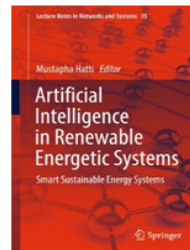




# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

ICAIRE2024, October 26-28, 2024  
Tipasa, ALGERIA



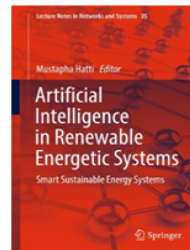
## SATURDAY 26 OCTOBER 2024

8h00		<b>Maison de l'Environnement de Tipasa</b>	RECEPTION & REGISTRATION
8H30		<a href="https://meet.google.com/rmm-ccrh-wac">https://meet.google.com/rmm-ccrh-wac</a>	OPENING CEREMONY
Auditorium		Prof. Cherif BENOUDJAFER (Univ. Bechar)	
<b>KEYNOTE SPEAKERS</b>			
09H30 (UTC+1)		<p><b>Pr. Ali Cheknane</b> Amar Telidji University, Laghouat, Algeria (in person) <b>Trends in Advanced Materials for Hydrogen Storage</b></p>	
10H30 (UTC+1)		<p><b>Pr. Sanjeevikumar Padmanaban</b> University of South-Eastern Norway (visio-conference) <b>Power Electronics in Renewable Energy Intelligent Systems</b></p>	
12H30		<a href="https://meet.google.com/rmm-ccrh-wac">https://meet.google.com/rmm-ccrh-wac</a>	COFFEE BREAK
11H30 (UTC+1)		<p><b>Pr. Yarub Al-Douri</b> American University of Iraq, Sulaimani, (visio-conference) <b>Physical Studies of CsMgO 3 Perovskite</b></p>	
12H30 - 13H30		Prof. Youcef SOUFI (Univ. Tebessa); Dr. Nesrine HATRAF (UMBB)	POSTER SESSION
Dr. Kheirddine MERHOUM (UMBB); Prof. Amel ABBADI (Univ. Medea); Dr. Z. OUCHIHA (USTHB); Dr. Fatima BOUMAHDHI (Univ. Blida)			
	109	Optimized Energy Management of a Hybrid System with Storage Using Genetic Algorithm	ZOULIKHA OUCHEFOUN*, MOURAD HASNI, LAKHDAR GUENFAF
	106	A Deep Reinforcement Learning Approach for Tracking The Maximum Power Point	S. BELARBI*, N. DRIR, L. BARAZANE
	33	Enhanced Grid Integration of PV Systems Using double-Stage Configuration and PUC7 Inverter Controlled by MPC	SOUFIAN KHETTAB*, AISSA KHELDOUN, RAFIK BRADAI, INTISSAR HATTABI
	63	Optimal design of high-pass passive filter using Ant Colony Algorithm (ACO) for harmonic mitigation	BRAHIMI OMAR*, DJEKIDEL RABAH, HADJADJ ABDECHAFIK
	122	Trajectory Planning for a Mobile Robot Using the A(*) Algorithm	N. BOUAM*, A. MESSAI, A. L. CHERIDI DEGHAL, A. DADDA KHORSI, L. BOUAM, A. KENTOUCHE
	53	Stick slip & Bit bounce: Survey of bit-rock interaction modeling	SAMIRA HADIBI*, MAJID KIDOUCHE, MOHAMED ZINELABIDINE DOGHMANE
	09	Performance Analysis of Thermoelectric Generator with Sliding Mode Control	ASMA TOUALBIA, RACHID TALEB*, ABDELKADIR BELHADJ DJILALI
	10	Passivity Based Control of Thermoelectric Generator System by Using a Boost Power Converter	ASMA TOUALBIA, RACHID TALEB*, ABDELKADIR BELHADJ DJILALI
	133	Deep Learning-Based Segmentation for Oil Pipeline Leak Detection using Quadcopter Drones	DALILA CHERIFI*, SIFEDDINE MEKROUD AND ALI BOUDAUD



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

Tipasa Smart City **ICAIRE2024,** **October 26-28, 2024**  
**Tipasa, ALGERIA**



117	Reactive Power Compensation of Partially Controlled Industrial Installation by a Direct Matrix Converter-driven Induction Machine using Predictive Control	ALI BENACHOUR, AYMEN ABDELMOUNAIM MEKHILEF, EL MADJID BERKOUK
64	Simulation of corrosion and cathodic protection of a buried pipeline nearby a EHV overhead power line	TADJ NOURREDINE*, DJEKIDEL RABAH, HADJADJ ABDECHAFIK, BESSIDIK SID AHMED
47	Modeling of a Coupled Severe Axial-Torsional Vibrations in Drill String Petroleum System	S. MEDDAH*, A. IDIR, M.Z. DOGHMANE, S.A. TADJER, M. KIDOUICHE
05	Numerical Investigation of a Novel Constant Volume Combustion Phase Strategy in a Diesel-Hydrogen Dual-Fuel Engine	GHODBANE HASSINA*, FOUAD KHALDI, DERRADJI BAHOUL
128	Auto-Encoders, LSTM RNN's and One Class SVM's for Anomaly Detection, Prediction and Localization in Industrial Systems	DALILA CHERIFI*, BEDRI MOHAMMED AMINE, BOUTAGHANE SAID
28	Fault Ride-Through Strategy for MMC-HVDC System Under Single Line-to-Ground Fault	HICHAM KORZANE*, ABDELJABAR BENRABAH, FARID KHOUCHA, KHELIFA BENMANSOUR
17	Analysis of some offshore wind turbine using a nonlinear finite element model	LALAHOUAM OTSMANE*, DJILLALI AMAR BOUZID
39	Ambient temperature effect on the Coriolis force produced in the vortex tower	A. DADDA KHORSI*, A. L. CHERIDI DEGHAL, A. BOUAM, A. DAHIA, A. HADJAM, A. KENTOUICHE
40	Numerical simulation of the heat exchange surface effect on the performance of a vortex cooling tower	A.L. DEGHAL CHERIDI*, A. DAHIA, A. BOUAM, A. DADDA KHORSI, A. HADJAM, A. KENTOUICHE
98	Design and Development of Low-Power Output Vortex Tower Model	ABDELLAH BOUAM
11	Energy Sources for a Fuel Cell Hybrid Electric Vehicle (FCHEV): an Overview	TOUHAMI NAWAL*, MANSOURI SMAIL, OULED ALI OMAR, BENOUDJAFER CHERIF
141	Organic waste biomethanation controlled by Artificial intelligence in a smart city concept	L. BENHABYLES*, M. SABER
132	Efficient Performance of New Ionic Liquid 1-(2-Hydroxyethyl) -3-Methylimidazolium Hydroxide as Electrolyte in PEMFCs	SAAD HALLOUB*, ABDELKADER BENABDELLAH, EL-HABIB BELARBI, MANSOUR DEBDAB, YASSINE CHAKER, MUSTAPHA HATTI
125	Nanostructured Materials : Synthesis and Application	HENIA FRAOUCENE*, RABEA CHEGGOU, EL HADI KHOUMERI
84	Estimation of the hardness of deposited thin layers using fuzzy logic	NADA ELRIHANE MECHEHAT*, DJILANI NECIB, IMANE REZGUI, MONDIR SOUALAH
154	Effects of shade and solar drying and convective drying methods on Rosmarinus officinalis L.	BENDEHINA HICHAM*, ABDENBI ASMA, DENNAI BRAHIM, BENNACEUR SAID

14H00



**Maison de l'Environnement de Tipasa**

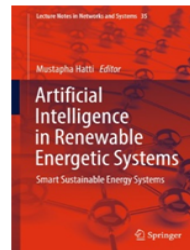


NCH



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

Tipasa Smart City **ICAIRE2024,** **October 26-28, 2024**  
**Tipasa, ALGERIA**

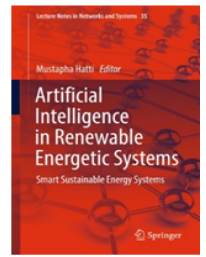


<b>ROOM A REMOTE SESSION : Wind Energy &amp; Power Systems : <a href="https://meet.google.com/yvz-avwt-zjw">https://meet.google.com/yvz-avwt-zjw</a></b>			
<b>Chair persons Pr. Katia KOUZI (ATUniv. Laghouat) ; Dr. Zineb ROUABAH ( Univ. Batna2) ; Muhammad Arshad Shehzad HASSAN (TUF. Pkst)</b>			
15h00	20	Predictive Wind Turbine Power Analysis Based on SCADA Data and Machine Learning Algorithms	ZOUHIR IOURZIKENE*, FAWZI GOUGAM, DJAMEL BENZAOUZ
15h10	21	Implementing an Advanced ANN in the Integral Sliding Mode Order-One Controller for Wind Turbine Chains with DFIG	LAKHDAR SAIHI*, FETAH FERROUDJI
15h20	80	Improved TSR Based MPPT Control Using Hybrid Fuzzy Sliding Mode Control For Wind Turbines	RANIA KADRI*, MOHAMED ABID, AISSAOUI ABDELGHANI
15h30	137	Evaluation of Wind Energy Potential in the Dhaya Region, Sidi Bel Abbès	FATIMA ZOHRA BOCHRA AMRANI*, BENAÏSSA BEKKOUCHE
15h40	34	Improving Power Quality By Using Active Power Filter Based On DQ Frame Of Reference Theory	BENHAOUA LARBI DAOULI*, HASSAN MANA,
15h50	54	Application of Artificial Intelligence to Reduce Conventional LFC Capacity in Utility Grid Using Multiple Interconnected Microgrids	N. KOUBA, A. BOUDOUCHE, A. BRIK, M. A. MATOUK, M. AMMI
16h00	55	The Study of Cooling Systems for Superconducting Coils	R.CHERIET*, B.BENSAAD, S.BELHANINI, F.BOUHADJELA,
16h10	43	Integration of Energy Storage Systems in the Power System to Prevent Blackouts	LEILA LALIA MIZAT*, M. LAHDEB, Y. OUBBATI, AHMED. T. HACHEMI
<b>ROOM B REMOTE SESSION : Communication &amp; Sensors : <a href="https://meet.google.com/jeh-xwmp-yvt">https://meet.google.com/jeh-xwmp-yvt</a></b>			
<b>Chair persons Dr. Rania DJEHAICHE (Univ. BBA); Dr. Sakina ATOUI (UDES Bou ismail); Dr. Lamia HAMZA (Univ. Bejaia)</b>			
15h00	147	An Improved Energy-Efficient MAC Protocol for WSNs	ABDELMALEK BENGHENI *
15h10	120	Towards a Multi-User Full-Duplex MAC Protocol for Up-Link Transmissions in IEEE 802.11ax HEW	KENZA HOCINI*, MOHAND YAZID
15h20	52	Carrier Sense in Up-Link OFDMA Random Access for IoT Applications using Wi-Fi 7 technology	SOUHILA MAMMERI*, MOHAND YAZID
15h30	08	A Review of Routing Protocols for the Internet of Things: A Comparative Study	SANA TOUHAMI*, MOHAMED BELGHACHI, ACHOUAK TOUHAMI
15h40	38	Up-Link OFDMA Hybrid Access for Enabling IoT-based Remote Video Monitoring over Wi-Fi 7.	SAID OULD AMARA, MOHAND YAZID, SOUHILA MAMMERI
15h50	89	Miniaturized Antenna using HMSIW Technique for Millimeter Wave and 5G Applications	AYOUB BENGHERBIA
16H00	68	TTC antenna at S-band for the drone to Geo satellite application	Z. KOURDI*, I. FOUR, R. MASOUR BEKHTACHE, N. ADDAOUI
16H10	94	ALTEM: A new lightweight trust evaluation mechanism for Wireless Sensor Networks	AHMED SAIDI*
16H20	113	Multi-Classification and Multi-Labeling of UML Diagrams Using Transfer Learning and CNN	ABDERRAHIM LAKEHAL, ADEL ALTI*, BOUBAKEUR ANNANE, BENSALAH IMENE, SMAANI ANISSA AFAF, MAMI MERIEM
16H30	76	Optical Characteristics of Photonic Crystal Fiber Splitters: A Study on Refractive Index, Chromatic Dispersion, and Effective Frequency	AHLEM ASSIA HARRAT*, MOHAMMED DEBBAL,



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

ICAIRE2024, October 26-28, 2024  
Tipasa, ALGERIA



			MOHAMMED CHAMSE EDDINE OUADAH
<b>ROOM C</b>	<b>REMOTE SESSION : Solar PV Systems :</b>		<a href="https://meet.google.com/sse-bhtz-esr">https://meet.google.com/sse-bhtz-esr</a>
<b>Chair persons Prof. Younes CHIBA (Univ. Medea) ; Dr. Zoubir BELGROUN (UDES Bou ismail) ; Dr. Zahira BOUGUERRA (Univ . BBA)</b>			
15h00	135	Empowering MPPT Efficiency in Partial Shading with Machine Learning-Driven Metaheuristic Strategies: Recent Developments	F. BELHACHAT*, C. LARBES, R. BENNIA
15h10	27	Comparative analysis of MPPT algorithms: P&O and Inc for optimizing PV systems	BELABED MERIEM*, BECHEKIR SEYF EDDINE, MOSTEFA BRAHAMI, BENDAHO HADJER, BRAHIMI AAMINA, BOUSMAHA IMEN SOUHILA
15h20	110	A New Strategy to Mitigate Overheating in Solar PV Systems using Adaptive Solar Tracking	KHADIDJA DAHLI*, KARIM SELAM NAWAL CHEGGAGA
15H30	51	Fuzzy Logic Control of Hybrid PV-Wind-Battery On-Grid Systems	ZOUAK FATMA ZAHRA*, CHAIB LAKHDAR, CHOUCHA ABDELGHANI
15H40	112	Corrosion and protection of irrigation pivots in Adrar Region, Algeria	BOUKHLEF DJEDJIGA*, BELHI FATIMA, KHALDI MANAL, SAADI ZINE, BOUTADARA ABDELKADER, HADIDI ABDELKADER
15H50	121	MTPA Flux Weakening Strategy for high-speed IPMSM Motors Drive used in EV-traction	AOUADJ NOREDIENE*, HARTANI KADA, HAMMOU MERIEM, BOUZIANE YASMINE
16H00	42	Modeling and understanding the lateral displacement and dynamics of a Bottom Hole Assembly (BHA) under bending vibrations	NORA BENMIR
16H10	93	Simplified Super-Twisting Sliding Mode applied to Dc-Bus voltage regulator	ABDESSELAM GUERBOUZ*, IMAD MERZOUK, AHMED HAFIFA, AMINE MEHDI FIAKHIR
16H30	<b>Maison de l'Environnement de Tipasa</b>		<b>COFFEE BREAK</b>

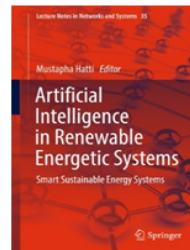
**FIRST DAY CLOSING-----17H00**





# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

Tipasa Smart City **ICAIRE2024,** **October 26-28, 2024**  
**Tipasa, ALGERIA**



## SUNDAY 27 OCTOBER 2024

**08H00** **Maison de l'Environnement de Tipasa** **REGISTRATION**

**Room A** **ADVANCED CONTROL SYSTEMS**

**Prof. Abdelghani HARRAG (Univ. Setif); Prof. Mounir BOUHEDDA (Univ. Medea)**

09H00	96	YOLO-based photovoltaic panel detection: A comparative study	C. MOUSSAOUI*, M. BOUZERDOUM, N. KELLIL, A. MELLIT
09H20	97	YOLOv8-Based Photovoltaic Module Detection Using Aerial Imagery	N. KELLIL*, C. MOUSSAOUI, A. MELLIT, A. BOUDIAF
09H40	144	An Improved-Detection System for Diagnosing Photovoltaic Power Plant Efficiency Degradation using a UAV-based system	N. CHEGGAGA, S. TCHOKETCH-KEBIR*, A-H KEBIR
10H00	32	Improvement of Double Diode Model of Solar Cells using Mountain Gazelle Optimization Algorithm and based on Lambert's W Function	A. ABBADI*, F. HAMIDIA, A. MORSLI, M.R. SKENDER, N. DOUIFI
10H20	65	PD Controller Design for Three-Axis Attitude Stabilization of a Microsatellite Using Reaction Wheels	B. KHOUANE*, J. E. BENMANSOUR, I. RACHED, A. S. ZEMOULI

**Room B** **ADVANCED MACHINE LEARNING TECHNIQUES**

**Prof. Aissa KHELDOUN (IEEE, UMBB) ; Dr. Imane DROUCHE (USTHB, Alger)**

09H00	95	Analysis and Prediction of Solar Power Plant Energy Production: A Comparative Study of Machine Learning Algorithms	LAKHDARI LAHCEN*, HABBAB MOHAMED
09H20	105	Carbon Emission Forecasting Using Advanced Machine Learning Algorithms	ABDELGHANI BOUZIANE*, NAIMA KHATIR, MOHAMMED BOUZIANE
09H40	59	Machine Learning Techniques for GDP per capita Prediction in Developing Countries: A Case Study of Sub-Saharan Africa	HANANE ZERMANE*
10H00	104	Efficient Predictive Dynamic Routing of IoT Communication Networks in Smart Farming: An effective Fuzzy Q-Learning Solution	ABDESSELEM BEGHRICHE*, BOUBAKEUR ANNANE
10H20	73	Determination of the Optimal Volume and Distribution of Learning Data for Solar Irradiance Forecasting Applications	HOUSSEM EDDINE LOUCHENE*, HASSEN BOUZGOU, CHRISTIAN GUEYMARD

**Room C** **ADVANCED TECHNIQUES TO OPTIMIZE COMPLEX SYSTEMS**

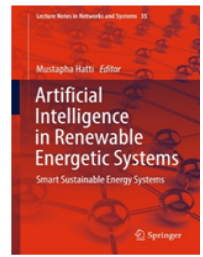
**Prof. Abdelghani AISSAOUI (Univ. Bechar) ; Prof. Saliha AREZKI (USTHB, Alger)**

09H00	100	Optimal Control Design for Stick-Slip Vibrations Mitigation in Rotary Drilling Systems	TELLAA MAWLOUD*, AIBECHE ABDERREZAK, DOGHMANE MOHAMED ZINELABIDINE, KIDOUCHE MADJID
09H20	101	Review and Comparative Analysis of Meta-Heuristic-MPPT Algorithms of PV Panels Under Partial Shading Conditions	SAFAA MADANI*, HAMIDIA FETHIA*, ABBADI AMEL, MEDJBER AHMED, MORSLI ABDELKADER, SKENDER MOHAMED REDHA
09H40	64	Simulation of corrosion and cathodic protection of a buried pipeline nearby a EHV overhead power line	TADJ NOURREDINE*, DJEKIDEL RABAH, HADJADJ ABDECHAFIK, BESSIDIK SID AHMED
10H00	60	OC Fault Detection in Single Phase NPC Inverter	H. MECHRI*, A. KHELDOUN, A. AMMAR
10H20	70	Spatiotemporal Prediction of Solar Irradiance in Algeria: A CNN-Driven Approach for Solar Energy Mapping	SALAH EDDINE MEGACHE*



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

ICAIRE2024, October 26-28, 2024  
Tipasa, ALGERIA



**11H00** **Maison de l'Environnement de Tipasa** **COFFEE BREAK**

Room A		MPPT & SOLAR ENERGY POWER	
Chairperson		Prof. Fateh KRIM (Univ. Setif) ; Dr. Fathya CHEKIRED (JDES- Bou ismail)	
12H00	142	Design of Control Circuits for Dynamic Reconfiguration of Shaded Solar Panels	S. AREZKI*, A. ABDELGHANI, M. BOUDOUR
12H20	124	An Experimental Study of a Photovoltaic Stand-alone House System in Adrar	ABDELDJALIL DAHBI*, ABDERRAHMANE KHELFAOUI, MILOUD BENMEDJAHED, AHMED BOURAIYOU, ABDELDJALIL SLIMANI, NOUAR AOUN, TIDJAR BOUDJEMA, MESSAOUD HAMOUDA
12H40	116	Optimizing MPPT Control of DC-DC Boost Converters Using Metaheuristic Search Algorithms and Nonlinear PID (N-PID) Controllers	L. KHELLAF, A. DJELLAL, H. MAYACHE, A. SHETA
13H00	91	The Recent Global MPPT Methods: State-of-the-Art	NASSIR ROUIBAH*, A. BOUTTOUT, S. OUKACI, A. LIMAM, L. DERRDJI
13H20	23	Parallel Photovoltaic Inverters Equipped Active Power Filters: Autonomous Mode and Grid Connection Mode Operations	ISSAM ABADLIA*, FATEH ABDOUNE, MOHAMED RIDA BENGOURINA, LINDA HASSAINE

**Room B** **ENGINEERING INNOVATIONS**

Chairperson		Prof. Rachid TALEB ( Univ. Chlef) ; Dr. Abdelkader HADJ DIDA (CDS-ASAL)	
12H00	66	Optimizing Annual Energy Output of a Residential Bifacial PV System using Box-Behnken Design: A Case Study in Tamanrasset, Algeria	RAHRAH KHAOULA*, TAIBI SOUFIANE, BOUZGOU HASSEN
12H20	31	Optimal design and tuning of TID power system stabilizer for multi-machine power system using Dandelion optimizer	INTISSAR HATTABI*, AISSA KHELDOUN, RAFIK BRADAI, SOUFIAN KHETTAB
12H40	119	Comparative study between Direct Torque Control (DTC) and Finite Control Set-Model Predictive Control (FCS-MPC) of Five-Phase Induction Motor	ABDELFATTAH HOGGUI*, AYMEN A. MEKHILEF, ALI BENACHOUR, MOHAND OULHADJ MAHMOUDI
13H00	16	Effect of intense laser field in combined triangular and parabolic quantum well	DJAMEL SEBBAR*, ABDELALI BOUKAOUD, YOUNES CHIBA

**13H30-14H30** **Maison de l'Environnement de Tipasa** **LUNCH**



Sightseeing (Roman settlement

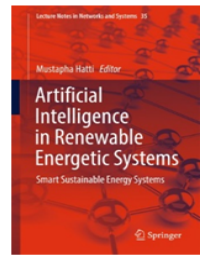


**16H00** **SECOND DAY CLOSURE**



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

ICAIRE2024, **October 26-28, 2024**  
Tipasa, ALGERIA



## MONDAY 28 OCTOBER 2024

Maison de l'Environnement de Tipasa

WELCOME COFFEE & TEA

### Room A FAULT DETECTION & OPTIMIZATION

Chairpersons **Pr. Adel MELLIT (Univ. Jijel) ; Dr. Mohamed AYAD (UDES, Bou ismail)**

09H00	02	Characterization of biomass mineral material as coated ferrihydrite with diatomite (silica) for use in environmental applications (photocatalysis)	WALID REZIG*, MOHAMMED HADJEL
09H20	149	Evaluation of the performance of a Savonius-type micro wind turbine	Z. OUCHIHA, H. IDDOU, T. LEGUOINI, A.H. HAMRIT
09H40	131	QuantumSign: Online E-Signature Service based on Blockchain and Post-Quantum Cryptography	CHAIMA BOUMESAID, YOUSRA GUERFA, GUELTOUM BENDIAB*
10H00	75	Effect of Different Drying Modes on the essential oil extract of the Tobacco plant (Nicotiana Tabacum L.) before maturation	M. FOULLANINE*, A. MEDIANI, W. BRAHAM CHAOUCH, A. DJABER, A. A. LARBI, A. LOUMANI, Z. BELKACEM, C. TIGANI

### Room B META-HEURISTICS CONTROL

Chairpersons **Prof. Dalila CHERIFI (IEEE, UMBB) ; Dr. Sabri BOULOUMA (UDES Bou ismail)**

09H00	102	Double Threshold Energy Detection Algorithm in Cognitive Radio/mmWave Mobile Communications at 60 GHz	AMEL HAOUZI*, SAMIR KAMECHE, HAROUN ERRACHID ADARDOUR
09H20	108	Intelligent Adaptive Neural Network Controller for Speed Control of PMSM in Electric Vehicles	SLIMANI AMIRA*, BOUREK AMOR, AMMAR ABDELKARIM, KAKOUCHE KHOUDIR
09H40	92	Comparative Analysis of PV Module Models Using AI-Based Metaheuristic Optimisation Techniques	EL MOUATEZ BILLAH MESSINI*, YACINE BOUREK, CHOUAIB AMMARI
10H00	99	Fuzzy Sliding Mode Control Impact on DFIG-WECS During IGBT Open Circuit Fault Compensation	MOKHTAR MAHMOUD MOHAMMEDI*, ZOUBIR GADOUCHE, HOCINE GUENTRI, AND AZEDDINE BENDIABDELLAH

### Room C ARTIFICIAL INTELLIGENCE CONTROL

Chairpersons **Dr. Fethi AKEL (UDES, Bou ismail) ; Dr. Faycal CHABNI (Univ. Tipasa)**

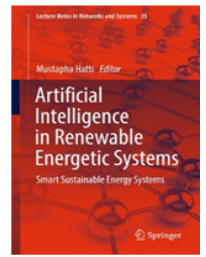
09H00	50	Optimizing Crow Algorithm for Enhanced MPPT Control in Photovoltaic System Under Varying Illumination Conditions	DJIHANE BOUGANDOURA, SABRINA TITRI, CHERIF LARBES
09H20	136	Numerical simulation of the dynamic stall of a wing	BOUREKBA FATIH*, NAITBOUDA NORA, GUERRI OUAHIBA
09H40	45	Design and Performance Investigation of Hierarchical Control intended for Three-Phase Photovoltaic Microgrids	CAMELIA AIT HAMMOUDA*, RAFIK BRADAI, ABDELHAMMID KHERBACHI, AHMED BENDIB, RACHID BOUKENOU
10H00	103	Optimized GA-Based PID Control Design for Stick-Slip Suppression in Drill String of Rotary Drilling System	TELLAA MAWLOUD*, AIBECH ABDERREZAK, DOGHMANE MOHAMED ZINELABIDINE, KIDOUCHE MADJID
10H20	44	Numerical Study of an Aircraft Cargo Compartment Fire: The Impact of Fire Retardant Sheets	HOUSSAM EDDINE NADIR HIBER*, HADJ MILOUA

### 10H40 Maison de l'Environnement de Tipasa COFFEE BREAK



# 8<sup>th</sup> International Conference On Artificial Intelligence In Renewable Energetic Systems

ICAIRES2024, October 26-28, 2024  
Tipasa, ALGERIA



Room B		FAULT DETECTION & CLASSIFICATION	
Chairpersons		Prof. Fethia HAMIDIA (Univ. Medea) ; Dr. Nouamen KELLIL (UDES Bou ismail)	
11H00	79	Anomaly Detection and Classification of Solar Photovoltaic Modules Using Vision Transformers (ViT)	BOUTANA YACINE, SOFIANE HADDAD, AMMAR SOUKKOU
11H20	111	Decision Tree for Fault diagnosis of PV systems	C. KARA MOSTEFA KHELIL*, I. HAMZAOU, B. AMROUCHE
11H40	107	Sizing, Design and Simulation of Solar Water Pumping System as Sustainable Solution for El Oued Region, Algeria	M. BENMBAREK, M. DAIF, A. KHELDOUN,
12H00	88	Energy aware and Stability multipath routing protocol Based on the cuckoo search algorithm for FANETs	ABDELKADER MEKKAOUI*, OMAR SMAIL, MOHAMMED REBBAH
Room C		THERMAL ENERGY EFFICIENCY	
Chairpersons		Prof. Amel ABBADI (Univ. Medea) ; Dr. Merzak FERROUKHI (USTHB, Alger) ; Dr. Ouahiba TIZOUJAR (EPAU)	
11H00	12	Experimental Investigation into the Effect of Building Orientation on its Thermal Behavior	A. KHELFAOUI*, A. DAHBI, M. BENMEDJAHED, B. TIDJAR
11H20	115	A Systematic Review of AI-Powered Generative Design to Improve Efficiency and Thermal Comfort in Early-Stage Residential Design	IBTISSAM CHEKKAL*, DJAMEL MESTOUL
11H40	140	Optimizing Geothermal Heat Exchangers Performance for Energy-Efficient Poultry House Heating	MEZIANE ASSIA*, MANSOURI KHALED, ATIA ABD ELMALEK, MAAMRI ABD ELBAKI
12H00	72	Stability and Performance Enhancement of a Step-Down Converter in Photovoltaic Systems Using an Optimization Algorithm-based Fractional PI $\lambda$ D $\delta$ Controller	ELOUAHAB BOUGUENNA*, LADACI SAMIR, WALID MERROUCHE
<b>Maison de l'Environnement de Tipasa</b>			
12H30		<b>CLOSING CEREMONY</b>	
<b>Maison de l'Environnement de Tipasa</b>			
13H00	<b>Maison de l'Environnement de Tipasa</b>		<b>LUNCH</b>

