Substation Automation Application Engineer

ABB (www.abb.com) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people.

Are you ready to be a technology pioneer? Oil and gas factories 3000 meters underwater, heavy locomotive traction motors, electric vehicle chargers that deliver 100kw in 30 minutes . . . you’ll do ground-breaking, innovative work that will touch the lives of millions.

Your responsibilities

ABB is hiring for a Substation Automation Application Engineer. This position will report to the Applications Team Manager. The overall responsibility of the application engineering team is providing substation automation solutions and technical support for utility customers using the ABB Substation Automation Products portfolio (relays, HMI, controls). A key element to this position is the ability to understand customer issues, engineer and explain applications, apply engineering analysis, and diagnose application related issues in the evaluation, engineering and commissioning of the Substation Automation Products portfolio. This role shall support the Business Development Managers (BDMs) and Regional Technical Managers (RTM) team in the sales process to influence customers on the utilization of the ABB SA products and systems. This responsibility also involves training the regional BDMs and RTMs as needed to support local customer request, customer application training and support and pre and post sales support as needed.

You’ll work as part of our Power Grids team, which serves utility, industrial, and commercial customers with products and services to help distribute electricity efficiently and reliably, maintain power quality, and control and manage electrical networks.

Typical duties include but are not limited to the following:

- Design transmission and distribution protection, control and automation applications and provide detailed application engineering utilizing the MicroSCADA, Remote Terminal Unit (RTU) and Relion relays by supporting pre-sales to provide effective customer solutions.

- Will provide customer support during the commissioning, operations and maintenance, and field analysis as needed to support the customer applications.
- Will support the BDM on the customer requirements and competitive assessment and the transfer of new requirements and knowledge into the global Research and Development process.

- Utilize various communications architectures including DNP3.0, IEC 61850, Ethernet and serial networks.

- Will work with and need to have a thorough understanding of substation automation system engineering and commissioning principles.

- Will architect and engineer IEC 61850 station and process bus solutions

- Will work with NERC CIP and IEEE/IEC Cyber Security standards and their applicability in a utility and industrial automation environment

- Work with Transmission and Distribution protection and control principles

- Will work in utility protection and control schemes

- Work with customers to look at innovative ways to leverage the flexibility of Relion relays to propose new ways to solve customer issues

- Properly transfer customer requirements (both known and anticipated) into technical specifications

- May represent the company in industry conferences and standardization activities

- Work with Business Development Manager, Regional Technical Manager and other employees in a team environment to achieve commercial success

- Work with Business Development Manager and Regional Technical Manager to prepare presentations for customers, at the engineering and management level

- Support the Business Development Manager and Regional Technical Manager in the development of the product positioning and competitive analysis for regional market

### Your background

**Basic Qualifications:**

- Bachelor's Degree in Engineering

- Minimum of five (5) years of experience in protection, control and substation automation systems

**Preferred Qualifications:**

- Master's degree in Engineering with a Concentration in Power System Protection and Control

- Familiarity with Substation Automation system architectures, engineering and product technology, familiarity with substation communications and protocols
- Familiarity with key cyber security standards (NERC/CIP, IEEE 1686, IEC 62351) as they apply to substation automation systems

- IEC 61850 applications – MicroSCADA, RTU, Relion 650/670 and utility experience is a plus

- Ability to listen to customers, offer innovative solutions, and clearly communicate solutions

- Generator Protection is a plus

More about us

Equal Employment Opportunity and Affirmative Action at ABB

ABB is an Equal Employment Opportunity (EEO) and Affirmative Action Employer encouraging diversity in the workplace.

All qualified applicants will receive consideration for employment without regard to their race, creed, color, ancestry, religion, sex, national origin, citizen status, age, sexual orientation, gender identity, disability, marital status, family medical leave status, or protected veterans status. For more information regarding your (EEO) rights as an applicant, please visit the following websites:


As an Equal Employment Opportunity and Affirmative Action Employer, applicants may request to review the Affirmative Action Plan of a particular ABB facility between the hours of 9:00 A.M. - 5:00 P.M. EST Monday through Friday by contacting an ABB HR Representative at 1-888-694-7762.

Protected veterans and qualified individuals with a disability may request a reasonable accommodation if you are unable or limited in your ability to use or access ABB's career site as a result of your disability. You may request reasonable accommodations by calling an ABB HR Representative at 1-888-694-7762 or by sending an email to US-AskHR@abb.com. Resumes and applications will not be accepted in this manner.