



# DESD/RRSD 2021

2021 Winter Meeting Embedded Topical

November 30 - December 4 | Washington Hilton | Washington, DC

In cooperation with



**IAEA**

International Atomic Energy Agency  
Atoms for Peace and Development



## CALL FOR PAPERS

### EXECUTIVE CHAIRS

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James Byrne, Byrne & Assoc., LLC

#### Publication Co-Chair (DESD)

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Leo Lagos, Florida International University

#### Publication Co-Chair (RRSD)

Young Soo Park, ANL

### IMPORTANT DUE DATES (NO ABSTRACT SUBMISSION IS NEEDED)

<b>JULY</b>		→	SUBMISSION OF SUMMARIES: <b>Monday, July 12, 2021</b>
<b>AUGUST</b>		→	AUTHOR NOTIFICATION OF ACCEPTANCE: <b>Monday, August 16, 2021</b>
<b>SEPTEMBER</b>		→	FINAL PAPERS: <b>Monday, September 13, 2021</b>

### DESCRIPTION OF EMBEDDED TOPICAL

This embedded topical meeting is a joint venture between the Decommissioning and Environmental Services Division (DESD) and Robotics and Remote Systems Division (RRSD). Authors are invited to participate in this event to exchange ideas and knowledge and to submit papers covering advances in DESD and RRSD topics listed in this announcement.

### GUIDELINES FOR SUBMISSIONS

Authors are required to follow the "Guidelines for Transactions Summary Preparation" provided on the ANS website at [ans.org/pubs/transactions/](https://ans.org/pubs/transactions/). Summaries must be submitted electronically in Adobe Acrobat (PDF) format via the ANS Electronic Paper Submission and Review (EPSR) system at <https://epsr.ans.org/>. Summaries not based on the ANS Template will be rejected.

Please submit summaries describing work that is NEW, SIGNIFICANT, and RELEVANT to the nuclear industry to [epsr.ans.org/](https://epsr.ans.org/). Papers should be one to four pages. ANS will publish all accepted summaries in the Transactions. Papers will incur a \$25 per page publication fee. Accepted papers are presented orally at the meeting, and presenters are expected to register for the meeting. If the meeting is oversubscribed, an opportunity for providing a poster paper may be provided.

### SUBMIT A SUMMARY

[epsr.ans.org/meeting/?m=339](https://epsr.ans.org/meeting/?m=339)

### PROGRAM SPECIALIST

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## TOPICS

HIGH-QUALITY PAPERS (4-PAGE MAXIMUM) ARE SOLICITED FOR THE FOLLOWING TOPICS

### ROBOTICS AND REMOTE SYSTEM DIVISION

#### 1. ROBOTICS AND REMOTE SYSTEMS

- 1a. Robotics and Remote Systems for Surveillance in Hazardous Environments, including tanks, H-canyon, contamination monitoring
- 1b. Nuclear Materials Handling – radiography, conveyance, glovebox robotics
- 1c. Nuclear Plant Maintenance and Operations
- 1d. Robotics and Remote Systems for Nuclear Waste and Spent Fuel Handling
- 1e. Robotics and Remote Systems in Commercial Power – SMR refueling, spent fuel management
- 1f. Dry Cask Storage Monitoring (some overlap with surveillance)
- 1g. Radiation Damage and Hardening

#### 2. SPECIAL TOPICS:

- 2a. Artificial Intelligence in Robotics and Remote Systems
- 2b. Telerobotics
- 2c. Robotics Operating System (ROS)
- 2d. Nuclear Emergency Response

### DECOMMISSIONING AND ENVIRONMENTAL SERVICES DIVISION

#### 3. ENVIRONMENTAL

- 3a. Emerging (Non-Radiological) Compounds
- 3b. Sampling Methods/Techniques
- 3c. Groundwater Modeling and Investigations
- 3d. Integrating Site Closure (non-Rad) and License Termination (Rad) during Decommissioning
- 3e. Nuclear Innovation: Clean Energy Future (NICE Future): Progress on Key Activities for Advancing Policy and Technology
- 3f. Energy-Water Nexus: Nuclear Technology's Potential to Provide Clean Water with Clean Energy
- 3g. The Path Towards a Low-Carbon Sustainable Energy Supply System
- 3h. Meeting Targets for Reduction of CO<sub>2</sub> Emission without Causing Economic Damage
- 3i. Regulatory Framework for the Resumption of Operation for Decommissioning Power Reactors

#### 4. DECOMMISSIONING (PLANNING, EXECUTION AND LESSONS LEARNED)

- 4a. International Decommissioning
- 4b. U.S. Decommissioning (both DOE and Commercial)
- 4c. Innovative Technologies
- 4d. Regulatory Framework for Decommissioning
- 4e. Spent Fuel Disposition - Storage, Transportation and Disposal
- 4f. Safety and Safety Culture in Decommissioning
- 4g. Decommissioning Cost Estimating, Trust Fund Management and Use
- 4h. Decommissioning Security - Requirements and Innovative Techniques to Reduce Costs

### RRSD/DESD COMBINED SESSIONS

#### 5. COMBINED TOPICS

- 5a. Robotics and Remote Systems for Decommissioning and Waste Disposal
- 5b. Robotics and Remote Systems for Environmental Remediation and Monitoring

Paper acceptance will be based upon originality of the work, strictly implemented methods or models, quality of results, conclusions supported by data, proper citing of references, use of correct grammar and spelling, and adherence to ANS formatting requirements.