



## Robotics and Remote Systems Division

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Adam Carroll  
*Chair*

Chris Eason  
*Vice Chair*

Anthony Abrahao  
*Vice Chair*

Y Z  
*Secretary*

Fan Zang  
*Treasurer*

Young Soo Park  
*Ex-Officio*

Youndo Do  
*Student Com. Member*

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Elliott Fountain (2026)

Boaz Buechley (2028)

Lucas Gallegos III (2026)

Leonel Lagos (2026)

Anamary Daniel (2027)

Syed Alam (2027)

John Moon (2028)

Christian Pilon (2028)

Douglas Reid (2028)

### Website

<https://rrsd.ans.org/>

## A Message from the Chair

Hello. I am Adam Carroll, Chair of the Robotics and Remote Systems Division (RRSD) and a Senior Mechanical Engineer at Oak Ridge National Laboratory. RRSD had an exceptional year in 2025, marked by strong growth, increased engagement, and continued technical impact across the Society as robotics and remote systems continue to play a central role in nuclear, energy, and hazardous-environment missions. Our membership grew to 511 members, representing a 20 percent increase over the past year. This growth reflects the increasing demand for advanced robotic and remote technologies across a broad range of applications.



**Adam Carroll**  
*Chair, Robotics and Remote Systems Division*

RRSD hosted successful technical and panel sessions at both the ANS Annual and Winter Meetings, with strong participation and high-quality technical discussions. These sessions continue to demonstrate the breadth of work being done by our members, from traditional nuclear applications to emerging areas that leverage artificial intelligence and advanced robotic platforms. This work expands robotics and remote handling into new environments and enables safer, more resilient operations in challenging conditions.

Looking ahead, planning is already underway for the 2027 Embedded Topical, which RRSD will co-host with the Decommissioning and Environmental Sciences Division. This Embedded Topical will take place during the ANS Annual Meeting in June 2027 in Lake Buena Vista, Florida, and represents an exciting opportunity to further expand interdisciplinary collaboration and highlight the role of robotics and remote systems across decommissioning, environmental remediation, and future nuclear missions.

My term as Chair will conclude at the end of the ANS Annual *cont.>*

Conference in Denver, Colorado, held from May 31 through June 3, 2026. Serving as Chair has been a rewarding experience, and I am proud of the division's momentum and growth. I am especially grateful to Chris Eason, our current Vice Chair, who will transition to Chair at the conclusion of the Annual Conference. I look forward to the leadership and vision he will bring to RRSD in the coming years.

I would also like to recognize Fan Zhang, our current Treasurer and future Vice Chair, for championing the creation and passage of a new student award and scholarship. This initiative strengthens RRSD's commitment to student engagement and workforce development and represents an important investment in the next generation of robotics and remote systems professionals.

Thank you to the Executive Committee, session organizers, panelists, and members who continue to make RRSD a vibrant and growing division within ANS. I look forward to seeing many of you at upcoming meetings and to watching RRSD continue to thrive.

## RRSD Officer won National Award for contributions in Nuclear Robotics



Fan Zhang was honored with the American Nuclear Society (ANS) 2025 Landis Young Member Engineering Achievement Award, recognizing outstanding early-career contributions to the nuclear field. The award citation highlighted her impact on nuclear safety and security, including her

work with the International Atomic Energy Agency and on robot-assisted nuclear plant monitoring. Through her research and international engagement, Zhang has helped advance the role of robotics and remote systems in enabling safer inspection, monitoring, and operation of nuclear facilities in the United States and worldwide. This recognition reflects both Zhang's individual achievements and the mission of the ANS Robotics and Remote Systems Division to advance technologies that strengthen safety, reliability, and resilience across the global nuclear enterprise.

## ANS RRSD Officers and EC Members Support ICRA 2025 Workshop on Grand Challenges in Robotics for Nuclear Environments

Officers and Executive Committee members of the ANS Robotics and Remote Systems Division (RRSD) played an active role in organizing and supporting the ICRA 2025 Workshop, Grand Challenges in Robotics for Nuclear Environments: A Call to Action, held in Atlanta, Georgia. RRSD roles included Young Soo Park serving as General Chair, Fan Zhang as Publications Chair, Anamary Daniel as Panel Chair, and YZ as a Poster Session Judge, reflecting the division's collaborative role in shaping the workshop's technical direction and dialogue.

RRSD Student Representative Youndo Do and Executive Committee member Christian Pilon also participated, underscoring the division's engagement across career stages and the broader nuclear robotics community. Workshop activities included a laboratory tour at Fan Zhang's Georgia Institute of Technology research facility, providing participants with direct exposure to ongoing nuclear robotics research and strengthening collaboration across academia, industry, and government.

Building on this momentum, RRSD will continue to engage in and support forums, working groups, and collaborative efforts that draw from the broader robotics community both nuclear and non-nuclear to help connect research with real-world nuclear applications and inform pathways toward deployment in nuclear and extreme-environment missions.

## RRSD Student Scholarship Program to be established in 2027

RRSD is pleased to announce the planned establishment of the RRSD Student Scholarship Program to recognize and support students pursuing excellence in nuclear robotics and remote systems research.

### Scholarship Awards

- Graduate Student Scholarship: up to \$3,000
- Undergraduate Student Scholarship: up to \$2,000
- Up to \$1,500 of the award may be allocated for travel to an ANS conference to present a paper related to RRSD topics.

Details will be forthcoming during this year.

## 2026 Student Conference Participation

RRSD will participate in the 2026 ANS Student Conference, to be held April 16–18 at Texas A&M University in College Station, Texas.

The Division will contribute \$2,500 in support of the conference and will participate in the Career Day event with a booth representing both ANS and RRSD.

An RRSD representative will also serve as a judge for student presentation and poster competitions. A prize will be awarded on behalf of RRSD for the most outstanding paper demonstrating excellence in remote systems and robotics applications.



## ANS Winter Meeting 2025 RRSD panel

The ANS Winter 2025 RRSD panel, Transforming Robotics Research: AI, Advanced Materials, and Hazardous Applications, brought together leading voices at the forefront of robotics innovation for nuclear and hazardous environments. Panelists Dr. Anna Erickson (Georgia Tech), Dr. Syed Bahauddin Alam (UIUC), Professor YZ (University of Michigan), and Mr. Christian Pilon (Atkins Réalis) examined the progression from conceptual design to resilient deployment, emphasizing how early design decisions shape long-term survivability and mission performance.

Key themes included the value of pilot demonstrations for practical learning, the rapid advancement of AI-enabled sensing and interpretation, and the essential role of next-generation materials in strengthening robotic endurance under severe gamma and neutron fields. The discussion reinforced a broader conference message: advancing nuclear technologies requires persistence, confident leadership, and a safety-centered approach to innovation.

Dr. Anna Erickson's contribution set a defining tone for the session. Drawing from her Winter Meeting insights, she framed robotics as the convergence of materials science, hierarchical computing architectures, embedded intelligence, and thoughtful system positioning. Her emphasis on self-healing and flexible materials, along with architectural choices that minimize line-of-sight radiation exposure, bridged long-term research trajectories with near-term operational needs. Dr. Erickson reminded the community that radiation challenges not only hardware, but assumptions—and that resilient robotics are essential to reclaim operational time, reduce crew exposure, and strengthen safety culture.

Guided by Moderator and RRSD Vice Chair Chris Eason, the session highlighted how cross-sector collaboration is accelerating progress toward reliable, intelligent, and field-ready robotic systems. RRSD remains committed to advancing this work and extends its appreciation to all participants for helping chart the path forward.



## List of Upcoming Events

### [ANS Student Conference 2026](#)

April 16–19, 2026 | College Station, TX

### [2026 Annual Conference](#)

May 31–June 3, 2026 | Denver, CO

### [2026 ANS Winter Conference & Expo](#)

November 15–18, 2026 | Phoenix, AZ

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RRSD, whose roots date back to 1960, was the first professional division of the American Nuclear Society. For over four decades, its members have made significant contributions in all fields utilizing remote technology, including nuclear energy.

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