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## Advanced Program

Session	Topics
<b>A</b>	<b>Antennas &amp; Propagation</b>
<b>B</b>	<b>Passive &amp; Active Components, Circuits &amp; Subsystems</b>
<b>C</b>	<b>Computer Science, Intelligent Systems and Information Technologies</b>
<b>D</b>	<b>Renewable Energy</b>

## Keynotes

### Reliability And Failure Analysis Of Wide Bandgap Power Transistors: Application For Telecommunication Systems And Power Convertors:



**Prof . Pascal Dherbécourt, Institute of Technology in University of Rouen – Normandie, France :**

Pascal Dherbécourt is head of the electrical engineering bachelor of institute of technology in University of Rouen – Normandie, France. He received a diploma degree and a Ph.D in physics and electronics in 2002. Over the period from 1999 to 2008, he worked in the field of optical fibers telecommunications. In 2008, he joined the GPM (Groupe de Physique des Matériaux, UMR CNRS 6634) and became co-founder of ErDefi team (research team in reliability and failure analysis of electronic components, become Er2MD in 2021). His main research interest is now reliability and failure analysis of high power transistors for telecommunication and radar applications and for power convertors. He participates in numerous research projects in collaboration with major companies. He is the author and co-author of more than sixty articles in international journals and congresses. Since 2017 he participates in the development of training radars and microwave teaching programs for aeronautics and telecommunication business.

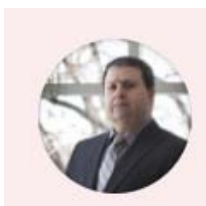
### Lna Design Techniques Using Bi-Cmos Sige Technology For Satellite And 5g Applications.



**Dr. Mohamed Bouhamame Company Director/Analog & RF Specialist at SILICONID LTD, UK :**

Dr. Mohamed Bouhamame received an engineering degree in electronic systems and computer engineering and an MSc in electronics from Polytech'Nantes, France, in 2004 and a Ph.D. degree from the University of Nantes, France, in 2009. He is a company director at SILICONID Ltd., a UK consultancy company of fering analog, mixed-signal, and RF circuits using a deep sub-micron design with risk in control. Dr. Bouhamame is also a specialist analog and radio engineer with more than 17 years of experience in all aspects of analog and radio frequency engineering. His semiconductor experience ranges from 28nm pure CMOS technology to 0.5µm high voltage CMOS process. Within that range includes BCD, bipolar and Bi-CMOS processes. He has worked and consulted for several customers, including the top ten semiconductor firms where he could work on several applications such as Audio, Satellite, Cellular, Automotive (Radar, Lidar, TPMS), and Power Management. He has also shown a serious commitment to research, evidenced by publishing technical articles in journals associated with his TV tuner reception work. He has also filed two patents in the same area of expertise. Dr. Bouhamame is a senior IEEE member and has received frequent invitations to serve as a reviewer for the field's top conferences and journals, such a Solid-State Circuits and Circuits and Systems. Currently, his main research interests are in the area of IC implementation of wireless transceivers such as for 4G/5G and UWB applications.

## Multi-Heat Sources Silicon-Die Thermal Monitoring Using Embedded Sensor Cells Unit: Challenges And Methodology For Thermal Peaks Detection.



**Prof . Ahmed Lakhssassi, Quebec University, Outaouais, Canada:**

Responsible of the LIMA laboratory CANADA, received the B.Eng. and M.Sc.A in electrical engineering from Université du Québec (UQTR), Québec, Canada in 1988 and 1990 respectively. He also received the Ph.D. in Energy and Material sciences in 1995 from INRS-Energie et Matériaux Montréal, Québec, Canada. A year also, he had become a professor of Electro-thermo-mechanical aspects at NSERC -Hydro-Quebec Industrial Research Chair at Electrical Engineering Department of the UQTR. Since 1998, he has been with UQO (Université du Québec en Outaouais), where he is currently titular professor and responsible of the LIMA laboratory LIMA (Advanced Microsystem Engineering Laboratory) developing algorithms for Microsystems thermo-mechanical monitoring and associated distributed sensors network. His research interest is the fields of automatic IP porting tools between different technology nodes and LAIC systems thermo-mechanical prediction unit and monitoring methods to sustain transient thermo-mechanical stress peaks reliability. He is the author/co-author of more than 150 scientific publications and research report, and thesis advisor of 60 graduate and undergraduate students who completed their studies.

## Machine Learning In Manufacturing: Present And Perspective.



**Dr. Catalin Iulian Pruncu, Politecnico di Bari, Italy:**

Dr. Catalin Iulian Pruncu joined the University of Birmingham in 2014 to become a Research Fellow in the School of Mechanical Engineering. His research interests cover Product Design, Tribology, Fatigue and Fracture Mechanics and numerical computation based on the Finite Element Method (FEM). After receiving his BS in Mechanical Engineering from University of Bacau (Romania) in 2008, Dr. Pruncu took a MSc in Mechanical Engineering in the University of Metz (France) in 2009. In 2013, he received a PhD in Design Mechanics and Biomechanics from the Politecnico di Bari (Italy). In 2013, he hold a post-doctoral position in the University of Valenciennes (France). His recent work is concerned in designing of critical products for IMI Truflo Marine Ltd. Extensive research must be carried out to detect and solve issues regarding engineering surfaces submitted to tribological contacts (i.e. ball, seat, and ball/seat/ body of valves). Besides, understanding the principle of design from customer route, drawings, modelling, manufacturing testing and quality is paramount important.

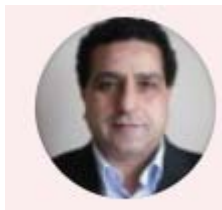
## Understanding The Benefits Of Mimo Radar Technology.



**Prof . Mostafa Hefnawi, Royal Military College (RMCC), Canada:**

Dr. Mostafa Hefnawi is a Professor at the Department of Electrical and Computer Engineering at the Royal Military College of Canada (RMCC). His research is related to MIMO techniques, Cognitive Radios, and Software Defined Radio (SDR), with emphasis on their applications in 4G/5G wireless networks. Dr. Hefnawi is the founder and the leader of the SDR Research Laboratory at RMC that provides state-of-the-art research equipment where research activities in the fields of 4G/5G are conducted.

## Self-Powered IoT, Sensors And Devices: Benefits And Challenges



### Prof . Mohamed Latrach, ESEO Angers, France:

Mohamed LATRACH (IEEE Member and URSI-France Member) received the Ph.D. degree in electronics from the University of Limoges, Limoges, France, in 1990. He is Prof essor of microwave engineering at École Supérieure d'Électronique de l'Ouest (ESEO), Angers, France. He is member of RF-EMC research group, Angers and Research Associate at the IETR, University of Rennes 1. His main research interests are in the area of design and analysis of various antenna types, metamaterials, hybrid and MMIC circuits, wireless sensors, RFID, IoT, wireless power transfer and energy harvesting. Mohamed LATRACH has supervised several doctoral, postdoctoral and master/engineer students. He has many publications and book chapters in the RF and microwave fields. He also holds three patents. He serves as a reviewer for various journals and congress. He has delivered numerous invited presentations and has participated in many projects.

## Development Of Bio-Inspired Antennas For High Voltage Equipment Monitoring.



### Prof . Alexandre Jean René Serres, The Federal University of Campina Grande, Brazil :

Dr. Alexandre Jean René Serres is an Associate Prof essor at the Federal University of Campina Grande, Brazil. He obtained a degree in Electrical Engineering from the National Polytechnic Institute of Grenoble (INPG – France 2005), a master's degree in Electrical Engineering from the National Polytechnic Institute of Grenoble (2006) and a PhD in Electrical Engineering – Federal University of Campina Grande (2011). Since September 2011 he is prof essor in the Department of Electrical Engineering at the Federal University of Campina Grande where he coordinates the Radiometry Laboratory and the Electromagnetism Laboratory (LEMAG). Since March 2018 he has been a permanent member of the Graduate Program in the Department of Electrical Engineering at the Federal University of Campina Grande and he is actually the coordinator of this Program. His area of expertise is Telecommunications with works in Energy Harvesting, Radio Frequency Devices, Metamaterial, RFID and sensing, antenna miniaturization and FSS. He is a National Council for Scientific and Technological Development Research Productivity Scholar – Level 2 and Chair of the IEEE Chapter of the IEEE Antenna and Propagation Society of the Northeast Brazil Section.

## Empowering Energy Trading Users In The Smart Grid With Blockchain-Based Systems And Intelligent Strategies.



**Prof . Abdulsalam Yassine Associate Prof essor and Chair of the Software Engineering Department at Lakehead University, Thunder Bay, Ontario, Canada:**

Abdulsalam Yassine received the B.Sc. degree in electrical engineering from Beirut Arab University, Lebanon, in 1993, and the M.Sc. and Ph.D. degrees in electrical and computer engineering from the University of Ottawa, Canada, in 2004 and 2010, respectively. Between 2001 and 2013, he was a member of the Technical Staff in the Wireless Communication Division, Nortel Networks, and later at Alcatel-Lucent, Ottawa, Canada. From 2013 to 2016, he was a Postdoctoral Fellow at the DISCOVER Laboratory, School of Electrical Engineering and Computer Science, University of Ottawa. Currently, he is an Associate Professor and Chair of the Software Engineering Department at Lakehead University, Thunder Bay, Ontario, Canada. He serves on the editorial board of the ACM Transactions on Multimedia Computing, Communications and Applications as an associate editor. His research interests are mostly focused on behavior and predictive analytics, big data systems and networks, artificial intelligence, blockchain technology, IoT system, smart cities, smart environments, and smart grids research and applications.



## Tuesday June 21, 2022

8h00 – 9h00

Registration

9h00 – 10h00

Opening Ceremony

### Coffee Break

10h30 – 11h00



**KEYNOTE 1:** Prof . Pascal Dherbécourt, Institute of Technology in University of Rouen – Normandie, France

11h10 – 12h40

**Session 1A**

Antennas & Propagation

**Session 1B**

Passive & Active Components,  
Circuits & Subsystems

**Session 1C**

Computer Science, Intelligent  
Systems and Information  
Technologies

### Lunch

14h00 – 14h30



**KEYNOTE 2 :** Dr. Mohamed Bouhamame Company Director/Analog & RF Specialist at SILICONID LTD, UK

### Coffee Break

15h00 – 16h30

**Session 2A**

Antennas & Propagation

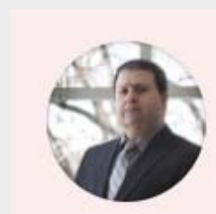
**Session 2B**

Passive & Active Components,  
Circuits & Subsystems

**Session D**

Renewable Energy

16h40 – 17h10



**KEYNOTE 3 :** Prof . Ahmed Lakhssassi, Quebec University, Outaouais, Canada

## 20H00: Gala Ceremony

## Wednesday June 22, 2022

9h00 – 9h30



**KEYNOTE 4:** Prof . Mohamed Latrach, ESEO Angers, France

9h40 – 11h10

**Session 3A**  
 Antennas & Propagation

**Session 3B**  
 Passive & Active Components, Circuits  
 and Subsystems

11h20 – 11h50



**KEYNOTE 5 :** Prof . Mostafa Hefnawi, Royal Military College (RMCC), Canada

11h50 – 12h20



**KEYNOTE 6 :** Dr. Catalin Iulian Pruncu, Politecnico di Bari, Italy

**Lunch**

14h00 – 15h30

**Session 4A**  
 Antennas & Propagation

**Session 2 C**  
 Computer Science, Intelligent Systems and  
 Information Technologies

**Coffee Break**

16h00 – 16h30



**KEYNOTE 7:** Prof . Alexandre Jean René Serres, The Federal University of Campina Grande, Brazil

**POSTER SESSION**

17h30 – 18h00



**KEYNOTE 8:** Prof . Abdulsalam Yassine Associate Professor and Chair of the Software Engineering Department at Lakehead University, Thunder Bay, Ontario, Canada

**18H00: Closing Ceremony**

**Thursday June 23, 2022**

# Training Course

**Design of Microwave & Radio Frequency Communication and  
Wireless Transmission Systems**

**10h00 – 17h00**



**By Prof. Mohamed Latrach  
ESEO France**

## A: Antennas & Propagation

### Session 1A (11h10 – 12h40 : Tuesday) :

#### Chairs :

Prof. Laaziz Yassin ENSA of Tangier UAE, Morocco  
 Prof. Abdelmounim Elhassane FST of Settat, Morocco  
 Prof. Chahboun Noha ENSA of Tangier UAE Morocco  
 Prof. Mostafa Baghourri Ensam Casablanca Morocco

**ID 70:** Real-Time Multiple Input Multiple Output (MIMO) Radar Using Software Defined Radio.  
 Robert Gilpin , Joey Bray , and Mostafa Hefnawi  
 Royal Military College of Canada, Electrical Engineering Department, Kingston, Ontario, Canada

**ID 36:** A New Configuration of a wideband circularly Polarized Coplanar Monopole Antenna.  
 Fatima Ouberri, Abdelali Tajmouati, Jamal Zbitou, Mohamed Latrach, and Larbi EL Abdellaoui  
 MIET Laboratory, Hassan First University of Settat, Morocco

**ID 18:** A compact dual-band patch coupler design for modern wireless applications.  
 Khadija Abouhssous, Asmaa Zugari, and Alia Zakriti  
 Information and Telecommunication System Laboratory, FS, Abdelmalek Essaadi University, Tetouan, Morocco

**ID 25:** High Gain 2x2 Planar Array Antenna for 5G Applications at 3.6GHz.  
 Mondir Anouar , Setti Larbi , Soukaina Lamzoudi , Rida El Haffar, Mustapha Figuigue  
 LSTA, FPL, Abdelmalek Essaadi University, Tetouan, Morocco

**ID 44:** Wideband meta-material-inspired reconfigurable antenna using Infinity Split Ring Resonator  
 Zohra Zerrouk, Larbi Setti  
 Physics Department, faculty of sciences, Abdelmalek Essaadi University, Tetouan, Morocco

**ID 5:** Design of a Circular Patch Antenna with a reflector for GPR applications  
 Ouboudrar Ismail, Lagmich Youssef, Oulhaj Otman and Amina Aghanim  
 LSTA, FPL, Abdelmalek Essaadi University, Tetouan, Morocco

### Session 2A (15h00 – 16h30 : Tuesday) :

#### Chairs :

Prof . Mostafa Hefnawi RMCC Canada  
 Prof . Mohamed Aboulfatah FST of Settat Morocco  
 Prof. Oulhaj Otman FP of Larache UAE Morocco  
 Prof. Ahmed Errkik FST of Settat Morocco

**ID 73:** RFID System for Respiratory Rate Monitoring  
 Jéssyca I. L. Araujo, Alexandre J. R. Serres, and Danilo F. S. Santos  
 Post-Graduation Program in Electrical Engineering, Federal University of Campina Grande, Campina Grande, Brazil

**ID 50 :** Characterization of Low-Cost UWB MIMO antenna model for K/Ka/Q/U/V bands Applications  
 Abdellatif Berkat, Zeyneb Berkat, Nouredine Boukli Hacene, Mohamed Latrach  
 Dept. of Telecommunication, Faculty of Electrical Engineering, Djillali Liabès University, Sidi Bel Abbas, Algeria

**ID 13:** A New Design of 5G Planar Antenna based on metamaterials with a high gain using array antenna  
 Abderrahim Bellekhir, Noha Chahboun, Yassin Laaziz, and Ahmed El Oualkadi  
 LABTIC National school of Applied Sciences ENSA of Tangier, Abdelmalek Essaadi University, Tetouan Morocco

**ID 4:** A New Compact and Low loss UHF RFID TAG  
 Latifa El ahmar, Ahmed Errkik, Ilham Bouzida, Anass El Mamouni, Ridouane Er-Rebyiy and Mohammed Benbrahim  
 Hassan First University of Settat, FSTS, LMIET, Morocco

**ID 2:** Front-to-Back Ratio Enhancement of an Aperture-stacked patch antenna by an Improved circular slots and New Reflector element.

Salaheddine Aourik, Ahmed Errkik, and Rachid Mandry

LMIET Hassan First University Settat, FSTS Morocco

**ID 26 :** A two-Stage support vector machine and squeezeNet system for range-angle and range-speed estimation in a cluttered environment of automotive MIMO radar systems Zakaria Benyahia, Mostafa Hefnawi, Mohamed Aboulfatah, Hassan Abdelmounim, and Taoufiq Gadi

Hassan I University Settat, Morocco

Royal Military College of Canada, Kingston, Ontario, Canada

**Session 3A (9h40 – 11h10: Wednesday) :**

**Chairs :**

**Prof. Ahmed Lakhssassi** UQO Canada

**Prof. Ezzine Abdelhak** ENSA of Tangier UAE Morocco

**Prof. Fouad Aytouna** ENSA Tetuan Morocco

**Prof. Cherkaoui Abdeljabbar** ENSA of Tangier UAE Morocco

**ID 74:** Energy-Autonomous UHF RFID Sensor for Tire Pressure Monitoring System

Julien Sourice, Gilbert Kaboré, Nathan Sauger, Abdelaziz Hamdoun and Mohamed Latrach

ESEO Angers France

**ID 76:** Analysis and Design of a Compact TSRR for Passive RFID Tag Antenna

Mahdi Abdelkarim and Ali Gharsallah

Laboratory for Research on Microwave Electronics, Physics Department, Faculty of Science, University of ElManar, Tunis, Tunisia

**ID 11:** Design of flower-shaped high-efficiency compact UWB antenna

Aicha Bembarka, Larbi Setti, Abdelwahed Tribak, and Hafid Tizyi

Department of Physics, Polydisciplinary Faculty of Larache (FPL), Abdelmalek Essaadi University, Tetouan, Morocco

**ID 34:** A New Structure of A Miniature and Flexible Printed UHF RFIDTAG

Latifa El ahmar, Ahmed Errkik, Jamal Zbitou, Ilham Bouzida, Saad Bennani Doss and Ridouane Er-rebyiy

Hassan First University of Settat, Faculté des sciences et technique Settat, LMIET, Morocco,

**ID 45:** High-Directivity and Circularly Polarized Compact Patch Antenna for UHF RFID Reader Devices

Mohamed Latrach and Islam MD Saiful

RF-EMC research group, ESEO, IETR Angers, France

**Session 4A (14h00 – 15h30: Wednesday) :**

**Chairs :**

**Prof. Pascal Dherbécourt** University of Rouen Normandie France

**Prof. El Mamouni Anass** ENSA of Tangier UAE Morocco

**Prof. Saad Chakkor** ENSA of Tangier UAE Morocco

**Prof. Moussaoui Mohamed** ENSA of Tangier UAE Morocco

**ID 72:** MIMO Radar Hardware Acceleration with Enhanced Resolution

Eric Pitre, Vincent Roberge, Joey Bray, and Mostafa Hefnawi

Royal Military College of Canada, Department of Electrical and Computer Engineering, Canada

**ID 68:** Performance metrics for vehicular visible light communication systems

Fatima zahra Raissouni, Abdeljabbar Cherkaoui, José Luis Lázaro Galilea, and Alfredo Gardel Vicente

Laboratory of Innovative Technologies (LTI), National School of Applied Sciences, Abdelmalek Essaâdi University, Morocco.

**ID 75:** Performance Evaluation of OTFS and OFDM for 6G Waveform  
Abderrahim Mohammadi, Saad Chakkor, Ahmed El Oualkadi, Mohamed Moussaoui, Aziz Dkiouak and Mostafa Baghour  
LabTIC, ENSA of Tangier, University of Abdelmalek Essaâdi, Tangier, Morocco

## B: Passive & Active Components, Circuits and Subsystems

### Session 1B (11h10 – 12h40 : Tuesday):

Chairs :

**Prof. Mohamed Latrach** ESEO France

**Prof. Hicham Rouijaa** FST of Settat Morocco

**Prof. Siham Massou** ENSA of Tangier UAE Morocco

**Prof. Chahboun Asaad**, ENSA of Tangier, UAE, Morocco

**ID 57:** Development of Compactness of Reconfigurable LPF/BSF Using a Simple Technique for Radar Applications  
Elmahjouby Sghir, Ahmed Errkik  
MIET Laboratory, FST of Settat, Hassan 1st University, Settat, Morocco

**ID 6:** The effect of tuning screws of the S-parameters of a 5G bandpass Filter  
Amina Aghanim, Rafik Lasri, Otman Oulhaj, and Ismail Ouboudrar  
LSTA.FPL, Abdelmalek Essaadi University, Tetouan, Morocco

**ID 8:** A GaAs Low Noise Amplifier for 2.4 GHz ISM band Applications  
Mohamed Ribate, Rachid Mandry, Larbi Elabdellaoui, Mohammed Benbrahim, and Mohamed Latrach  
MIET Laboratory, Faculty of Sciences and Techniques of Settat, Hassan 1st University, Morocco

**ID 58:** Design of SRR and CSRR based diplexer for millimeter-wave applications

Mohamed Amzi, and Saad Dosse Bennani

SIGER Laboratory, FST, SMBA University, Morocco

**ID 54:** A novel microwave filter tuning method with a fuzzy logic controller

Amina Aghanim, Rafik Lasri, and Otman Oulhaj

LSTA, Fpl, Abdelmalek Essaadi University, Tetouan, Morocco

**ID 1:** A miniature Planar Dual Bandpass Filter for WIMAX and Mobile Phone Applications  
Amal Kadiri, Abdelali Tajmouati, Issam Zahraoui, Ahmed Lakhssassi  
IMIET laboratory FSTS, Hassan First University of Settat, Morocco.

**ID 15:** Study for the models used for the dimensioning of FRP Reinforced concrete beams  
Issam Ouahmane, Rachid EL Alaiji, Mohammed SALAOU and Larbi Lasri  
LMEP, ENSAMs, Meknes, Ismailia, Morocco

**Session 2B (15h00 – 16h30 : Tuesday ) :**

**Chairs:**

**Prof. Alexandre Jean René Serres** The Federal University of Campina Grande Brazil  
**Prof. Abdelali Tajmouati** FST of Settat Morocco  
**Prof. Adnane Latif** ENSA of Marrakech Morocco  
**Prof. Rafik Lasri** FP of Larache UAE Morocco

**ID 10:** Investigations for the implementation of a PHM device for power converters  
 Habib Boulzazen , Chawki Douzi, Eric Joubert, Pascal Dherbécourt, Moncef Kadi and François Fouquet  
 Normandie Université, ESIGELEC, IRSEEM, Rouen, France.

**ID 9:** Design of High-Power High-Efficiency Broadband GaN HEMT Power Amplifier for S Band  
 Applications using Load-Pull Technique  
 Mohamed Ribate, Rachid Mandry, Larbi Elabdellaoui, Mohammed Benbrahim  
 MIET Laboratory, Faculty of Sciences and Techniques of Settat, Hassan 1st University, Morocco

**ID 53:** Analysis of transmission lines considering frequency dependent parameters with linear and nonlinear  
 loads  
 Zahra Bouzidi, Hicham Rouijaa, Mohamed Saih, and Abdelaziz El Idrissi  
 Laboratory of Electrical Systems, Energy Efficiency and Telecommunications, Faculty of Science and  
 Technology, Cadi Ayyad University, Marrakesh, Morocco

**ID 39:** Plotting Lamb waves dispersion curves of an aluminum plate by the Semi-Analytical Finite Element  
 (SAFE) method and comparison with analytical curves.  
 Ayoub Jabiri, Abdelali Yacoubi, Mhammed El Allami, Rachid Mandry  
 Labo MIET, Department of applied physics, FST, Settat, Morocco.

**ID 40:** A Model Of Guided Waves In A Bone Plate Coupled With Soft-Tissue Layers  
 Azdine Drissi, Mhammed El Allami, Abdelali Tajmouati  
 Labo MIET, Department of applied physics, FST, Settat, Morocco.

**ID 43:** A new configuration of a compact printed coplanar low pass filter with high rejection  
 Fouad Aytouna, Ahmed Lakhssassi and Mohammed Benbrahim  
 LABTIC, ENSATE, Abdelmalek Essaadi University, Tetouan, Morocco

**Session 3B (9h40 – 11h10: Wednesday ) :**

**Chairs:**

**Prof. Olivier Latry**, University of Rouen Normandy, France  
**Prof. Asmaa Zugari** FS Tetuan UAE Morocco  
**Prof. Eric Joubert**, University of Rouen Normandy, France  
**Prof. Niemat Moulitif**, University of Rouen Normandy, France

**ID 69:** Silicon Die Transient Thermal Peak Prediction Approach  
 Aziz Oukaira, Amrou Ziad Benelhaouare, Dariush Amirkhani and Ahmed Lakhssassi  
 University of Quebec in Outaouais, Canada

**ID 21:** MTTF of GaN HEMT for 5G and RADAR applications  
 Olivier Latry, Niemat Moulitif, Eric Joubert and Mohamed Ndiaye  
 Groupe de Physique des Matériaux, Normandie Université, UNIROUEN, INSA Rouen, France

**ID 38:** Atmospheric pressure plasma jet based on the dielectric barrier discharge  
 Najlae Seddaoui, Moustapha Ouali, and Youssef Lagmich  
 1Laboratory of Sciences and Advanced Technologies, Polydisciplinary Faculty of Larache, Abdelmalek  
 Essaadi University, Morocco

**ID 37:** Semi-analytical finite element method (SAFE) for plotting Lamb waves dispersion curves of an  
 aluminium plate and comparison with Disperse software.  
 Abdelali Yacoubi , Ayoub Jabiri , Mhammed El Allami, Rachid Mandry  
 Labo MIET, Department of applied physics, FST, Settat, Morocco.

**ID 19:** 2.45GHz GaN HEMT high efficiency power amplifier analytical design approach for Wireless applications  
Paula Atchike, Ahmed El oualkadi, Pascal Dherbécourt  
Laboratory of Information and Communication Technologies, ENSA of Tangier, UAE, Tetouan, Morocco

**ID 49:** Orthomode Transducer (OMT) With Turnstile Junction For Ku Band Applications  
Hicham SETTI, Anas EL Mamouni  
Ced Sciences and Technologies Laboratory, University of Abdelmalek Essaadi Larache Morocco

## C: Computer Science, Intelligent Systems and Information Technologies

### Session 1C (11h10 – 12h40 : Tuesday) :

**Chairs:**

**Prof. Abdelhamid Zouhair, FST of Tangier, Morocco**  
**Prof. Mezroui Soufiane, ENSA of Tangier, UAE, Morocco**  
**Prof. Ghailani Mohamed, ENSA of Tangier, UAE, Morocco**  
**Prof. Abdessamad Jarrar FS , UMI, Morocco**

**ID 27:** A framework for recommending tourist attractions using deep learning and association rule mining-based methods  
Hanjo Jeong

Mokpo National University, Department of Software Convergence Engineering, Korea

**ID 56:** NLP for the development of a conversational agent within the company  
Youssef Amlal BAJJA, Hajar ALLA, Youssef BALOUKI, Lahcen MOUMOUN  
Mathematics, Computer Science and Engineering Sciences Research Laboratory, Hassan 1st University, FST Settat, Morocco

**ID42:** A comparative study of Machine learning Algorithms on the UNSW-NB 15 Dataset  
Rachid Tahri Abdessamad Jarrar, Abdellatif Lasbahani, and Youssef Balouki  
Faculty of Sciences and Technics, Hassan First, Settat, Morocco

**ID 20:** SCMA Codebook Design Based on a 16 Star-QAM with MED Maximization  
Afilal Meriem , Hatim Anas , Latif Adnane and Arioua Mounir  
TIM Team, ENSA, Cadi Ayyad University, Marrakech Morocco

**ID 24:** Denoising Esophageal Speech using Combination of Complex and Discrete Wavelet Transform with Wiener filter and Time Dilated Fourier Cepstra  
Madiha Amarjouf, Fadoua Bahja, Joseph Di Martino, Mouhcine Chami and El Hassan Ibn Elhaj  
Research laboratory in Telecommunications Systems: Networks and Services (STRS), Research team: Multimedia, Signal and Communications Systems (MUSICS), (INPT), Rabat, Morocco



**Session 2C (14h00 – 15h30: Wednesday) :**

**Chairs:**

**Prof. Balouki Youssef** FST of Settata Morocco  
**Prof. El Haddad Mohammed**, ENSA of Tangier, UAE, Morocco  
**Prof. Chraïbi Lotfi**, ENSA of Tangier, UAE, Morocco  
**Prof. Samadi Hassan** ENSA of Tangier UAE Morocco

**ID 77:** Parallel Hybrid 2-Opt Flower Pollination Algorithm for Real-Time UAV Trajectory Planning on GPU  
 Vincent Roberge, and Mohammed Tarbouchi  
 Royal Military College of Canada, Department of Electrical and Computer Engineering, Canada

**ID 17:** A Survey of Artificial Intelligence Techniques Application in Complex Systems Behavioral Prediction  
 Zaid Belarbi, Youssef Balouki and Lahcen Moumoun  
 Faculty of Sciences and Technologies, Computing, Imaging and Modeling of Complex Systems Laboratory,  
 Settata, Morocco

**ID 35 :** Impact of Aircraft Performance and Time of the Day on Flight Arrival Delays Prediction in the  
 United States: a Machine Learning Classification  
 Hajar Alla, Lahcen Moumoun, and Youssef Balouki  
 Laboratory of Mathematics, Computer and Engineering sciences. Mathematics and Computer Science  
 Department  
 Faculty of Science and Techniques Hassan First University of Settata. 26000 Settata, Morocco

**ID 41:** Efficient Data Transmission using Hybrid-PAWM Modulation Technique for VLC System  
 Mohamed EL JBARI, Mohamed MOUSSAOUI, and Noha CHAHBOUN  
 LabTIC, ENSA of Tangier, Abdelmalek Essaadi University, Tetuan, Morocco

**ID 47:** Non-negative Matrix Factorization for Dimensionality Reduction  
 Jbari Olaya and Chakkor Otman  
 New Technology Trends (NTT) National School of Applied Sciences Tetuan, Morocco

**D : Renewable Energy**

**Session D (15h00 – 16h30 : Tuesday):**

**Chairs:**

**Prof. En-naimi El Mokhtar** FST of Tangier UAE Morocco  
**Prof. Aziz Mahboub** FST of Tangier UAE Morocco  
**Prof. Houda Bel Mokadem**, ENSA of Tangier, UAE, Morocco  
**Prof. Abdelfettah Sedqui**, ENSA of Tangier, UAE, Morocco

**ID 12:** Energy Consumption Optimization Based on Firefly Algorithm for ITDEEC Protocol for  
 HWSN  
 Mostafa Baghour, Saad Chakkor, Ahmed El Oualkadi, Zineb Cheker  
 Team Smart Materials and Artificial Intelligence, Laboratory LCCPS, ENSAM de Casablanca, Hassan II  
 Morocco

**ID 52:** New on-load tap changer voltage regulation scheme in active distribution network using Fuzzy logic  
 Yassir Maataoui, Omar Boufarjoute, Hamid Chekenbahand Rafik Lasri  
 Laboratory of Sciences and advanced Technologies (LSAT), FPL, Larache, Morocco.

**ID 55:** Backstepping control strategy for induction motor with rotor flux and load torque observers  
 Mohammed El haïssouf, Mustapha Elharoussi, and Abdelfattah Ba-razzouk  
 Dept. of Applied Physics, Hassan I University, Settata, Morocco

**ID 46:** A novel method for DC Bus Voltage Sags estimation using the switching function approach and  
 Adaline method  
 Mounir Bensaid, Abdelfattah Ba-Razzouk, Mustapha Elharoussi  
 Hassan First University of Settata, FST, Mathematics, Computer and Engineering Sciences Laboratory  
 (MISI), Team: Systems Analysis and Information Processing (ASTI). Morocco

**ID 14:** On-line fault detection and classification in wind turbine based on fuzzy system

Pascal Dore, Saad Chakkor, and Ahmed El Oualkadi

LABTIC National school of Applied Sciences ENSA of Tangier, Abdelmalek Essaadi University, Tetouan Morocco

**ID 51:** A Particle Swarm Optimized MPPT for a Photovoltaic system under partial shading conditions

Hamid Chekenbah, Yassir El Maataoui, Omar Boufarjoute, Abdellatif El Abderrahmani, and Rafik Lasri

LSTA, FPL, Abdelmalek Essaâdi University, Tetouan, Morocco

## POSTER Session

**POSTERS Session (16h30-17h30: Wednesday):**

**Chairs:**

**Prof. Rachid Mandry**, FST of Settata, Morocco

**Prof. Larbi El Abdellaoui** FST of Settata, Morocco

**Prof. Setti Larbi** FP of Larache UAE Morocco

**ID 33:** An Overview Of Vertical Handover Decision Algorithms

Narimane ELHILAI, Mostapha BADRI, and Mouncef FILALI BOUAMI

MASI Laboratory, Polydisciplinary Faculty of Nador, Mohammed first university, Oujda, Morocco

**ID 59:** Review on the design of Antennas Array for 5G Mobile Applications

Zakiya Zeiat, Noha Chahboun, Yassin Laaziz

LABTIC ENSA of Tangier, University of Abdelmalek Essaadi Morocco

**ID 60:** State of the art an Array Antennas for Radar Application

Mohamed Lemin El Haiddad

LABTIC, ENSA of Tangier, University of Abdelmalek Essaadi, Morocco

**ID 61:** State Of The Art For The Conception An Active Integrated Antenna For Wireless Sensors Communication

Farid El ghaoual

LABTIC, ENSA of Tangier, UAE, Morocco

**ID 63:** The state of the art: Circularly Polarized Antennas in RID identification

Ouchatti Zakaria

LABTIC, ENSA of Tangier, UAE, Morocco

**ID 64:** Planar filtering for millimeter wave applications

BAROU Salaheddine

LABTIC ENSA of Tangier, University of Abdelmalek Essaadi Morocco

**ID 65:** Review on the techniques of conception of the RFID tags

Khaoula Morsli

LABTIC ENSA of Tangier, University of Abdelmalek Esaadi, Morocco

**ID 66:** Review on the Design of reconfigurable Compact Planar filters

Bilal Laakel Stinou

Laboratory of Information and Communication Technologies ENSA Tanger

**ID 67:** Design and characterization of UHF RFID tags for metal objects targeting location and logistics applications

Zakaria Errachidi

SIC Department: Information & Communication Systems Department. Laboratory LABTIC ENSA of Tangier. University of Abdelmalek Essaadi Tetuan Morocco

**ID 71:** Review on the design of new structures of microwave amplifier for multistandard applications of Wireless communication.

SERE Moustapha

LABTIC ENSA of Tangier, University of Abdelmalek Essaadi Morocco

**ID 28:** A Survey on Software-Defined Networking Integration in IoT

Said El Hachemy, Abdellah Boulouz, Yassin Eljakani, Abdoul Nasser Hamidou Soumana and Mohamed Ben Salah

University of Ibn Zohr, Faculty of Sciences, Informatics Department, Agadir, Morocco