



REAL-TIME CONTROL AND GRID INTEGRATION OF SOLAR SYSTEMS

R&D PROJECT

RESEARCH PARTNERS:

- > Texas Tech University
- > National Wind Institute

PROJECT TERM:

- > Ongoing

INDUSTRY PROBLEM:

- > Maximization of the power output from solar power plants;
- > Maintaining grid reliability with the integration of high penetration distributed solar;
- > Reverse power flow protection.

SOLUTION:

- > Maximum Power Point Tracking (MPPT) algorithm;
- > Robust control strategies to handle system uncertainties/disturbances (e.g. variations of sunlight conditions, load, grid voltage and frequency, and parameter drifts etc.);
- > Smart inverter technologies with bi-directional power flow control.