

## WINCOM'22 Main Program

<b>Wednesday, October 26, 2022</b>		
08:30 - 18:00	<b>Registration (Open Hall)</b>	
09:00 - 10:00	<b>Opening Ceremony</b> (Room: Grand Amphi)	
10:00 - 10:30	<b>Stand Visit (Demo innovation projects)</b>	
10:30 - 11:30	<ul style="list-style-type: none"> <li>Keynote speaker: Prof. Mehdi Bennis, University of Oulu, Finland <b>Title: Edge AI over Wireless: Present and Future.</b> (Room: Grand Amphi)</li> </ul>	
11:30 - 12:30	<ul style="list-style-type: none"> <li>Keynote speaker: Prof. Taskim Kavzoglu, Gebze Technical University, Turkey <b>Title: Extraction of Poplar Cultivated Fields from Very High Resolution Imagery Using OBIA, Feature Selection and Machine Learning Algorithms.</b> (Room: Grand Amphi)</li> </ul>	
12:30 - 14:00	<b>Lunch Break</b>	
14:00 - 16:00	<b>Industry session</b> (Room: Grand Amphi)	
16:00 - 16:20	<b>Coffee Break</b>	
16:20 - 18:20	<b>IoT Session (Room FC1)</b>	<b>MLWCN Session (Room FC2)</b>   <b>BSWN Session (Room FC3)</b>
19:00 - 23:00	<b>Gala Dinner</b>	
<b>Thursday, October 27, 2022</b>		
09:00 - 16:00	<b>Registration (Open Hall)</b>	
09:00 - 10:00	<ul style="list-style-type: none"> <li>Keynote speaker: Ibraheem Shayea, Istanbul Technical University, Turkey <b>Title: Mobility Management in the Future Ultra-Dense Heterogeneous Networks (5G and 6G Technologies)</b> (Room: Grand Amphi)</li> </ul>	
10:00 - 10:20	<b>Coffee Break</b>	
10:20 - 12:20	<b>AWN Session (Room FC1)</b>	<b>WSN-MA Session (Room FC2)</b>   <b>MICARE1 Session (Room FC3)</b>
12:20 - 14:00	<b>Lunch Break</b>	
14:00 - 16:00	<ul style="list-style-type: none"> <li><b>Keynote speakers (Online)</b></li> <li>Speaker: Prof. Cheng Li, Memorial University, Canada <b>Title: Energy-Efficient Coordination Schemes for Underwater Acoustic Sensor Networks</b></li> <li>Speaker: Prof. Zouheir Rezki, University of California Santa Cruz, USA <b>Title: Optical Wireless Communications: Secrecy and Learning-Based Design</b></li> </ul>	
16:00 - 16:20	<b>Coffee Break</b>	
16:20 - 18:20	<b>PL Session (Room: FC1)</b>	<b>MICARE2 Session (Room: FC2)</b>
<b>Friday, October 28, 2022</b>		
09:00 - 12:00	<ul style="list-style-type: none"> <li>➤ WINCOM Committee meeting</li> <li>➤ MobiTic Association meeting</li> <li>➤ Collaboration and exchanges</li> </ul>	
12:00 - 14:00	<b>Lunch Break</b>	

## WINCOM'22 Detailed Technical Program

**Wednesday, October 26, 2022**

08:30 - 16:00	<b>Registration (Open Hall)</b>
09:00 - 10:00	<p><b>Opening Ceremony (Room: Grand Amphi)</b></p> <ul style="list-style-type: none"> <li>➤ Ilham BERRADA, Director, National School of Computer Science and Systems Analysis (ENSIAS)</li> <li>➤ Ghita MEZZOUR, Minister for Digital Transition and Administrative Reform</li> <li>➤ Mohammed RHACHI, President, University Mohammed V in Rabat</li> <li>➤ Jamila EL ALAMI, Director of CNRST</li> <li>➤ Mohamed REGRAGUI, Dean of the Faculty of Sciences Rabat</li> <li>➤ Abdellatif KOBANE, General Chair of WINCOM'22</li> <li>➤ Ahmed Drissi EL MALIANI, TPC Chair of WINCOM'22</li> </ul>
10:00 - 10:30	<p><b>Stand Visit (Demo innovation projects)</b></p> <ul style="list-style-type: none"> <li>● <b>Chairs:</b> <ul style="list-style-type: none"> <li>○ Prof. Khalid Nafil, ENSIAS, Mohammed V in Rabat, Morocco</li> <li>○ Prof. Hicham Ghennioui, FST, Sidi Mohammed Ben Abdallah University, Fez, Morocco</li> <li>○ Prof. Jamal El Hachimi, ENSIAS, Mohammed V University in Rabat, Morocco</li> </ul> </li> </ul> <p><b>Group 1</b> Utilization of IoT Technologies for Disease Detection and Monitoring of Soil and Climate in Organic Tomato Plants <i>RKIK FATIMA ZAHRA, LAMKHANTER YOUNES, IMZAGNAN ILYAS, HENNANE OUSSAMA</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 2</b> Lettuce leaf disease protection and detection using image processing techniques <i>OUAFAE HDILI, FAQIHI SARA, SAUFI AZIZA, MAGHRAOUI HALIMA</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 3</b> Elderly Care <i>Abdoulbagui Mohamadou, Banouk Yahya, Lamnaouer Oussama, Saidi Anass</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 4</b> Internet of things(iot) based smart weed detection <i>EL FAHSSI NOUHAILA, ELKHIRI HAJAR, ELYAZYD OUMAIMA, ZAGLAMI</i> <i>FATIMA ZAHRA</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 5</b> IoT based real time system for monitoring traffic violations <i>RAZZOUKI CHAIMAE, MOFID NADIA, ZOUAI HAJAR, BOUTARKHA HIBA</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 6</b> Livestock monitoring <i>BOUHOUC Rachid, BOUDHAR Omar, AIT LHOUSS Mehdi, SAFIRI Fouad</i> <i>Master MIOLA, ENSIAS</i></p> <p><b>Group 7</b> Application of the IoT Concept for the Monitoring of Electrical Energy <i>Adil ATTIAOUI</i> <i>Master M3S, ENSIAS</i></p> <p><b>Group 8</b> LIFE SAVER <i>ES-SBAI Hajar, SEBRI Karima</i> <i>FST, Sidi Mohammed Ben Abdallah University, Fez</i></p> <p><b>Group 9</b> TRAFFIC VISION-INTELLIGENT MOBILITY <i>BORO Oussen, LAMAH Jean Remy</i> <i>FST, Sidi Mohammed Ben Abdallah University, Fez</i></p> <p><b>Group 10</b> SMART DRIVING LICENSE <i>KOUMAKO Komi Hugues, AAFIF Marya</i> <i>FST, Sidi Mohammed Ben Abdallah University, Fez</i></p>

10:30 - 11:30	<ul style="list-style-type: none"> <li>● <b>Keynote speaker: Prof. Mehdi Bennis, University of Oulu, Finland</b> <i>Title: Edge AI over Wireless: Present and Future</i></li> <li>○ <i>Chair: Abdellatif Kobbane, ENSIAS, Mohammed V University in Rabat, Morocco (Room: Grand Amphi)</i></li> </ul>
11:30 - 12:30	<ul style="list-style-type: none"> <li>● <b>Keynote speaker: Prof. Taskim Kavzoglu, Gebze Technical University, Turkey</b> <i>Title: Extraction of Poplar Cultivated Fields from Very High Resolution Imagery Using OBIA, Feature Selection and Machine Learning Algorithms</i></li> <li>○ <i>Chair: Faissal El Bouanani, ENSIAS, Mohammed V University in Rabat, Morocco (Room: Grand Amphi)</i></li> </ul>
12:30 - 14:00	<b>Lunch Break</b>
14:00 - 16:00	<ul style="list-style-type: none"> <li>● <b>Industry session (Room: Grand Amphi)</b></li> <li>● <b>Keynote speakers:</b></li> <li>- M. Mohammed Achour, Systems Engineer at Cisco</li> <li>- M. Mounir Soussi, Vice President Cloud &amp; AI Africa at Huawei</li> <li>- M. Hassan Ait El Madani, Partnerships &amp; Development Director LEYTON Morocco</li> <li>● <b>Chairs:</b></li> <li>○ <i>Prof. Mohamed Essaïdi, ENSIAS, Mohammed V University in Rabat, Morocco</i></li> <li>○ <i>Prof. Meriyem Chergui, C3S, ENSEM, Hassan II Université of Casablanca</i></li> <li>○ <i>Prof. Khalid Chougali, ENSA, University Ibn Tofail, Kenitra, Morocco</i></li> </ul>
16:00 - 16:20	<b>Coffee Break</b>
16:20 - 18:20	<ul style="list-style-type: none"> <li>● <b>IoT Session (Room FC1)</b></li> <li>○ <i>Session Chair: Ahmed Faqih, ENSIAS, Mohammed V University in Rabat, Morocco</i></li> </ul> <p><b>1570801180</b> <b>Improving Beacon-Based Routing Protocols Using Dynamic Coverage Area Determination</b> <u>Mohamed Nabil</u>, Abdelkrim Haqiq, Hajami Abdelmajid, Abdelkafer Ait Abdelouahad</p> <p><b>1570823739</b> <b>Industry 4.0 Concepts and Implementation Challenges: Literature Review</b> <u>Fatima ezzahraa Habib</u>, FAH, Meriyem Chergui, Abdelkrim Ammoumou</p> <p><b>1570826350</b> <b>Age of Information and Latency Analysis in Two-Tier Linear IoT Networks</b> <u>Imane Cheikh</u>; Aouami Rachid, Essaid Sabir, Mohamed Sadik, Sebastien Roy, Bassma Jioudi</p> <p><b>1570823612</b> <b>TTIDS: A Time-Driven Trust Based Intrusion Detection System for IoT Networks</b> <u>Mouad Choukhairi</u>, Youssef Fakhri, Mohamed Amnai</p> <p><b>1570811966</b> <b>Security of Internet of Things Using Machine Learning</b> <u>Youssra Baja</u>, Khalid Chougali</p> <ul style="list-style-type: none"> <li>● <b>MLWCN Session (Room FC2)</b></li> <li>○ <i>Session Chair: Amine Abouaomar, Al Akhawayn University, Morocco</i></li> </ul> <p><b>1570811781</b> <b>Improving Intrusion Detection Using PCA and K-Means Clustering Algorithm</b> <u>Khaoula Radi</u>, Mohammed Moughit</p> <p><b>1570811960</b> <b>Predictive System of Traffic Congestion Based on Machine Learning</b> <u>Chaimaa Chaoura</u>, Hajar Lazar, Zahi Jarir</p> <p><b>1570823035</b> <b>A Federated Learning Approach for Water Distribution Networks Monitoring</b> <u>Jamal Elhachimi</u>, Abdellatif Kobbane</p>

	<p><b>1570824879</b> <b>Review on Machine Learning Based Intrusion Detection for MANET Security</b> <u>Wafa Bouassaba</u>, Abdellah Nabou, Ouzzif Mohammed</p> <p><b>1570823762</b> <b>Approach for the Construction of Gestural Interfaces to Control Graphical Interfaces Based on Artificial Intelligence</b> <u>Elmagrouni Issam</u>, Abdelaziz Eттаoufik, Siham Aouad, Maizate Abderrahim, Lotfi Bennani</p> <ul style="list-style-type: none"> <li>● <b>BSWN Session (Room FC3)</b> <ul style="list-style-type: none"> <li>○ <i>Session Chair: Abdelhamid Belmekki, INPT, Morocco</i></li> </ul> </li> </ul> <p><b>1570824388</b> <b>Smart Contract for Cloud SLA Using Service Oriented Architecture and Blockchain</b> <u>Abdelhadi Rachad</u>, Khalid Bouragba, Ouzzif Mohammed</p> <p><b>1570824845</b> <b>A Blockchain-Based Patient Electronic Health Record System - Etmaen (أطمن)</b> Nouf AIObaidi, Aliyah AITukhaifi, Mariam Alhugail, Albandari Almashari, Joud Alnowaiser, <u>Meryeme Ayache</u>, Nidal Nasser</p> <p><b>1570822291</b> <b>Impact of Security and Privacy Risks on the Adoption of IoT: A State of the Art</b> <u>Zayneb Gaouzi</u>, Khalid Choug dali</p> <p><b>1570826537</b> <b>Blackhole Attack on Vehicular Network</b> Achraf Lachheb, El mamoun</p> <p><b>1570824873</b> <b>Hayyakum (حياكم) - COVID-19 Vaccine Digital Certificate: A Blockchain Approach</b> Hesham Salamah, Osama Elghazaly, Meshal Alsaleh, Muhammed Herwis, Omar Felimban, Asmaa Ali, <u>Nidal Nasser</u>, Meryeme Ayache</p>
<b>19:00 - 23:00</b>	<b>Gala Dinner</b>

### Thursday, October 27, 2022

<b>08:30 - 16:00</b>	<b>Registration (Open Hall)</b>
<b>09:00 - 10:00</b>	<ul style="list-style-type: none"> <li>● <b>Keynote speaker: Ibraheem Shaya, Istanbul Technical University, Turkey</b> <i>Title: Mobility Management in the Future Ultra-Dense Heterogeneous Networks (5G and 6G Technologies)</i></li> <li>● <i>Chair: Ahmed Drissi El Maliani, Faculty of Sciences, Mohammed V University in Rabat, Morocco (Room: Grand Amphi)</i></li> </ul>
<b>10:00 - 10:20</b>	<b>Coffee Break</b>
<b>10:20 - 12:20</b>	<ul style="list-style-type: none"> <li>● <b>AWN Session (Room FC1)</b> <ul style="list-style-type: none"> <li>○ <i>Session Chair: Khalil Ibrahimi, Faculty of Sciences, Ibn Tofail University, Morocco</i></li> </ul> </li> </ul> <p><b>1570823575</b> <b>A Hybrid Coupler Integrated 1×4 Printed Array Antenna with Broadband and High Performance for Beamforming RFID Reader</b> <u>Abdelaaziz EL anssari</u>, Sudipta Das, Tarik EL arrouch, Najiba El Idrissi El Amrani</p> <p><b>1570825887</b> <b>Compact Metamaterial Antenna for WLAN Applications</b> <u>Abdelali Laabadli</u>, Youssef Mejdoub, Abdelkebir El amri, Mohamed Tarbouch</p>

**1570811257** **Ultra Wideband Dual Circularly Polarized Patch Antenna for 5G and CubeSat Applications**  
Mohamed El Hammoumi, Panagiotis Ioannis Theoharis, Najiba El Idrissi El Amrani, Faisal EM Tubbal, Raad Raad, Suhila Abulgasem

**1570824932** **Reliable Multicast Streaming for Hierarchical Non-Terrestrial Network**  
Enping Zhou, Makoto Kobayashi, Takuya Fujihashi, Md. Abdul Alim, Shunsuke Saruwatari, Masahiro Nishi, Takashi Watanabe

**1570810956** **Microstrip Patch Antenna Using a Parasitic Mushroom for 5G Application at 28GHz**  
 Tarik EL arrouch, Abdelaaziz EL ansari, Najiba El Idrissi El Amrani

● **WSN-MA Session (Room FC2)**

○ *Session Chair: Amal Tmiri, ENSEM, Mohammed V University in Rabat, Morocco*

**1570823967** **Communication Based Sensing Technologies Integrated in Levels of Vehicular Autonomy**  
 Faran Awais Butt, Muhammad Bilal Sher Khan Shirwani, Marriam Sikander

**1570821699** **Routing Protocol for Underwater Wireless Sensors Network Based Bloom Filter**  
Hamza Zradgui, Khalil Ibrahim

**1570822832** **Impact of Selfish Nodes on Federated Learning Performances**  
Youssef Boukhatem, Jabir Dargoul, Abdellatif Kobbane

**1570823130** **A survey on the challenges of data integration**  
Merieme El abassi, Mohamed Amnai, Ali Choukri, Youssef Fakhri, Noredine Gherabi

**1570824367** **Saliency-Based Point Cloud Quality Assessment Method Using Aware Features Learning**  
 Laazoufi Abdelouahed, El Hassouni Mohammed

● **MICARE1 Session (Room FC3)**

○ *Session Chair: Abdelkafer Ait Abdelouahad, Chouaib Doukkali University, El Jadida, Morocco*

**1570821534** **A Review on Plant Diseases Detection**  
Halima Boukbir, Ahmed Drissi El Maliani

**1570823031** **Gastrointestinal Diseases Classification Based on Deep Learning and Transfer Learning Mechanism**  
Yassine Oukdach, Zakaria Kerkaou, Mohamed El Ansari, Lahcen Koutti, Ahmed Fouad El Ouafdi

**1570823191** **Handwritten Arabic Characters Recognition Using Capsule Networks**  
Mehdi Daldali, Abdelghani Souhar

**1570823727** **Toward a New Face Recognition Approach Using Optim-LBP and Learning Classifiers**  
Abdellatif Dahmouni, Abdelkafer Ait Abdelouahad, Silkane Hassan

**1570823761** **PedVis-VGG-16: A Fine-Tuned Deep Convolutional Neural Network for Pedestrian Image Classifications**  
Mahassine Defaoui, Lahcen Koutti, Mohamed El Ansari, Redouan Lahmyed, Masmoudi Lhoussaine

12:20 - 14:00	<b>Lunch Break</b>
14:00 - 16:00	<ul style="list-style-type: none"> <li>● <b>Keynotes speakers (Online)</b> (Room: Grand Amphi)</li> <li>● <b>Speaker: Prof. Cheng Li, Memorial University, Canada</b> Title: <i>Energy-Efficient Coordination Schemes for Underwater Acoustic Sensor Networks</i></li> <li>● <b>Speaker: Prof. Zouheir Rezki, University of California Santa Cruz, USA</b> Title: <i>Optical Wireless Communications: Secrecy and Learning-Based Design</i></li> <li>○ <b>Chairs:</b> <ul style="list-style-type: none"> <li>- <i>Mohamed El Kamili, EST, University Hassan II of Casablanca, Morocco</i></li> <li>- <i>Ismail Berrada, UM6P, Benguerir, Morocco</i></li> </ul> </li> </ul>
16:00 - 16:20	<b>Coffee Break</b>
16:20 - 18:20	<ul style="list-style-type: none"> <li>● <b>PL Session (Room: FC1)</b> <ul style="list-style-type: none"> <li>○ <i>Session Chair: Mouna EL Machkour, Mohammed V University in Rabat, Morocco</i></li> </ul> </li> </ul> <p><b>1570823365</b> Experimental Assessment of Electromagnetic Field Exposure from 802.11ax Devices <u>Chrysanthi Chountala</u>, Jean Marc Chareau, Gianmarco Baldini, Fausto Bonavitacola</p> <p><b>1570824942</b> MOS Prediction by SDN Controller and User Equipment to Maintain Good Quality for VoIP over WiFi <u>Najib Mouhassine</u>, Mohamed Moughit</p> <p><b>1570823391</b> Optimization of the Energy Lost in the Current Limitation Mode of the in Grid-Connected Photovoltaic Systems: A Case Study of the PV Installation of the Mohammed 6 Polytechnic Campus of Rabat <u>Ayoub Oufadel</u>, Massaab El Ydrissi, Hicham Ghennioui, Aicha Alami Hassani, Zakaria Berkia</p> <p><b>1570826522</b> 'Sidekick' Application: A Smart Mobile Application for Generation Z <u>Ahmed Haitham Shuhaiber</u>, Safiyah Alhosani, Fatima Albadi, Qwainsa Almarri</p> <ul style="list-style-type: none"> <li>● <b>MICARE2 Session (Room: FC2)</b> <ul style="list-style-type: none"> <li>○ <i>Session Chair: Brahim Alibouch, Ibn Zohr University, Agadir, Morocco</i></li> </ul> </li> </ul> <p><b>1570823768</b> A Proposed Fully Convolutional Network for Automated Colorectal Polyp Semantic Segmentation in Colonoscopy Frames <u>Hamza Benhida</u>, Meryem Souaidi, Mohamed El Ansari</p> <p><b>1570824945</b> Atmospheric Visibility Image-Based System for Instrument Meteorological Conditions Estimation: A Deep Learning Approach <u>Taha Bouhsine</u>, Soufiane Idbraim, Nidhal Bouaynaya, Kabira Ait Oquadil, Husam Alfergani, Charles Johnson</p> <p><b>1570822378</b> Prediction of Suicidal Ideation in a New Arabic Annotated Dataset <u>Oumaima Benlaaraj</u>, Ilyas El Jaafari, Ayoub Ellahyani, Idriss Boutaayamou</p> <p><b>1570821710</b> Preprocessing FMRI Data in SPM12 <u>Fatima ez-zahraa Bazay</u>, Ahmed Drissi El Maliani, Fatima zahra Benabdallah</p>

***Friday, October 28, 2022***

<b><i>09:00 - 12:00</i></b>	<ul style="list-style-type: none"><li>➤ <b>WINCOM Committee meeting</b></li><li>➤ <b>MobiTic Association meeting</b></li><li>➤ <b>Collaboration and exchanges</b></li></ul>
<b><i>12:00 -14:00</i></b>	<b>Lunch Break</b>