



The 3rd International Conference on the Applications of Information Technology in Developing Renewable Energy Processes & Systems

(IT-DREPS 2020)

“Towards an Intelligent & Sustainable Renewable Energy Future”

Amman-Jordan, 25-27 November 2020

www.it-dreps.org

University of Petra
Faculty of Information Technology
Amman, Jordan



You are invited to participate in *The 3rd International Conference on the Applications of Information Technology in Developing Renewable Energy Processes & Systems (IT-DREPS 2020)*, which will be held at University of Petra, Amman, Jordan on November 25th - 27th, 2020.

IT-DREPS 2020 focuses on the highly evolving topics of Artificial Intelligence, Machine Learning and Data Science, and their applications in the development of intelligent and sustainable renewable energy (RE) systems. The objective of this year's conference is to present the latest trends in ICT and machine intelligence to promote new innovative ideas in all areas of renewable Energy.

Main Tracks:

IT-DREPS 2020 splits into a number of tracks, where each track covers a number of related topics as below:

Track 1: Applications of Artificial Intelligence, Machine Learning, and Data Science

This track focuses on the new trends in artificial intelligence, machine learning, and data science in improving renewable energy systems. Related topics include, but not limited to:

Deep learning, neural networks, supervised learning, unsupervised learning, semi-supervised learning, reinforcement learning, visualization, forecasting, prediction and classification techniques, intelligent monitoring systems, recommender systems, expert systems, vision and image classification, data mining, public datasets, big data, intelligent management of grid, simulation, and optimization.

Track 2: General ICT Solutions and Support for Renewable Energy

This track covers all areas of information and communication technology and their applications to renewable energy. Computer networks, information security, IoT, software engineering, and information systems. Hardware and software technologies are included. . Related topics include, but not limited to:

Advanced computational methods, computer-aided design tools, embedded programming, software engineering and technology, IoT for smart and green cities, green wireless sensor networks, green cellular and communication networks, ICT systems for power control and management, building and housing automation, smart grid control and SCADA systems, management information systems, decision support systems, safety, privacy, security, and bioinformatics.

Track 3: Sharing, Distribution, and Blockchain Technology in the Energy Sector

This track covers one of the latest trends in renewable energy which is based on the decentralization of energy sources and the development of consumer driven power services and energy blockchains.

Related topics include, but not limited to:

Energy distribution, blockchain, peer 2 peer power networks, decentralized energy systems, distributed ledger technologies (DLT), consumer driven smart grids, blockchain-based grids, ethereum, bitcoins, smart contracts, distributed consensus algorithms, and virtual power plants.

Track 4: Renewable Energy Sources and Systems (RESS)

This track is dedicated to the renewable energy sources, aiming at presenting researchers in the ICT field and other related fields with the proper background to facilitate the integration of ICT with renewable energy. Related topics include, but not limited to:

Photovoltaic (PV), concentrated solar power (CSP), wind power, hydropower, biomass, biofuel, geothermal energy, wave energy, tidal energy, and osmotic energy.

Track 5: Renewable Energy in Smart and Green Cities: Applications, Management, and Economics

This track presents All aspects of smart and green cities. Smart applications and systems, strategies, regulations, planning, economics, and security. Related topics include, but not limited to:

Buildings services, freshwater production, waste water treatment, industrial applications, oil and gas industry, agriculture and irrigation systems, heating/cooling systems, smart and green lighting, electrical vehicles and components, transportation and traffic control systems, energy efficiency systems, economic of renewable energy systems, hybrid energy management, systems for integrated energy management, high efficiency power storage systems, strategies and policies, standardization and regulations, public awareness and education, future trends, challenges and directions.

Paper submission

Authors are invited to submit their papers through www.edas.info or conference website www.it-dreps.org following the conference submission guidelines.

Registration fees

At least one of the authors of any accepted paper is requested to register through the conference website (www.it-dreps.org). The registration fees and methods of payment are explained on the conference website.

Publications

All accepted and presented papers will be published in printed/electronic proceedings that will be available to registered participants during the conference. Published papers will be submitted to [IEEE XPLORÉ](#) Digital Library (Pending approval of IEEE co-sponsorship). A number of selected papers will be published as extended papers in Scopus Indexed Journals.

Conference Committees

General Chair: Dr. Nuha El-Khalili (Nuhak@uop.edu.jo)

General Co- Chair: Prof. Ghassan F. Issa (gissa@uop.edu.jo)

General Co-Chair: Dr. Ali Al Maqousi (amaqousi@uop.edu.jo)

Scientific Committee Chair: Dr.Wael Hadi (whadi@uop.edu.jo)

Organization Committee Chair: Dr. Mohammad Abu Arqoub (abu-argoub@uop.edu.jo)

Publication Committee Chair: Dr. Ahmad Shubita. (ashubita@uop.edu.jo)

Important Dates:

Paper submission deadline	July 4 th , 2020
Acceptance notifications:	September 1 st , 2020
Camera ready form:	November 1 st , 2020
Conference Date:	November 25 th , 2020

For further information, please contact:

Conference Secretary
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