



SPRING 2025



Catch our research impact

The Big Ten Network has been featuring battery research at the Testbeds in this video that's been airing during 2024–25 Husky football and basketball games.



<u>CEI Director presents at Provost's</u> <u>Town Hall</u>

Dan Schwartz highlighted CEI's <u>Community Capstones in Clean</u> <u>Energy</u>, a course that partners teams of UW Engineering seniors with communities and tribes to co-design clean energy solutions.

<u>Testbeds Undergraduate Research</u> <u>Awards</u>

Four UW Engineering students will perform novel research in clean energy, advanced manufacturing, and related fields at the Testbeds.



<u>Veteran renewable energy</u> founder named Entrepreneur-in-<u>Residence</u>

The Testbeds welcomed Babu Jain as its newest Entrepreneur-in-Residence (EIR). Weekly office hours with Jain are free and open to aspiring and established climate tech entrepreneurs and business teams.



Meet new faculty member Jie Xiao

Xiao holds 17 patents and copyrights, and her research has led to innovations in enabling next-generation high energy lithium metal batteries and scaling up new materials that make up the cathode, the positive electrode in a battery.



CEI annual report

See how our programs and partnerships benefit everyone from utility customers to EV drivers and elementary school students.

FACULTY HONORS & AWARDS

David Bergsman wins American Vacuum Society (AVS) Thin Film Young Investigator Award

Corie Cobb elected as fellow of the National Academy of Inventors (NAI)

<u>Xiaosong Li named American Association for the Advancement of Science (AAAS)</u> <u>Fellow</u>

Dianne Xiao named Sloan Fellow

<u>Xiaodong Xu receives National Academy of Sciences (NAS) award for scientific</u> <u>discovery</u>

RESEARCH HIGHLIGHTS

Multiscale Modeling and Optimization of Group V Doping and Compensation in CdSe_xTe_{1-x} ACS Applied Energy Materials

<u>Al-Guided Inverse Design and Discovery of Recyclable Vitrimeric Polymers</u> Advanced Science

Interstitals as non-radiative recombination centers for all-inorganic halide perovskites Computational Materials Science

<u>Modeling Structured Electrodes and Graded Porosity for Improving Discharge</u> <u>Rate Capability in Ultra-Thick Graphite|LiNi_{0.6}Mn_{0.2}Co_{0.2}O₂ Batteries</u>

Journal of the Electrochemical Society

nleis.py: A Nonlinear Electrochemical Impedance Analysis Toolbox

The Journal of Open Source Software

Point defects in CdTe and CdTeSe alloy: A first principles investigation with DFT+U

Physical Review Materials

EVENTS

CEI Interdisciplinary Seminars (held at 4:00 PM in NanoES 181):

April 10 - Maksym Kovalenko, Professor of Functional Inorganic Materials, Laboratory of Inorganic Chemistry

May 15 - Jonothan Philips, Director of the James E. Rogers Energy Access Project, Duke University

May 29 - CEI End of the Year Seminar

June 5 - Kelsey Hatzell, Assistant Professor of Mechanical and Aerospace Engineering, Princeton University

