# Special Issue

# Integrating Artificial Intelligence in Renewable Energy Systems

### Message from the Guest Editors

Renewable energy has emerged as a key player in the ongoing global energy revolution, while artificial intelligence (AI) applications have become a crucial sector that promises to bring about a brighter future for humanity. These two fields have intersected in recent years, resulting in a rapidly expanding area of study. In particular, AI techniques have enhanced the design of renewable energy systems, leading to more sustainable products. These techniques can be applied to various aspects of renewable energy, including improved system design, fault diagnosis, optimal operational conditions, sensitivity analysis, data analysis, decision making, and resource assessment. Additionally, AI can be used to exploit all forms of renewable energy resources such as solar thermal, solar photovoltaic, wind energy, geothermal, and biomass. The applications of AI and machine learning are not limited to direct power generation but can also be utilized in areas such as air conditioning, building heating and cooling, desalination, and energy storage, making it a powerful tool for any physical, chemical, or biological engineering application.

### Guest Editors

Prof. Dr. Seongsoo Cho

School of Software, Soongsil University, Seoul 06978, Republic of Korea

Prof. Dr. Bhanu Shrestha

Department of Electronic Engineering, Kwangwoon University, Bima Build. #525, 20 Kwangwoon-ro, Nowon-gu, Seoul 01897, Republic of Korea

### Deadline for manuscript submissions

closed (30 June 2024)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/171604

*Applied Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

# About the Journal

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

## Author Benefits

**Open Access:**

free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:**

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:**

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )