FLUENCE
A Siemens and AES Company

4601 Fairfax Drive N, Suite 600 | Arlington, VA 22203
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fluenceenergy.com

Inverter Controls Engineer

Location: Erlangen, Germany, Arlington, VA or Flexible

ABOUT FLUENCE

Fluence, a Siemens and AES company, is the leading global energy storage technology solutions and services company that combines the agility of a fast-growing technology company with the expertise, vision, and financial backing of two industry powerhouses. Building on the pioneering work of AES Energy Storage and Siemens energy storage, Fluence's goal is to create a more sustainable future by transforming the way we power our world. The company offers proven energy storage technology solutions designed to address the diverse needs and challenges of customers in a rapidly transforming energy landscape, providing design, delivery and integration in over 160 countries. Fluence works closely with customers throughout their journey and provides advisory, financing, and project lifecycle services.

Job Description

Fluence is looking for an Inverter Controls Engineer with experience developing and testing inverter control software or power plant control software that interfaces closely with inverters. The role will be responsible for working with inverter suppliers to integrate new inverter and DC/DC converter platforms with Fluence's controls platform. A strong understanding of inverter operation and functionality is required.

Responsibilities:

This role will be directly involved in the product development engineering of utility scale energy storage solutions, including:

- Determine detailed functional requirements for inverters
- Review inverter technical documentation to determine compliance with requirements and evaluate technical characteristics
- Test inverter functionality
- Develop and test Fluence's control system algorithms for controlling inverters as part of an energy storage power plant
- Develop deep understanding of inverter operations and provide guidance to the software team on inverter control and integration into the Fluence Operating System
- Work with major power converter system suppliers on modifications or improvements to their products to ensure optimal integration with Fluence system design
- Develop tests, standardized test procedures, and perform product testing, including involvement in hands on lab testing during evaluations of prototype systems
- Analyze operational and test data to troubleshoot and resolve system problems

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- Work with field engineers for rapid solutions to problems as they arise
- Write technical specifications for equipment procurement and/or technical annexes to contract documents
- Collect and provide the required documentation for internal stakeholders to allow for standardized deployment of inverters by Fluence project teams at customer projects

Qualifications

The preferred candidate will have a background in electrical engineering, power systems, or controls systems and product development in the power conversion and/or renewables space with a minimum of an undergraduate degree and 4-10 years of work experience. Salary is commensurate with experience. Experience with solar and/or energy storage is strongly preferred.

Required

- Electrical engineering, controls engineering, and/or product development experience with energy storage, PV systems, microgrids, or other integrated DC/AC electrical systems
- Familiarity with DC/AC or DC/DC converter operation; some experience designing, or modeling power conversion devices is a plus
- Knowledge of utility grid interconnection standards, such as UL/IEEE standards, USA local grid codes, or European grid codes
- Has excellent English verbal and writing skills, additional languages or international work experience is a plus.
- Willing and able to travel, domestically and internationally, approximately 10% of the time

Preferred

- Familiarity with utility scale systems design, control, and monitoring
- Familiarity with communication protocols such as ModbusTCP, CANbus, or DNP3
- Proficiency in computer programming, ideally in at least one of the following languages:
- Python
- Ruby
- Matlab
- Simulink
- Java
- C
- Familiarity with the Linux command line interface and operations

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- Familiarity with TCP/IP and Ethernet network architecture/engineering
- Hands on experience testing power converter equipment in a lab environment
- Knowledge of or history working with major component suppliers in the solar or battery storage industry, such as inverters, PV panels, or lithium ion battery modules
- Experience qualifying products to product standards with NRTLs (i.e. UL, Intertek, CSA) is a plus
- Familiarity with Agile process is a plus
- Familiarity with Testrail or similar tools is a plus

GET IN TOUCH

Please send your resume and cover letter to careers@fluenceenergy.com

Fluence IS AN EQUAL OPPORTUNITY EMPLOYER and fully subscribes to the principles of Equal Employment Opportunity to ensure that all applicants and employees are considered for hire, promotion, and job status without regard to race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, marital or familial status.