

2024 IEEE INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE & GREEN ENERGY

IEEE ICAIGE24 aims to gather researchers, academics, scientists and professionals worldwide to present and discuss their recent results and innovative ideas in the areas of artificial Intelligence and green energy including but not limited to renewable sources and electric vehicles. World-class speakers will be invited to share their experience and disseminate the latest developments, innovations and the future research trends in artificial intelligence applications, renewable energy conversion and management, electric vehicles control, embedded systems design, etc. The conference will be held during the period October 10-12, 2024 in Hammamet, Tunisia. Researchers are cordially invited to submit their original contributions through 6-page research papers. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. We are looking forward to welcoming you in Sousse, Tunisia, to share thoughts and establish new relationships and collaborations.

IEEE Xplore® Digital Library PAPERS SUBMISSION

ACCEPTED PAPERS WILL BE SUBMITTED FOR INCLUSION INTO IEEE XPLORE SUBJECT TO MEETING IEEE XPLORE'S SCOPE AND QUALITY REQUIREMENTS

ALL PAPERS MUST BE WRITTEN IN ENGLISH AND WILL BE PEER REVIEWED

IMPORTANT DATES AND DEADLINES

Submission site opening: February 1st, 2024

Papers submission deadline: June 15th, 2024

ACCEPTANCE NOTIFICATION: August 30th, 2024

Camera Ready paper and registration deadline: September 15th, 2024

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SCOPE AND TOPICS

TRACK 1- ARTIFICIAL INTELLIGENCE AND RELATED APPLICATIONS

Artificial Intelligence for Automation of Energy Systems :

Energy conversion and management, Load and renewable energy forecasting, Energy management in electric vehicles, Intelligent transportation, IoT-based energy technologies

Artificial Intelligence for Engineering Applications :

Industry 4.0 and 5.0, Machine learning and Deep learning, Internet of things (IoT), Robotic and automation systems, Neural networks and fuzzy logic applications, Smart agriculture, Metaheuristic algorithms, Computer vision, Big data

Artificial Intelligence for Biomedical, Bioinformatics and Bioprocess

Boudour AMMAR, Tunisia / Francesco GRIMACCIA, Italy / Olfa JEMAI, Tunisia / Ahmad Taher AZAR, Saudi Arabia

TRACK 2- RENEWABLE ENERGY AND ELECTRIC VEHICLES

Renewable Energy, Distributed generation and smart grids : Photovoltaic energy, Wind energy, Hydroelectricity, Smart grids, Distributed systems and power quality, Power converters control techniques for renewable energy and smart grids, Electric machines modeling and control for renewable energy systems (RES), Energy efficiency, Energy planning, Smart grid

Miguel DE SIMÓN MARTÍN, Spain / Pierluigi SIANO, Italy / Sertac BAYHAN, QATAR / Morgan KIANI, USA

Electric Vehicles and Energy Storage Systems : Advanced control techniques of power converters and traction machines in electric vehicles, FPGA-based real-time simulation of electric vehicles, Advanced topologies and control techniques of battery chargers, Batteries modeling, Energy storage and battery management systems (SoC, SoH, etc), Artificial intelligence techniques for battery modeling and management

Ruben Zieba FALAMA, Cameroon / Chokri BEN SALAH, Tunisia / Fei GAO, France / Sonia LEVA, Italy / Roberto SALETTI, Italy

TRACK 3- DIGITAL TRANSFORMATION FOR GREEN ENERGY & EMBEDDED SYSTEMS

Architecture, Programming and Design : FPGA design for embedded systems, Reconfigurable architectures, Hardware-software co-design Systems-on-chip, Real-time operating systems (RTOS), Real-time control using DSPs, microcontrollers, FPGAs, Rapid prototyping techniques, Heterogeneous embedded systems, Signal and image processing

Embedded control and management of renewable energy systems and electric vehicles : Embedded control of power converters and electric machines, Real-time implementation of battery management systems

Critical Systems and Infrastructure : Cyber security for smart grids, Blockchain technology for renewable energy, Digital Twins in Renewable energy systems, Real Time Simulation, Hardwares in the loop

Jean SAWMA, Lebanon / Fatma SAYADI, Tunisia / Marcian CIRSTEA, UK

TRACK 4- FAULT DIAGNOSIS AND FAULT TOLERANT OPERATION OF RENEWABLE ENERGY SYSTEMS AND ELECTRIC VEHICLES

Fault detection of power converters, electric machines and sensors used in renewable energy systems and electric vehicles, Fault detection of PV modules and wind turbines, Fault tolerant control techniques, Signal processing and machine learning techniques for fault detection and isolation, Aging techniques of power semiconductors

Shen YIN, Norway / Mohamed Ali BELAID, Arabie Saoudite / Antonio J.M. CARDOSO, Portugal

SPECIAL SESSIONS

The IEEE ICAIGE24 conference organizers welcome interested researchers to submit their proposals for Special Sessions (SS). These are expected to address recent and specific topics related with the conference scope but not interfering with the tracks content. SS provide an opportunity to researchers and specialists in a specific theme to discuss their recent outcomes and exchange thoughts. Once a SS is accepted, it will be visible in the conference website including the organizers' names. All papers submitted to a SS will undergo the same evaluation process as regular papers. The SS will be included in the final program once at least 5 papers are accepted

Mostafa RAHIMNEJAD, Iran / Ebrahim BABAEI, Iran / Farah KTATA, Tunisia / Sobhan MOHAMADIAN, Italy

TRACK 1

TRACK 2

TRACK 3

TRACK 4

