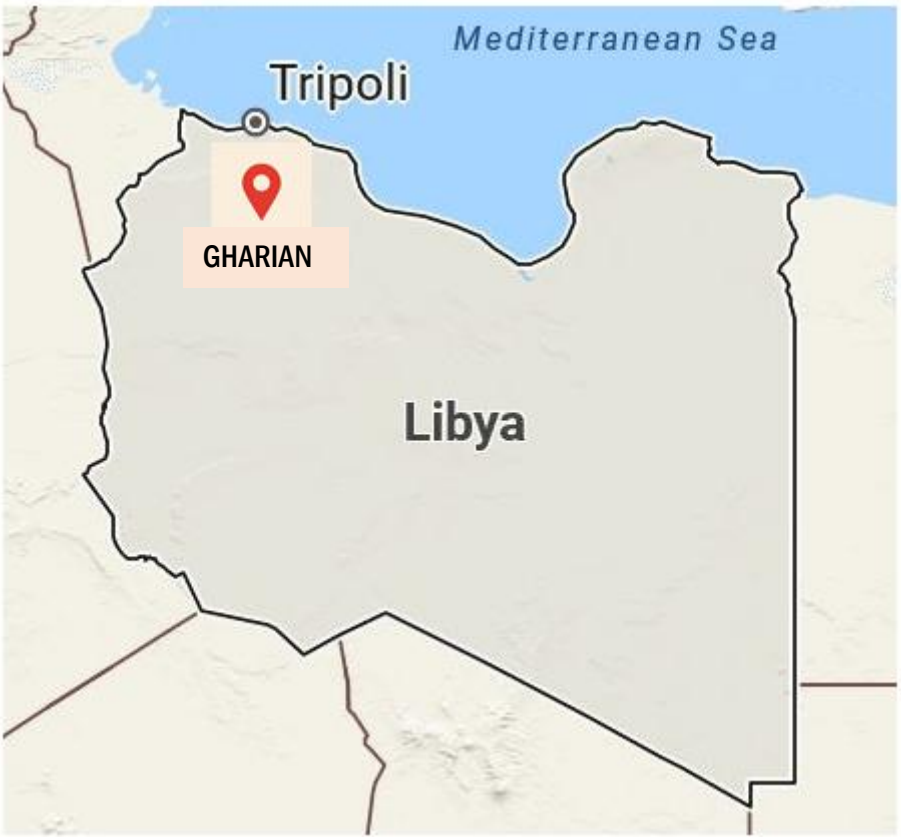
The First International conference on electrical and electronic engineering

Iceee2025

ICEEE 2025

Conference program

Conference Location



https://maps.app.goo.gl/VTGC3NAPMu29kUvQA?g_st=am

DAY 1 (04/10/2025)

09^{30} - 10^{00}	10^{00} - 10^{30}	10^{30} - 11^{30}	11^{30} - 12^{00}		12^{00} – 13^{30}		13^{30} - 15^{00}		15^{00} - 16^{00}	
Registration	**Main Hall**	**Main Hall**	Coffee Break	**Oral Session 1**	**Room 1**	Power Engineering	Lunch	**Oral Session 2**	**Room 1**	Power Engineering
	Opening Ceremony	Keynote Speaker			**Room 2**	Communications Engineering			**Room 2**	Communications Engineering
					Room 3	Artificial Intelligence			**Room 3**	Image & Signal Processing

DAY 2 (05/10/2025)

9^{30-} - 10^{30}	10^{30} - 11^{30}	11^{30} - 12^{00}		12^{00} – 13^{30}		13^{30} – 14^{30}	14^{30} - 15^{30}
Main Hall	**Main Hall**	Break	Oral Session 1	**Room 1**	Communications Engineering	Closing Ceremony	Lunch
Keynote Speaker	Keynote Speaker			**Room 2**	Control Engineering		
				Room 3	Online Presentations		
				Room 4	Online Presentations		

Program booklet

1st International Conference on electrical and electronic engineering

(ICEEE 2025)
04, 05 October 2025

Organized by

Centre of research and scientific consultations

Faculty of engineering

University of gharyan

ICEEE 2025

Keynote speakers

Prof. Dr. Ing. Youcef SOUFI
Full Professor in Electrical Engineering
University Echahid Larbi Tebessi, Tebessa, Algeria
E-mail: youcef.soufi@univ-tebessa.dz
Tel: +213 541979376
WhatsApp: +213.669116193

Title:

Artificial Intelligence in Electrical Engineering and Renewable Energy applications

Abstract:

In the modern world, one of the most important trends in the digital and information industry is the development and implementation of artificial intelligence algorithms to reduce production costs, save resources, improve environmental safety, reduce industrial and man-made disasters, etc. and all economy sectors have begun to develop programs and projects related to the transition of industries to digital technologies, including the complex electric power.

Digitalization and artificial intelligence penetrate into most sectors of the economy, including the electric power system which requires the development and widespread use of end-to-end technologies, including the industrial Internet, components of robotics, wireless communications, artificial intelligence, etc. where the degree of power system development is one of the important evaluation indicators. Economic and social needs have gradually expanded the scale of the power grid, and many distributed renewable energy sources are continuously connected to the power grid system, making the power system more and more complex; the data generated during the application of the power system presents typical big data characteristics, and multi-source characteristics. Faced with the new characteristics of power data, the requirements for methods of analysing and processing power data problems have increased.

The application of Artificial Intelligence technologies to electrical and renewable energy power systems has been an active area of research, has grown predominantly in recent years and has been applied to various areas of power systems where the rapid development and advancement of artificial intelligence can provide powerful tools in many aspects of the power system, including power system planning and design, coordinated control, simulation, prediction and estimation, diagnosis and identification.

This presentation addresses critical issues on the introduction of the artificial intelligence technology in electrical engineering, power system automation control and renewable energy systems applications where the main objective of this presentation is to provide a contemporary look at the current state of the art on the application of the artificial intelligence in renewable power systems as well as to provide a better understanding of the

technologies, potential advantages and research challenges of this approach and provoke interest among the research community to further explore this promising research area

Biography

Youcef SOUFI received a B.Sc. degree and PhD degrees from the University of Annaba, Algeria, in 1991 and 2012 respectively and a Magister degree in 1997 in Electrical Engineering from Tebessa University, Algeria. Currently, he is a Professor in the Department of Electrical Engineering, Faculty of Sciences and Technology, Echahid Larbi Tebessi University, Tebessa, Algeria. He has published and co-authored more than 200 technical papers in scientific journals and conference proceedings since 2000. He is editorial board the member of many journals. He has participated in several research projects and has led several research projects. He is the supervisor of many PhD Students in Algeria. He is a plenary and an invited keynote speaker, steering committee, scientific committee and session chair in several national and international conferences and an expert in several national and international scientific activities and project evaluations. His research interests include: Application of the artificial intelligence in electrical engineering, electrical machines control, diagnostics, wind and solar energy, power electronics and drives applied to renewable and sustainable energy, Renewable Energies devices, Smart Grid, reliability and diagnostics in power electronics converters and electrical machines. His email address is: **youcef.soufi@univ-tebessa.dz**

Prof. Dr. Olga Boiprav
Professor in Electrical Engineering
Belarusian State University of Informatics and Radioelectronics
E-mail: smui@bsuir.by
Tel: +375 17 293-86-09. +375 17 293-23-08
Minsk, P. Brovki str., 6, Room $205_{В}$ – $1_{К}$, $503/3\text{-}3_{К}$

Title:

Wide-Band Microwave Absorbers with Frequency-Selective Surfaces Based on Aluminum Foiled Polymer Film.

Abstract

The improved technologies of manufacturing wide-band microwave absorbers with frequency-selective surfaces with use of aluminum foiled polymer film and powdered activated wood charcoal will be presented. Electromagnetic radiation absorption and reflection characteristics of the absorbers manufactured in accordance with the presented technology will be analyzed and compared with the similar characteristics of the analogs. The ways of these absorbers practical use will be described.

Biography

Olga Boiprav, PhD, Associate Professor, Head of Information Protection Department, Senior Researcher of SRL “Materials, Technologies and Security Means” at the Belarusian State University of Informatics and Radioelectronics. Author of 150+ research papers, including 6 monographs, 7 textbooks for students, 80 articles in the scientific journals, 35 patents. Research field – materials science, information security

Prof. Dr. Labib Daloub
Professor in Electrical Engineering & Reader in Power System Reliability.
University of Gharyan, Libya.
E-Mail: ldaloub@hotmail.com
Tel. +218 91 215 9141

Title:

A Vision for the Future of Power Supply Systems Shaping Sustainable Sources and Energy Landscapes

Abstract

The transition to a sustainable electrical energy system is vital for tackling the pressing challenges of climate change and energy security. Achieving this goal requires a multifaceted strategy that emphasizes renewable generation, virtual power systems, advanced energy storage, and the integration of electric vehicles. Sustainable generation, particularly through renewable sources, reduces dependence on fossil fuels and curtails carbon emissions. Virtual generation, enabled by decentralized energy systems and smart grids, improves energy distribution and consumption while strengthening grid resilience and efficiency. Energy storage technologies ranging from batteries to emerging innovations play a key role in mitigating renewable intermittency and ensuring reliable supply. The growing adoption of electric vehicles presents both challenges and opportunities: while demanding robust charging infrastructure, they also provide grid support through vehicle-to-grid technologies. This work advocates for an integrated approach that unites these components to build a sustainable energy ecosystem, enabling a resilient, efficient, and low carbon future. By leveraging advanced technologies and progressive policies, society can successfully transition to an electrical power paradigm that meets today's needs and anticipates tomorrow's demands.

Biography

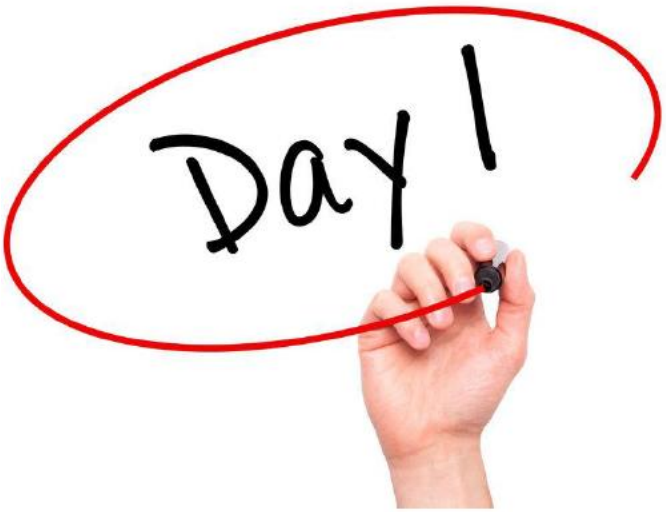
Labib Daloub: Professor, Granted B.Sc in Electrical Engineering, Malta University 1980. Employment by Libyan Power Sector 1980-1990. Granted Master Degree in 1992 & Doctoral 1996, from Bradford University, England. Joined GECOL Power Utility's Top Management Consultants, 1997-2002. Academic visitor to UMIST, England 2002-2005. Joined the Faculty of Engineering, Gharyan University, 2005. Became Head of Elec Eng Dept in 2007. Academic Visitor to UBM, Malaysia, 2010. Head of Postgraduate Studies Dept 2012-2013, Dean of Eng Faculty, 2018. Academic Visitor to California State University Long Beach, USA, 2021-2022. Member of IEEE, CIGRE and TRANSCO Power System Club, Manchester University, England.

Plan of sessions

And

First day

04 October 2025



First Day agenda
Saturday 04/10/2025

$09^{30} – 10^{00}$

Registration

Main Hall
Time ($10^{00} – 10^{30}$)

Opening Ceremony

Main Hall

$10^{30} – 11^{30}$

Keynote Speaker	
Chairs: Prof. Dr. Labib Daloob and Prof. Dr. Amer Zerek	
Title	Speaker
Artificial Intelligence in Electrical Engineering and Renewable Energy Applications	**Prof. Dr. Youcef Soufi**

Time ($11^{30} – 12^{00}$)

Coffee Break

SESSION

1

Time (12^{00} – 13^{30})

Room 1: Power Engineering
Room 2: Communication Engineering
Room 3: Artificial Intelligence

Room 1

Session: Power Engineering			
Chairs: Prof. Dr. Mohamed Jannat and Mr. Abdulhakim Treki			
Time	Paper ID	Title	Author
12^{00} - 12^{20}	16	Improving the performance of wireless charging systems for electric vehicles using PS-SS topology to achieve high power transmission efficiency	Abdulhafith Abuigrarah
12^{20} - 12^{40}	12	Integration of Solar Energy into the Libyan Power Grid: Challenges and Real-Time Optimization Approaches	Montaser Mohamed
12^{40} - 13^{00}	04	التحكم في مقومات تعديل عرض النبضة ثلاثية الطور باستخدام تقنية الهيستيريسيسْ	Taufik Taluo

Room 2

Session: Communication Engineering			
Chairs: Prof. Dr. Omar Aldewibi and Prof.Dr. Adel Saad			
Time	Paper ID	Title	Author
12^{00} - 12^{20}	30	The Experimental Evaluation of the Performance of the Designed WDM Optical Communication Link between Tripoli Central Post Office and Garaboulli Engineering Faculty.	Mohamed Abou-Hussein
12^{20} - 12^{40}	23	Scalable Uplink Combining in Cell-Free Massive MIMO under Practical Fading and Cnterized Processing	Mohammed Abuzgaia
12^{40} - 13^{00}	24	Neural Network-Based Signal-to-Noise Ratio Prediction in Intermediate Frequency over Fiber	Adel Asker

Room 3

Session: Artificial Intelligence			
Chairs: Dr. Naser Alfed and Dr. Ahmed Alfallah			
Time	Paper ID	Title	Author
12^{00} - 12^{20}	03	Machine Learning Using Binary Classification	Abdulwahed Almarimi
12^{20} - 12^{40}	52	Performance Evaluation of TL-CNN for Liver Tumour Classification using Developed Hybrid Segmentation Technique	Haneen Albargi
12^{40} - 13^{00}	02	Supervised Learning Using Linear Regression	Abdulwahed Almarimi
13^{00} - 13^{20}	21	Machine Learning Approaches for Indoor Positioning: A Case Study on KNN vs WKNN-inv and WKNN-cos	Mohamed Elalem

Time (13^{30} – 15^{00})

Lunch

SESSION

2

Time (15^{00} – 16^{00})

Room 1: Power Engineering
Room 2: Communication Engineering
Room 3: Digital Image and Signal Processing

Room 1

Session: Power Engineering			
Chairs: Dr.Emhimmed Abboud and Dr. Saleh Bozweek			
Time	Paper ID	Title	Author
15^{00} - 15^{20}	27	محاكاة ودراسة أداء محطة جنوب طرابلس الغازية باستخدام التبريد بالهيدروجين	Omran Alshikhi
15^{20} - 15^{40}	13	Reliability Enhancement and Grid Performance of Regional Network through Strategic Load Expansion Planning with Photovoltaic Integration	Abdulhakim TREKI
15^{40} - 16^{00}	49	Transforming of Traditional Power Generation and Consumption Dynamics to Decentralized Sources	Labib Daloub

Room 2

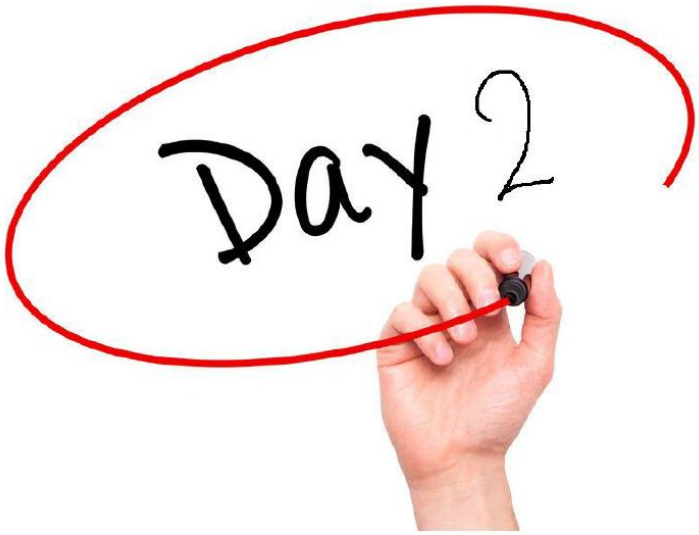
Session: Communication Engineering			
Chairs: Prof. Dr. Mohamed Alalem and Prof.Dr. Bashir Algamoudi			
Time	Paper ID	Title	Author
15^{00} - 15^{20}	15	Estimation of Path Loss Exponent in Semi-Urban Area A Case Study of Al-Ghiran Region, Misrata	Mohamed Sowalem
15^{20} - 15^{40}	38	Detection of breast cancer by a Circular Microstrip Patch Antenna (CMSA)	Abdulwahab Jarboa
15^{40} - 16^{00}	41	Performance Evaluation of Gigabit Passive Optical Network (GPON) for Fiber to the Home Applications Using OptiSystem Software: A Case Study in Tripoli, Libya	Abdulwahhab Aldoumani

Room 3

Session: Digital Image and Signal Processing			
Chairs: Dr. Omar Aboudeana and Dr. Tarik Eddbea			
Time	Paper ID	Title	Author
15^{00} - 15^{20}	17	Smart Assistive Glasses For The Visually Impaired Powered By Raspberry PI	Bodor AL Jamal
15^{20} - 15^{40}	59	APA and Kalman Adaptive Filters for Wireless Channel Estimation	Hani Sarraj
15^{40} - 16^{00}	46	Establishing a Cloud-Based Digital Library: Best Practices and Considerations for Implementation and Management	Salem Alsaid

Second Day

Sunday (05/10/2025)



Main Hall

Time (09^{30} – 10^{30})

Keynote Speaker	
Chairs: Prof. Dr. Adel Saad and Prof. Dr. Seddeq Ghrare	
Title	**Speaker**
A Vision for the Future of Power Supply Systems Shaping Sustainable Sources and Energy Landscapes	***Prof. Dr. Labib Daloob***

Main Hall

Time (10^{30} – 11^{30})

Keynote Speaker	
Chairs: Porf. Dr. Youcef Soufi and Prof. Dr. Amer Zerek	
Title	**Speaker**
Wide-Band Microwave Absorbers with Frequency-Selective Surfaces Based on Aluminum Foiled Polymer Film	***Prof. Dr. Olga Boiprav***

Time (11^{30} – 12^{00})

Break

SESSION

1

Time (12^{00} – 13^{30})

Room 1: Communication Engineering
Room 2: Control Engineering
Room 3: Online Presentations
Room 4: Online Presentations

Room 1

Session: Communication Engineering			
Chairs: Prof. Dr. Abdullatif Khrwat and Prof. Dr. Bashir Algamoudin			
Time	Paper ID	Title	Author
12^{00} - 12^{20}	56	BER Performance of 16-PSK in MIMO Systems under ACI and CCI over Fading Channels	Wassem Ali
12^{20} - 12^{40}	60	Metamaterial-Based EBG and Lens Techniques for High-Performance 60GHz Microstrip Antennas	Adel Emhemmed
12^{40} - 13^{00}	10	Performance Analysis of Free Space Optics Communication System in Challenging Environments based on OOK Modulation with MIMO Technique	Mohamed Alkelsh
13^{00} - 13^{20}	63	Evaluating the Impact of Queuing Algorithms and Routing Protocols on QoS for VoIP Traffic Over IP Networks	Elfurjani Mresa

Room 2

Session: Control Engineering			
Chairs: Dr. Ahmed Alfallah and Dr. Mustafa Abdullah			
Time	Paper ID	Title	Author
12^{00} - 12^{20}	11	Modelling and Designing H∞ and LQG Controllers For Bi-Rotor Helicopter Model	Nasir Shwaikat
12^{20} - 12^{40}	14	Comparative Analysis of PID Control Structures for Glucose Regulation in Type 1 Diabetes: A Simulation-Based Study Using the Bergman's Model	Aleisawee Alsseid
12^{40} - 13^{00}	25	انشاء نظام تحكم ذكي باستخدام متحكم Arduino لتنظيم عملية تعبئة شاحنات الوقود في مستودعات المصافي	Mustafa Esmaio
13^{00} - 13^{20}	18	Performance Comparison between LQR and Metaheuristic Algorithms for PID controller parameters tuning for an Inverted Pendulum System	Aleisawee Alsseid

Room 3

Session: Online Presentations			
Chairs: Dr. Naser Alfed and Mr. Abdulhakim Treki			
Time	Paper ID	Title	Author
$12^{00} – 12^{20}$	06	Hybrid Transform-Based MIMO-OFDM Framework for Audio Signal Transmission over Fading Channels	Eman ALasswi
$12^{20} – 12^{40}$	08	The Role of Artificial Intelligence in Advancing Holographic Communications and the Metaverse through Integration, Applications, and Future Challenges	Khadija Abuzagia
$12^{40} – 13^{00}$	26	Blockchain as a Solution for IoT Security: A Survey	Aisha Ali

Room 4

Session: Online Presentations			
Chairs: Prof. Dr. Seddeq Ghrare and Dr. Omar Aboudeana			
Time	Paper ID	Title	Author
$12^{00} – 12^{20}$	37	Lung Tumor Detection and Localization System using Faster RCNN Algorithm	Hajer Aghnaya
$12^{20} – 12^{40}$	43	Intelligent IoT and Machine Learning-Based Smart Irrigation System Using LoRaWAN	Mousa Alnjar
$12^{40} – 13^{00}$	57	Enhanced Uplink Performance of MU-MIMO Wireless Systems Using STBC and Regularized ZF Equalization	Amal Althini
$13^{00} – 13^{20}$	47	Wind Turbine Performance Analysis: Field Study Noagia- Benghazi 1Kwp	Ismail Albarki

Main Hall

Time ($13^{30} – 14^{30}$)

Closing Ceremony

Time ($14^{30} – 15^{30}$)

Lunch