



The 1st National Conference on Advanced Electrical and Electronic Engineering

Novembre 30, 2025 – Boumerdes Algeria

<https://igee.univ-boumerdes.dz/ncaeee25/>
ncaeee2025@gmail.com

NCAEEE'25 Conference Program

Sunday, November 30, 2025	
08:30 - 09:30	Registration
09:30 - 10:00	Opening ceremony https://meet.google.com/ivs-twyl-tqu
10:00 - 11:00	Keynote presentation by Prof. Huseyin ARSLAN, Istanbul Medipol University.
11:00 - 11:30	Coffee break / Poster session (C101- Bloc C Library)
11:30 - 13:30	Parallel sessions (Room 1, Room 2, Room 3, Room 4)
13:30 - 14:00	Recognition ceremony (onsite certificates delivery)
14:00 - 15:00	Lunch
15:00 - 17:00	Parallel Sessions (Room 1, Room 2, Room 3, Room 4)

Track 1: Power Systems

Room 1 (C113)

<https://meet.google.com/ivs-twyl-tqu>

Track 2: Telecommunications

Room 2 (C208)

<https://meet.google.com/ygm-nfhe-mig>

Track 3: Computer Engineering, Signal Processing, and Machine Learning

Room 3 (C206)

<https://meet.google.com/aif-mbik-stp>

Track 4: Control Systems

Room 4 (C204)

<https://meet.google.com/mfy-pddf-uxj>

NCAEEE'25 Conference Program

Oral session (Onsite)								
N°	Topic	ID	Paper Title	Participant Full Name	Institution	Time	Room	Chair
1	Control Systems	18	Kernel Vertices PCA: A Novel Interval-Valued PCA Approach for Fault Detection in Nonlinear Complex Systems.	Louifi Abdelhalim	IGEE / UMBB	11:30 11:45	4 C204	Dr. H. LOUBAR
2		26	Speed Control of Induction Motor Using Adaptive Fuzzy-PID Controller Based on Direct Torque Control	ZAMOUM YASMINE	FHC / UMBB	11:45 12:00		
3	Telecommunications	55	Design of Monopole Antenna Integrated with an CSRR-SIW band-pass Filter using a Cascaded Approach	HAMRIOUI Fatma Zohra	ENP	11:30 11:45	2 C208	Dr. M. CHERIFI
4		22	Performance Analysis of Hybrid Reconfigurable Intelligent Surface Structures	MEDJHOUM Hadjer	ENP	11:45 12:00		
5	Computer Engineering, Signal Processing, and Machine Learning.	14	Comparative Analysis of Machine Learning Models for Hourly Solar Radiation Prediction Using Meteorological Data in Batna	Chafaa Mohamed Faycal el Fateh	USTHB	11:30 11:45	3 C206	Dr. Y. TABET
6		56	Roads Recognition using Mathematical Morphology	Daamouche Abdelamid	IGEE / UMBB	11:45 12:00		
7	Power Systems	54	Battery internal resistance estimation using online current pulse	ZERMOUT Abdelaziz	IGEE / UMBB	11:30 11:45	1 C113	Pr. A. KHALDOUNE

NCAEEE'25 Conference Program

Poster session								
N°	Topic	ID	Paper title	Participant Full Name	Institution	Time	Room	Chair
1	Control Systems	52	Web-based Delivery Service Agency with PLC-Driven Automatic Sorting System	Rachid NAMANE	IGEE / UMBB	11:00 11:30	C101	Pr. A. KOUADRI Dr. A. BENDJABEUR
2		46	Enhancing Quadrotor UAV Trajectory Tracking using Adaptive Fuzzy PID Control	LOUBAR Hocine	IGEE / UMBB			
3	Telecommunications	4	Microwave Triangular Patch permittivity Sensor with a Meander-Line Sensing Area	DEMIK Nadira	USTHB			Pr. A. AZRAR
4		5	Broad-Permittivity-Range Microwave Sensor for Agricultural Applications	DEMIK Nadira	USTHB			
5		36	Implementation and Evaluation of a Conjugate Gradient (CG) Detector for 5G/6G-Like MIMO Scenarios Using Sionna	SAOUDI AMINA	IGEE / UMBB			
6		39	Implementation and Evaluation of a Conjugate Gradient (CG) Detector for 5G/6G-Like MIMO-OFDM Scenarios Using Sionna	SMAILI Nesrine	IGEE / UMBB			
7	Computer Engineering, Signal Processing and Machine Learning	39	Algerian Darija Speech-to-Text: A Low-Resource ASR Approach with Transformer Models.	Kezzouz Ala Eddine	University of Constantine			Dr. W. TOUZOUT
8		59	Distinguishing Falls from Normal Activities using Accelerometers and Deep Neural Networks	Rachid NAMANE	IGEE / UMBB			
9		8	Reinforcement Learning-Based Placement for Integrated Circuit (IC) Design: Evolution and Challenges,	Korichi Aymene	CDTA			

NCAEEE'25 Conference Program

Oral session (Online)								
N°	Topic	ID	Paper title	Participant Name	Institution	Time	Room	Chair
1	Power Systems https://meet.google.com/ivs-twyl-tqu	37	Energy-Aware, PV-Driven Smart Irrigation: A Stepwise Implementation and Field Validation in Biskra	Laaouad Mohamed	University of Biskra	11:45 12:00	1	Pr. A. KHALDOUNE Dr. O. MERABET
2		11	Design and Sizing of a Solar-Wind-Battery Hybrid Renewable Energy System for an Off-Grid Agricultural Farm in Batna, Algeria	YAHIAOUI Moustafa	HNS-RE2SD Batna	12:00 12:15		
3		9	Optimal Design of a Hybrid PV-Wind-Battery System for Off-Grid Households in Tamanrasset, Algeria: A HOMER-Based Analysis	LAMRI OMAR EL FARROUK	HNS-RE2SD Batna	12:15 12:30		
4		40	Solar PV Feasibility study of a solar pv system with batterie storage for a off-grid house using RETSCREEN software	Mouledaia Abd El Kader	HNS-RE2SD Batna	12:30 12:45		
5		60	Theoretical and Experimental Study of Neutral Point Voltage in a Stand-Alone DFIG under Unbalanced Conditions	Diboune Yaakoub	University of Blida 1	12:45 13:00	Dr. S. TOUIL	
6		48	Enhancing PEM Fuel Cell Modeling Accuracy Using the Triangulation Topology Aggregation Optimization Algorithm	Haddad Mohammed	CRTI	13:00 13:15		
7		7	Significant progress in the photovoltaic performance of InGaN solar cells.	ANNAB Nassima	University of Tlemcen	13:15 13:30		

NCAEEE'25 Conference Program

8	Power Systems https://meet.google.com/ivs-twvj-tqu	35	Stator Current Sensor Fault Diagnosis in Wind Turbines Using Dedicated Observer Scheme	Abbas Mohammed	University of Sidi Bel Abbes	15:00 15:15	1	Dr. SABEUR. N
9		31	Linear system control using deep Q-learning algorithm with dueling architecture	LACHEKHAB Fadhila	FHC / UMBB	15:15 15:30		
10		38	Magnetothermal Analysis of Gold Melting in Crucible-Based Induction Furnaces Using Finite Volume Method	REZGUI Zine	university of Jijel	15:30 15:45		
11		47	Modeling of Grounding Grids under Lightning Currents Using a Nonuniform Transmission Line Approach	Boutadjine Ahmed	University of Jijel	15:45 16:00		
12	Telecommunications https://meet.google.com/ygm-nfhe-mig	42	A Lightweight Vision-Based IDS Using Quantized MobileNet Features	Saadouni Rafika	University of Setif 1	15:00 15:15	2	Dr. F. FERTAS
13		21	Performance Evaluation of Distributed Raman Amplifiers Under CO-and Counter-Pumping Configurations	HAMADOUCHE Hadjira	University of Tizi -Ouzou	15:15 15:30		
14		27	Enhanced Ka-Band Radiation Performance of a Vivaldi Antenna via an integrated Gradient- Index Dielectric Superstrate	Khodja Khalida	LIST laboratory / UMBB	15:30 15:45		
15		57	Performance Enhancement of a Rectangular Microstrip Patch Antenna Using Defected Ground Structure for ISM-Band Wireless Applications	Degachi Riadh	University of El-Oued	15:45 16:00		
16		41	5G New Radio OFDM Multi-Numerology Interference Mitigation	BENDAIMI AICHA	IGEE / UMBB	16:00 16:15		Dr. F. MOUHOUCHE Dr. M. DAHMAS
17		29	Design of a broadband microstrip antenna using topology optimisation	LOUAIFI Abdelmalek	USTHB	16:15 16:30		
18		20	An Ultra-Wide-Band non-conventional two element MIMO antenna	Khalil Fertas	ENP	16:30 16:45		
19		53	Enhancing Phased-Array Radiation Pattern Synthesis with a Hybrid Complex-Valued Deep Learning	Mansour Djassem BENDREF	IGEE / UMBB	16:45 17:00		

NCAEEE'25 Conference Program

20	Computer Engineering, Signal Processing and Machine Learning https://meet.google.com/aif-mbik-stp	19	Comparative Study for Impact Edge Detection and Smoothing Filters on segmentation of brain tumor images	Lahmar Hanine	University of Djelfa	12:00 12:15	3	Pr. A. DAAMOUCHE	
21		43	Optimizing Computational Cost: A Comparative Feature Selection Analysis for Ensemble-Based SDN-IoT Traffic Classification	Amrani Selma	University of Setif 1	12:15 12:30			
22		17	Segmentation of retinal blood vessels using a reinforced deep learning model	Bachiri Mohamed Elssaleh	LIMOS Laboratory / UMBB	12:30 12:45			
23		2	Attention Driven Deep Learning for Binary Classification of X-Ray Fractures	ROUABHI Sarra	University of Oran	12:45 13:00	Dr. C. MEKHMOUKH		
24		25	Predictive Maintenance in Smart Manufacturing: Machine Learning Trends and Challenges	Bouzidi Sarra	University of Oran 2	13:00 13:15			
25		28	Implementation of an Adaptive Image Binarization System on Raspberry Pi	Khitas Mehdi	University of Setif 1	13:15 13:30			
26		44	An Improved Hybrid Chaotic System and Its Application in Secure image Encryption	LABIAD Abdelhadi	University of Laghouat	15:00 15:15		3	Dr. A. MAACHE
27		3	Performance Analysis of Deep Neural Network Activation Functions for Robust Noise Modeling under Gaussian, Impulsive, and Uniform Disturbances	Aicha BENYAHIA	University of Tlemcen	15:15 15:30			
28		16	Intelligent Bearing Fault Classification Using Wavelet Decomposition and AI Models	Belkacemi Bellal	University of Annaba	15:30 15:45			
29	34	A Privacy-Preserving Convolutional Autoencoder Framework for Efficient Intrusion Detection in IoT Networks	Khacha Amina	University of Setif 1	15:45 16:00				

NCAEEE'25 Conference Program

30	Control Systems https://meet.google.com/mfy-pddf-uxj	10	Modeling and control of a chopper for a photovoltaic chain	Chebli Karima	University of Skikda	12:00 12:15	4	Dr. R. GUERNANE
31		6	Rapid Control Prototyping Platform for Real-Time Implementation of IM Speed Controllers	BECHAR MANSOUR	University of BECHAR	12:15 12:30		
32		1	Experimental Implementation of an FMV-Based Control for a Shunt Active Power Filter Using dSPACE 1104	BOUKAHIL Fatima Zohra	HNS-RE2SD Batna	12:30 12:45		
33		15	Classical and fuzzy Control Strategies for Maximum Power Point Tracking of Wind Turbine	Chemidi Abdelkarim	ESSA Tlemcen	12:45 13:00		
34		30	Simulation Study of Robust Backstepping Control of 5P-PMSM Under Load Variations And Open Fault Phase	Boughezala hamad Haithem	University of Djelfa	13:00 13:15		
35		50	Enhanced Model-Free Concentration Control for a Nonlinear Isothermal CSTR Using Ultra-Local Modeling	Sehili Laid	University of Constantine 1	13:15 13:30		
36		33	A Low-Cost Quadrotor Drone realization	LACHEKHAB FADHILA	FHC / UMBB	15:00 15:15	4	Dr. H. BELMADANI
37		32	Experimental Evaluation of Bicopter Stabilization Using PID Control,	LACHEKHAB FADHILA	FHC / UMBB	15:15 15:30		
38		23	Minimum-Jerk Trajectory Planning for a Translational 3-DOF Parallel Manipulator Executing an U-Shaped Path	Bendali Nadir	University of Khemis Miliana	15:30 15:45		