Surfaces for Wave Domain Communications” Session Chair: Prof. Zhiguo Ding, University of Manchester, Manchester, UK</p>
11:15-12:45	<p style="text-align: center;">Technical Session Session XI : Artificial intelligence, Smart Applications, and Networking Session Chair: Dr. Shimaa Naser, Khalifa University, UAE</p>
12:45-14:00	Lunch
14:00-14:45	<p style="text-align: center;">Keynote Speaker 7: Prof. Giovanni Geraci, Telefonica Research and UPF Barcelona, Spain Title:” What will Wi-Fi 8 be? A primer on IEEE 802.11bn Ultra Reliability” Session Chair: Prof. Osamah Badarneh, German Jordanian University, Jordan</p>
14:45-16:20	<p style="text-align: center;">Technical Session Session XII: Networking and Security 5 Session Chair: Dr. Mounia Bouabdellah, Ruhr-University Bochum, Germany</p>
16:20-19:00	<p style="text-align: center;">Technical Session Session XIII : PHY & Performance Analysis 5 Session Chair: Dr. Elmehdi Illi, Hamad Bin Khalifa University, Doha, Qatar</p>
19:00	Closing Ceremony

Detailed program

Monday December 11, 2023

Registration - (08:15-09:00)

Opening Ceremony - (09:00-09:45)

- **Prof. Faissal El Bouanani**, ENSIAS, Mohammed V University of Rabat, Morocco (**General Chair**)
- **Prof. Ilham Berrada**, ENSIAS, Mohammed V University of Rabat, Morocco (**ENSIAS College Dean**)
- **Prof. Farid El Bacha**, President of Mohammed V University of Rabat, Morocco
- **Prof. Jamila El Alami**, Director of the National Centre for Scientific and Technical Research
- **Prof. Hamid Bouabid**, Director of Scientific Research and Innovation, Ministry of Higher Education, Scientific Research and Professional Training, Morocco
- **Prof. Mohamed-Slim Alouini**, KAUST, Kingdom of Saudi Arabia (**Steering Committee Chair**)
- **Prof. George K. Karagiannidis**, Aristotle University of Thessaloniki, Greece (**Steering Committee Chair**)

Coffee Break- (09:45-10:15)

Keynote Speaker 1- (10:15-11:00)

- **Speaker:** Prof. Lajos Hanzo, University of Southampton, UK
- **Title:** ” *On Pareto-Optimal Space, Air Ground Integrated Networking*”
- **Session Chair:** Prof. George K. Karagiannidis, Aristotle University of Thessaloniki, Greece

Session I (Grand Amphitheatre) - (11:00-12:30): Networking and Security 1

Session Chair: Prof. Khalil Ibrahim, University Ibn Tofail, Kenitra, Morocco

1570967750: “**Scaling a Blockchain System with Layered Architecture**”, Fahad Rahman (University Paris Cité, France); Chafiq Titouna (Université of Gustave Eiffel, France); Farid Nait-Abdesselam (University of Missouri Kansas City, USA); Ahmed Serhrouchni (Institut Polytechnique de Paris - Telecom Paris - LTCl, France)

1570967863: “**Scalable Blockchain Through Prioritised Sharding**”, Fahad Rahman (University Paris Cité, France); Chafiq Titouna (Université of Gustave Eiffel, France); Farid Nait-Abdesselam (University of Missouri Kansas City, USA); Ahmed Serhrouchni (Institut Polytechnique de Paris - Telecom Paris - LTCl, France)

1570971828: “**Analysis of Blockchain Integration in the e-Healthcare Ecosystem**”, Abdellah Ouaguid (RITM Laboratory, ESTC, Hassan II University, Casablanca, Morocco & National Center for Scientific and Technical Research (CNRST), Rabat, Morocco); Mohamed Hanine (University of Chouaib Eddokali, Morocco); Zouhair Chiba (FSAC, Hassan II University of Casablanca, Morocco); Noredine Abghour (Hassan II, Morocco); Hassan Ghazal (CNRST, Morocco)

1570973487: “**DoS Attack Detection with NIDS in Docker Environment**”, Nadia El ghabri (National Institute of Posts and Telecommunications & CNRST, Morocco); Elmostafa Belmekki; Mostafa Bellafkih (National Institute of Posts and Telecommunications, Morocco, Morocco)

1570960865: “**Enhancing Forensic Analysis Using a Machine Learning-Based Approach**”, Samira Benkerroum; Khalid Chougali (ENSA, Ibn Tofail University, Morocco)

Session II (Red Room) - (11:00-12:30): PHY & Performance Analysis 1

Session Chair: Prof. Abdellatif Kobbane, ENSIAS, Mohammed V University in Rabat, Morocco

1570966189: “Channel Impulse Response Peak Clustering Using Neural Networks”, Petr Horky (Brno University of Technology, Czech Republic); Ales Prokes (Brno University of Technology & Sensor, Information and Communication Systems Research Centre, Czech Republic); Radek Zavorka (Brno University of Technology, Czech Republic); Josef Vychodil (Brno University of Technology & BUT Brno, Czech Republic); Jan M. Kelner and Cezary Ziólkowski (Military University of Technology, Poland); Aniruddha Chandra (National Institute of Technology Durgapur, India)

1570969569: “Power Normalization and Precoding for Massive MIMO in Outdoor-To-Indoor mmWave Relaying” Nawal Bounouader, Houda Chafnaji, Mustapha Benjillali (INPT, Morocco)

1570946250: “Outage Analysis of Dual-Hop UAV-Assisted Links Considering Orientation Fluctuations” Rayyan Al-Khattab; Saud Althunibat (Texas A&M University at Qatar, Qatar); Abdullah Alhasanat (Al-Hussein Bin Talal University, Jordan); Khalid A. Qaraqe (Texas A&M University at Qatar, Qatar)

1570967494: “Secrecy Performance of Uplink MIMO-NOMA with Antenna Selection in a Mixed RF-FSO System”, Amani A. F. Osman, Jules M. Moualeu and Fambirai Takawira (University of the Witwatersrand, South Africa)

Lunch- (12:30-14:15)

Keynote Speaker 2- (14:15-15:00)

- **Speaker :** Prof. Ali Ghrayeb, Texas A&M University, Doha, Qatar
- **Title: ” *LiFi Transceiver Design for 6G Wireless Networks*”**
- **Session Chair:** Prof. Dan Kilper, Trinity College Dublin, Ireland

Panel: “NextG over Unlicensed Spectrum” (15:00-16:30)

- **Panel Moderator:** Prof. Mohamed-Slim Alouini, KAUST, Kingdom of Saudi Arabia

Panelists:

- Prof. Albert Lysko, Council for Scientific and Industrial Research (CSIR), South Africa
- Prof. Luciano Leonel Mendes, Inatel: Santa Rita do Sapucaí, Brasil
- Prof. Marja Matinmikko-Blue, University of Oulu, Finland
- Prof. Umair Qayyum, WiFrost Inc., California, USA

Coffee Break (16:30-17:00)

Session III (Grand Amphitheatre) - (17:00-18:30): Artificial Intelligence and Smart Applications

Session Chair: Prof. Azeddine ElHassouny, ENSIAS, Mohammed V University in Rabat, Morocco

1570951241: “Pre-Trained Models for Intent Classification in Chatbot: Comparative Study and Critical Analysis”, Adnane Souha, Charaf Ouaddi, Lamy Benaddi (FST, Moulay Ismail University, Meknes, Morocco), and Jakimi Abdeslam (University Mohamed V, Morocco)

1570967168: “Time Estimation in Port Terminals: The Key Role of Automation Revealed by Data Analysis with Deep Learning”, Ayoub El idrissi and Abdelfatteh Haidine (Chouaib Doukkali University, Morocco)

1570967526: “Efficient Brain Tumor Classification on Resource-Constrained Devices Using Stacking Ensemble and RadImageNet Pretrained Models”, Nihal Remzan, Karim Tahiry, and Abdelmajid Farchi (FST, Hassan First University, Morocco)

1570969071: “Study of Spiking Neural Network-Based Regressor on Applications in Digital Predistortion for Power Amplifiers”, Yongtao Wei (Université Paris Cité, France); Siqi Wang (Sorbonne University, France); Farid Nait-Abdesselam (University of Missouri Kansas City, USA); Aziz Benlarbi-Delaï (Sorbonne University, Paris, France).

1570963665: “Backstepping Control of a Double-Stage Photovoltaic System Connected to the Tree-Phase Grid Under Partial Shading Conditions”, Khadija Sabri; El Maguiri Ouadia, and Abdelmajid Farchi (FST, Hassan First University, Morocco).

Session IV (Red Room) - (17:00-18:30): PHY & Performance Analysis 2

Session Chair: Prof. Mohamed Chergui, CRMEF, Kenitra, Morocco

1570969462: “Enhancing PAPR in OFDM System Using Polar Codes and μ –Law Companding with Adaptive Modulation and Coding Rates”, Brahim Bakkas (Regional Center for Teaching and Training Professions, Meknes, Morocco); Hassan Silkhi (University Ibn Tofail, Morocco); Idriss Chana (EST, Moulay Ismail University, Meknes, Morocco); Hussain Ben-azza (ENSAM, Moulay Ismail University, Morocco).

1570947253: “Performance Prediction and Optimization of Flying Base Station During Emergency Scenarios”, Yara El-Shqeir and Heba Yaser; Saud Althunibat (Texas A&M University at Qatar, Qatar); Mazen Omar Hasna (Qatar University, Qatar); Khalid A. Qaraqe (Texas A&M University at Qatar, USA).

1570948882: “Performance Optimization of Low-Altitude Platform over Crowded Areas - Souq Waqif as a Case Study”, Heba Yaser and Yara El-Shqeir; Saud Althunibat (Texas A&M University at Qatar, Qatar); Mazen Omar Hasna (Qatar University, Qatar); Khalid A. Qaraqe (Texas A&M University at Qatar, USA).

1570967495: “Performance Analysis of Vehicle to Infrastructure Network”, Mbanzabugabo Ndukebuka Opel (University of Rwanda & Mobile Telecommunication Network Rwanda, Rwanda); Charles Kabiri (University of Rwanda, Rwanda); Kayalvizhi Jayavel Jayavel (University of the Arts London London UK, United Kingdom), and Louis Sibomana (University of Rwanda, Rwanda).

Tuesday December 12, 2023

Keynote Speaker 3- (09:00-09:45)

- **Speaker :** Prof. Huseyin Arslan, Istanbul Medipol University, Istanbul, Turkey
- **Title: ” 6G Waveform Options”**
- **Session Chair:** Prof. Faissal El Bouanani, ENSIAS, Mohammed V University in Rabat,

Keynote Speaker 4- (09:45-10:30)

- **Speaker :** Prof. Roberto Di Pietro, King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia
- **Title: ”Drones’ Threats, Countermeasures, and Research Directions”**
- **Session Chair:** Prof. Ali Ghrayeb, Texas A&M University at Qatar, Doha, Qatar

Coffee Break - (10:30-10:50)

Session V (Grand Amphitheatre) - (10:50-12:20): Networking and Security 2

Session Chair: Hanan El Bakkali, ENSIAS, Mohammed V University in Rabat, Morocco

1570948898: “MCS Adaptation and Its Role in Improving MAC Scheduling for Variable Packet Sizes in NR-V2X”, Brian McCarthy and Aisling O'Driscoll (University College Cork, Ireland); Andres Burbano-Abril (Universidad Nacional Autónoma de México, Mexico).

1570967589: “**Comparison Between Emergency Calls over VoLTE and VoWiFi Using IMS Network**”, Maria Lima Damasceno and Jussif Junior Abularach Arnez (Sidia Institute of Science and Technology, Brazil); Walmir Acioli E Silva (Federal University of Amazonas (UFAM) & Sidia Institute of Science and Technology, Brazil); Caio Bruno Bezerra de Souza and Renata Kellen Gomes Dos Reis (Sidia Institute of Science and Technology, Brazil); Lucas B. C. Tribuzy (Universidade Federal do Amazonas, Brazil).

1570939276: “**An Unsupervised GNN Approach to Deceive Network Reconnaissance Attack**”, Adrien H. O. Njanko (Howard University, USA); Ahmed H. Anwar Hemida; Charles A Kamhoua (DEVCOM Army Research Laboratory & Network Science Division, USA); Danda B. Rawat (Howard University, USA).

1570947132: “**A Survey on IoT and Blockchain Integration Security: Challenges and Solutions**”, Amnah Hmoud, Ghada Ali, Elaf Almushiti and Rawabi Alanzi; Salim El khediri, dr (Qassim University, Kingdom of Saudi Arabia).

1570966596: “**Drone Remote Identification System Using Different Wireless COTS Radios: A Benchmarking Study**”, Govind Singh, Ravi Ashok Pashchapur and Anshul Pandey, and Aravindaraja Puthiyavinayagam (Technology Innovation Institute, United Arab Emirates)

Session VI (Red Room) - (10:50-12:20): PHY & Performance analysis 3

Session Chair: Prof. Saud Althunibat, Texas A&M University, Doha, Qatar

1570967604: "Innovative Model for Predicting Soil Impact on Patch Antenna Directivity", Mounir Elmejjatti; Ahmed Habbani (ENSIAS, Mohammed V University in Rabat, Morocco).

1570968656: "A Novel Millimeter-Wave Miniaturized UWB Antenna Developed for 5G Applications Using Four L-Shaped and SRR Slots", Youssef Frist; Mourad Elhabchi, and Mohamed Nabil Srfi (ENSA, Ibn Tofail University, Morocco).

1570968667: "A Novel Frequency Reconfigurable Antenna for X, Ku, and K Bands Applications," Youssef Frist (Advanced Systems Engineering Laboratory ENSA, Ibn Tofail University Kenitra, Morocco); Mourad Elhabchi and Mohamed Nabil Srfi (Ibn Tofail University, Morocco).

1570968800: "A Low-Profile Dual-Band Eight-Port MIMO PIFA Antenna for 5G/WLAN Sub-6 GHz Mobile Terminal", Rachida Boufouss an Abdellah Najid (National Institute of Posts and Telecommunications, Morocco).

Lunch - (12:20-14:00)

Keynote Speaker 5- (14:00-14:45)

- **Speaker:** Prof. Dan Kilper, Trinity College Dublin, Ireland
- **Title:** " *Optical Networks for 6G* "
- **Session Chair:** Prof. Saud Althunibat, Al-Hussein Bin Talal University, Jordan & Texas A&M University at Qatar, Qatar

Session VII (Grand Amphitheatre) - (14:45-16:30): IoT, Cloud and Fog Computing

Session Chair: Prof. Sungchang Lee, Korea Aerospace University, Goyang, South Korea

1570964682: "Workload Allocation in Fog Environment Using Multi-Objective Evolutionary Algorithms for Internet of Things", Hafsa Raissouli and Alauddin Bin Ariffin (Universiti Putra, Malaysia); Samir Brahim Belhaouari (Hamad Bin Khalifa University, Qatar).

1570955550: "Improving IoT Botnet Detection Using Ensemble Learning", Youssra Baja, Khalid Chougali (ENSA, Kenitra, Morocco); Abdellatif Kobbane (ENSIAS, Mohammed V University in Rabat, Morocco)

1570962168: "David and Goliath: Asymmetric Advantage in MIoT", Gabriele Oligeri (Hamad Bin Khalifa University, Qatar); Savio Sciancalepore (Eindhoven University of Technology, Netherlands); Alireza Sadighian (Hamad Bin Khalifa University, Qatar)

1570968029: "A Scalable SDN In-Band Control Protocol for IoT Networks in 6G Environments", David Carrascal, Elisa Rojas, Diego Lopez-Pajares, Nicolas Manso and Emma Gutierrez (Universidad de Alcalá, Spain)

1570966755: "Navigating the Complexities of the Cloud-Native World: A Study of Developer Perspectives", Ayush Bhardwaj (Unaffiliated, USA).

1570965507: "Optimized Energy Management with Fuzzy Clustering for Heterogeneous Fog-Mist-IoT Networks", Salah Eddine Essalhi, Mohamed Janati Idrissi, Mohammed Raiss El Fenni, and Houda Chafnaji (National Institute of Posts and Telecommunications, Morocco).

Session VIII (Red Room) - (14:45-16:30): Networking and Security 3

Session Chair: Prof. Mustapha Benjillali, National Institute of Posts and Telecommunications,
Morocco

1570951524: "Enhancement in Quality of Routing Service in Vehicular Ad-Hoc Networks Based on the MPR Selection Algorithm of the OLSR Protocol", Oussama O Sbayti, S, Said Ouhmi and Brahim Es-sousy; Khalid Housni (Faculty of Sciences, University of IBN TOFAIL, Morocco).

1570967795: "Email Filtering Based on Artificial Neural Network: Activation Functions and Learning Rate Analysis", Abdelmoujoud Assabir; Abdelkhalek Assabir (ENSAM, Mohammed V University in Rabat, Morocco)

1570970241: "Mimicking DH Key Exchange over a Full Duplex Wireless Channel via Bispase Blind Deconvolution", Gerhard Wunder (Freie Universität Berlin, Germany); Axel Flinth (Chalmers University of Technology, Sweden); Daniel Becker, and Benedikt Groß (Freie Universität Berlin, Germany)

1570944645: "Implementing and Evaluating a P4-Based Access Gate Function on a Tofino Switch", El Mehdi Makhroue, Mohammed-Ayoub ElHarti and Vincent Brouillard; Yvon Savaria, and Tarek Ould-Bachir (École Polytechnique de Montréal, Canada).

1570967587: "An Evaluation of High-Definition Voice Calls over IMS Throughout Handover Procedures", Renata Kellen Gomes Dos Reis, Jussif Junior Abularach Arnez, Caio Bruno Bezerra de Souza, Maria Lima Damasceno and Wederson Medeiros Silva (Sidia Institute of Science and Technology, Brazil).

Coffee Break - (16:30-16:50)

Session IX (Grand Amphitheatre) - (16:50-18:20): PHY & Performance Analysis 4

Session Chair: Prof. Hussain Ben-Azza, ENSAM, Moulay Ismail University, Meknès, Morocco

1570951408: "UWB Transparent Patch Antenna for 5G Millimeter -Wave Applications", Omar Ourahou; Hind Abbaoui; Fatima Ez-zaki; Raefat Jalila El bakouchi (FSTM, Cadi Ayyad University, Morocco); Belhrach Hassan (Royal Air Academy, Morocco), and Abdelilah Ghammaz (Cady Ayyad University, Morocco).

1570969244: "Quantum Codes over F_q from $u + V + \delta Uv + u^2 + \theta v^2 + \lambda v^2 + \mu u^2 v + \mu uv^2 + \nu u^2 v^2$ Constacyclic Codes", Sabiri Mohammed and Bassou Aouijil (Moulay Ismail University, Morocco).

1570951453: "A Hardware Validation Framework for a Networked Dynamic Multi-Factor Security Protocols", Cheng-Yen Lee, Kyler R. Scott and Sunil Khatri (Texas A&M University, USA); Ali Ghayeb (Texas A&M University at Qatar, Qatar)

1570969501: "Performance Assessment of Intelligent Reflective Surfaces-Aided Network with Residual Hardware Impairments", Elmehdi Illi and Marwa Qaraqe (Hamad Bin Khalifa University, Qatar)

1570962113: "Ultra-Wideband MIMO Antenna Design for THz Application", Amin Al Ka'bi (Australian University - Kuwait, Kuwait).

1570975124: "Construction of New Finite Geometry Non-Binary Ldpc Codes with Reduced Alphabets", Zakaria M'rabet (ENSIAS, Mohammed V University in Rabat, Morocco); Fouad Ayoub (Regional Center for Teaching and Training Professions Kenitra, Morocco); Mostafa Belkasmi; Faissal El Bouanani (ENSIAS, Mohammed V University in Rabat, Morocco)

Session X (Red Room) - (16:50-18:20): Networking and Security 4

Session Chair: Prof. Fouad Ayoub, CRMEF, Kenitra, Morocco

1570967999: “Using SDN to Enhance Load Balancing in Cloud Computing: An Overview and Future Directions”, Hicham Yzzogh and Hafssa BenAbout (Faculty of Sciences, University Mohammed V, Morocco).

1570967957: “Optimal DU Placement in an O-RAN Multi-Band System”, Amath Ndao (IMT Atlantique, France); Xavier Lagrange (IMT Atlantique & IRISA, France); Nicolas Huin (IMT Atlantique, France); Geraldine Texier (IMT Atlantique & IRISA & BCOM, France); Loutfi Nuaymi (IMT Atlantique, France).

1570951834: “RRI Adaptive: A Standards Compliant Approach for Equitable and Stable Congestion Control in C-V2X Networks”, Brian McCarthy and Aisling O'Driscoll (University College Cork, Ireland).

1570966369: “Analysis of Inter-Mean-Opinion-Score (iMOS) and QoS Metrics for 5G Voice over LTE (VoLTE) and Voice over New Radio (VoNR) Services over IP-Multimedia-Subsystem (IMS) in 5G Mobile Networks”, Jussif Junior Abularach Arnez and Caio Bruno Bezerra de Souza (Sidia Institute of Science and Technology, Brazil)

Gala Dinner - 19:00

Wednesday December 13, 2023 (Online Sessions)

Tutorial- (08:30-10:30)

Title: “Large Language Models in Wireless Networks: Fundamentals, Applications, and Future Prospects”

- Prof. Merouane Debbah, Khalifa University, Abu Dhabi, UAE
- Dr. Lina Bariah, Technology Innovation Institute, Abu Dhabi, UAE
- Dr. Qiyang Zhao, Technology Innovation Institute, Abu Dhabi, UAE

Keynote Speaker 6- (10:30-11:15)

- **Speaker:** Prof. Marco Di Renzo, Paris-Saclay University, Paris, France
- **Title:** ” **Reconfigurable Surfaces for Wave Domain Communications**”
- **Session Chair:** Prof. Zhiguo Ding, University of Manchester, Manchester, UK

Session XI - (11:15-12:45): Artificial intelligence, Smart Applications, and Networking

Session Chair: Dr. Shimaa Naser, Khalifa University, UAE

1570976406: “Enhanced MPR Selection Algorithm Based on Metrics for the OLSR Routing Protocol”, Younes Hamzaoui (Regional Center for Education and Training Professions, Rabat, Morocco); Mohammed Chekour (Abdelmalek Essaadi, University, Morocco)

1570952032: “Developing Mask R-CNN Framework for Real-Time Object Detection,” Oussama Hmidani and El Mehdi Ismaili Alaoui (Faculty of Sciences, Moulay Ismail University, Morocco)

1570962289: “A New Architecture for Diagnosing Pulmonary Thorax Diseases (Covid-19, Pneumology, Normal) Using Deep Learning Technology”, Djalal Rafik Hammou (University of Sidi Bel Abbes, Algeria); Yasmine Feddag Zoulikh , and Samira Benadane (Djillali Liabes University, Algeria).

1570966339: “Point Cloud Streaming over HTTP/2”, Estabraq Hazim Makiyah (University of Information Technology and Communications, Iraq); Nassr Khamiss (Nahrain University, Iraq).

1570966119: “A New IoT Power-Limited Wireless Sensor Networks Routing Protocol Utilizing Computational Intelligence”, Reem Riyad Elyyan and Khalid A. Darabkh (The University of Jordan, Jordan).

Lunch - (12:45-14:00)

Keynote Speaker 7- (14:00-14:45)

- **Speaker:** Prof. Giovanni Geraci, Telefonica Research and UPF Barcelona, Spain
- **Title:**” *What will Wi-Fi 8 be? A primer on IEEE 802.11bn Ultra Reliability*”
- **Session Chair:** Prof. Osamah Badarneh, German Jordanian University, Jordan

Session XII- (14:45-16:20): Networking and Security 5

Session Chair: Dr. Mounia Bouabdellah, Ruhr-University Bochum, Germany

1570968664: “An Improved Routing Protocol for IoT Sensors Utilizing Clustering Techniques and Optimization Methods”, Khalid A. Darabkh and Muna R. Al-Akhras (The University of Jordan, Jordan).

1570966444: “An Intelligent Routing Algorithm Based on Energy-Efficient Progressive-Recursive Clusters for Wireless Sensor Networks”, Adil Hilmani (ENSEM, Hassan II University, Morocco); Mohmmmed Koundi (Ibn Tofail University, Morocco); Siham Aouad (ENSIAS, Mohamed V University, Morocco, Morocco); Yassine Sabri (Lab-STICC, France); Abderrahim Maizate (University Hassan II, Morocco); Fouad Ayoub (CRMEF Kenitra, Morocco).

1570967228: “Early Malware Characterization Based on Online Social Networks”, Alireza Sadighian and Ines Abbes (Hamad Bin Khalifa University, Qatar); Gabriele Oligeri (Hamad Bin Khalifa University, Doha, Qatar).

1570952003: “Security of Digital Agriculture Networks: A Review and Bibliometric Analysis”, Marfoun-Dini Ahmed Soumaya (African University of Technology and Management, Benin); Honfoga Anne-Carole (University of Mons, Belgium); Patrick Sotindjo (Ecole Normale Supérieure de l'Enseignement Technique & Université Nationale des Sciences Techniques, Ingénierie et Mathématiques, Benin).

1570952264: “Evaluating LoRaWAN Performance in Intentional and Unintentional DoS Attacks by Legacy 900MHz Network Devices”, Seokhyeon Bang, Junyoung Jang and Minju Ro (Chung-Ang University, Korea (South)); Yuseon Choi (Chonnam National University, Korea (South)); Doyong Kwon (Kyungpook National University, Korea (South)); Kangyeon Lee (Purdue University, Korea (South)); Anthony Smith (Purdue University, USA)

Session XIII - (16:20-19:00): PHY & Performance Analysis 5

Session Chair: Dr. Elmehdi Illi, Hamad Bin Khalifa University, Doha, Qatar

1570967123: "Solving the Real Cubic Truncated Moment Problem in the Singular Case", Abdelaziz El Boukili, Amar Rhazi, Bouazza El Wahbi (Faculty of Sciences, Ibn Tofail University, Morocco).

1570967579: "Exploiting Direct Link in Dual-Hop AF Relaying for THz Wireless Systems", Suneel Yadav (Indian Institute of Information Technology, India); Radhika Gour (IIIT Allahabad, India); Devendra Singh Gurjar (National Institute of Technology Silchar, India); Anshul Pandey (Technology Innovation Institute, United Arab Emirates).

1570966904: "Optimizing Network Performance in 5G Systems with Downlink and Uplink Decoupling", Christos J Bouras, Charalampos Chatzigeorgiou and Vasileios Kokkinos (University of Patras, Greece); Apostolos Gkamas (University of Ioannina, Greece); Philippos Pouyioutas (University of Nicosia, Cyprus).

1570968856: "Enhanced Object Localization Using a Beamsteering mmWave Communication System", Ekaterina Sedunova (Humboldt University of Berlin, Germany); Nebojsa Maletic (IHP - Leibniz-Institut für Innovative Mikroelektronik, Germany); Darko Cvetkovski (IHP - Leibniz-Institut für Innovative Mikroelektronik, Germany); Eckhard Grass (IHP & Humboldt-University Berlin, Germany).

1570950337: "Bandwidth Optimization Techniques in Heterogeneous 5G Networks Using DUDe", Konstantinos Tsachrelis, Chrysostomos Athanasios Katsigiannis and Vasileios Kokkinos (University of Patras, Greece); Apostolos Gkamas (University Ecclesiastical Academy of Athens, Athens, Greece); Christos J Bouras (University of Patras, Greece); Philippos Pouyioutas (University of Nicosia, Cyprus).

1570970991: "Automating the Creation of Graph-Based NoSQL Databases in the Context of Big Data", Fouad Elotmani (Mohamed Premier University, Morocco); Redouane Esbai (Mohammed First University, Morocco); Mohamed Atounti (EST Mohammed I University of Oujda, Morocco).

1570960780: "Fractal Analysis to BEMD's IMFs: Application CT-Scan", Fatima Ghazi (Université Ibn Tofail, Morocco); Benkuid Aziza (Ibn Tofail University & Science, Morocco); Fouad Ayoub (CRMEF Kenitra, Morocco); Mohamed Zraidi (Production Laboratory, Morocco); Khalil Ibrahim (University of Ibn Tofail, Morocco).

1570969711: "Enhanced Signal Transmission Performance Based on Multitap Equalization in Optical FBMC Burst", Mohammed S. Bahaielden Bahaielden and Beatriz Ortega (Universitat Politècnica de València, Spain); Rafael Perez-Jimenez (Universidad de Las Palmas de Gran Canaria, Spain); Vicenc Almenar (Universidad Politecnica De Valencia, Spain)

Closing the Event - (19:00)