

GE Global Research Center

Energy Systems Engineer Niskayuna, NY

The Electric Power & Propulsion Systems (EP&PS) laboratory is a power system engineering group, focusing on both utility power systems as well as mobile electric platforms. The group is active in providing expertise to a variety of GE businesses, including GE Energy, GE Aviation, GE Rail and GE Oil & Gas. As with most labs at the Research Center, the lab has an active mission of cross-pollinating these different businesses with best practices and technologies from the others.

RESPONSIBILITIES:

You will contribute to the analysis and development of advanced power system technologies covering the full range from components, to controls, system protection and system architecture; develop and maintain a good relationship with GE businesses that rely on power system technologies, fully understanding their technology needs and their market; drive innovation and create excitement about the role of new technology in addressing the needs of GE's customers. For utility power applications there will be a heavy emphasis on grid integration of renewable energy technologies such as wind and solar, as well as distributed generation and Microgrids. For mobile applications, there will be a heavy emphasis on aircraft electrification, as well as marine and ground vehicle electrification.

You will:

- Formulate and develop new technologies and capabilities for GE's power generation, transmission, distribution and end-use product offerings by analyzing power system requirements and needs, and flowing these down to existing and new products, such as the "smart grid", the "ecodashboard" home energy management, controls and grid interfacing for high penetration renewable energy applications.
- Provide system-level analysis and equipment application research and support, with a focus on the integration of solar PV and Wind power sources.
- Participate on multi-disciplinary project teams by providing power system analysis expertise including: modeling, simulation, control strategies and evaluation of design alternatives.
- Effectively communicate results by preparing written reports and making presentations describing analyses performed, solutions developed, and value obtained.
- Contribute to the strategic technical direction for renewable energy and "smart grid" technologies by connecting the organization to the latest technology developments and trends.
- Contribute to the development of proposals for GE businesses as well as government agencies.

BASIC QUALIFICATIONS:

- YOU MUST BE ABLE TO SATISFY THE REQUIREMENTS OF SECTION 19 OF THE FEDERAL DEPOSIT INSURANCE ACT.
- Masters degree in Electrical or Mechanical Engineering (or related field) with specialization in Electrical Power Systems and/or Controls.
- Minimum of three (3) years experience with either:
 - Power system analysis for utility systems operation and/or transmission planning
 - Proficiency with power system analysis tools for transient stability
 - Proficiency with technical/economic feasibility analysis of new renewable energy and/or "smart grid" technologies.
 - Evaluation of energy market trends and energy policy.
- Experience in control theory with a focus on control algorithms for power systems.
- Familiarity with power electronic applications in power systems.
- Unrestricted work authorization in the US is required Masters level candidates.
- Must be willing to work out of an office located in Niskayuna, NY.
- Must be willing to take a drug test and submit to a background investigation as part of the selection process.
- Must be 18 years or older.

You must submit your application for employment against job number 825494 at www.gecareers.com to be considered for this position.



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