Special Issue

Technological Advancements Enabling Sustainment and Expansion of the Nuclear Industry

Message from the Guest Editors

This Special Issue focuses on the application of innovative science and technological solutions that enable the sustainment and expansion of the nuclear industry. This Special Issue welcomes contributions that attend to topics including, but not limited to, the following:

- The lifecycle management of artificial intelligence and machine learning models;
- Applications of artificial intelligence and machine learning in nuclear operation and maintenance;
- The use of automation to enhance efficiency in the maintenance and operation of nuclear power plants;
- Digital twins in the design and development of advanced nuclear reactors;
- Control architectures, including autonomous and semi-autonomous controls for advanced nuclear reactors;
- Technologies for non-traditional nuclear markets;
- The need for communication to maintain situational awareness;
- Cyber-security considerations;
- Sensor technologies;
- Risk-informed methodologies and strategies;
- Additive manufacturing for light-weight materials for structural and shielding applications.

Guest Editors

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Deadline for manuscript submissions

closed (31 January 2024)

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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