COLLEGE OF ENGINEERING, COMPUTER SCIENCE, & TECHNOLOGY

Seminar in Interdisciplinary STEM Research

Friday, May 3rd - 11:00-11:50 AM

Location: https://calstatela.zoom.us/j/6858339692

HOSTED BY CREST CATSUS

Ridge Bachman, B.S.



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Bio: Ridge Bachman is a Ph.D. candidate at Penn State University, specializing in vanadium redox flow batteries. He has expertise in electrochemical energy storage, gained through research and work, including at the National Energy Technology Laboratory.

Assessing the Impact of Electrode Oxidation on Vanadium Redox Flow Battery Performance Through Experimentation and Modeling

Abstract: Vanadium redox flow batteries (VRFBs) are promising energy storage solutions for renewable energy integration and grid applications. This research investigates key challenges in VRFB technology, focusing on improving efficiency and durability. Through experimental and computational studies, novel electrode designs and electrolyte formulations are explored to enhance battery performance. Additionally, advanced characterization techniques are employed to understand degradation mechanisms and develop strategies for extending battery lifespan. The findings contribute to the development of more efficient and durable VRFBs, advancing their commercial viability for large-scale energy storage applications.

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