University of South Florida
College of Engineering/Department of Electrical Engineering
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Drs. Fan and Miao Awarded 1.2 Million by Department of Energy

The USF SPS group will design dynamic models of utility-scale solar PVs for large-grid disturbances and weak grids to enhance solar PV situation awareness and grid resilience

March 29, 2019, Tampa, Florida – A research team led by Lingling Fan and Zhixin Miao, Associate Professors at the Electrical Engineering Department at USF, was selected to receive a $1.2 million award from the U.S. Department of Energy Solar Energy Technologies Office (SETO) to advance photovoltaics (PV) research and development.

Drs. Fan and Miao were selected as a part of the Energy Department's Advanced Systems Integration for Solar Technologies (ASSIST): Situational Awareness and Resilient Solutions for Critical Infrastructure funding program. This program will improve situational awareness of solar energy systems, especially at critical infrastructure sites, increase resilience to cyber and physical threats, and strengthen solar integration on the grid.

The University of South Florida will design dynamic models of utility-scale solar plants and their interactions on grids with large penetrations of generation through distributed energy resources like solar-plus-storage systems and wind power. These models will be used to construct a coordination strategy and a stability enhancement module for photovoltaic and storage systems so they can respond to rapidly changing grid conditions.

About Electrical Engineering at the University of South Florida The mission of the Electrical Engineering Department in the College of Engineering at the University of South Florida is to provide a high quality education in electrical engineering for our students and practicing professionals; create new knowledge and solve real world problems via innovative research, and disseminate this information for the benefit of society; and to engage in effective regional, national and international service and outreach.

About the Solar Energy Technologies Office
The U.S. Department of Energy Solar Energy Technologies Office supports early-stage research and development to improve the affordability, reliability, and performance of solar technologies on the grid. Learn more at energy.gov/solar-office.

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