

## FLORIDA STATE UNIVERSITY

### *Planning Grant: Advancing Knowledge of Network Theory for Analysis and Design of Smart Power Grids*

**PI:** Svetlana V. Poroseva **Co-PIs:** Yousuff Hussaini, Per Arne Rikvold

**Description:** With power grids evolving towards increasing size, complexity, and integration, it has become more difficult to describe and predict their behavior, even under normal operational conditions. With technological development, climate change, and activities in the political arena, adverse circumstances (natural disasters, intelligent adversary, software design errors, human errors, etc.) have become more probable and costly events. The Project seeks to provide industry and government with advanced analytical and computational tools necessary for the automated evaluation of the structural resilience and reliability of power grids. The potential applications of the Project's results go beyond power grids. Any infrastructure essential to our society and economy (e.g., computer, communication, transportation) can benefit from the Project's results.

**Budget:** \$15,000

### Progress Summary

This project is complete. Dr. Poroseva has left FSU.