



MDS-Rely

FEBRUARY 2026

NEWSLETTER

Advancing materials reliability through data-driven collaboration between academia, industry, and government

Enhancing Battery Degradation Analysis and Thermal Runaway Prediction

Seminar by Heqiao Ruan and Shubha Sankar Banerjee

Other Highlights

2026 Spring Meeting on April 15th

Job Opportunities



This issue highlights our seminar on enhanced battery degradation analysis and thermal runaway prediction coming up on Friday, February 13th, as well as our upcoming Spring Meeting and various job opportunities.

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Featured Announcements

Technical Seminar: Enhancing Battery Degradation Analysis and Thermal Runaway Prediction

Friday, February 13th, 2026 (12-1:30 PM EST)

Presented by: Heqiao Ruan and Shubha Sankar Banerjee



Thermal runaway is the most critical safety risk in lithium-ion batteries, involving rapid, self-accelerating heating that can lead to fire, explosion, or toxic gas release. As batteries scale for electric vehicles and grid storage, single-cell failures can propagate catastrophically, with severe economic and human consequences. Higher energy densities further intensify this risk, making early detection and prevention essential. This presentation discusses next-generation diagnostic systems that combine statistical modeling with domain-aware signal design to support safer, more reliable energy-storage technologies.

[Register here!](#)

Member Engagement Opportunities

Spring Meeting 2026 on April 15, 2026



Our Spring Meeting will be on Wednesday, April 15th, 2026. For more details, please visit the meeting webpage ([link here](#)).

[Register here!](#)

Ongoing and Completed Research Projects

Our Project summary document provides detailed summaries of the ongoing and completed research projects. Some senior design projects are also highlighted. Please check it out [here](#).

Biweekly Research Project Meetings

Stay connected through our biweekly Zoom meetings for research updates and discussion. Contact the lead professor if you can't attend. Check the [Center Calendar](#) for meeting dates and times.

Project Title	Lead(s)	Schedule
Effects of Aerosol Jet Printing Parameters on the Lifetime Performance of Additively-Manufactured Flexible Circuits	Prof. Janet Gbur (CWRU)	Feb 4, 18 — every other Wed 8:00–9:00 AM
Enhancing Battery Degradation Analysis and Thermal Runaway Prediction	Prof. Satish Iyengar (Pitt)	Feb 5, 19 — every other Thu 7:30–8:15 AM
Quantitative Characterization of Chemical Interaction of Solutes with Defects for Predicting Intergranular Corrosion	Prof. Hyeji Im (CWRU)	Feb 4, 18 — every other Wed 2:30 - 3:00 PM
Machine Learning Methods for Optimizing and Innovating Structural Color Paints and Coatings	Profs. Paul W. Leu, Oliver Hinder, and Jungtaek Kim (Pitt)	Feb 5, 19 — every Thu 5:00–5:30 PM

Job Openings and Opportunities

LLNL Summer Internship Opportunities

Summer openings for LLNL are still open! [Use this page](#), and then search the following positions by the REF number if interested:

- Materials Science Division Graduate Intern - Summer 2026 (REF7589H)
- Materials Science Division Undergraduate Intern - Summer 2026 (REF7588P)
- Computational Chemistry Materials Science (CCMS) Graduate Intern - Summer 2026 (REF7593N)

If you or any of your students are interested in a specific area of research, please let Roger Qiu (qiu2@llnl.gov) know and he will try to connect you/them to the appropriate PIs.

Member Job Openings

Explore current openings and internships from MDS-Rely member organizations.

- [Eaton Careers](#)
- [LLNL Internships](#)
- [NETL Opportunities](#)

- [Parker Hannifin Jobs](#)
- [U.S. Army DEVCOM Student and Intern Opportunities](#)
- [NIST Jobs](#)
- [NNL Careers](#)
- [PPG Careers](#)

Job Fairs at Pitt, CMU, and Case Western

If you are looking for a job opportunity with one of the member companies above, check out the following career fairs coming up in February!

- [University of Pittsburgh Spring 2026 Career & Internship Fair \(Feb. 17th-19th\)](#)
- [Case Western Reserve University Spring 2026 Career Fair & Graduate School Expo \(Feb. 27th\)](#)

Submit News

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Submit Job Openings

*For MDS-Rely members only

[Fill out a job opening form here!](#)

Interested in partnering with Case Western, Pitt, or CMU Professors?

Please contact [Dr. Laura Bruckman](#) or [Dr. Paul Leu](#) for more information!

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