NEW YORK STATE OF OPPORTUNITY.

Division of Science, Technology & Innovation

A Division of Empire State Development

GRIDD IS A NYSTAR-DESIGNATED NEW YORK STATE CENTER FOR ADVANCED TECHNOLOGY

www.griddsbu.org

CONTACTS

Center for Grid Innovation Development and Deployment (GrIDD)

1000 Innovation Road
Stony Brook, NY 11794-6044

Advanced Energy Research and Technology Center (AERTC)

Tel. (631) 216-7400

Chief Innovation Officer
Office for Research and Innovation
Michael Kinch, PhD

Center Director
Abdelrahim Brown
abdelrahim.brown@stonybrook.edu

Senior Center Director, Corporate Engagement
Office for Research and Innovation
David Hamilton
david.hamilton@stonybrook.edu

Associate Director, Technology and Engineering
Vyacheslav "Slowa" Solovyov, PhD
vyacheslav.solovyov@stonybrook.edu

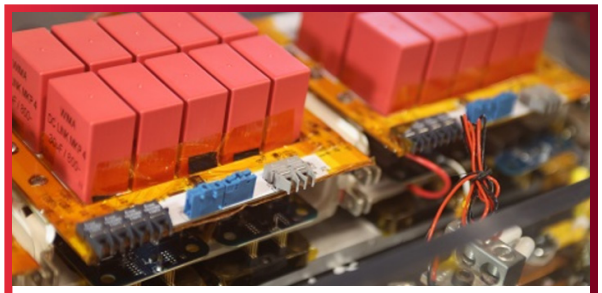
Project Coordinator
Prathamesh Hajirnis
prathamesh.hajirnis@stonybrook.edu

Project Coordinator
Angiee Pineda Mora
angiee.pinedamora@stonybrook.edu

Manager, Workforce Development
Office for Research and Innovation
Derek O'Connor
derek.oconnor@stonybrook.edu

GrIDD
GRID INNOVATION DEVELOPMENT AND DEPLOYMENT
AT STONY BROOK UNIVERSITY

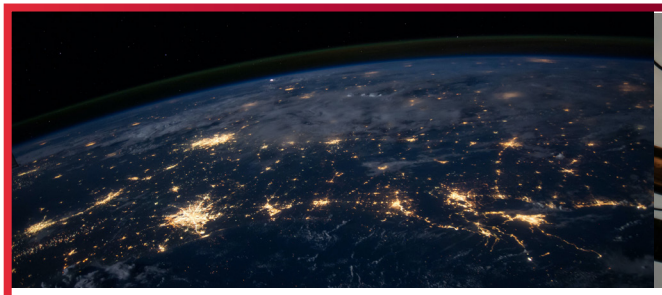
TRANSFORMING NEW YORK STATE'S ELECTRIC GRID WITH INDUSTRY INNOVATORS



ABOUT GRIDD

The Center for Grid Innovation Development and Deployment (GrIDD) enhances the development and integration of cutting-edge technologies into electric energy systems, working with industry partners, and leveraging the technical and intellectual assets of Stony Brook University and Brookhaven National Laboratory to bolster New York State's leadership in the ongoing energy transition.

GrIDD's goal is to make New York a global leader in the technologies that will accelerate the progress of renewable energy as one of the mainstream resources displacing fossil fuel-based electric power worldwide by facilitating the integration of renewable sources into the electric grid. GrIDD looks to drive economic impact and innovation growth through collaborative projects with industry.



EXAMPLES OF GRIDD INITIATIVES

» Development of cutting-edge energy storage solutions to enhance transmission planning and grid stability.

» Pioneering models examining mutual benefits with efficient and reliable grid operation of renewable energies.

» Grid resilience improvement through the utilization of next-generation modeling, ensuring the reliability of our energy systems.

» Development and demonstration of advanced microgrid energy dispatch, showcasing a rapidly deployable microgrid with swift recovery capabilities achieved through the intelligent dispatch of energy storage technologies.

» Modeling flow dynamics for micro-hydro turbines utilizing computational modeling to accelerate understanding and optimization technology leading to accelerated commercialization of the technology.

» Comparable study & benchmarking of power electronics architectures for HVDC.

» Understanding the economic viability of green H2 production in a wind farm with wake field interactions.

GRIDD MISSION

GrIDD is poised to be a transformative force in the energy sector, with a mission to drive cutting-edge advancements in grid and grid-impact projects through rigorous testing, pilot programs, and in-field demonstration projects. The Center is committed to:

- Fostering workforce and economic development.
- Supporting community resilience and growth.
- Expanding New York State's leadership in the energy transition.

Our Center's capabilities include:

- Studies and Modeling for Analysis - Conducting comprehensive studies and sophisticated modeling to analyze and predict grid behavior, performance, and impact.
- Building Test Bed Infrastructure - Developing state-of-the-art test bed facilities to simulate real-world conditions, allowing for robust testing and validation of new technologies and solutions.
- Bench Testing - Develop testing models and tests for strategic partners and real-world replication of their operations, prior to field testing with them.
- Field Pilots and Demonstrations - Implementing pilot programs and demonstration projects in the field to showcase practical applications and benefits of innovative grid solutions.