

# GRADUATE RESEARCH AIDE PROGRAM

## POSITION AVAILABLE

**FOCUS** Power Systems and Market Research

**DIVISION** Energy Systems Division

**TIMING** Summer 2022

Argonne National Laboratory, one of the U.S. Department of Energy's (DOE's) major research centers, is pleased to announce opportunities for graduate students to participate in the Laboratory's ongoing programs.

### ABOUT THIS INTERNSHIP

The candidate will support analysis of power systems operations and planning and electricity market modeling, and analytics tools that support energy, economic, and financial analyses of power grid planning and operations, and the interaction with other infrastructures. Some of these tools will require the development of underlying optimization methodologies and analytics frameworks. The candidate will conduct research related to a wide range of topic areas including the analysis of energy and power systems, optimization of renewable energy integration, electricity market design and operation, integration of other emerging technologies, and interdependencies between power grid, transportation, and water systems.

- Provide support to develop and implement power grid planning/operations algorithms and tools and conducts data analysis related to energy and power systems, with emphasis on the following areas: (1) renewable energy integration; (2) optimization and stochastic modeling methodologies; (3) energy storage, and (4) electricity market analysis.

- Supports multidisciplinary teams in the application of these methods and tools to complex issues in the domains of environmental, water, and energy system analysis.
- Prepares reports, papers, and presentations for conferences, workshops, and technical journals.
- Supports program development including the preparation of proposals and participating in sponsor interactions.
- Apply the models to selected case studies.
- Document and publish to our internal software repository.

### STUDENT REQUIREMENTS

- Graduate level
- Computer Science or Engineering background
- 3.0 GPA on 4.0 scale.
- Knowledge of data analytics, power systems operations and planning, issues surrounding the integration of variable renewables, & environmental issues.

### COMPENSATION

The salary range is based on academic rank, academic discipline, and prior experience.

### HOURS

Actual schedule will be determined upon hiring.

- Experience in statistics & statistical analysis.
- Understanding of basic financial & economic principles.
- Experience in academic writing & publication.
- Ability to be highly motivated and self-starting.

### SEND TO:

Please submit a completed application to Requisition #412330 <https://www.anl.gov/education/graduate-research-aide-appointments>  
In addition, please send a CV directly to:  
**Jonghwan Kwon, [kwonj@anl.gov](mailto:kwonj@anl.gov)**

### DEADLINE:

Until position is filled

### FOR MORE INFORMATION

**Educational Programs**  
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