



جامعة سطيفي اسطيفولي معاشر

# CERTIFICATE OF PARTICIPATION

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## Mourad DAFRI

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### Paper Title

**Integration and modeling thermal effect in Preisach model associated with the student  
distribution function using the finite element method**

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Dr. Samir GHOUALI  
ICAECCT '23  
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# Integration and modeling thermal effect in Preisach model using the finite element method

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## ABSTRACT

*This work is to model the hysteretic behavior of magnetic materials and to integrate Preisach model associated with the Student distribution function using the finite element method in 2D into the Matlab software. Simulations performed using the computational code allowed us to investigate the effect of the hysteresis phenomenon on the magnetic quantity and the change in losses as a function of temperature.*

## KEY WORDS

Hysteresis; Student distribution function; Preisach model; Finite element; Temperature

## I. INTRODUCTION

The properties of magnetic materials are exploited in many technical applications such as, aerospace, medical devices, data storage, Telecommunications Systems and in power electronics devices, The magnetic behavior of these devices can be affected by handling them at various temperatures, therefore a temperature-dependent hysteresis model is needed to more accurately model of hysteresis for these materials. The objective of this work is to integrate the cycle obtained from the Preisach model associated with the Student distribution function which has already been validated with real experimental results in the two-dimensional finite element method. Simulations performed using the computational code allowed us to investigate the effect of the hysteresis phenomenon on the magnetic quantity and the change in losses as a function of temperature. As an application, we studied the classical model of an induction device and verified the reliability of the model and the solutions.

## II. PREISACH MODEL COMBINED WITH THE STUDENT DISTRIBUTION FUNCTION

One of the most extensively used models for describing hysteresis loops in magnetic matter is certainly that proposed by Preisach in the mid-1930s [1]. This is a purely intuitive approximation found on observations of magnetization mechanisms.

The Preisach model describes the magnetic state of matter. A given point in time can be represented by many elementary relays with only two possible states. ( $M = +1$  or  $M = -1$ ) and is identified by an asymmetric rectangular hysteresis loop with many fundamental. It can be represented by a relay. As shown in Figure 1, each hysteresis loop has a different switching field  $\alpha$  and  $\beta$  with  $\beta \leq \alpha$ , and an irreversible transformation from low state to high state and vice versa.

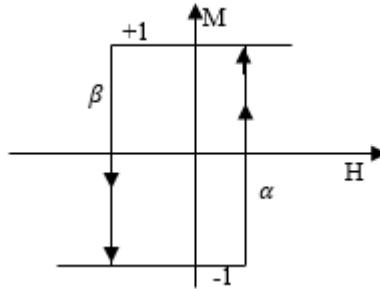


Fig. 1. Elementary rectangular hysteresis loop

Computation of the total magnetization of a material requires the statistical distribution  $\rho(\alpha, \beta)$  of the elementary loops (or operators) depending on  $\alpha$  and  $\beta$ .

The magnetization of a material  $M(t)$  optainted from the application of a magnetic field  $H(t)$  at time  $t$  is described by the form given by Preisach:

$$M(t) = \iint \rho(\alpha, \beta) \varphi_{\alpha\beta}[H(t)] d\alpha d\beta \quad (1)$$

$\varphi_{\alpha\beta}[H(t)]$  is the basic hysteresis ( relay switch operator).

For this work, we chose the Student's function proposed in [2]. This choice is motivated by the fact that changes in the two parameters  $a$  and  $b$  of the Student's function cause changes in saturation magnetization, remanence, coercivity, and the area of the hysteresis loop. On the other hand, the effect of temperature on the shape of the magnetic hysteresis loop is similar to that of the two parameters  $a$  and  $b$ , and this observation allows us to define the parameters  $a$  and  $b$  as a function of temperature. The Student's function is given by:

$$\rho(\alpha, \beta) = ka\sqrt{a} \left( a + \left( \frac{\alpha}{H_c} - b \right)^2 \right)^{\frac{-3}{2}} \left( a + \left( \frac{\beta}{H_c} + b \right)^2 \right)^{\frac{-3}{2}} \quad (2)$$

Where  $H_c$  is the coercive field,  $k$  is the normalization factor,  $a \in IR_+^*$ ,  $b \in \left[ \frac{H_c}{H_s}, \frac{H_s}{H_c} \right]$  and  $H_s$  is the saturation field.

### III. EXPERIMENTAL VALIDATION

The test bench in our lab is Multiple items and devices. It includes a magnetic core to support the primary and secondary windings, a power system, temperature probes, and an electric furnace (heating chamber) to heat the ferromagnetic core to various temperatures. The power system allows a sine wave to be applied to the primary winding. Furthermore, the excitation  $H(t)$  and induction  $B(t)$  are determined from the AMPERE and FARADAY laws, respectively. These variables are recorded using a digital oscilloscope. The data are then exported to a computer (PC) for processing (Figure 2).

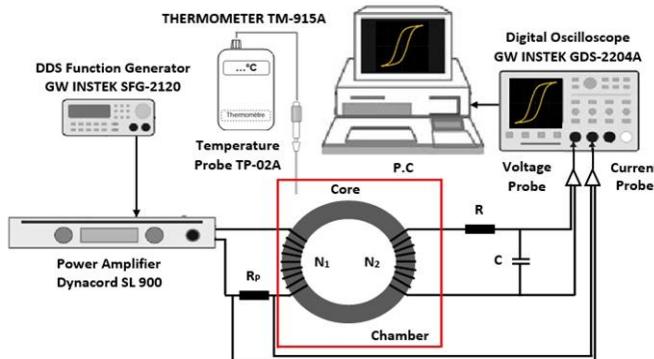


Fig. 2. Schematic test bench [3]

The simulation results of hysteresis loops are compared with the real one in order to experimentally validate the suggested model for non-oriented grains FeSi sheets, there is good agreement between the measured and hysteresis loops derived by the Preisach model coupled with Student distribution function. Figure 3.

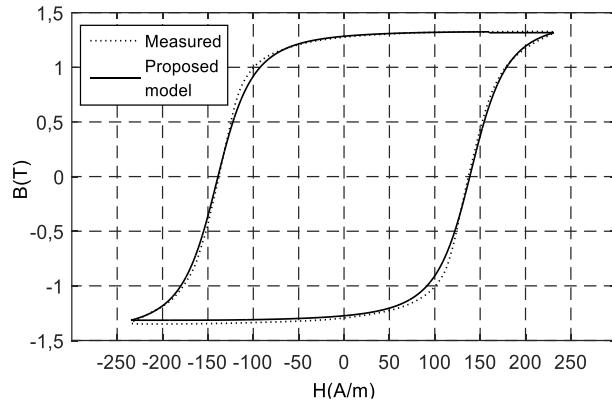


Fig. 3. Comparison of hysteresis loops (FeSi,  $k=4.8841$ ,  $a=0.095$ ,  $b=1.035$ ,  $H_c=135.5$ ,  $T=27^\circ\text{C}$ )

#### IV. FINITE ELEMENTS AND HYSTERESES

Maxwell equations can be used to describe electromagnetic problems [4]. Generally speaking, we have:  
Faraday's law:

$$\text{curl}(E) = -\frac{\partial B}{\partial T} \quad (3)$$

The Ampere's law:

$$\text{curl}(H) = j \quad (4)$$

The Flux conservation law:

$$\text{div}B=0 \quad (5)$$

We must connect these equations to the formula governing the behavior of magnetic material, where  $E$  is the electric field,  $B$  magnetic induction,  $H$  the magnetic field and  $J$  the current density of excitement we must associate these equations the law of behavior of magnetic materials:

$$B = \mu_0 H + \mu_0 M \quad (6)$$

$M$  stands for magnetic magnetization and  $\mu_0$  represents the vacuum's magnetic permeability. Following certain adjustments to the vector potential  $A$ , the electromagnetic equation is expressed as follows:

$$\sigma \frac{\partial A}{\partial t} + \text{curl}\left(\frac{1}{\mu_0} \text{curl}(A)\right) = J_s + \text{curl}M \quad (7)$$

Where  $\sigma$  is electrical conductivity.

The creation of an algebraic metrics system is required for the solution of this equation using the finite element method in 2D.

$$[R_{ij}] [A_j] = [S_j] [F_j] \quad (8)$$

$R_{ij}$  Metrics rigidity

$S_j$  The excitation due to the current

$A_j$  vector potential

$F_j$  The excitation due to magnetization

##### A. METHODS FOR RESOLUTION

A method of the kind point fixed [5-10] is employed to solve the nonlinear issue. By integrating the hysteresis model, it entails repeatedly solving the issue until the answer converges. The selection of a field-relieving factor poses the most challenge to this calculation. Figure 4 depicts the simulations algorithm in use.

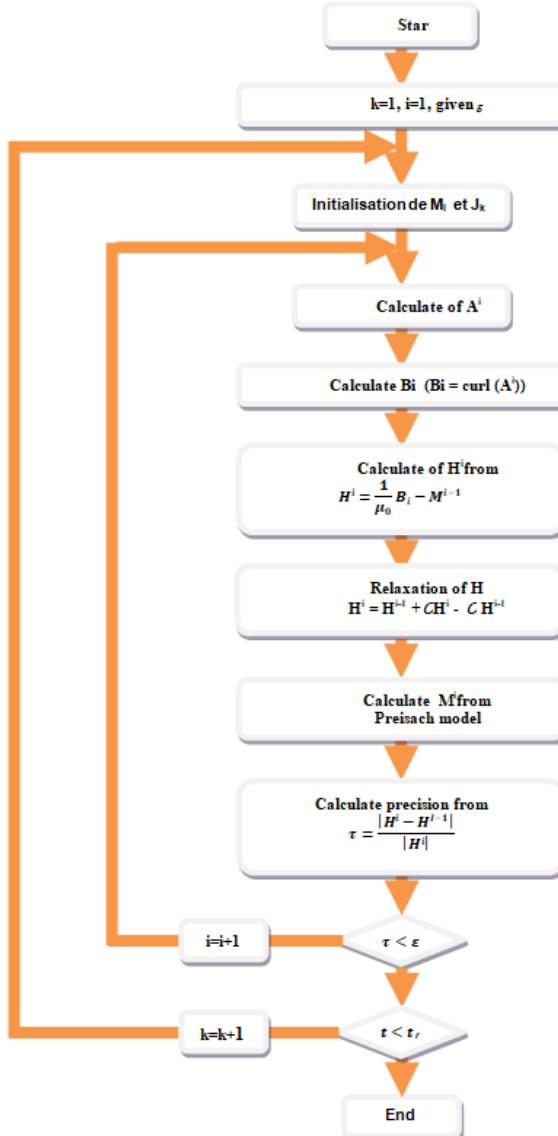


Fig. 4. Iterative algorithm to integrate hysteresis model into the finite element method

## V. EXPERIMENTAL VALIDATION

Figure 5 shows the investigated device that we have selected as an application. It is a cylindrical ferromagnetic device. The geometrical and physical characteristics of this device are shown in table 1. The armature hysteresis cycle is shown in figure 6.

Table 1. Geometric and physical characteristics of armature and inductor

Geometric characteristics		physical characteristics	
Cylindrical ferromagnetic length	$L=40.10^{-2}m$	Electrical conductivity armature	$σ=10^6Ω/m$
Coil inductor length	$L=50.10^{-2}m$	Magnetic permeability inductor	$μ=4π.10^{-7} H/m$
cylindrical ferromagnetic diameter	$φ=8.10^{-2}m$	Current density of excitement	$J=0.3 10^6 A/m^2$

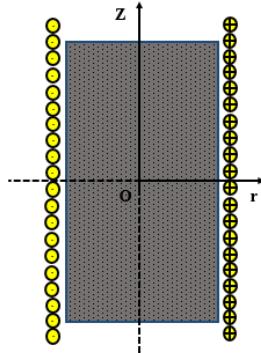


Fig.5. Studied device

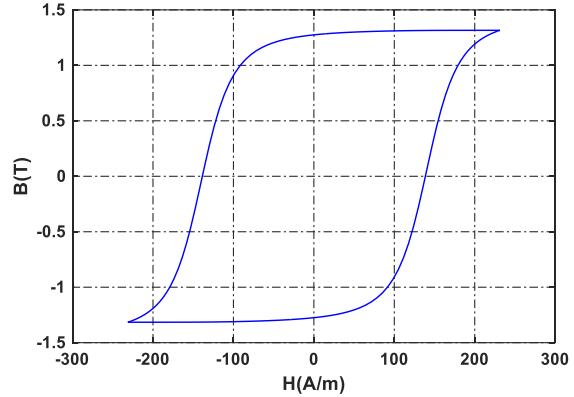


Fig.6. Hysteresis loops of armature

#### A. GÉOMETRIC STRUCTURE

Since the issue is axisymmetric, we can only take into account a quarter of the system in Figure 7. Knowing that for reasons of simplicity, the excitation coil is represented by a single conductor having the same shape as the load. Figure 8 below presents finite elements mesh of resolution study which comprises Inductor, Armature and Air.

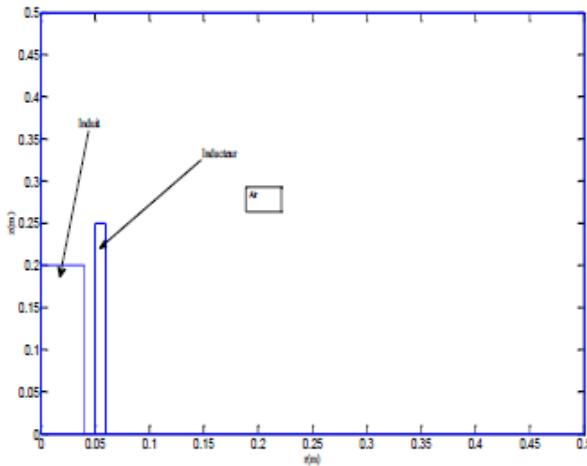


Fig.7. Test problem

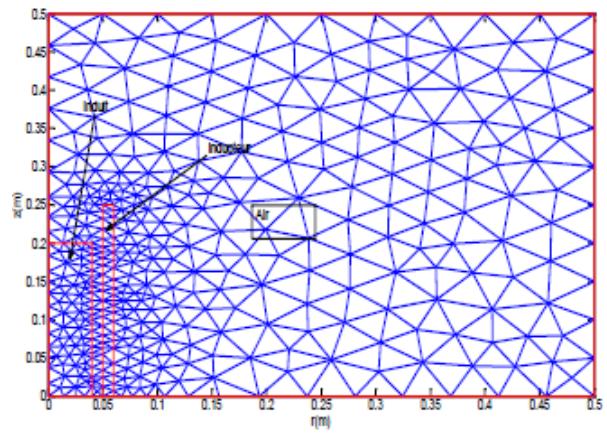


Fig.8. Finite elements mesh

#### B. STUDY OF MAGNETIC-THERMAL PROBLEM

In this section, we will study the impact of temperature on the magnetic phenomenon and in particular the evolution of losses (by hysteresis and eddy currents) in an electromagnetic induction device. we consider that only the hysteresis phenomenon evolves according to the temperature.

With  $T_c=350$  °C,  $a_0=0.1425$ ,  $a_1=1.5237$ ,  $a_2=197.8698$ ,  $b_0=1.0335$ ,  $b_1=0.0387$ ,  $b_2=10^{-8}$ ,  $b_3=5.1183*10^{-5}$ .

The thermal problem is solved only in the domain limited to the ferromagnetic load with the following boundary conditions figure 9.

$$\frac{\partial T}{\partial n} = 0 \text{ on } \Gamma \text{ and } -\lambda \frac{\partial T}{\partial n} = h(T - T_a) + \varepsilon \sigma (T^4 - T_a^4) \text{ on } \Gamma' [7].$$

In this study, we consider that only the hysteresis phenomenon evolves according to the temperature. We are only interested in temperatures below of Curie temperature.

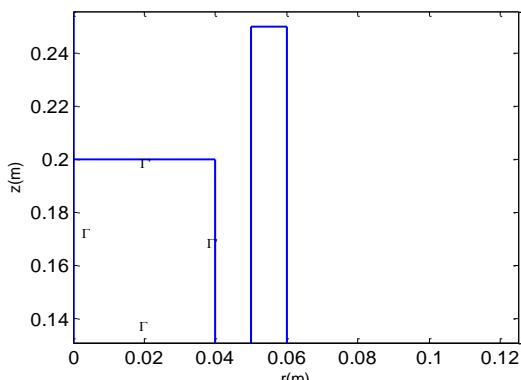


Fig.9. Thermal boundary conditions

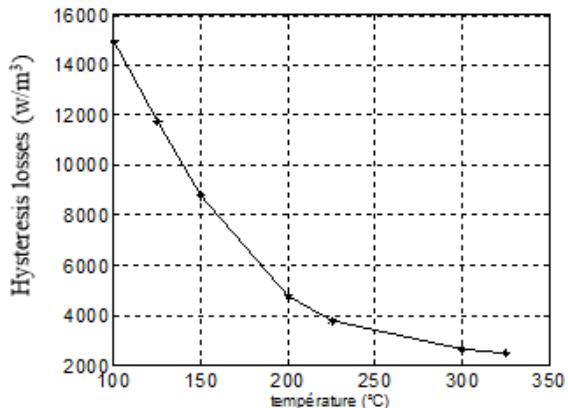


Fig.10. Evolution of hysteresis losses as a function of temperature

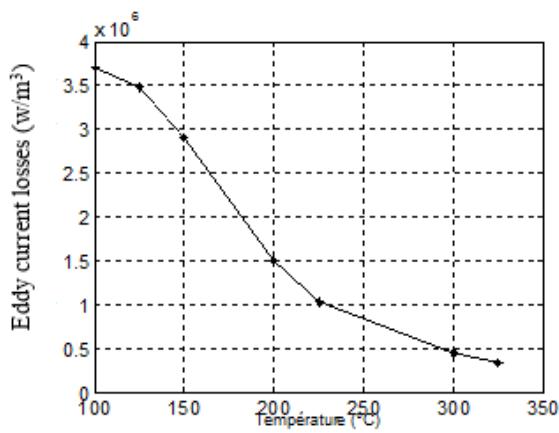


Fig.11. Evolution of eddy current losses as a function of temperature

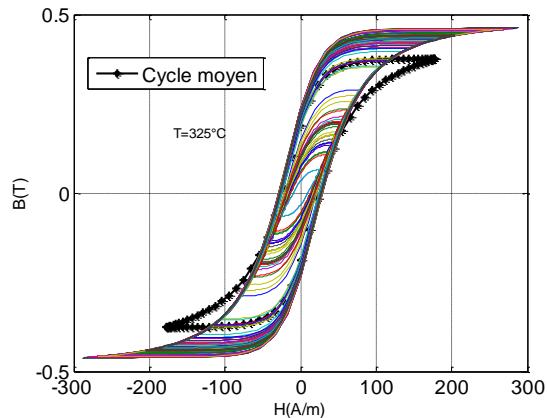


Fig.12. Hysteresis cycles and mean cycle temperature  $T=325^\circ C$

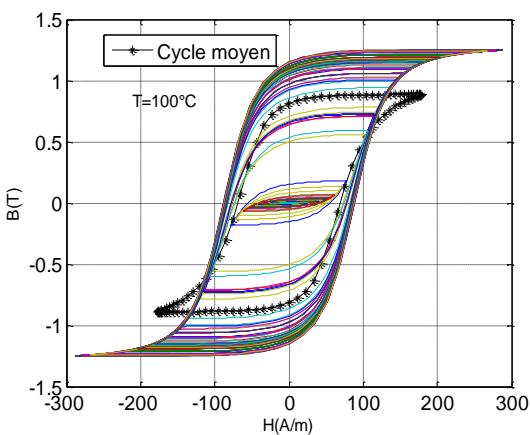


Fig.13. Hysteresis cycles and mean cycle at temperature  $T=100^\circ C$

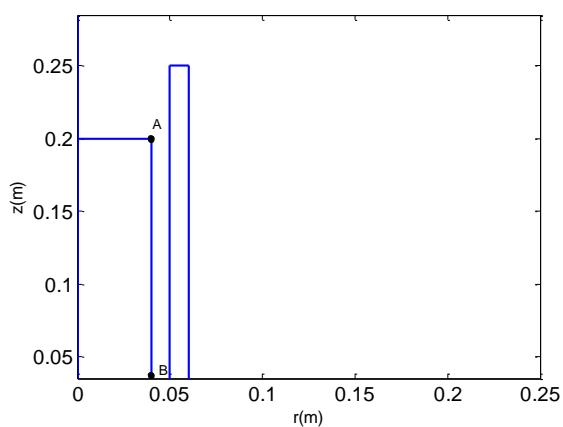


Fig.14. Right segment [AB]

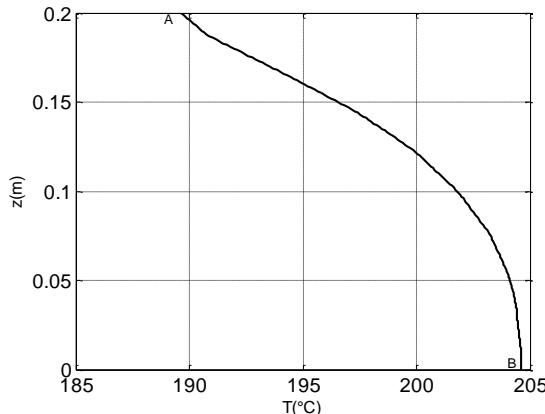


Fig.15. Material Wall Temperature

The results Gien in figure 10 represent the hysteresis losses as a function of temperature, we can see that hysteresis losses decrease with the increase in temperature.

The results given in figure 11 show the impact of hysteresis losses on eddy current losses.

Figures 12 and 13, it can be seen that saturation magnetization, coercive field and remanent magnetization decrease when temperature increases.

The results given in figures 12 and 13 show a good integration of the hysteresis model in finite element calculation program.

The results given in figure 15 represent difference temperature between the hottest point (B) on wall of the ferromagnetic sample and coldest point (A) at its end.

## VI. CONCLUSION

In this study, We provided the static Preisach model with the Student distribution function. We have suggested a program running in the Matlab environment, allowing the resolution of the nonlinear Preisach magnetodynamic issue by incorporating the Preisach model into a field-based finite element method 2D. This work has brought to light the variation of the hysteresis cycle of the device according to temperature and its effect on losses by hysteresis and eddy currents. The study also allowed us to conclude that losses decrease with increasing temperature. We also found that in addition to losses by hysteresis, losses by eddy current are modulated significantly.

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0 9 : 0 0 - 0 9 : 2 0	NATIONAL ANTHEM	النشيد الوطني
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1 0 : 4 0 - 1 1 : 0 0		(PRESENTIAL) <b>BRINGING THE POWER OF AI TO THE INTERNET OF THINGS</b>
1 1 : 0 0 - 1 1 : 2 0		Prof. Miloud Rezkallah Senior Researcher/Project Manager CR2IE   Energy Intelligence Research and Innovation Center Associate Professor; School of Higher Technology (ETS), Canada
1 1 : 2 0 - 1 1 : 4 0		(PRESENTIAL) <b>CHALLENGES AND IMPLEMENTATION OF DECENTRALIZED SMART ENERGY SYSTEMS FOR REMOTE SITES IN CANADA</b>
1 1 : 4 0 - 1 2 : 0 0		Prof. Mustapha HATTI Research Director - UDES/EPST-CDER
1 2 : 0 0 - 1 4 : 0 0		(PRESENTIAL) <b>SMART CITIES: CONCEPTS AND CONDITIONS OF SUCCESS</b>



## FACE TO FACE CONFERENCE ORAL SESSION (Physical)

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	<b>ID</b>			
14:00- 14:15	55	Modeling a Hybrid Compensation System Using Robust GPC Control with a Recurrent Neural Network to Compensate for Powers in a Transmission Line		
		Participant	Abdelkrim BOUANANE  Dr. Moulay Taher University Saida	
		Co-authors	NERZIOU MADANI, RAOUTI DRIS, YAHIAOUI MERZOUG	
14:15- 14:30	71	Study the Influence of Emotions on Language Identification from Speech		
		Participant	Houari HORKOUS  Ecole National Polytechnique	
		Co-authors		
14:30- 14:45	72	Passivity based control of a two-link flexible manipulator		
		Participant	Adel BELHERAZEM  University of sciences and technologies of Oran	
		Co-authors	Zakaria BELLAHCENE, Abdelmalek LAIDANI	
14:45- 15:00	73	Robust Adaptive Control of Remotely Operated Underwater Vehicle (ROV) for Dam Inspection		
		Participant	Zakaria BELLAHCENE  University of sciences and technology of Oran	
		Co-authors	ADEL BELHERAZEM, Abdelmalek LAIDANI, Mohammed BOUHAMIDA	
15:00- 15:15	75	Photovoltaic Generator Analysis based on Maximum Power Point Tracking with DC/DC Converter for Motor Pump Applications		
		Participant	Fatima MOULAY  University of Technology Djilali Liabes of Sidi bel abbes	
		Co-authors	HABBATI ASSIA, OUKLI MIMOUNA	
15:15- 16:15	Poster session 1 & coffee break			
16:15- 16:30	302	Telemetries forecasting: A preventive approach for satellite operations, diagnostic and monitoring		
		Participant	Ali KADDOURI  Algerian Space Agency	
		Co-authors	Saiah Bekkar, Djelloul Saiah	
16:30- 16:45	78	Energy Management System Enhancement for Electric Vehicle Application		
		Participant	Ibrahim Farouk BOUGUENNA  University Mustapha Stambouli of Mascara	
		Co-authors	Abdelghani ZABEL, Ahmed TAHOUR, Mohammed Benmadani DEBBAT, Mohamed AMRI	



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	ID										
	14:00- 14:15	50	Optimization of Technological Parameters Process of Mechanically Stacked Si/Ge Solar Cell for High Performance <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Kheira AMEUR</td><td style="width: 33%;">University Djillali Liabes of Sidi Bel Abbes</td></tr> <tr> <td>Co-authors</td><td colspan="2">Nadia BENSEDDIK, Halima MAZARI, Kheira OUARI, Zineb BENAMARA</td></tr> </table>			Participant	Kheira AMEUR	University Djillali Liabes of Sidi Bel Abbes	Co-authors	Nadia BENSEDDIK, Halima MAZARI, Kheira OUARI, Zineb BENAMARA	
Participant	Kheira AMEUR	University Djillali Liabes of Sidi Bel Abbes									
Co-authors	Nadia BENSEDDIK, Halima MAZARI, Kheira OUARI, Zineb BENAMARA										
	14:15- 14:30	156	Effective MPPT Technique for Wind Energy Conversion System <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Mohamed KAOUANE</td><td style="width: 33%;">Faculty of technology - UMBB</td></tr> <tr> <td>Co-authors</td><td colspan="2">Akkila BOUKHELIFA</td></tr> </table>			Participant	Mohamed KAOUANE	Faculty of technology - UMBB	Co-authors	Akkila BOUKHELIFA	
Participant	Mohamed KAOUANE	Faculty of technology - UMBB									
Co-authors	Akkila BOUKHELIFA										
	14:30- 14:45	166	Small Size, Big Impact: CubeSat Imaging with COTS Hardware <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Mohammed amine ZAFRANE</td><td style="width: 33%;">University of Science and Technologies of Oran</td></tr> <tr> <td>Co-authors</td><td colspan="2">AHMED RAMZI HOUALEF, AHMED TAHIR</td></tr> </table>			Participant	Mohammed amine ZAFRANE	University of Science and Technologies of Oran	Co-authors	AHMED RAMZI HOUALEF, AHMED TAHIR	
Participant	Mohammed amine ZAFRANE	University of Science and Technologies of Oran									
Co-authors	AHMED RAMZI HOUALEF, AHMED TAHIR										
	14:45- 15:00	51	Forest Firefighting Using Drone and Artificial Intelligence <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Ibrahim Farouk BOUGUENNA</td><td style="width: 33%;">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">Zolikha DAHNOUN</td></tr> </table>			Participant	Ibrahim Farouk BOUGUENNA	University Mustapha Stambouli of Mascara	Co-authors	Zolikha DAHNOUN	
Participant	Ibrahim Farouk BOUGUENNA	University Mustapha Stambouli of Mascara									
Co-authors	Zolikha DAHNOUN										
	15:00- 15:15	161	Closed Loop Cuk Converter Modeling for Photovoltaic Conversion System <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Mohamed Kaouane</td><td style="width: 33%;">Faculty of technology - UMBB</td></tr> <tr> <td>Co-authors</td><td colspan="2">Akkila BOUKHELIFA</td></tr> </table>			Participant	Mohamed Kaouane	Faculty of technology - UMBB	Co-authors	Akkila BOUKHELIFA	
Participant	Mohamed Kaouane	Faculty of technology - UMBB									
Co-authors	Akkila BOUKHELIFA										
	15:15- 16:15	<b>Poster session 1 &amp; coffee break</b>									
	16:15- 16:30	123	Spontaneous Electric Polarization and Photovoltaic Properties of Stephanite for Thin-Film Solar Celle: A First-Principles Investigation <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Naouel CHELIL</td><td style="width: 33%;">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">Mohammed SAHNOUN</td></tr> </table>			Participant	Naouel CHELIL	University Mustapha Stambouli of Mascara	Co-authors	Mohammed SAHNOUN	
Participant	Naouel CHELIL	University Mustapha Stambouli of Mascara									
Co-authors	Mohammed SAHNOUN										
	16:30- 16:45	177	Study and development of a pseudo-random number generator on FPGA <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Omar Medjadj</td><td style="width: 33%;">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">Benaoumeur IBARI, Mourad HEBALI, Rezali BAGHDADI, Mohammed El-Amine BEYOUR, Hocine Abdelhak AZZEDDINE</td></tr> </table>			Participant	Omar Medjadj	University Mustapha Stambouli of Mascara	Co-authors	Benaoumeur IBARI, Mourad HEBALI, Rezali BAGHDADI, Mohammed El-Amine BEYOUR, Hocine Abdelhak AZZEDDINE	
Participant	Omar Medjadj	University Mustapha Stambouli of Mascara									
Co-authors	Benaoumeur IBARI, Mourad HEBALI, Rezali BAGHDADI, Mohammed El-Amine BEYOUR, Hocine Abdelhak AZZEDDINE										
	16:45- 17:00	196	Study the Electrical Characteristics of a Schottky Diode Based Au/n-type InN/InP at Different Frequencies <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Participant</td><td style="width: 33%;">Abdelkader BAGHDAD BEY</td><td style="width: 33%;">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">A. TALBI, M. A. BENAMARA, Z. BENAMARA, F. DUCROQUET</td></tr> </table>			Participant	Abdelkader BAGHDAD BEY	University Mustapha Stambouli of Mascara	Co-authors	A. TALBI, M. A. BENAMARA, Z. BENAMARA, F. DUCROQUET	
Participant	Abdelkader BAGHDAD BEY	University Mustapha Stambouli of Mascara									
Co-authors	A. TALBI, M. A. BENAMARA, Z. BENAMARA, F. DUCROQUET										



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## ROOM C: Telecommunications and its Applications

Session Chairmen	<b>Prof. Mohamed Benaoumeur Senouci</b> University of Southern Denmark <b>Dr. Mohamed Larbi TAYEBI TAYEBI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mokhtar BESSEGHIER</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mouwaffeq BOUREGAA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Fouad KHERBOUCHE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria						
	ID						
	14	Electromagnetic Optimization of Bandpass Cross-Coupled Filter for mobile Communications <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td>Lamia SENASLI Laboratory of Electronics, Advanced Signal Processing and Microwave</td></tr> <tr> <td>Co-authors</td><td>MEHDI DAMOU, NOUR EL HOUDA SARA SENASLI, CHETIOUI MOHAMMED GOUNI SLIMANE, ABDELHAKIM BOUDKHIL</td></tr> </table>		Participant	Lamia SENASLI Laboratory of Electronics, Advanced Signal Processing and Microwave	Co-authors	MEHDI DAMOU, NOUR EL HOUDA SARA SENASLI, CHETIOUI MOHAMMED GOUNI SLIMANE, ABDELHAKIM BOUDKHIL
Participant	Lamia SENASLI Laboratory of Electronics, Advanced Signal Processing and Microwave						
Co-authors	MEHDI DAMOU, NOUR EL HOUDA SARA SENASLI, CHETIOUI MOHAMMED GOUNI SLIMANE, ABDELHAKIM BOUDKHIL						
14:00- 14:15	256	Preamble Design for Channel Estimation in FBMC/OQAM systems <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td>Ahmed Bouzidi DJEBBAR Djillali Liabes University, Sidi-Bel-Abbes</td></tr> <tr> <td>Co-authors</td><td>DAHMANE REBOUH, MOKHTAR BESSEGHIER</td></tr> </table>		Participant	Ahmed Bouzidi DJEBBAR Djillali Liabes University, Sidi-Bel-Abbes	Co-authors	DAHMANE REBOUH, MOKHTAR BESSEGHIER
Participant	Ahmed Bouzidi DJEBBAR Djillali Liabes University, Sidi-Bel-Abbes						
Co-authors	DAHMANE REBOUH, MOKHTAR BESSEGHIER						
14:30- 14:45	19	Design of a Filter Based on Direct Coupled Resonators Using the Coupling Matrix Technique <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td>Mehdi DAMOU Laboratory of Electronics, Advanced Signal Processing and Microwave</td></tr> <tr> <td>Co-authors</td><td>GOUNI SLIMANE, BOURAS MAROUA, CHETIOUI MOHAMMED, BOUDLHIL ANDELHAKIM, NOURI KELTOUMA</td></tr> </table>		Participant	Mehdi DAMOU Laboratory of Electronics, Advanced Signal Processing and Microwave	Co-authors	GOUNI SLIMANE, BOURAS MAROUA, CHETIOUI MOHAMMED, BOUDLHIL ANDELHAKIM, NOURI KELTOUMA
Participant	Mehdi DAMOU Laboratory of Electronics, Advanced Signal Processing and Microwave						
Co-authors	GOUNI SLIMANE, BOURAS MAROUA, CHETIOUI MOHAMMED, BOUDLHIL ANDELHAKIM, NOURI KELTOUMA						
14:45- 15:00	108	Optimization of Pedestrian Mobility Management in 5G NR Network based on Spectrum Sensing and NLMS Algorithm <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td>Zineb ZIANI USTO-MB University, Oran</td></tr> <tr> <td>Co-authors</td><td>MOHAMMED HICHAM HACHEMI, MILOUD BENCHHEMA, IKRAM SARI MOHAMMED, FARAH SABRI, BOUABDELLA RAHMANI</td></tr> </table>		Participant	Zineb ZIANI USTO-MB University, Oran	Co-authors	MOHAMMED HICHAM HACHEMI, MILOUD BENCHHEMA, IKRAM SARI MOHAMMED, FARAH SABRI, BOUABDELLA RAHMANI
Participant	Zineb ZIANI USTO-MB University, Oran						
Co-authors	MOHAMMED HICHAM HACHEMI, MILOUD BENCHHEMA, IKRAM SARI MOHAMMED, FARAH SABRI, BOUABDELLA RAHMANI						
15:00- 15:15	143	Miniaturization of a Low-Cost Dual Band Antenna for C Band Applications <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td>Abdellatif BERKAT Abou Bakr Belkaïd University-Tlemcen</td></tr> <tr> <td>Co-authors</td><td>Zeyneb BERKAT, Mohamed LATRACH</td></tr> </table>		Participant	Abdellatif BERKAT Abou Bakr Belkaïd University-Tlemcen	Co-authors	Zeyneb BERKAT, Mohamed LATRACH
Participant	Abdellatif BERKAT Abou Bakr Belkaïd University-Tlemcen						
Co-authors	Zeyneb BERKAT, Mohamed LATRACH						



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15:15- 16:15	Poster session 1 & coffee break			
16:15- 16:30	169	Design and Analysis Frequency Reconfigurable Multiband Patch Antenna for 5G Networks and Beyond		
		Participant	REFSI Ismahane USTO-MB University, Oran	
16:45- 17:00	167	Enhanced Mobility Management on Vehicular Communication System in 5G New Radio Wireless Networks		
		Participant	Bahmed BABA OU SMAIL USTO-MB University, Oran	
		Co-authors	MOHAMMED HICHAM HACHEMI, MILOUD BENCHEHIMA, MOHAMMED EL-KHALLIL BELHADJ, MEHDI ABDELHAK AND BOUABDELLA RAHMANI	

ROOM D: Biomedical Engineering				
Session Chairmen	<b>Dr. Khadidja GOUIZI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Nabila HAMIL</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Abdelkader HORCH</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. MOHAMMED SEGHIR GUELLIL</b> Faculty SEGC, University Mustapha Stambouli of Mascara, Algeria			
	ID			
14:00- 14:15	151	Multimodal MRI-Based Alzheimer's disease Classification Using CNN		
		Participant	HOURIA Latifa University of Blida 1	
14:15- 14:30	33	LSTM for epileptic disease recognition		
		Participant	Ghezala CHEKHMANE University of Abou Bekr Belkaïd Tlemcen	
14:30- 14:45	65	Secure and Accurate Identity Verification through Retinal Biometrics: A Novel Approach with Isodata and Entropic Thresholding Techniques		
		Participant	Aicha MOKHTARI University of Abou Bekr Belkaïd Tlemcen	
		Co-authors	HADJ SLIMANE ZINE EDDINE	

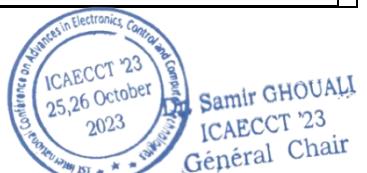
14:45- 15:00	24	<p>Blood Product Prediction using Supervised Machine Learning</p> <table border="1" data-bbox="476 280 1476 437"> <tr> <td>Participant</td><td>Amel YKHLEF National Polytechnic School of Oran</td></tr> <tr> <td>Co-authors</td><td>LABRI NADJLA SELMA, BRAHAMI MENAOUER</td></tr> </table>	Participant	Amel YKHLEF National Polytechnic School of Oran	Co-authors	LABRI NADJLA SELMA, BRAHAMI MENAOUER
Participant	Amel YKHLEF National Polytechnic School of Oran					
Co-authors	LABRI NADJLA SELMA, BRAHAMI MENAOUER					
15:00- 15:15	150	<p>Advancing MRI-Based Tumor Detection and Classification in Brain Images: A Comprehensive Framework Utilizing Image Processing and Machine Learning with MATLAB GUI Integration</p> <table border="1" data-bbox="476 583 1476 707"> <tr> <td>Participant</td><td>Abdallah OUMSALEM Hassiba Ben Bouali University of Chlef, Algeria</td></tr> <tr> <td>Co-authors</td><td>Yamina BOUREZIG</td></tr> </table>	Participant	Abdallah OUMSALEM Hassiba Ben Bouali University of Chlef, Algeria	Co-authors	Yamina BOUREZIG
Participant	Abdallah OUMSALEM Hassiba Ben Bouali University of Chlef, Algeria					
Co-authors	Yamina BOUREZIG					
15:15- 16:15		<b>Poster session 1 &amp; coffee break</b>				
16:15- 16:30	136	<p>Medical Image Registration Using Local Feature Points &amp; Genetic Search</p> <table border="1" data-bbox="476 842 1476 977"> <tr> <td>Participant</td><td>Fatiha MESKINE Djillali Liabes University of Sidi-Bel-Abbes</td></tr> <tr> <td>Co-authors</td><td>Oussama MEZOUAR</td></tr> </table>	Participant	Fatiha MESKINE Djillali Liabes University of Sidi-Bel-Abbes	Co-authors	Oussama MEZOUAR
Participant	Fatiha MESKINE Djillali Liabes University of Sidi-Bel-Abbes					
Co-authors	Oussama MEZOUAR					
16:30- 16:45	193	<p>Machine Learning for Optimizing Diabetes Prediction: A Comparative Analysis</p> <table border="1" data-bbox="476 1044 1476 1179"> <tr> <td>Participant</td><td>Mohamed AMMARA University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>Mokhtar BESSEGHIER</td></tr> </table>	Participant	Mohamed AMMARA University Mustapha Stambouli of Mascara	Co-authors	Mokhtar BESSEGHIER
Participant	Mohamed AMMARA University Mustapha Stambouli of Mascara					
Co-authors	Mokhtar BESSEGHIER					
16:45- 17:00	142	<p>Study and simulation of biosensors based AlGaN/GaN MOS-HEMTs for specific detection of biomolecules</p> <table border="1" data-bbox="476 1291 1476 1426"> <tr> <td>Participant</td><td>Abdellah BOUGUENNA University of Sciences &amp; Technology of Oran (USTO-MB)</td></tr> <tr> <td>Co-authors</td><td>DRISS BOUGUENNA, AMINE BOUDGHENE STAMBOULI</td></tr> </table>	Participant	Abdellah BOUGUENNA University of Sciences & Technology of Oran (USTO-MB)	Co-authors	DRISS BOUGUENNA, AMINE BOUDGHENE STAMBOULI
Participant	Abdellah BOUGUENNA University of Sciences & Technology of Oran (USTO-MB)					
Co-authors	DRISS BOUGUENNA, AMINE BOUDGHENE STAMBOULI					
17:00- 17:15	38	<p>New hybrid FCM-ABC algorithm for Brain MRI segmentation</p> <table border="1" data-bbox="476 1493 1476 1637"> <tr> <td>Participant</td><td>Boumediene Ghaouti GHAZI University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>BOUDJELAL MEFTAH</td></tr> </table>	Participant	Boumediene Ghaouti GHAZI University Mustapha Stambouli of Mascara	Co-authors	BOUDJELAL MEFTAH
Participant	Boumediene Ghaouti GHAZI University Mustapha Stambouli of Mascara					
Co-authors	BOUDJELAL MEFTAH					



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# CONFERENCE POSTER SESSION 1

Session Chairman		<b>Dr. Mokhtar BESSEGHIER</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Menouer BENNAOUM</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Radia MADJIDI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria
<b>ID</b>		
84	Design of a New Direct Vector Control Using Synergetic Theory for Five-Phase Induction Motor	
	Participant	Fayçal MEHEDI Hassiba Benbouali University, Chlef
	Co-authors	ISMAIL BOUYAKOUB, LEMYA DJAFER, NEZLI LAZHARI, DJAMEL BOUDANA
112	A competitive dual axis solar tracker system	
	Participant	Ghalem Kamel Ghanem Higher School of Energetic and Electrical Engineering, Oran
	Co-authors	BELAIDI IKHLAS, ANTAR KAWTHER, BENOUAR ALI, AHMED BACHA MOHAMED REDA
117	Optimal choice of weightings functions for synthesis a robust $H_{\infty}$ controller based on Loop -Shaping using Genetics Algorithms	
	Participant	Djamel eddine GHOURAF National Polytechnic School- Oran
	Co-authors	NACERI ABDELLATIF
126	Design of a robust nonlinear surface sliding mode controller for a quadrotor helicopter	
	Participant	Naima BOUHABZA Université Blida1
	Co-authors	KARA KAMEL
158	Algerian Database Under Development for Automatic Emotion Recognition	
	Participant	Zineddine S. KAHHOU University of Mohamed Khider Biskra
	Co-authors	SELMA BOUTIBA, HABIBA DAHMANI, NADJIBA TERKI, MOHAMED L. TIAR, ABIR BETKA, ZAYED FERHAT, RIYAD BARKA
178	Real time control of a flight simulator	
	Participant	Sadek NEKROUF University Mustapha Stambouli of Mascara
	Co-authors	SOUFYANE CHEKROUN, KHATIR TABTI
175	Application of fuzzy logic to the control of an industrial 3D Crane	
	Participant	Fatima AFFANE University Mustapha Stambouli of Mascara
	Co-authors	M.ZAREB, A. KHEDIM, M. ALQUDAMI
183	Sliding Mode Controller with a Neuro-Fuzzy Optimized Network (STFIS) for Robotic Manipulator Trajectory Tracking	
	Participant	Djamel Eddine CHAOUCH University Mustapha Stambouli of Mascara
	Co-authors	AHMED LARBAOUI, HOCINE ABDELHAK AZZEDINE



184	<p>Application Of Direct and Indirect Adaptive Controller Neural Network Based on Rbf Nn for Temperature Control of Electric Resistance</p>		
	Participant	Benyekhlef KADA	University Mustapha Stambouli of Mascara
	Co-authors	DJAMEL EDDINE CHAOUCH, ABDELKADER ELKEBIR	
250	<p>Applied the different Direct Torque control on the IM</p>		
	Participant	Moulay Idriss CHERGUI	University Mustapha Stambouli of Mascara
	Co-authors	ABDELHAQ LAOUI, SOUFYANE CHEKROUN	
301	<p>Real-time implementation of single-phase inverter for photovoltaic system based on DC/DC and DC/AC stages</p>		
	Participant	Abdelkader EL KEBIR	University Mustapha Stambouli of Mascara
	Co-authors	HAFIDA BELHADJ	
400	<p>Design of a Fly back converter using TL494 control circuit for a photovoltaic system</p>		
	Participant	HAFIDA BELHADJ	University Mustapha Stambouli of Mascara
	Co-authors	Abdelkader EL KEBIR	
251	<p>Morphology influence of the donor and acceptor molecules of the active layer on the response parameters of organic photovoltaic cells OPVCs</p>		
	Participant	Mohamed Benamar SIAD	University Mustapha Stambouli of Mascara
	Co-authors	Y. MOUCHAAL, A. KHELIL, J.C. BERNEDE	
96	<p>Image Transmission Through OFDM System</p>		
	Participant	Fatiha MESKINE	Djillali Liabes University, Sidi Bel Abbes
	Co-authors	Amina DJIR, Brahim DEHRI	
190	<p>Deforestation detection using NRCS features extracted from multi dates SAR images</p>		
	Participant	Abdelkader Horch	University Mustapha Stambouli of Mascara
	Co-authors	IMANE MAHFOUT, MOKHTAR BESSEGHIER, HOCINE ABDELHAK AZZEDDINE, ABDERAHMANE LOUNI	
310	<p>Detection of Sleep Apnea Using Machine Learning Algorithms Based on The ECG Signal</p>		
	Participant	Leila RIZOUG	University Mustapha Stambouli of Mascara
	Co-authors	ISMAHENE BAADJA, NORA BELHAJ, ABDELKADER HORCH, ABDERRAHMANE LOUNI	
176	<p>Application of Artificial Neural Network (ANN) to Predict the Electrical Properties of 4H-SiC Schottky Diodes</p>		
	Participant	Mohammed El-Amine BEYOUR	University Mustapha Stambouli of Mascara
	Co-authors	MOURAD HEBALI, BENOUMEUR IBARI, OMAR MEDJADJ, REZALI BAGHDADI, ABDELKADER MAACHOU, HOCINE ABDELHAK AZZEDDINE, MENAOUER BENNAOUM	

186	<p>Advances in Power Sources and Power Electronic Converters for Multi-Source Electric Vehicles</p> <table border="1" data-bbox="219 280 1489 370"> <tr> <td>Participant</td><td colspan="2">Khaled BOUHADEF</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">DJAMEL EDDINE CHAOUCH, HOCINE ABDELHAK AZZEDINE</td></tr> </table>			Participant	Khaled BOUHADEF			University Mustapha Stambouli of Mascara		Co-authors	DJAMEL EDDINE CHAOUCH, HOCINE ABDELHAK AZZEDINE	
Participant	Khaled BOUHADEF											
	University Mustapha Stambouli of Mascara											
Co-authors	DJAMEL EDDINE CHAOUCH, HOCINE ABDELHAK AZZEDINE											
139	<p>Dual-Band Planar Antenna Design with Complementary Metamaterial Resonators for 5G systems</p> <table border="1" data-bbox="219 449 1489 539"> <tr> <td>Participant</td><td colspan="2">Nour El Houda BOUKHLIF</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">SAMIR GHOUALI, ABDELFETTAH MIRAOUI</td></tr> </table>			Participant	Nour El Houda BOUKHLIF			University Mustapha Stambouli of Mascara		Co-authors	SAMIR GHOUALI, ABDELFETTAH MIRAOUI	
Participant	Nour El Houda BOUKHLIF											
	University Mustapha Stambouli of Mascara											
Co-authors	SAMIR GHOUALI, ABDELFETTAH MIRAOUI											
187	<p>Exploring the Security Landscape Internet of Things</p> <table border="1" data-bbox="219 617 1489 707"> <tr> <td>Participant</td><td colspan="2">Hadjer BOUKHLIF</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">MOUWEFFEQ BOUREGAA, MOHAMMED MOULAY</td></tr> </table>			Participant	Hadjer BOUKHLIF			University Mustapha Stambouli of Mascara		Co-authors	MOUWEFFEQ BOUREGAA, MOHAMMED MOULAY	
Participant	Hadjer BOUKHLIF											
	University Mustapha Stambouli of Mascara											
Co-authors	MOUWEFFEQ BOUREGAA, MOHAMMED MOULAY											
194	<p>Wireless Technology in Medical Applications: State of the Art, Challenges, and Opportunities</p> <table border="1" data-bbox="219 797 1489 887"> <tr> <td>Participant</td><td colspan="2">Abderrahmane BENHALIMA</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">BENZERGA FELLAH, SAMIR GHOUALI</td></tr> </table>			Participant	Abderrahmane BENHALIMA			University Mustapha Stambouli of Mascara		Co-authors	BENZERGA FELLAH, SAMIR GHOUALI	
Participant	Abderrahmane BENHALIMA											
	University Mustapha Stambouli of Mascara											
Co-authors	BENZERGA FELLAH, SAMIR GHOUALI											
185	<p>Revolutionizing Diabetic Retinopathy Detection: A Comprehensive Review of AI Approaches</p> <table border="1" data-bbox="219 977 1489 1066"> <tr> <td>Participant</td><td colspan="2">Imane MAHFOUT</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">ABDELKADER HORCH, BOUALEM MERABET</td></tr> </table>			Participant	Imane MAHFOUT			University Mustapha Stambouli of Mascara		Co-authors	ABDELKADER HORCH, BOUALEM MERABET	
Participant	Imane MAHFOUT											
	University Mustapha Stambouli of Mascara											
Co-authors	ABDELKADER HORCH, BOUALEM MERABET											
197	<p>Optimizing Chromatic Dispersion in Fiber with Air-Silica Microstructured (FMAS) for Advanced Optical Telecommunications</p> <table border="1" data-bbox="219 1201 1489 1291"> <tr> <td>Participant</td><td colspan="2">Mohammed DEBBAL</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">MOUWEFFEQ BOUREGAA, MOHAMMED CHAMSE EDDINE OUADAH, HICHAM CHIKH-BLED</td></tr> </table>			Participant	Mohammed DEBBAL			University Mustapha Stambouli of Mascara		Co-authors	MOUWEFFEQ BOUREGAA, MOHAMMED CHAMSE EDDINE OUADAH, HICHAM CHIKH-BLED	
Participant	Mohammed DEBBAL											
	University Mustapha Stambouli of Mascara											
Co-authors	MOUWEFFEQ BOUREGAA, MOHAMMED CHAMSE EDDINE OUADAH, HICHAM CHIKH-BLED											
405	<p>The role of formants and subglottal resonance frequencies for emphatic feature identification in Arabic speech</p> <table border="1" data-bbox="219 1426 1489 1516"> <tr> <td>Participant</td><td colspan="2">Abderrahmane LOUNI</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">LEILA RIZOUG, ABDELHAK ZOUGGARET, BOUALEM MERABET, ABDERRAHIM BELMADANI</td></tr> </table>			Participant	Abderrahmane LOUNI			University Mustapha Stambouli of Mascara		Co-authors	LEILA RIZOUG, ABDELHAK ZOUGGARET, BOUALEM MERABET, ABDERRAHIM BELMADANI	
Participant	Abderrahmane LOUNI											
	University Mustapha Stambouli of Mascara											
Co-authors	LEILA RIZOUG, ABDELHAK ZOUGGARET, BOUALEM MERABET, ABDERRAHIM BELMADANI											
303	<p>Photo-electrochemical and Physical Properties of the Spinel CuMn<sub>2</sub>O<sub>4</sub> Prepared by Chemical Route: Application to Photodegradation of carminic acid dye</p> <table border="1" data-bbox="219 1605 1489 1695"> <tr> <td>Participant</td><td colspan="2">Hafidha BOUCHAABA</td></tr> <tr> <td></td><td colspan="2">University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td colspan="2">SARRA GOUDJILI, ZOHRA FERGOUG</td></tr> </table>			Participant	Hafidha BOUCHAABA			University Mustapha Stambouli of Mascara		Co-authors	SARRA GOUDJILI, ZOHRA FERGOUG	
Participant	Hafidha BOUCHAABA											
	University Mustapha Stambouli of Mascara											
Co-authors	SARRA GOUDJILI, ZOHRA FERGOUG											
17	<p>Control of six-phase two-motor drive machine serie-connected fed by five-level six-phase inverter</p> <table border="1" data-bbox="219 1763 1489 1852"> <tr> <td>Participant</td><td colspan="2">Taieb BESSAAD</td></tr> <tr> <td></td><td colspan="2">Hassiba Benbouali University Chlef</td></tr> <tr> <td>Co-authors</td><td colspan="2">ABDERRAHMEN BENBOUALI</td></tr> </table>			Participant	Taieb BESSAAD			Hassiba Benbouali University Chlef		Co-authors	ABDERRAHMEN BENBOUALI	
Participant	Taieb BESSAAD											
	Hassiba Benbouali University Chlef											
Co-authors	ABDERRAHMEN BENBOUALI											



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## VIRTUAL CONFERENCE SESSION

### ROOM E: Control Systems, Robotics and Automation (VIRTUAL)

Session Chairmen	<b>Dr. Soufyane CHEKROUN</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Omar DAHOU</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Benyekhlef KADA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Boumediene BENABDALLAH SEREIR</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria									
ID										
14:00- 14:15	11	Detecting Bearing Faults by Processing Vibration Signals <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">Karim BOUAOUCHE Badji Mokhtar-Annaba University</td></tr> <tr> <td>Co-authors</td><td colspan="2">YAMINA MENASRIA, DALILA KHALFA</td></tr> </table>			Participant	Karim BOUAOUCHE Badji Mokhtar-Annaba University		Co-authors	YAMINA MENASRIA, DALILA KHALFA	
Participant	Karim BOUAOUCHE Badji Mokhtar-Annaba University									
Co-authors	YAMINA MENASRIA, DALILA KHALFA									
14:15- 14:30	20	Enhancing Performance and Robustness of Vector Control for Three-Phase Synchronous Reluctance Machine Using Second-Order Sliding Mode <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">Belkacem SELMA Hassiba Benbouali University of Chlef</td></tr> <tr> <td>Co-authors</td><td colspan="2">ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA</td></tr> </table>			Participant	Belkacem SELMA Hassiba Benbouali University of Chlef		Co-authors	ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA	
Participant	Belkacem SELMA Hassiba Benbouali University of Chlef									
Co-authors	ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA									
14:30- 14:45	23	Second Order Sliding Mode Control of a Hybrid Excitation Synchronous Generator-based Wind Turbine supplying a DC Load <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">Walid Mohammed KACEMI Hassiba Benbouali University of Chlef</td></tr> <tr> <td>Co-authors</td><td colspan="2">ELHADJ BOUNADJA, ABDELKADIR BELHADJ DJILALI</td></tr> </table>			Participant	Walid Mohammed KACEMI Hassiba Benbouali University of Chlef		Co-authors	ELHADJ BOUNADJA, ABDELKADIR BELHADJ DJILALI	
Participant	Walid Mohammed KACEMI Hassiba Benbouali University of Chlef									
Co-authors	ELHADJ BOUNADJA, ABDELKADIR BELHADJ DJILALI									
14:45- 15:00	21	Modeling and Control of Variable Structure Scheme for Grid-Connected Wind Power Production System with Parallel-Connected Synchronous Reluctance Generators <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">Belkacem SELMA Hassiba Benbouali University of Chlef</td></tr> <tr> <td>Co-authors</td><td colspan="2">ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA</td></tr> </table>			Participant	Belkacem SELMA Hassiba Benbouali University of Chlef		Co-authors	ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA	
Participant	Belkacem SELMA Hassiba Benbouali University of Chlef									
Co-authors	ELHADJ BOUNADJA, BACHIR BELMADANI, BOUMEDIENE SELMA									
15:00- 15:15	59	Modeling and control of a twin-rotor drone <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">Aissa MEKSI University of Sciences and Technology of Oran</td></tr> <tr> <td>Co-authors</td><td colspan="2">Laid ABDELALI</td></tr> </table>			Participant	Aissa MEKSI University of Sciences and Technology of Oran		Co-authors	Laid ABDELALI	
Participant	Aissa MEKSI University of Sciences and Technology of Oran									
Co-authors	Laid ABDELALI									
15:15- 16:15	Poster session 1 & Coffee /Tea break									
16:15- 16:30	60	Induction Machine Parameters Identification By Using Hybridation Between Genetic Algorithm And Hooke-Jeeves method <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Participant</td><td colspan="2">El-Ghalia BOUDISSA Saad Dahlab University of Blida1</td></tr> <tr> <td>Co-authors</td><td colspan="2">F. HABBI, N. DIF, N.E.H. GABOUR, M. BOUNEKHLA</td></tr> </table>			Participant	El-Ghalia BOUDISSA Saad Dahlab University of Blida1		Co-authors	F. HABBI, N. DIF, N.E.H. GABOUR, M. BOUNEKHLA	
Participant	El-Ghalia BOUDISSA Saad Dahlab University of Blida1									
Co-authors	F. HABBI, N. DIF, N.E.H. GABOUR, M. BOUNEKHLA									



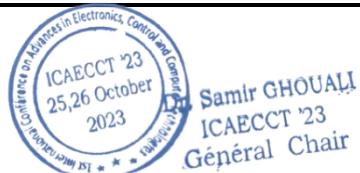
16:30- 16:45	68	Particle Swarm Optimization Algorithm-Based PID Controller for Output Voltage Regulation of Synchronous Generator				
		<table border="1"> <tr> <td>Participant</td><td>El-Ghelia BOUDISSA</td></tr> <tr> <td>Co-authors</td><td>FATIHA HABBI, NOUR EL HOUDA GABOUR, MOHAMED BOUNEKHLA AND DIF NAAS</td></tr> </table>	Participant	El-Ghelia BOUDISSA	Co-authors	FATIHA HABBI, NOUR EL HOUDA GABOUR, MOHAMED BOUNEKHLA AND DIF NAAS
Participant	El-Ghelia BOUDISSA					
Co-authors	FATIHA HABBI, NOUR EL HOUDA GABOUR, MOHAMED BOUNEKHLA AND DIF NAAS					
16:45- 17:00	253	Fuzzy Neuronal with Robust Control for Uncertain Nonlinear Systems				
		<table border="1"> <tr> <td>Participant</td><td>Fatima Zohra DAIKH</td></tr> <tr> <td>Co-authors</td><td>MOHAMMED SEGHIR GUELLIL, MOHAMMED AMINE HAMADOUCHE</td></tr> </table>	Participant	Fatima Zohra DAIKH	Co-authors	MOHAMMED SEGHIR GUELLIL, MOHAMMED AMINE HAMADOUCHE
Participant	Fatima Zohra DAIKH					
Co-authors	MOHAMMED SEGHIR GUELLIL, MOHAMMED AMINE HAMADOUCHE					
17:00- 17:15	8	Sliding Mode Control of a Five-Phase Series- Connected Two-Motor Drive				
		<table border="1"> <tr> <td>Participant</td><td>Omar ZOUAID</td></tr> <tr> <td>Co-authors</td><td>LAZHARI NEZLI</td></tr> </table>	Participant	Omar ZOUAID	Co-authors	LAZHARI NEZLI
Participant	Omar ZOUAID					
Co-authors	LAZHARI NEZLI					
17:15- 17:30	25	Simplified Control of PMSM Motors with Matrix Converter using SVM Strategy				
		<table border="1"> <tr> <td>Participant</td><td>Fayssal SAIDI</td></tr> <tr> <td>Co-authors</td><td>ELHADJ BOUNADJA, ABDELKADER DJAHBAR</td></tr> </table>	Participant	Fayssal SAIDI	Co-authors	ELHADJ BOUNADJA, ABDELKADER DJAHBAR
Participant	Fayssal SAIDI					
Co-authors	ELHADJ BOUNADJA, ABDELKADER DJAHBAR					
17:30- 17:45	85	Speed Sliding Control of Squirrel Cage Motor combined NPC Five Level Inverter				
		<table border="1"> <tr> <td>Participant</td><td>Kheira MENDAZ</td></tr> <tr> <td>Co-authors</td><td>BENHADDA YAMINA, YOUNES KHADIDJA</td></tr> </table>	Participant	Kheira MENDAZ	Co-authors	BENHADDA YAMINA, YOUNES KHADIDJA
Participant	Kheira MENDAZ					
Co-authors	BENHADDA YAMINA, YOUNES KHADIDJA					



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## ROOM F: Telecommunications and its Applications (VIRTUAL)

Session Chairmen	<b>Dr. Abdelhak ZOUGGARET</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Benzerga FELLAH</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Abderrahmane LOUNI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Fatima Zohra BOUMEDIENE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria			
	ID			
14:00- 14:15	18	Millimeter-wave transmission at 90 GHz in a hybrid fiber/FSO communication system using MIMO-FSO channel performance		
		Participant   Samra DEROUCHE Co-authors   SAMIR KAMECHE, HAROUN ERRACHID ADARDOUR	UABT University, Tlemcen	
14:15- 14:30	16	Performance Analysis of Hybrid Multiple Access OCDMA/OFDM System Using Spectral Cyclic Shift Code		
		Participant   Mohamed RAHMANI Co-authors   ABDELHAMID CHERIFI, GHOUTIA NAIMA SABRI	TAHRI Mohamed University of Bechar	
14:30- 14:45	5	Performance in Power-Domain of NOMA for fifth-generation mobile networks (5G)		
		Participant   Yaakoub BERROUCHE Co-authors	Université Ferhat Abbas Sétif 1	
14:45- 15:00	28	High Cardinality Optical Multiple Access CDMA Networks Adopting a Novel Incoherent Spectral/Temporal/Spatial Encoding Block		
		Participant   Mohamed RAHMANI Co-authors   ABDELHAMID CHERIFI, GHOUTIA NAIMA SABRI	TAHRI Mohamed University of Bechar	
15:00- 15:15	29	Performance Optimization and Comparative Analysis of Reliable Multicast Protocols (AMRH and DyRAM) in Wireless Mesh Networks		
		Participant   Asma BENMOHAMMED Co-authors   MERNIZ SALAH	Université Abdelhamid Mehri Constantine 2	
15:15- 16:15	Poster session 1 & Coffee /Tea break			
16:15- 16:30	56	A hybrid medical images watermarking technique using DWT and DCT		
		Participant   Rania HAMAMI Co-authors   NARIMA ZERMI, LARBI BOUBCHIR, AMINE KHALDI	LASA laboratory, Badji Mokhtar Annaba university	
16:30- 16:45	141	Smart Solutions for Smartphone Repair: Connecting Users with Expert Technicians		
		Participant   Rajaa BENHADI Co-authors   SAMIR GHOUALI	University Mustapha Stambouli of Mascara	



16:45- 17:00	124	Implementation of MF - TDMA OTDM-WDM mapping for the DVB-RCS2 system: Functional approach				
		<table border="1"> <tr> <td>Participant</td><td>Meryem Romaissa DJELLOULI university Djillali Liabes Sidi Bel Abbes</td></tr> <tr> <td>Co-authors</td><td>SID AHMED CHOUAKRI, ABDELKRIM GHAZ</td></tr> </table>	Participant	Meryem Romaissa DJELLOULI university Djillali Liabes Sidi Bel Abbes	Co-authors	SID AHMED CHOUAKRI, ABDELKRIM GHAZ
Participant	Meryem Romaissa DJELLOULI university Djillali Liabes Sidi Bel Abbes					
Co-authors	SID AHMED CHOUAKRI, ABDELKRIM GHAZ					
17:00- 17:15	180	Spectro-Temporal Features for Robust AMR-NB Transcoded Speech Recognition Using Deep Neural Networks				
		<table border="1"> <tr> <td>Participant</td><td>Lallouani OUCHAKOUR USTHB</td></tr> <tr> <td>Co-authors</td><td>MOHAMED DEBYECHE</td></tr> </table>	Participant	Lallouani OUCHAKOUR USTHB	Co-authors	MOHAMED DEBYECHE
Participant	Lallouani OUCHAKOUR USTHB					
Co-authors	MOHAMED DEBYECHE					
17:15- 17:30	77	An overview on DNA-based cryptography				
		<table border="1"> <tr> <td>Participant</td><td>Djihad DJAA Djillali Liabes University, Sidi Bel Abbes</td></tr> <tr> <td>Co-authors</td><td>KHEIREDDINE MEKKAOUI, SOFIANE BOUKLI-HACENE</td></tr> </table>	Participant	Djihad DJAA Djillali Liabes University, Sidi Bel Abbes	Co-authors	KHEIREDDINE MEKKAOUI, SOFIANE BOUKLI-HACENE
Participant	Djihad DJAA Djillali Liabes University, Sidi Bel Abbes					
Co-authors	KHEIREDDINE MEKKAOUI, SOFIANE BOUKLI-HACENE					
17:30- 17:45	47	Modeling of Radar Sea Clutter Using the Mixture of Three Weibull Distributions				
		<table border="1"> <tr> <td>Participant</td><td>Sarah LEFAIDA University Des Frères Mentouri Constantine</td></tr> <tr> <td>Co-authors</td><td>Faouzi SOLTANI, Amar MEZACHE</td></tr> </table>	Participant	Sarah LEFAIDA University Des Frères Mentouri Constantine	Co-authors	Faouzi SOLTANI, Amar MEZACHE
Participant	Sarah LEFAIDA University Des Frères Mentouri Constantine					
Co-authors	Faouzi SOLTANI, Amar MEZACHE					

ROOM G: Telecommunications and its Applications (VIRTUAL)						
Session Chairmen		<b>Prof. Larbi SEKHRI</b> Industrial Computing and Networks Research Laboratory (LIIR), University of Oran <b>Prof. Amina BENDAOUDI</b> Djillali Liabes University of Sidi Bel-Abbes, Algeria <b>Dr. Abdelfettah MIRAOUI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mokhtar BOUHALOUANE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria				
	ID					
14:00- 14:15	34	Design and Performance Evaluation of X-Band Satellite Antenna with Frequency Reconfigurability Using Varactor Diode <table border="1"> <tr> <td>Participant</td><td>Rahma Djaouda TALEB ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>MOHAMMED ZAKARYA BABA-AHMED, MOHAMMED AMIN RABAH, SIDAHMED BENABBOU, MERIEM IKRAM SOUFI</td></tr> </table>	Participant	Rahma Djaouda TALEB ABOU BEKR BELKAID University, Tlemcen	Co-authors	MOHAMMED ZAKARYA BABA-AHMED, MOHAMMED AMIN RABAH, SIDAHMED BENABBOU, MERIEM IKRAM SOUFI
Participant	Rahma Djaouda TALEB ABOU BEKR BELKAID University, Tlemcen					
Co-authors	MOHAMMED ZAKARYA BABA-AHMED, MOHAMMED AMIN RABAH, SIDAHMED BENABBOU, MERIEM IKRAM SOUFI					
14:15- 14:30	39	A Log Periodic Dipole Antenna Array SIW Feeding For 5G Millimiter-Wave Applications <table border="1"> <tr> <td>Participant</td><td>Hanane METAHRI ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>MEHADJI ABRI, MOHAMMED MOULAY, HANAA MOUSSAOUI, NABIL CHERIF</td></tr> </table>	Participant	Hanane METAHRI ABOU BEKR BELKAID University, Tlemcen	Co-authors	MEHADJI ABRI, MOHAMMED MOULAY, HANAA MOUSSAOUI, NABIL CHERIF
Participant	Hanane METAHRI ABOU BEKR BELKAID University, Tlemcen					
Co-authors	MEHADJI ABRI, MOHAMMED MOULAY, HANAA MOUSSAOUI, NABIL CHERIF					



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14:30- 14:45	43	Inovation of a Miniaturized Antenna Array Based On A High Frequency Substrate And Metamaterial Cells				
		<table border="1"> <tr> <td>Participant</td><td>Fayza BOUSALAH ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>HAYAT BENOSMAN, AMIN MOHAMMED RABAH, ZAKARIYA MOHAMMED BABA AHMED</td></tr> </table>	Participant	Fayza BOUSALAH ABOU BEKR BELKAID University, Tlemcen	Co-authors	HAYAT BENOSMAN, AMIN MOHAMMED RABAH, ZAKARIYA MOHAMMED BABA AHMED
Participant	Fayza BOUSALAH ABOU BEKR BELKAID University, Tlemcen					
Co-authors	HAYAT BENOSMAN, AMIN MOHAMMED RABAH, ZAKARIYA MOHAMMED BABA AHMED					
14:45- 15:00	48	Efficiency of 40 Gbps OTDM-FSO optical system under weather conditions				
		<table border="1"> <tr> <td>Participant</td><td>Haroun Errachid ADARDOUR UHBC University, Chlef</td></tr> <tr> <td>Co-authors</td><td>SINGH MEHTAB, IKRAM KHELOUF, C. ABDELHAKIM FELLAGE</td></tr> </table>	Participant	Haroun Errachid ADARDOUR UHBC University, Chlef	Co-authors	SINGH MEHTAB, IKRAM KHELOUF, C. ABDELHAKIM FELLAGE
Participant	Haroun Errachid ADARDOUR UHBC University, Chlef					
Co-authors	SINGH MEHTAB, IKRAM KHELOUF, C. ABDELHAKIM FELLAGE					
15:00- 15:15	49	Design of a Miniature Circularly Polarized Microstrip Antenna for GNSSS Applications				
		<table border="1"> <tr> <td>Participant</td><td>Hayet BENOSMAN ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>FAYZA BOUSALAH, AMINE RABAH</td></tr> </table>	Participant	Hayet BENOSMAN ABOU BEKR BELKAID University, Tlemcen	Co-authors	FAYZA BOUSALAH, AMINE RABAH
Participant	Hayet BENOSMAN ABOU BEKR BELKAID University, Tlemcen					
Co-authors	FAYZA BOUSALAH, AMINE RABAH					
15:15- 16:15		<b>Poster session 1 &amp; Coffee /Tea break</b>				
16:15- 16:30	63	Numerical Dynamics Analysis of a Chaotic Third-Order Phase-Locked Loop				
		<table border="1"> <tr> <td>Participant</td><td>Mohammed BENDAOUD ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>SAMIR KAMECHE, ACHOUR OUSLIMANI</td></tr> </table>	Participant	Mohammed BENDAOUD ABOU BEKR BELKAID University, Tlemcen	Co-authors	SAMIR KAMECHE, ACHOUR OUSLIMANI
Participant	Mohammed BENDAOUD ABOU BEKR BELKAID University, Tlemcen					
Co-authors	SAMIR KAMECHE, ACHOUR OUSLIMANI					
16:30- 16:45	115	Blind Speech Enhancement Based on Adaptive Filtering and Improved Bat Algorithm				
		<table border="1"> <tr> <td>Participant</td><td>Sofiane FISLI 8 Mai 1945- Guelma University</td></tr> <tr> <td>Co-authors</td><td>MOHAMED DJENDI</td></tr> </table>	Participant	Sofiane FISLI 8 Mai 1945- Guelma University	Co-authors	MOHAMED DJENDI
Participant	Sofiane FISLI 8 Mai 1945- Guelma University					
Co-authors	MOHAMED DJENDI					
16:45- 17:00	121	Study of a dual polarized RoF OFDM system with WDM-PON structure for mobile broadband networks				
		<table border="1"> <tr> <td>Participant</td><td>chebra abdennour FELLAG ABOU BEKR BELKAID University, Tlemcen</td></tr> <tr> <td>Co-authors</td><td>AHMED RIAD BORSALI, MEHDI ROUSSAT</td></tr> </table>	Participant	chebra abdennour FELLAG ABOU BEKR BELKAID University, Tlemcen	Co-authors	AHMED RIAD BORSALI, MEHDI ROUSSAT
Participant	chebra abdennour FELLAG ABOU BEKR BELKAID University, Tlemcen					
Co-authors	AHMED RIAD BORSALI, MEHDI ROUSSAT					
17:00- 17:15	89	Design and Simulation of U-slotted Microstrip Patch Antenna for L, S, C and X Band				
		<table border="1"> <tr> <td>Participant</td><td>Riadh DEGACHI University of El-Oued</td></tr> <tr> <td>Co-authors</td><td>GHENDIR SAID</td></tr> </table>	Participant	Riadh DEGACHI University of El-Oued	Co-authors	GHENDIR SAID
Participant	Riadh DEGACHI University of El-Oued					
Co-authors	GHENDIR SAID					
17:15- 17:30	31	A Nano rectangular gold and graphene patch antenna for WBAN applications				
		<table border="1"> <tr> <td>Participant</td><td>Bouchra MOULFI University of Ain Temouchent</td></tr> <tr> <td>Co-authors</td><td>SOUHEYLA FEROUANI, DJALAL ZIANI KERARTI AND FATIMA ZAHRA MOUSSA</td></tr> </table>	Participant	Bouchra MOULFI University of Ain Temouchent	Co-authors	SOUHEYLA FEROUANI, DJALAL ZIANI KERARTI AND FATIMA ZAHRA MOUSSA
Participant	Bouchra MOULFI University of Ain Temouchent					
Co-authors	SOUHEYLA FEROUANI, DJALAL ZIANI KERARTI AND FATIMA ZAHRA MOUSSA					
17:30- 17:45	131	Design and Simulation of a Leaky Wave Antenna Based on Metamaterial Substrate Integrated Waveguide for Millimeter-wave Application				
		<table border="1"> <tr> <td>Participant</td><td>Chaabane SOUMALI University of Yahia Fares Medea</td></tr> <tr> <td>Co-authors</td><td>MOUNIR BELATTAR</td></tr> </table>	Participant	Chaabane SOUMALI University of Yahia Fares Medea	Co-authors	MOUNIR BELATTAR
Participant	Chaabane SOUMALI University of Yahia Fares Medea					
Co-authors	MOUNIR BELATTAR					



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# 26 October 2023

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REGISTRATION

## FACE TO FACE CONFERENCE ORAL SESSION (Physical)

### ROOM A: Control Systems, Robotics and Automation

Session Chairmen	<b>Dr. Soufyane CHEKROUN</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Benaoumeur IBARI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mohammed El Amine SENOUSSAOUI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Adel BENABBOUN</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria				
	<b>ID</b>				
09:00- 09:15	<b>114</b> Enhancing Industrial Process Control using multi-layer perceptron (MLP) <table border="1"> <tr> <td>Participant</td><td>Leila BENAISSA KADDAR University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>Mohamed El Mehdi ZAREB</td></tr> </table>	Participant	Leila BENAISSA KADDAR University Mustapha Stambouli of Mascara	Co-authors	Mohamed El Mehdi ZAREB
Participant	Leila BENAISSA KADDAR University Mustapha Stambouli of Mascara				
Co-authors	Mohamed El Mehdi ZAREB				
09:15- 09:30	<b>171</b> Velocity observer-based computed torque control for trajectory tracking of uncertain robotic manipulators <table border="1"> <tr> <td>Participant</td><td>Rezali BAGHDADI University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>BENAOUUMEUR IBARI, MOURAD HEBALI, OMAR MEDJADJ, MOHAMMED EL-AMINE BEYOUR, AHMED FOITIH ZOUBIR</td></tr> </table>	Participant	Rezali BAGHDADI University Mustapha Stambouli of Mascara	Co-authors	BENAOUUMEUR IBARI, MOURAD HEBALI, OMAR MEDJADJ, MOHAMMED EL-AMINE BEYOUR, AHMED FOITIH ZOUBIR
Participant	Rezali BAGHDADI University Mustapha Stambouli of Mascara				
Co-authors	BENAOUUMEUR IBARI, MOURAD HEBALI, OMAR MEDJADJ, MOHAMMED EL-AMINE BEYOUR, AHMED FOITIH ZOUBIR				
09:30- 09:45	<b>179</b> Electric Vehicle Wheel-Slip control Based on Sliding Mode Controller <table border="1"> <tr> <td>Participant</td><td>Tabti KHATIR University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>MOSTEFAI LOTFI, CHEKROUN SOUFYANE, NEKROUF SADEK, LARBAOUI AHMED</td></tr> </table>	Participant	Tabti KHATIR University Mustapha Stambouli of Mascara	Co-authors	MOSTEFAI LOTFI, CHEKROUN SOUFYANE, NEKROUF SADEK, LARBAOUI AHMED
Participant	Tabti KHATIR University Mustapha Stambouli of Mascara				
Co-authors	MOSTEFAI LOTFI, CHEKROUN SOUFYANE, NEKROUF SADEK, LARBAOUI AHMED				
09:45- 10:45	<b>Poster session 2 &amp; coffee break</b>				
10:45- 11:00	<b>109</b> Intelligent control strategy of induction motor through Fuzzy Logic Direct Torque Control <table border="1"> <tr> <td>Participant</td><td>Ameur Fethi AIMER University Dr. Tahar Moulay of Saida, Algeria</td></tr> <tr> <td>Co-authors</td><td>AHMED HAMIDA BOUDINAR, MOHAMED EL-AMINE KHODJA, AZEDDINE BENDIABELLAH</td></tr> </table>	Participant	Ameur Fethi AIMER University Dr. Tahar Moulay of Saida, Algeria	Co-authors	AHMED HAMIDA BOUDINAR, MOHAMED EL-AMINE KHODJA, AZEDDINE BENDIABELLAH
Participant	Ameur Fethi AIMER University Dr. Tahar Moulay of Saida, Algeria				
Co-authors	AHMED HAMIDA BOUDINAR, MOHAMED EL-AMINE KHODJA, AZEDDINE BENDIABELLAH				
11:00- 11:15	<b>257</b> Full State Feedback Control for Underactuated Nonlinear Mechanical Systems <table border="1"> <tr> <td>Participant</td><td>Anis FEDDAOUI Badji Mokhtar University</td></tr> <tr> <td>Co-authors</td><td>M.A. DJEHAF, Y.I. DJILLANI KOBIBI, O. FEZAZI</td></tr> </table>	Participant	Anis FEDDAOUI Badji Mokhtar University	Co-authors	M.A. DJEHAF, Y.I. DJILLANI KOBIBI, O. FEZAZI
Participant	Anis FEDDAOUI Badji Mokhtar University				
Co-authors	M.A. DJEHAF, Y.I. DJILLANI KOBIBI, O. FEZAZI				



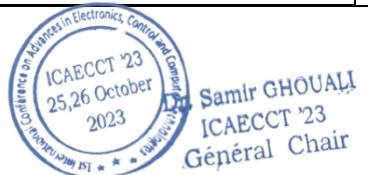
Dr. Samir GHOUALI  
ICAECCT '23  
Général Chair

11:15- 11:30	132	A comparative analysis of bioreactor system control with the high-order sliding controller and the classic sliding control
	Participant	Mohamed MESSABIH University of Science and Technology of Oran, USTO
	Co-authors	BACHIR DAAOU, ABDERRAHMENE KACIMI, ABDERRAHMENE SNOUSSAOUI
11:30- 11:45	113	Identifying Spatial Risk of Road Accidents Based On Fuzzy Logic Approach
	Participant	Miloud DRISS University Mustapha Stambouli of Mascara
	Co-authors	MOHAMED AMINE HAMADOUCHE, MUSTAPHA LALLAM, OUALID LARGUECHE, SOFIANE ADJLOUT

## FACE TO FACE CONFERENCE ORAL SESSION (Physical)

### ROOM B: Telecommunications and its Applications

Session Chairmen	<b>Dr. Abdelfettah MIRAOUI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mohamed MOULAY</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mokhtar BESSEGHIER</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Belhassane AHMEDBLAHA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria
	<b>ID</b>
09:00- 09:15	122
	Turbulence Effect on RGB Image Transmission over IM/DD Communication-Oriented Free-Space Optical Systems
	Participant Amina DJIR Djillali Liabes University, Sidi-Bel-Abbes
	Co-authors Fatiha MESKINE, Mohamed Larbi TAYEBI
09:15- 09:30	119
	Deep learning for Microwave Modeling and Design
	Participant Nour El Houda Sara SENASLI University Dr. Tahar Moulay of Saida, Algeria
	Co-authors MOHAMMED CHETIOUI, LAMIA SENASLI, MEHDI DAMOU
09:30- 10:30	
	<b>Poster session 2 &amp; coffee break</b>
10:30- 10:45	252
	Compressive Spectrum Sensing for Cognitive Radio: Recovery and Detection
	Participant Hadj Abdelkader BENZATER Ecole militaire polytechnique, Alger
	Co-authors DJAMEL TEGUIG, NACERREDINE LASSAMI
10:45- 11:00	95
	Design and Performance Analysis of a High-Gain Coaxial Probe-Fed Fractal Antenna for Multiband Applications Using Sierpinski Triangle Geometry
	Participant ABDELBASSET AZZOZ Dr. Moulay Taher University Saida
	Co-authors RACHID BOUHMIDI, ABDELLATIF KHELIL
11:00- 11:15	67
	Intelligent Recognition of Digital Modulation on Terahertz Channel
	Participant Asmâa OUSSAI University of Saida
	Co-authors ABDELKADER TAMI, HACHEMI SOUMAYA, KOURAT IKRAM



## FACE TO FACE CONFERENCE ORAL SESSION (Physical)

### ROOM C: High Voltage Engineering and Applications

Session Chairmen	<b>Prof. Youcef BENMIMOUN</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Fouad KHERBOUCHE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Toufik Ahmed HOUARI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria				
	<b>ID</b>				
09:30- 09:45	<b>138</b> Analyzing Particles Trajectories in a Free-Fall Electrostatic Separator <table border="1"> <tr> <td>Participant</td><td>Mohammed Fethi BEKKARA University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>A. BOUARGOUB, A. CHELIH, D. AZZEDDINE, H.A. AZZEDDINE, Y. BENMIMOUN</td></tr> </table>	Participant	Mohammed Fethi BEKKARA University Mustapha Stambouli of Mascara	Co-authors	A. BOUARGOUB, A. CHELIH, D. AZZEDDINE, H.A. AZZEDDINE, Y. BENMIMOUN
Participant	Mohammed Fethi BEKKARA University Mustapha Stambouli of Mascara				
Co-authors	A. BOUARGOUB, A. CHELIH, D. AZZEDDINE, H.A. AZZEDDINE, Y. BENMIMOUN				
09:45- 10:00	<b>81</b> Experimental Study of Current Density and Electric Field at Various Temperatures in Electrostatic Precipitator <table border="1"> <tr> <td>Participant</td><td>Hakim AIT SAID University of Relizane</td></tr> <tr> <td>Co-authors</td><td>ABDELKRIM LAIFAQUI, BOUZIANE MELIANI, MEZIANE KACI, NIHAD HEBBAR, MASSINISSA AISSOU, HAMOU NOURI</td></tr> </table>	Participant	Hakim AIT SAID University of Relizane	Co-authors	ABDELKRIM LAIFAQUI, BOUZIANE MELIANI, MEZIANE KACI, NIHAD HEBBAR, MASSINISSA AISSOU, HAMOU NOURI
Participant	Hakim AIT SAID University of Relizane				
Co-authors	ABDELKRIM LAIFAQUI, BOUZIANE MELIANI, MEZIANE KACI, NIHAD HEBBAR, MASSINISSA AISSOU, HAMOU NOURI				
10:00- 10:15	<b>64</b> Multi objective particle swarm optimization with Selective harmonic elimination technique for neutral point clamped multilevel inverters <table border="1"> <tr> <td>Participant</td><td>Nour El Houda GABOUR University M'hamed Bougara Boumerdes</td></tr> <tr> <td>Co-authors</td><td>EL GHALIA BOUDISSA, FATIHA HABBI, MOHAMED BOUNEKHLA</td></tr> </table>	Participant	Nour El Houda GABOUR University M'hamed Bougara Boumerdes	Co-authors	EL GHALIA BOUDISSA, FATIHA HABBI, MOHAMED BOUNEKHLA
Participant	Nour El Houda GABOUR University M'hamed Bougara Boumerdes				
Co-authors	EL GHALIA BOUDISSA, FATIHA HABBI, MOHAMED BOUNEKHLA				

### CLOSING CEREMONY



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## CONFERENCE POSTER SESSION 2

Session Chairmen		<b>Dr. Abdelkader BESSAKRA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Isma HATRAF</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria
<b>ID</b>		
35	Planar Micro-Inductor Design for Stand-Alone Photovoltaic DC-DC Converter	
	Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran
	Co-authors	YAMINA BENHADDA, AZZEDINE HAMID
36	Monolithic Micro-Transformer Magneto-Thermal Behaviour for MEMS	
	Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran
	Co-authors	YAMINA BENHADDA, AZZEDINE HAMID
42	Design and Realization of Power Divider Using Microstrip Stubs Line	
	Participant	Rahmouna EL BOUSLEMTI Ecole Nationale polytechnique d'oran, Maurice audin
	Co-authors	
41	Real-Time Hardware and Software System for Assistance in Daily-life Mobility of Visually Impaired Individuals	
	Participant	Rahmouna EL BOUSLEMTI Ecole Nationale polytechnique d'oran, Maurice audin
	Co-authors	N. BENTYAEB, W. KROUCHI
46	Implementation of GA based selective harmonic elimination pulse width modulation for two level three phase inverters using DSPACE DS1104	
	Participant	Lemya DJAFER Hassiba Benbouali University of Chlef
	Co-authors	Rachid TALEB, Fayçal MEHEDI, Aicha AISSA BOKHTACHE
58	U-Net vs. TransUNet for Weed Segmentation: A Comparative Study	
	Participant	Mohamed El Amine BOUHADJER Djillali Liabes University Sidi Bel Abbes
	Co-authors	SARAH MAZARI, MILOUD CHIKRELMEZOUAR
66	Design of an All-Optical Half Adder Around 1.31 $\mu$ m Based on Nonlinear 2DPhCRRs	
	Participant	Abdallah IKHLEF Abou Bakr Belkaïd University of Tlemcen
	Co-authors	HADJIRA BADAOUI, MEHADJI ABRI
173	Study of the MWT (Metal Wrap Through) heterojunction solar cell with numerical simulation	
	Participant	Nadjet BENADLA Abou Bakr Belkaïd University of Tlemcen
	Co-authors	



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	A Comprehensive Analysis of 433MHz Image Telemetry in Educational CubeSat Context		
129	Participant	Mohammed amine ZAFRANE	University of Science and Technologies of Oran
	Co-authors	MILOUD BECHEHIMA, AHMED RAMZI HOUALEF	
	Simulation of Harmonic Perturbation for AC Impedance Measurement in a SOFC Cathode		
133	Participant	Ismail BENCHEBIBA	University of Chlef
	Co-authors	MOHAMED MOSTEFAOUI, NEDJAR YAHIA MOUHAMED AMINE	
	Water Treatment Using a Kit Consisting of Two Identical Series Ozone Generators Powered by a Pv (Photovoltaic) System, Designed for Isolated Areas		
26	Participant	Souhila BOUDJELLA	university Mustapha Stambouli of Mascara
	Co-authors	M NADJIB BRAHAMI, FATIMA Z BOUDJELLA, SAID NEMMICH, AMAR TILMATINE, MOSTEFA BRAHAMI	
	Investigating the impact of the receiver in protecting two wind turbines with different settings from lightning		
70	Participant	Younes ABDELBARI	University of Tiaret
	Co-authors	MIMOUNI ABDENBI	
	Modeling and Optimization of an Industrial Roll-type Separator Using the Response Surface Methodology		
116	Participant	Djillali AZZEDDINE	university Mustapha Stambouli of Mascara
	Co-authors	MOHAMMED FETHI BEKKARA, YOUSSEF BENMIMOUN, HOCINE ABDELHAK AZZEDDINE	
	Analyzing Ozone Generation: An Experimental Study of Volume Dielectric Barrier Discharge Generators		
130	Participant	Ibrahim NEDJAR	university Mustapha Stambouli of Mascara
	Co-authors	A. BENABBOUN, A. MOUFFAK, S. NEMMICH	
	Two-dimensional simulation of dielectric barrier discharge in argon gas at atmospheric pressure		
144	Participant	Nedjar Yahia Mohamed Amine	Hassiba Ben bouali University of Chlef
	Co-authors	MOHAMED MOSTEFAOUI, ISMAIL BENCHEBIBA, DJILALI BENYOUCEF	
	Automatic Voltage Regulator of a Synchronous Generator by Using Fuzzy Logic		
147	Participant	Yassine ADJISSI	Saad Dahlab University, Blida
	Co-authors	BOUDISSA EL-GHALIA, BOUNEKHILA M'HAMED	
	Efficiency and Sustainability in Public Transit: The Sidi Bel Abbès Tramway Line Extension and Energy Recovery System		
153	Participant	Houaria BELAHcene	university Mustapha Stambouli of Mascara
	Co-authors	O. DAHOU, A. MOUFFAK AND Y.I. DJILANI KOBIBI	

192	Current Control for an Electrostatic Separator	
	Participant	Hocine Abdelhak AZZEDDINE university Mustapha Stambouli of Mascara
	Co-authors	MOHAMMED FATHI BEKKARA, DJILLALI AZZEDINE, YOUSSEF BENMIMOUN, ABDELKADER HORCH, MOURAD HEBALI, BENAOUUMEUR IBARI, DJAMEL EDDINE CHAOUCH, AHMED ARBAOUI

ROOM D: Control Systems, Robotics and Automation (VIRTUAL)						
Session Chairmen		<b>Dr. Djamel Eddine CHAOUCH</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Adnane MOUFFAK</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Khatir TABTI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Djillali AZZEDDINE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria				
	ID					
09:00- 09:15	93	Neural Input Output Linearization Control of Induction Motor  <table border="1"> <tr> <td>Participant</td><td>kheira MENDAZ university Ain Temouchent</td></tr> <tr> <td>Co-authors</td><td>YAMINA BENHADDA, NARIMENE KHADRAOUA</td></tr> </table>	Participant	kheira MENDAZ university Ain Temouchent	Co-authors	YAMINA BENHADDA, NARIMENE KHADRAOUA
Participant	kheira MENDAZ university Ain Temouchent					
Co-authors	YAMINA BENHADDA, NARIMENE KHADRAOUA					
09:15- 09:30	146	Electronic Differential with Sliding Mode Backstepping Control for Vehicle Propulsion System  <table border="1"> <tr> <td>Participant</td><td>Ahmed LARBAOUI University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>A. BENABBOUN, H. AZZEDINE, K. TABTI, A. ZOGGARET, D. CHAOUCH, Y.I. DJILANI KOBIBI, A. BERROUDJI, K. BOUHADEF</td></tr> </table>	Participant	Ahmed LARBAOUI University Mustapha Stambouli of Mascara	Co-authors	A. BENABBOUN, H. AZZEDINE, K. TABTI, A. ZOGGARET, D. CHAOUCH, Y.I. DJILANI KOBIBI, A. BERROUDJI, K. BOUHADEF
Participant	Ahmed LARBAOUI University Mustapha Stambouli of Mascara					
Co-authors	A. BENABBOUN, H. AZZEDINE, K. TABTI, A. ZOGGARET, D. CHAOUCH, Y.I. DJILANI KOBIBI, A. BERROUDJI, K. BOUHADEF					
09:30- 09:45	99	Exploiting the Open-Source ROS Framework for Self-Governing Drone Flight Empowered by Artificial Intelligence  <table border="1"> <tr> <td>Participant</td><td>Marwa GAIDI University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>SOUFYANE CHEKROUN, MOKHTAR ZERIKAT, MOHAMED EL MEHDI ZAREB</td></tr> </table>	Participant	Marwa GAIDI University Mustapha Stambouli of Mascara	Co-authors	SOUFYANE CHEKROUN, MOKHTAR ZERIKAT, MOHAMED EL MEHDI ZAREB
Participant	Marwa GAIDI University Mustapha Stambouli of Mascara					
Co-authors	SOUFYANE CHEKROUN, MOKHTAR ZERIKAT, MOHAMED EL MEHDI ZAREB					
09:45- 10:45		<b>Poster session 2 &amp; coffee break</b>				
10:45- 11:00	106	Signal Processing-based Fault Detection  <table border="1"> <tr> <td>Participant</td><td>Chaima TAMRABET Badji Mokhtar University, Annaba</td></tr> <tr> <td>Co-authors</td><td>ELIAS HADJADJ AOUL, MOHAMED TAHAR DEKHOUCHE</td></tr> </table>	Participant	Chaima TAMRABET Badji Mokhtar University, Annaba	Co-authors	ELIAS HADJADJ AOUL, MOHAMED TAHAR DEKHOUCHE
Participant	Chaima TAMRABET Badji Mokhtar University, Annaba					
Co-authors	ELIAS HADJADJ AOUL, MOHAMED TAHAR DEKHOUCHE					
11:00- 11:15	125	Integration and modeling thermal effect in Preisach model associated with the student distribution function using the finite element method  <table border="1"> <tr> <td>Participant</td><td>Mourad DAFRI Badji Mokhtar University, Annaba</td></tr> <tr> <td>Co-authors</td><td>MOURAD NAIDJI, ABDELAZIZ LADJIMI</td></tr> </table>	Participant	Mourad DAFRI Badji Mokhtar University, Annaba	Co-authors	MOURAD NAIDJI, ABDELAZIZ LADJIMI
Participant	Mourad DAFRI Badji Mokhtar University, Annaba					
Co-authors	MOURAD NAIDJI, ABDELAZIZ LADJIMI					



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Général Chair

11:15- 11:30	135	Hybrid GA-ANN model for the prediction of EV Wheel speeds						
		<table border="1"> <tr> <td>Participant</td><td>Medjdoub KHESSAM</td></tr> <tr> <td></td><td>Center univ Naama</td></tr> <tr> <td>Co-authors</td><td>HAZZAB ABDELDJEBAR, MOUNA HADJADJ, REZKALLAH MILOUD, AMBRISH CHANDRA</td></tr> </table>	Participant	Medjdoub KHESSAM		Center univ Naama	Co-authors	HAZZAB ABDELDJEBAR, MOUNA HADJADJ, REZKALLAH MILOUD, AMBRISH CHANDRA
Participant	Medjdoub KHESSAM							
	Center univ Naama							
Co-authors	HAZZAB ABDELDJEBAR, MOUNA HADJADJ, REZKALLAH MILOUD, AMBRISH CHANDRA							
11:30- 11:45	168	Simulation and control of energy storage systems in the hybrid renewable energies DC-Microgrid: a comparative study						
		<table border="1"> <tr> <td>Participant</td><td>Oussama HAFSI</td></tr> <tr> <td></td><td>Ahmed Draia University, Adrar</td></tr> <tr> <td>Co-authors</td><td>MOHAMED AMINE SOUMEUR, MOHAMED AMINE HARTANI, ABDESELEM CHAKAR, AISSA BENHAMOU, OTHMANE ABDELKALEK</td></tr> </table>	Participant	Oussama HAFSI		Ahmed Draia University, Adrar	Co-authors	MOHAMED AMINE SOUMEUR, MOHAMED AMINE HARTANI, ABDESELEM CHAKAR, AISSA BENHAMOU, OTHMANE ABDELKALEK
Participant	Oussama HAFSI							
	Ahmed Draia University, Adrar							
Co-authors	MOHAMED AMINE SOUMEUR, MOHAMED AMINE HARTANI, ABDESELEM CHAKAR, AISSA BENHAMOU, OTHMANE ABDELKALEK							
11:45- 12:00	174	State Estimation for Nonlinear System Using Line Integral Lyapunov Function: A Polytopic Approach with Unmeasurable Premises						
		<table border="1"> <tr> <td>Participant</td><td>Khalida MIMOUNE</td></tr> <tr> <td></td><td>university of Biskra</td></tr> <tr> <td>Co-authors</td><td>KHALIDA MIMOUNE, MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE</td></tr> </table>	Participant	Khalida MIMOUNE		university of Biskra	Co-authors	KHALIDA MIMOUNE, MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE
Participant	Khalida MIMOUNE							
	university of Biskra							
Co-authors	KHALIDA MIMOUNE, MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE							
12:00- 12:15	202	Fractional Order Adaptive MRAC Controller Design						
		<table border="1"> <tr> <td>Participant</td><td>Souad ANTEUR</td></tr> <tr> <td></td><td>University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>BACHIR BOUIADJRA ROCHDI, MOHAMMED BENMADANI DEBBAT</td></tr> </table>	Participant	Souad ANTEUR		University Mustapha Stambouli of Mascara	Co-authors	BACHIR BOUIADJRA ROCHDI, MOHAMMED BENMADANI DEBBAT
Participant	Souad ANTEUR							
	University Mustapha Stambouli of Mascara							
Co-authors	BACHIR BOUIADJRA ROCHDI, MOHAMMED BENMADANI DEBBAT							
12:15- 12:30	62	Ear recognition system based on multi-scale feature extraction technique						
		<table border="1"> <tr> <td>Participant</td><td>Lebed Toufik</td></tr> <tr> <td></td><td>University of May 08, 1945 Guelma</td></tr> <tr> <td>Co-authors</td><td>ABDELHAK BOUKHAROUBA</td></tr> </table>	Participant	Lebed Toufik		University of May 08, 1945 Guelma	Co-authors	ABDELHAK BOUKHAROUBA
Participant	Lebed Toufik							
	University of May 08, 1945 Guelma							
Co-authors	ABDELHAK BOUKHAROUBA							

ROOM E: Electronics and its Applications (VIRTUAL)								
Session Chairmen		<b>Prof. Abdelkader EL KEBIR</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mourad HEBALI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Menouer BENNAOUM</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Abdelkader BAGHDAD BEY</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria						
	ID							
09:00- 09:15	12	Optimal Power Flow Solution using QPSODM Algorithm <table border="1"> <tr> <td>Participant</td><td>Mourad NAIDJI</td></tr> <tr> <td></td><td>Badji Mokhtar University, Annaba</td></tr> <tr> <td>Co-authors</td><td>MOURAD DAFRI, ABDELBASET LAIB</td></tr> </table>	Participant	Mourad NAIDJI		Badji Mokhtar University, Annaba	Co-authors	MOURAD DAFRI, ABDELBASET LAIB
Participant	Mourad NAIDJI							
	Badji Mokhtar University, Annaba							
Co-authors	MOURAD DAFRI, ABDELBASET LAIB							
09:15- 09:30	13	A novel approach for wind farm layout optimization using QPSODM algorithm <table border="1"> <tr> <td>Participant</td><td>Mourad NAIDJI</td></tr> <tr> <td></td><td>Badji Mokhtar University, Annaba</td></tr> <tr> <td>Co-authors</td><td>MOURAD DAFRI</td></tr> </table>	Participant	Mourad NAIDJI		Badji Mokhtar University, Annaba	Co-authors	MOURAD DAFRI
Participant	Mourad NAIDJI							
	Badji Mokhtar University, Annaba							
Co-authors	MOURAD DAFRI							

09:30- 09:45	30	Thermal Analysis and Heat Sink Optimization for Power Transistor Cooling				
		<table border="1"> <tr> <td>Participant</td><td>Yamina BENHADDA</td></tr> <tr> <td>Co-authors</td><td>K. MENDAZ, M. DERKAOUI, H. KHARBOUCH</td></tr> </table>	Participant	Yamina BENHADDA	Co-authors	K. MENDAZ, M. DERKAOUI, H. KHARBOUCH
Participant	Yamina BENHADDA					
Co-authors	K. MENDAZ, M. DERKAOUI, H. KHARBOUCH					
09:45- 10:45	<b>Poster session 2 &amp; coffee break</b>					
10:45- 11:00	52	High Transmission Dielectric Grating at the Littrow Angle Using Antireflection Coating in the Visible Spectral Range				
		<table border="1"> <tr> <td>Participant</td><td>Mounira ZOUTAT</td></tr> <tr> <td></td><td>University of Sciences and Technology Houari Boumediene</td></tr> <tr> <td>Co-authors</td><td>BERBAR TARIK BOUZIAN</td></tr> </table>	Participant	Mounira ZOUTAT		University of Sciences and Technology Houari Boumediene
Participant	Mounira ZOUTAT					
	University of Sciences and Technology Houari Boumediene					
Co-authors	BERBAR TARIK BOUZIAN					
11:00- 11:15	137	Contribution to the Study of the Electrical Behavior of an 1T- 1C-DRAM Memory Cell in 250nm CMOS (3C-SiC) Technology				
		<table border="1"> <tr> <td>Participant</td><td>Jilali BERBARA</td></tr> <tr> <td></td><td>Tissemsilt University</td></tr> <tr> <td>Co-authors</td><td>MOURAD HEBALI, MOHAMMED EL-AMIN BEYOUR, MILOUD ABOOUN ABID, DJILALI CHALABI</td></tr> </table>	Participant	Jilali BERBARA		Tissemsilt University
Participant	Jilali BERBARA					
	Tissemsilt University					
Co-authors	MOURAD HEBALI, MOHAMMED EL-AMIN BEYOUR, MILOUD ABOOUN ABID, DJILALI CHALABI					
11:15- 11:30	188	A New Design of Non-Causal Recursive Digital Filters with a backward-forward realization for both Standard and Non-standard Magnitude Specifications				
		<table border="1"> <tr> <td>Participant</td><td>Adnane MOUFFAK</td></tr> <tr> <td></td><td>University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>HAZZAB ABDELDJEBAR, MOUNA HADJADJ, REZKALLAH MILOUD, AMBRISH CHANDRA</td></tr> </table>	Participant	Adnane MOUFFAK		University Mustapha Stambouli of Mascara
Participant	Adnane MOUFFAK					
	University Mustapha Stambouli of Mascara					
Co-authors	HAZZAB ABDELDJEBAR, MOUNA HADJADJ, REZKALLAH MILOUD, AMBRISH CHANDRA					
11:30- 11:45	200	Compact modeling of I-V characteristics in Al <sub>x</sub> Ga <sub>1-x</sub> N/GaN HEMTs				
		<table border="1"> <tr> <td>Participant</td><td>Nawel KERMAS</td></tr> <tr> <td></td><td>Tiaret university</td></tr> <tr> <td>Co-authors</td><td>Driss BOUGUENNA</td></tr> </table>	Participant	Nawel KERMAS		Tiaret university
Participant	Nawel KERMAS					
	Tiaret university					
Co-authors	Driss BOUGUENNA					
11:45- 12:00	220	Device Performance of AlGaN/AlN/GaN MIS HEMTs with La <sub>2</sub> O <sub>3</sub> high $\kappa$ as Gate Dielectric Insulator Layer				
		<table border="1"> <tr> <td>Participant</td><td>Khaled HEBALI</td></tr> <tr> <td></td><td>University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>DRISS BOUGUENNA, ABBES BELOUFA</td></tr> </table>	Participant	Khaled HEBALI		University Mustapha Stambouli of Mascara
Participant	Khaled HEBALI					
	University Mustapha Stambouli of Mascara					
Co-authors	DRISS BOUGUENNA, ABBES BELOUFA					
12:00- 12:15	3	Study of the Energy Levels in The Structure of The Laser Diode GAINP/ALGAINP				
		<table border="1"> <tr> <td>Participant</td><td>Abdelali LAID</td></tr> <tr> <td></td><td>Sidi Bel Abbes University</td></tr> <tr> <td>Co-authors</td><td>ABID HAMZA</td></tr> </table>	Participant	Abdelali LAID		Sidi Bel Abbes University
Participant	Abdelali LAID					
	Sidi Bel Abbes University					
Co-authors	ABID HAMZA					
12:15- 12:30	118	Modeling and numerical simulation of a of Eco-Friendly CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub> -based Perovskite Solar Cell by the SCAPS1-D simulator				
		<table border="1"> <tr> <td>Participant</td><td>Selma RABHI</td></tr> <tr> <td></td><td>University of Medea</td></tr> <tr> <td>Co-authors</td><td>ABDLEHADI SLAMI, FATIMA ZAHRA SAIDOUNE, KARIMA DADDA</td></tr> </table>	Participant	Selma RABHI		University of Medea
Participant	Selma RABHI					
	University of Medea					
Co-authors	ABDLEHADI SLAMI, FATIMA ZAHRA SAIDOUNE, KARIMA DADDA					
12:30- 12:45	402	PANI/ZnO for Optical Applications: Synthesis and Characterization				
		<table border="1"> <tr> <td>Participant</td><td>Faiza CHOULI</td></tr> <tr> <td></td><td>University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>ABDELGHANI BENYOUCEF, SAMIA DAIKH, AMINA BEKHOUKH</td></tr> </table>	Participant	Faiza CHOULI		University Mustapha Stambouli of Mascara
Participant	Faiza CHOULI					
	University Mustapha Stambouli of Mascara					
Co-authors	ABDELGHANI BENYOUCEF, SAMIA DAIKH, AMINA BEKHOUKH					

## ROOM F: Biomedical Engineering (VIRTUAL)

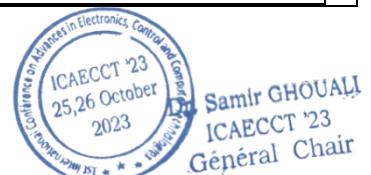
Session Chairmen	<b>Dr. Ibrahim Farouk BOUGUENNA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Khadidja GOUIZI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Ahmed BOUDAA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Abderrahmane LOUNI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria						
	ID						
09:00- 09:15	57	ECG-Based Biometric System using TinyML: Implementation and Performance Evaluation on ESP32 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Hatem ZEHIR Badji Mokhtar University, Annaba</td></tr> <tr> <td>Co-authors</td><td>TOUFIK HAFS, SARA DAAS</td></tr> </table>		Participant	Hatem ZEHIR Badji Mokhtar University, Annaba	Co-authors	TOUFIK HAFS, SARA DAAS
Participant	Hatem ZEHIR Badji Mokhtar University, Annaba						
Co-authors	TOUFIK HAFS, SARA DAAS						
09:15- 09:30	102	Gender, Age, and Anthropometric Influences on Rotatory Angles in Load Lifting <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Ali Khan MOAZZAM Ziauddin University, Pakistan</td></tr> <tr> <td>Co-authors</td><td>MYRA ASLAM QURESHI</td></tr> </table>		Participant	Ali Khan MOAZZAM Ziauddin University, Pakistan	Co-authors	MYRA ASLAM QURESHI
Participant	Ali Khan MOAZZAM Ziauddin University, Pakistan						
Co-authors	MYRA ASLAM QURESHI						
09:30- 09:45	104	Deep Learning System for Automatic Skull Stripping of Human Brain MRI <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Abdelhai LATI University of Kasdi Merbah Ouarda (UKMO)</td></tr> <tr> <td>Co-authors</td><td>ZAKARIA MOKADEM, DJALILA BELEKBIR, DJIHENE NECIB AND RAYANE DJABOUREBBI</td></tr> </table>		Participant	Abdelhai LATI University of Kasdi Merbah Ouarda (UKMO)	Co-authors	ZAKARIA MOKADEM, DJALILA BELEKBIR, DJIHENE NECIB AND RAYANE DJABOUREBBI
Participant	Abdelhai LATI University of Kasdi Merbah Ouarda (UKMO)						
Co-authors	ZAKARIA MOKADEM, DJALILA BELEKBIR, DJIHENE NECIB AND RAYANE DJABOUREBBI						
09:45- 10:45	<b>Poster session 2 &amp; coffee break</b>						
10:45- 11:00	134	A new MRI Brain Tumor Detection and Segmentation approach based on a combination of Thresholding and Generalized Gaussian Mixture Model-EM algorithm <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Khalil Ibrahim LAIREDJ University of Djillali Liabes, Sidi Belabes</td></tr> <tr> <td>Co-authors</td><td>AMINA BAGDAOUI, SID AHMED BOUCENNA, ZOUAOUI CHAMA</td></tr> </table>		Participant	Khalil Ibrahim LAIREDJ University of Djillali Liabes, Sidi Belabes	Co-authors	AMINA BAGDAOUI, SID AHMED BOUCENNA, ZOUAOUI CHAMA
Participant	Khalil Ibrahim LAIREDJ University of Djillali Liabes, Sidi Belabes						
Co-authors	AMINA BAGDAOUI, SID AHMED BOUCENNA, ZOUAOUI CHAMA						
11:00- 11:15	148	Cancerous Regions Extraction by Segmentation of Medical Images <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Abdellatif BOUZID-DAHO University of TIZI OUZOU</td></tr> <tr> <td>Co-authors</td><td>Patrick SIARRY</td></tr> </table>		Participant	Abdellatif BOUZID-DAHO University of TIZI OUZOU	Co-authors	Patrick SIARRY
Participant	Abdellatif BOUZID-DAHO University of TIZI OUZOU						
Co-authors	Patrick SIARRY						
11:15- 11:30	152	Voice pathology detection along feature distribution and normal distribution Study case: Parkinson disease <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Djamila MEGHRAOUI University of Science and Technology Houari Boumediene</td></tr> <tr> <td>Co-authors</td><td></td></tr> </table>		Participant	Djamila MEGHRAOUI University of Science and Technology Houari Boumediene	Co-authors	
Participant	Djamila MEGHRAOUI University of Science and Technology Houari Boumediene						
Co-authors							
11:30- 11:45	163	Efficient Statistical Approach for Combining Multimodal Images Using Wavelet Transform <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Participant</td><td>Abdallah BENGUEDDOUDJ University of bordj bou arreridj</td></tr> <tr> <td>Co-authors</td><td>MERWAN SAAD SAOUD, TAREK BENSIDHOUM</td></tr> </table>		Participant	Abdallah BENGUEDDOUDJ University of bordj bou arreridj	Co-authors	MERWAN SAAD SAOUD, TAREK BENSIDHOUM
Participant	Abdallah BENGUEDDOUDJ University of bordj bou arreridj						
Co-authors	MERWAN SAAD SAOUD, TAREK BENSIDHOUM						

11:45- 12:00	170	Internet of Things based Approach for Detecting Diabetes using Deep Learning Models				
		<table border="1"> <tr> <td>Participant</td><td>Messaoud HAMEURLAINE</td></tr> <tr> <td>Co-authors</td><td>Tissemilt Univesrsity</td></tr> </table>	Participant	Messaoud HAMEURLAINE	Co-authors	Tissemilt Univesrsity
Participant	Messaoud HAMEURLAINE					
Co-authors	Tissemilt Univesrsity					
12:00- 12:15	6	Facial kinship Verification using Siamese Neural Network				
		<table border="1"> <tr> <td>Participant</td><td>Abdelhakim CHERGUI</td></tr> <tr> <td>Co-authors</td><td>Ouargla University</td></tr> </table>	Participant	Abdelhakim CHERGUI	Co-authors	Ouargla University
Participant	Abdelhakim CHERGUI					
Co-authors	Ouargla University					
12:15- 12:30	40	Muscle movement detection				
		<table border="1"> <tr> <td>Participant</td><td>Fatima Ezahraa BARKAT</td></tr> <tr> <td>Co-authors</td><td>Oran1 Ahmed Ben Bella University</td></tr> </table>	Participant	Fatima Ezahraa BARKAT	Co-authors	Oran1 Ahmed Ben Bella University
Participant	Fatima Ezahraa BARKAT					
Co-authors	Oran1 Ahmed Ben Bella University					
12:30- 12:45	300	Development of GaN MOS-HEMTs transistors-based biosensors for the detection of a novel SARS-CoV-19 Virus				
		<table border="1"> <tr> <td>Participant</td><td>Faiza MOUFFOKI</td></tr> <tr> <td>Co-authors</td><td>University Mustapha Stambouli of Mascara</td></tr> </table>	Participant	Faiza MOUFFOKI	Co-authors	University Mustapha Stambouli of Mascara
Participant	Faiza MOUFFOKI					
Co-authors	University Mustapha Stambouli of Mascara					
12:45- 13:00	157	Detection of Spasmodic Dysphonia Voice Pathology using Deep Learning				
		<table border="1"> <tr> <td>Participant</td><td>Nardjes MERZOUGUI</td></tr> <tr> <td>Co-authors</td><td>University Badji Mokhtar Annaba</td></tr> </table>	Participant	Nardjes MERZOUGUI	Co-authors	University Badji Mokhtar Annaba
Participant	Nardjes MERZOUGUI					
Co-authors	University Badji Mokhtar Annaba					



## ROOM G: HIGH VOLTAGE ENGINEERING AND APPLICATIONS (VIRTUAL)

Session Chairmen	<b>Dr. Youcef Islam DJILANI KOBIBI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Moulay Idriss CHERGUI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Mohammed Fethi BEKKARA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Maamar YAHIAOUI</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Hocine BOUCHEKARA</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria					
	<b>ID</b>					
09:15- 09:30	61	Utilizing Convex Optimization for State and Unknown Input Estimation in Polytopic Models				
		<table border="1"> <tr> <td>Participant</td><td>Khalida MIMOUNE</td></tr> <tr> <td>Co-authors</td><td>MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE</td></tr> </table>	Participant	Khalida MIMOUNE	Co-authors	MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE
Participant	Khalida MIMOUNE					
Co-authors	MOHAMED YACINE HAMMOUDI, SOURI MOHAMED MIMOUNE					
09:30- 09:45	83	Dual-Stage Grid Connected Boost-Modular Multilevel Converter with MPPT Fuzzy Logic Controller for Solar System				
		<table border="1"> <tr> <td>Participant</td><td>Imane ALIA</td></tr> <tr> <td>Co-authors</td><td>IMAD MERZOUK</td></tr> </table>	Participant	Imane ALIA	Co-authors	IMAD MERZOUK
Participant	Imane ALIA					
Co-authors	IMAD MERZOUK					
09:45- 10:45	<b>Poster session 2 &amp; coffee break</b>					
10:45- 11:00	86	Application of Deep Learning and Markov Chains Approachs for ICS security in Smart Grids based zero trust model				
		<table border="1"> <tr> <td>Participant</td><td>Nousseiba GUERGOURI</td></tr> <tr> <td>Co-authors</td><td>NABIL SAHLI, MOHAMED BENMOHAMMED, LYES KHOUKHI</td></tr> </table>	Participant	Nousseiba GUERGOURI	Co-authors	NABIL SAHLI, MOHAMED BENMOHAMMED, LYES KHOUKHI
Participant	Nousseiba GUERGOURI					
Co-authors	NABIL SAHLI, MOHAMED BENMOHAMMED, LYES KHOUKHI					
11:00- 11:15	100	Fuzzy Logic and Neural Network Control of Unified Power Flow Controller Systems (UPFC)				
		<table border="1"> <tr> <td>Participant</td><td>Benyekhlef LAROUCI</td></tr> <tr> <td>Co-authors</td><td>AYAD AHMED NOUR ISLEM</td></tr> </table>	Participant	Benyekhlef LAROUCI	Co-authors	AYAD AHMED NOUR ISLEM
Participant	Benyekhlef LAROUCI					
Co-authors	AYAD AHMED NOUR ISLEM					
11:15- 11:30	110	Enhancing the Potential of PEMFC EVs with Cutting-Edge FOPI Control based PDO Algorithm for a Three-Phase Interleaved Boost Converter				
		<table border="1"> <tr> <td>Participant</td><td>Salah OKBA</td></tr> <tr> <td>Co-authors</td><td>RAMZI SAADI, MOHAMED YACINE HAMMOUDI, WAIL HAMDI AND ABIR BETKA</td></tr> </table>	Participant	Salah OKBA	Co-authors	RAMZI SAADI, MOHAMED YACINE HAMMOUDI, WAIL HAMDI AND ABIR BETKA
Participant	Salah OKBA					
Co-authors	RAMZI SAADI, MOHAMED YACINE HAMMOUDI, WAIL HAMDI AND ABIR BETKA					
11:30- 11:45	155	Influence of the ADALINE extraction method with the fuzzy hysteresis band technique applied to the UPQC filter under DC bus fuzzy control				
		<table border="1"> <tr> <td>Participant</td><td>Noureddine KHENFAR</td></tr> <tr> <td>Co-authors</td><td>ABEDLHAFID SEMMAH, SIHAM KHELIFA</td></tr> </table>	Participant	Noureddine KHENFAR	Co-authors	ABEDLHAFID SEMMAH, SIHAM KHELIFA
Participant	Noureddine KHENFAR					
Co-authors	ABEDLHAFID SEMMAH, SIHAM KHELIFA					
11:45- 12:00	204	Analysis of Grid-tied Fuel Cell System with Synchronous Reference Frame Control				
		<table border="1"> <tr> <td>Participant</td><td>Yahia FOUGHALI</td></tr> <tr> <td>Co-authors</td><td>Mohamed MANKOUR, Mhamed SEKOUR</td></tr> </table>	Participant	Yahia FOUGHALI	Co-authors	Mohamed MANKOUR, Mhamed SEKOUR
Participant	Yahia FOUGHALI					
Co-authors	Mohamed MANKOUR, Mhamed SEKOUR					



12:00- 12:15	7	Finite Element Modelling of Electric Field Distribution in Point- Barrier-Plane Air Gaps under Positive Lightning Impulse Voltage: Based on Experimental Tests		
		<table border="1"> <tr> <td>Participant</td><td>Mohamed Abdelghani BENZIADA Ecole Nationale Polytechnique d'Alger</td></tr> <tr> <td>Co-authors</td><td>AHMED BOUBAKEUR, ABDELOUAHAB MEKHALDI</td></tr> </table>	Participant	Mohamed Abdelghani BENZIADA Ecole Nationale Polytechnique d'Alger
Participant	Mohamed Abdelghani BENZIADA Ecole Nationale Polytechnique d'Alger			
Co-authors	AHMED BOUBAKEUR, ABDELOUAHAB MEKHALDI			

## ROOM H: E-poster Session (VIRTUAL)

Session Chairmen	<b>Dr. Hocine Abdelhak AZZEDDINE</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Benameur AFIF</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Attaouia BENTAHAR</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria <b>Dr. Isma HATRAF</b> Faculty of Sciences and Technology University Mustapha Stambouli of Mascara, Algeria			
	<b>ID</b>			
Topic 1: Control Systems, Robotics and Automation				
09:00- 09:10	69	Chaotic Blended Biogeography-Based Optimization for Parameter Estimation of Induction Machine		
		<table border="1"> <tr> <td>Participant</td><td>Naas DIF University of Djelfa</td></tr> <tr> <td>Co-authors</td><td>EL-GHALIA BOUDISSA, FATIHA HABBI, MOHAMED BOUNEKHLA</td></tr> </table>	Participant	Naas DIF University of Djelfa
Participant	Naas DIF University of Djelfa			
Co-authors	EL-GHALIA BOUDISSA, FATIHA HABBI, MOHAMED BOUNEKHLA			
09:10- 09:20	79	Enhancing the Power Quality of Grid-Connected Wind Systems through Multicell Converters		
		<table border="1"> <tr> <td>Participant</td><td>Karim BELALIA University of Relizane</td></tr> <tr> <td>Co-authors</td><td>ABDELKADER MOSTEFA, SOFIANE MIHOUBI, HOUARI MERABET BOULOUIHA</td></tr> </table>	Participant	Karim BELALIA University of Relizane
Participant	Karim BELALIA University of Relizane			
Co-authors	ABDELKADER MOSTEFA, SOFIANE MIHOUBI, HOUARI MERABET BOULOUIHA			
09:20- 09:30	160	Backstepping Control of a Direct Driven PMSG wind Turbine		
		<table border="1"> <tr> <td>Participant</td><td>Hamid AOUDJEREGBA University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>AHMED TAHOUR</td></tr> </table>	Participant	Hamid AOUDJEREGBA University Mustapha Stambouli of Mascara
Participant	Hamid AOUDJEREGBA University Mustapha Stambouli of Mascara			
Co-authors	AHMED TAHOUR			
09:30- 09:40	254	Employ the Adaptive Neuro-Fuzzy inference system ANFIS for Improve the Direct Torque Control		
		<table border="1"> <tr> <td>Participant</td><td>Abdelhaq LAOUI University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td>MOULAY-IDRISS CHERGUI, SOUFYANE CHEKROUN</td></tr> </table>	Participant	Abdelhaq LAOUI University Mustapha Stambouli of Mascara
Participant	Abdelhaq LAOUI University Mustapha Stambouli of Mascara			
Co-authors	MOULAY-IDRISS CHERGUI, SOUFYANE CHEKROUN			
09:45- 10:45	Poster session 2 & coffee break			
Topic 2: Electronics and its Applications				
10:45- 10:55	27	Thermal Simulation in Intertwined Planar Micro-Transformer		
		<table border="1"> <tr> <td>Participant</td><td>Yamina BENHADDA USTO, Oran</td></tr> <tr> <td>Co-authors</td><td>M. DERKAOUI, K. MENDAZ, H. KHARBOUCH</td></tr> </table>	Participant	Yamina BENHADDA USTO, Oran
Participant	Yamina BENHADDA USTO, Oran			
Co-authors	M. DERKAOUI, K. MENDAZ, H. KHARBOUCH			

11:05- 11:15	35	Integrated Octagonal On-Chip Inductor in DC-DC Buck Converter for Photovoltaic Applications				
		<table border="1"> <tr> <td>Participant</td><td>Mokhtaria DERKAOUI National Higher School of Telecommunications &amp; ICT of Oran</td></tr> <tr> <td>Co-authors</td><td>YAMINA BENHADDA, AZZEDINE HAMID</td></tr> </table>	Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran	Co-authors	YAMINA BENHADDA, AZZEDINE HAMID
Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran					
Co-authors	YAMINA BENHADDA, AZZEDINE HAMID					
11:15- 11:25	36	Monolithic Micro-Transformer Magneto-Thermal Behaviour for MEMS				
		<table border="1"> <tr> <td>Participant</td><td>Mokhtaria DERKAOUI National Higher School of Telecommunications &amp; ICT of Oran</td></tr> <tr> <td>Co-authors</td><td>YAMINA BENHADDA, AZZEDINE HAMID</td></tr> </table>	Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran	Co-authors	YAMINA BENHADDA, AZZEDINE HAMID
Participant	Mokhtaria DERKAOUI National Higher School of Telecommunications & ICT of Oran					
Co-authors	YAMINA BENHADDA, AZZEDINE HAMID					
11:25- 11:35	37	Using spectroscopic ellipsometry to extract the electrical properties of AZO thin films deposited by DC reactive sputtering in various temperature				
		<table border="1"> <tr> <td>Participant</td><td>Toufik DIB University of Jijel</td></tr> <tr> <td>Co-authors</td><td>BOUBEKEUR BIROUK</td></tr> </table>	Participant	Toufik DIB University of Jijel	Co-authors	BOUBEKEUR BIROUK
Participant	Toufik DIB University of Jijel					
Co-authors	BOUBEKEUR BIROUK					
Topic 3: Telecommunications and its Applications						
		Localization of Mobile Robots with Global Position System Sensor				
11:35- 11:45	92	<table border="1"> <tr> <td>Participant</td><td>Wahiba MENASRI University of Yahia Farès Médéa</td></tr> <tr> <td>Co-authors</td><td>AMINA YAHIA, ABDELKADER MORSLI, MOHAMED LAMINE MOUHOUBI, AKIL BATTACHE, ABDEREZZAK GACEMI</td></tr> </table>	Participant	Wahiba MENASRI University of Yahia Farès Médéa	Co-authors	AMINA YAHIA, ABDELKADER MORSLI, MOHAMED LAMINE MOUHOUBI, AKIL BATTACHE, ABDEREZZAK GACEMI
Participant	Wahiba MENASRI University of Yahia Farès Médéa					
Co-authors	AMINA YAHIA, ABDELKADER MORSLI, MOHAMED LAMINE MOUHOUBI, AKIL BATTACHE, ABDEREZZAK GACEMI					
11:45- 11:55	154	An Ultrathin Metamaterial Absorber for Conformal Applications at Ka Frequency Band				
		<table border="1"> <tr> <td>Participant</td><td>Ghada MEBARKI University of Tlemcen</td></tr> <tr> <td>Co-authors</td><td>NAIMA BENMOSTEFA</td></tr> </table>	Participant	Ghada MEBARKI University of Tlemcen	Co-authors	NAIMA BENMOSTEFA
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11:55- 12:05	87	An IoT-based System to Control the Greenhouse's Microclimate				
		<table border="1"> <tr> <td>Participant</td><td>Noureddine SEDDIKI University of Tahri Mohamed Bechar</td></tr> <tr> <td>Co-authors</td><td>KAMAL ABDELMADJID MOKEDDEM</td></tr> </table>	Participant	Noureddine SEDDIKI University of Tahri Mohamed Bechar	Co-authors	KAMAL ABDELMADJID MOKEDDEM
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Topic 4: Biomedical Engineering						
12:05- 12:15	98	Application Crow Search Algorithm (CSA) with the Empirical Mode Decomposition (EMD) method on Phonocardiogram (PCG) signals for Efficient Noise Suppression				
		<table border="1"> <tr> <td>Participant</td><td>Mohamed ROUIS University of Djilali Bounaama-Khemis Miliana</td></tr> <tr> <td>Co-authors</td><td>SALIM SBAA, AYOUB TAALLAH, BOUNIF AOUDA</td></tr> </table>	Participant	Mohamed ROUIS University of Djilali Bounaama-Khemis Miliana	Co-authors	SALIM SBAA, AYOUB TAALLAH, BOUNIF AOUDA
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Co-authors	SALIM SBAA, AYOUB TAALLAH, BOUNIF AOUDA					
12:25- 12:35	165	ANN for Medical Image Denoising				
		<table border="1"> <tr> <td>Participant</td><td>Nail ALAOUI University ZIANE Achour de Djelfa</td></tr> <tr> <td>Co-authors</td><td>SOFIAN KIRECH, RANIA IBTISSEM BENMLOUKA, SOUAD KSENNNA, LAKHDAR BOUHAMLA, ABDALLAH AZZOUZ</td></tr> </table>	Participant	Nail ALAOUI University ZIANE Achour de Djelfa	Co-authors	SOFIAN KIRECH, RANIA IBTISSEM BENMLOUKA, SOUAD KSENNNA, LAKHDAR BOUHAMLA, ABDALLAH AZZOUZ
Participant	Nail ALAOUI University ZIANE Achour de Djelfa					
Co-authors	SOFIAN KIRECH, RANIA IBTISSEM BENMLOUKA, SOUAD KSENNNA, LAKHDAR BOUHAMLA, ABDALLAH AZZOUZ					
Topic 5: High Voltage Engineering and Applications						
12:35- 12:45	259	Multiphysics Simulation of Submicron Particle Behaviour Inside a Novel Multicylinder Electrostatic Precipitator (MCESP)				
		<table border="1"> <tr> <td>Participant</td><td>Fouad Kherbouche University Mustapha Stambouli of Mascara</td></tr> <tr> <td>Co-authors</td><td></td></tr> </table>	Participant	Fouad Kherbouche University Mustapha Stambouli of Mascara	Co-authors	
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Co-authors						



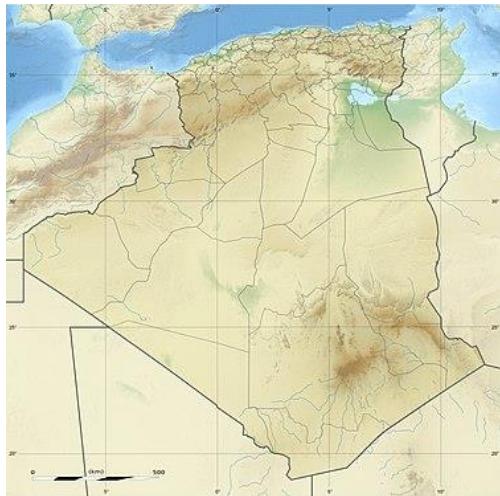
Samir GHOUALI  
ICAECCT '23  
Général Chair

# The Venue



# MASCARA, ALGERIA

## ABOUT



Mascara (Arabic: معسکر, romanized: Mu'askar) is the capital city of Mascara Province. It has 150,000 inhabitants (2008 estimate). It was founded in the 10th century by the Banu Ifran, a Berber tribe and was the capital city of Emir Abd al-Qadir, a leader of the Algerian resistance to early French colonial rule. Mascara is an administrative, commercial and a market centre. Its trade is mostly centered on leather goods, grains, and olive oil, but it is especially famous for its good wine. It has good road and rail connections with other urban centres of Algeria. Relizane is 65 kilometres (40 miles) northeast, Sidi Bel Abbes 90 km (56 mi) southwest, Oran 105 kkm northwest and Saïda 80 km (50 mi) south.



## EMIR ABDELKADER

Abdelkader ibn Muhieddine (6 September 1808 – 26 May 1883; Arabic: عبد القادر بن محي الدين, Abd al-Qādir ibn Muhy al-dīn), known as the Emir Abdelkader or Abdelkader El Hassani El Djazairi, was an Algerian religious and military leader who led a struggle against the French colonial invasion of Algiers in the early 19th century. As an Islamic scholar and Sufi who unexpectedly found himself leading a military campaign, he built up a collection of Algerian tribesmen that for many years successfully held out against one of the most advanced armies in Europe.

# Central Library of Mascara University



SCAN ME

