CALL FOR PAPERS
SPECIAL SESSION ON

Recent advances in Artificial Intelligence for Renewable Energy Conversion Systems Reliability

for ICCAD'24
May 15-17, 2024, Paris-France

Session Co-Chairs:

- Professor Khmais Bacha, University of Carthage – Tunisia, khemaies.bacha@isste.u-carthage.tn
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Session description:

This special session focuses on the recent advances in artificial intelligence (AI) for renewable energy conversion systems reliability (RECS), such as: wind turbines, hydroelectric power plants as well as electrical generators in geothermal and solar thermal. Indeed, the rapid advances of cloud computing, big data and Internet-of-Things (IoT) technologies have considerably increased the implementation and application of advanced AI methods to address reliability challenges in RECS. Hence, highly robust prediction and decision-making AI models that improve the RECS' reliability draws great significance.

The goal is to exploit AI and computational methods for RECS predictive maintenance, which are essential for ensuring reliability. This special session aims to provide the latest advances, discuss the current research challenges and future directions, and encourage continued research and innovation in this important area. We invite researchers from both academia and industry to submit original research articles, review articles, case studies, or any other types of submissions that are relevant to this theme.

The topics of interest include, but are not limited to:

- Development of computational and data-driven methods for applying to RECS;
- AI-assisted or data-driven diagnostics for RECS;
- Life cycle assessment;
- AI methods for reliability assessment of RECS;
- Intelligent and predictive maintenance of RECS based on AI.

SUBMISSION

Papers must be submitted electronically for peer review by: **December 15, 2023**
https://www.iccad-conf.com/submission/

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).