LSU | Institute for Energy Innovation

For Immediate Release

LSU's Institute for Energy Innovation Awards Nearly $1 Million in Research Funding During June 24 Event

LSU's Institute of Energy Innovation (IEI) is pleased to announce the awarding of nearly $1 million in research funding to five research initiatives across the energy innovation space.

Announced during a **June 24 live webinar**, this third round of IEI grants fulfills a core purpose of the institute – to develop solutions for complex technical, economic, social and environmental challenges in the energy sector.

Winning Proposals

Integrating Economical Non-Lithium Batteries in Buildings for Large-Scale Energy Storage

Award: $249,910 over two years
Principal Investigator: Dr. Ying "Jane" Wang, *Department of Mechanical & Industrial Engineering*
Co-Principal Investigator: Dr. Zhihong Pang, *Department of Construction Management*
Dr. Wang and Dr. Pang will research ways to integrate safer, cost-effective aqueous sodium-ion and zinc-ion batteries into building systems to support large-scale energy storage and enhance climate resilience.

Geological and Physical Studies to Optimize Wind Farm Site Selections in Cameron Parish

Award: $249,858 over two years
Principal Investigator: Dr. Z. George Xue, *Department of Oceanography & Coastal Sciences*
Co-Principal Investigators:

Dr. Kehui Xu, *Department of Oceanography & Coastal Sciences*
Dr. Zhengchen Zang, *Department of Oceanography & Coastal Sciences*
The team will research ways to support wind energy development through geophysical analysis, including data mining, field surveys, and modeling to assess geological frameworks and submarine mudslide risks from hurricane activity in Louisiana's offshore wind project zones.

Ground Truthing Biofuels Potential in Louisiana

Award: $99,959 over two years
Principal Investigator: Dr. Anurag Mandalika, *LSU Center for Energy Studies*
Co-Principal Investigator: Ashley Roberts, *EPRI, Charlotte*
This project will seek to validate the potential for biofuels in Louisiana using field-level data

collection and stakeholder engagement to identify investable biomass and renewable fuel opportunities, informing future large-scale research and investment initiatives.

Machine Learning-Driven Framework for Multi-Hazard CO_2 Transport Safety

Award: $149,990 over two years
Principal Investigator: Dr. Yuanhang Chen, *Craft & Hawkins Department of Petroleum Engineering*
Co-Principal Investigator: Dr. Ope Owoyele, *Department of Mechanical & Industrial Engineering*
They will develop machine learning-based artificial intelligence tools for predicting CO_2 pipeline hazards.

Louisiana Energy Survey

Award: $231,963
Principal Investigator: Dr. Catherine Chen, *Manship School of Mass Communication & Department of Political Science*
Co-Principal Investigators:

Dr. Sabarethinam Kameshwar, *Department of Civil and Environmental Engineering*
Dr. Xugui Zhou, *Department of Electrical and Computer Engineering & Department of Computer Science*
The research team will explore public and stakeholder perceptions of energy through a statewide survey and focus groups. In the process, they'll examine barriers to adoption and how demographic, political and communication strategies influence public support.

This is an exciting time, as the Institute continues to make significant strides toward its primary mission – to develop solutions for complex technical, economic, social and environmental challenges in order to advance energy innovation.

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