



Journal of
Nuclear
Engineering
and Radiation
Science

Guest Editorial

NED Chair's Message



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At the ninth anniversary of the first issue of *Journal of Nuclear Engineering and Radiation Science* (JNERS), it is my great pleasure to thank and recognize all the individuals who have contributed to the founding and success of the JNERS. The journal made its debut with its inaugural issue in January 2015 after years of efforts by members of the ASME Nuclear Engineering Division Executive Committee (NED EC). My sincere thanks to the present and past members of NED EC for their efforts in starting and sustaining

the journal. The current members of the NED EC are: Asif Arastu (Chair), Yassin Hassan (Vice Chair), Shripad Revankar (Technical Program Chair), Guoqiang Wang (Secretary), Rosa LoFrano (Treasurer), Leon Cizelj (Assistant Treasurer), Jovica Riznic (Past Chair, ICEM Committee Chair, and Awards Committee Chair), Shripad Revankar (ICONE-31 Committee Chair), Guoqiang Wang (CARD Committee Chair), Richard Schutlz (ASME Technical Liaison), and Tom Vogan (Codes & Standards Division Liaison).

A big thank you to Professor Igor Pioro, who has been the Editor-in-Chief of JNERS since its first issue. He faced a very challenging task of steering a new journal to reach the high ethical and quality standards that has been a hallmark of ASME journals. He has worked hard and diligently to maintain a publication of 4 issues a year, a level of publication containing 25–30 papers each. To maintain its high quality, the rejection rate was approximately half the submitted papers—this meant that he had to read and process more than 400 papers a year. This is indeed a tall order and Professor Pioro deserves a lot of credit for his consistent work. Of course, there are many Associate Editors (AEs), Guest Editors (GEs), and Reviewers, who made all this possible. The *Journal of Nuclear Engineering and Radiation Science* is currently included in the Web of Science, Emerging Sources Citation Index, and Scopus. The title

is also included in the Science Citation Index Expanded (SCIE). After about 10 years of efforts, the JNERS has finally received the Journal Impact factor. *My sincere thanks to the present and past AEs, GEs, and Reviewers, who contributed to the success of the Journal.*

In my NED chair's message in the first inaugural issue of JNERS, I expressed my hope that the journal will live up to the engineering community's expectations for high standards and serve as the foundation for the entire engineering and scientific enterprise. I believe that this journal has lived up to our expectations. The new Editor-in-Chief for the upcoming January 2024 and onwards will have the challenging task of taking the 4 issues a year publication rate to 6, 8, and, finally, 12 issues per year level while maintaining the current number of papers per issue. Our expectation is also for a continuous improvement in the Impact Factor of the Journal.

For years, the NED's main product was the International Conference on Nuclear Engineering (ICONE) and NED EC organized the conference as a group. In 2023, NED sponsored two additional conferences, namely, Conference on Advanced Reactor Deployment (CARD) and International Conference on Environmental Remediation and Radioactive Waste Management (ICEM). To run these conferences effectively and to manage other activities, NED has been reorganized. Separate committees are formed for the various conferences (ICONE Committee, CARD Committee, and ICEM Committee) with members of the NED EC in each plus other members from academia and industry, who are not members of NED EC.

ICONE now brings contributors and attendees from more than 20 nations, who deliver hundreds of technical papers, technical presentations, keynotes, panels, and workshops at each conference. A strong student program is part of each conference. This annual conference, which is truly international, is sponsored by the ASME, Japan Society of Mechanical Engineers (JSME), and Chinese Nuclear Society (CNS). The strong collaborations within these societies have resulted in successful conferences every year rotating between the U.S., China, Japan, and Europe. The 30th International Conference on Nuclear Engineering was held in Kyoto, Japan on May 21–26, 2023¹ and was colocated with the International Conference on Power Engineering (ICOPE-2023) with joint sessions. The theme of the joint conference was: “*Nuclear, thermal, and renewables: United to provide carbon neutral power.*” The total attendance between the 2 conferences was 1090 (77% ICONE and 23% ICOPE) from 24 countries. There were seven panels for

¹<https://event.asme.org/ICONE>

ICONE and several workshops. The ICONE-30 Technical Tracks are listed below:

- Track 0 Carbon Neutral Power Systems for Future World (ICONE-ICOPE shared Track)
- Track 1 Nuclear Plant Operation & Maintenance, Engineering and Modification, Operation Life Extension (OLE), and Life Cycle
- Track 2 Nuclear Fuel and Material, Reactor Physics and Transport Theory, and Fuel Cycle Technology
- Track 3 I&C, Digital Control, and Influence of Human Factors
- Track 4 SMRs, Advanced Reactors and Fusion
- Track 5 Nuclear Safety, Security, and Cyber Security
- Track 6 Nuclear Codes, Standards, Licensing, & Regulatory Issues
- Track 7 Thermal-Hydraulics and Related Safety Analysis
- Track 8 Computational Fluid Dynamics (CFD) and Applications
- Track 9 Decontamination & Decommissioning, Radiation Protection, & Waste Management
- Track 10 Advanced Methods of Manufacturing for Nuclear Reactors and Components
- Track 11 Mitigation Strategies for Beyond Design Basis Events
- Track 12 Innovative and Smart Nuclear Power Plant Design
- Track 13 Risk Assessments and Management
- Track 14 Computer Code Verification and Validation
- Track 15 Nuclear Education and Public Acceptance
- Track 16 Student Paper Competition

The ASME Conference Chair and Co-Chair were Jovica Riznic and Asif Arastu. The ASME Technical Program Chair and Co-Chair were Guoqiang Wang and Rosa Lo Frano; the ASME Steering Committee Chair and Co-Chair were Richard Schultz and Clayton Smith; the ASME Organizing Committee Chair and Co-Chair were Yassin Hassan and Nicholas McMurray; and the ASME Awards Committee Chair was Leon Cizelj.

The Conference for Advanced Reactor Deployment made its debut during 2023. CARD 2023 was held during February 22–24, 2023 at the Annenberg Presidential Conference Center at College Station, TX, USA². The conference was very successful. CARD has a different perspective compared to ICONE and focuses on “New Reactors” as the nuclear industry is developing newer, smaller, modular, and easy to construct and site nuclear power plants and plants for nonpower generation applications. The increasing and alarming rise in climate-change events are forcing the industry to look for CO₂ free clean-energy sources. Nuclear power is the best source of clean continuous supply energy. This conference, which is

highly industry focused brings together engineers and executive leaders in small-modular and microreactors nuclear-technology industries to network with utility, regulatory, and financial organizations, to exchange ideas, to share lessons learned, and to establish strategic relationships. The program for CARD 2023 conference included: Modularization and Advanced Manufacturing; Advanced Reactor Research; Code Development and Harmonization; Digital Twins; Reactor Technologies; and Regulatory Modernization. The NED CARD conference Organizing Committee Members were: Chair—Nicholas McMurray, Co-Chair—Robert Stakenborghs, Technical Program Co-Chairs—Yassin Hassan, Guoqiang Wang, and Asif Arastu.

The ASME International Conference on Environmental Remediation (Decommissioning, Decontamination & Demolition) and Radioactive Waste Management (ICEM) was held in Stuttgart, Germany³ during October 3–6, 2023. This conference was slated as a Bi-annual meeting in Europe. However, due to a variety of reasons, there was a 10-year gap between the last conference (2013 in Brussels) and the Stuttgart Conference. ICEM 2023 was produced in cooperation with the International Atomic Energy Agency (IAEA) and unites industry, academia, and governmental experts to advance international cooperation in nuclear power plant decommissioning and demolition, radioactive decontamination, disposal of nuclear waste, nuclear-waste storage, radioactive-waste management, environmental remediation, and much more. The ICEM conference Organizing Committee Members were: Chair—Rosa Lo Frano (ASME), Co-Chair – Horst Monken Fernandes (IAEA), Technical Program Chair—Jovica Riznic (ASME), Program Co-Chair—Martin Edelson (ASME).

Finally, I hope that as we embark on new reactor designs and construction, the Journal will continue to address important issues related to radiation science, nuclear education, modernization of licensing process for new plants, regulation, public acceptance, nuclear safety, and cyber security. Please continue to read and enjoy the *Journal of Radiation Science and Nuclear Engineering*, join the editorial team as associate or guest editors, support the review process of the submitted articles, and contribute to the continued success of this journal.

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Conference Chair: ICONE-31
Chair: ASME James Landis Award Committee
Member: ASME Clean Energy Technology Group

²<https://event.asme.org/CARD-2023>

³<https://event.asme.org/ICEM>