



Mani Venkatasubramanian

Professor, Electrical Engineering

School of Electrical Engineering and Computer Science

Steering Committee Member

Energy Systems Innovation Center

Education:

- Doctor of Science, Systems Science and Mathematics, Washington University, St. Louis, Missouri, 1992
- Master of Science, Systems Science and Mathematics, Washington University, St. Louis, Missouri, 1989
- Bachelor of Science, Electrical and Electronics Engineering, Birla Institute of Technology and Science, Pilani, India, 1986

Research Areas:

- Stability theory for constrained large scale nonlinear systems
- Real-time monitoring of power system oscillations using synchrophasors
- Real-time monitoring of voltage stability using synchrophasors
- Analysis of instabilities caused by bifurcations
- Analysis and control of voltage collapse phenomena in power systems
- Nonlinear methods for monitoring and control of power system oscillations
- Design of wide-area controls for large power systems
- Analysis of complex chaotic behavior in large power system models
- Modeling and analysis of DAE singularities

Professional Experience:

- Washington State University, 1992–present
- Washington University, St. Louis, research assistant/lecturer, 1987–1992
- Hindustan Computer Limited, New Delhi, India, assistant engineer (hardware, R&D), 1986–1987

Professional Recognition/Service:

- Member of blackout task forces that studied the 2003 Northeastern blackout and 1996 western system blackouts