

9th AI4KM invites the 1st AIES 2021 (Artificial Intelligence for Energy and sustainability)

Call for Papers AIES (Artificial Intelligence for Energy and Sustainability) workshop supported by IFIP Technical Committee 12 (AI)

A One Day Program that includes invited talks, presentations and discussions.

This workshop has the specific objective of facing environmental challenges using AI approaches and techniques to support and improve the management of sustainable energy systems within smart cities, smart facilities, smart buildings, smart transportation and smart houses.

Decision support systems, planning and optimization in the sustainability and energy management fields require understanding of related systems, modelling, applying appropriate AI techniques including machine learning algorithms and handling temporary aspects of big data. Energy generation, transmission, distribution, sales and consumption need distinct focus with the energy mix optimization, distributed approaches, renewable energies with storage. Any short-term, mid-term and long-term forecasting, optimization models, trend foresights and prescriptions based on scenarios are studied in the energy world and the smart systems for sustainability.

The objective of this multidisciplinary session is to bring both researchers and practitioners together to discuss methodological, technical and organizational aspects of AI used for the traditional and renewable energy lifecycles. Knowledge sharing in constructing the AI models, Business Operations, Support of short, medium and long-term decisions and innovations in the fields of sustainability and energy will improve the interactions of human life and economies. Ultimate goal of the workshop is bring a contribution to achieve some of 17 UN sustainability goals.

The conference topics include (but are not limited to):

Artificial Intelligence for

Knowledge Management for Energy Ecosystems

Sustainability Policies

Decision Models for Energy Policy Makers

Decision Support for Energy System Management and Control

Smart Transportation Models

Optimization Models for Energy Efficiency

Mitigation of Emissions

Climate Change Adaptation Models

Carbon Trading

Multi Objective Optimization of Hybrid Resource utilization

Non-Linear Optimization of Energy Loads & Dispatch

Real time Control of Energy Systems

Energy Forecasting Models

Distributed Energy Operation Models

Modelling the Sustainable Future

Researches and practitioners are invited to submit their recent advances in methodologies, models and tools for managing knowledge in organizations and to discuss experiences in Energy Management and Sustainability. It covers development of complex systems to solve non-convex, nonlinear problems.

This conference form will be:

- Invited talk
- Presentations of peer-reviewed papers, including discussions
- Final discussion on needs and challenges for the future

Paper Submission and Publication

- Authors should submit extended summary up to 250 words in Springer format as PDF on easychair AIES_2021
- www.easychair.org/conferences/AIES_2021

or send to kayakutlu@itu.edu.tr

Accepted and presented papers will be published in electronic proceedings on <http://ifipgroup.com/> linked to IJCAI website.

- Extended versions of **selected papers** high level presentations during the conference will be published in Springer AICT series.

Important Dates

- Submission **deadline April 30**, 2021
- Notification of acceptance/rejection: **May 25**, 2021
- Camera-ready version deadline: **June 30**, 2021

Conference August 21-23, 2021 <https://www.ijcai-21.org/>

Organizing Committee:

Gülgün Kayakutlu. email: kayakutlu@itu.edu.tr

Eunika Mercier-Laurent email: eunika.mercier-laurent@univ-reims.fr

Mieczyslaw Owoc email: Mieczyslaw.Owoc@ue.wroc.pl

Georgios Saharidis, University of Thessaly, Greece, email: saharidis@uth.gr

Jean-François Rizand, CRIM, email: jfrizand@crim.ca

Members of program committee:

| | | |
|-------------------|----------------------------------|-------------------|
| Berker Yurtseven | ITU Energy Institute | Turkey |
| Ali Ghofrani | Rutgers University | USA |
| M. Özgür Kayalica | ITU Management Faculty | Turkey |
| Vítězslav Máša | Brno University of Technology | Czech Republic |

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|-------------------------------|--|----------------|
| Mieczyslaw L. Owoc | Wroclaw University of Economics and Business | Poland |
| İzzet Alp Gül | Global Ports Holding Plc. | United Kingdom |
| Avni Özözen | Axpo Enerji AS expert | Turkey |
| Nada Matta | Technical University of Troyes to PC | France |
| Burak Gökce | ENGIE European Countries, Expert | Turkey |
| Rosianne De Freitas Rodrigues | University of Amazonas | Brasil |
| Anne Dourgnon | EDF | France |
| Knut Hinkelmann | Univ of Applied Sciences | Switzerland |
| Otthein Herzog | TZI - Universitaet Bremen | Germany |
| Andrea Matta | Politechnic University of Milan | Italy |
| Antoni Ligeza | AGH, University of Science and Technology | Poland |
| Haris Doukas | National University of Athens | Greece |