

OFFIS is a 1991-founded, internationally active Research and Development Institute for information technology based in Oldenburg, Lower-Saxony. In an average of 70 ongoing projects OFFIS, with its over 250 employees, carries out research and prototypical development work on the highest international level in the areas of energy, society, health and manufacturing. OFFIS cooperates with more than 700 business and scientific partners worldwide.



R&D-Division: Energy
Group: Smart Grid Testing

Working hours: according to mutual agreement
Start: as soon as possible

Student Assistant (f/m/d) Configuring a controller using the IEC 61850 protocol

Background:

An intelligent electronic device (IED) is a controller in the power system. The IED receives the data from field devices in the substations, issues the commands, and communicates to the other devices. A modern substation automation system mostly uses IEDs for monitoring and control especially serving as a protective relay such as making decisions and tripping circuit breakers. The IED can communicate with other devices within and between substations such as to the SCADA system. IEC 61850 is the state-of-the-art communication protocol for the IEDs which is interoperable for other devices and between vendors.

We are seeking an enthusiastic student who is passionate about substation automation system to join us in our efforts for real-time testing in energy systems. This student job opportunity offers hands-on experience with IEC 61850 as well as real-time simulator. Engaging with realistic use cases in the smart grid context can greatly enhance your future career prospects. Furthermore, the selected student will have the unique opportunity to participate in international research project.

About OFFIS Energy Lab:

OFFIS Energy Laboratory is a realistic world laboratory for researchers, students, and externals for experimenting with innovative solutions. The OFFIS Energy Laboratory can mimic real-world energy systems such as SCADA, automation systems, big data, and co-simulation platforms. More information: <https://www.offis.de/anwendungen/living-labs/sesa.html>

Your Tasks:

- > Acquire knowledge working with IEC 61850 and real-time simulation
- > Configuring a new controller with IEC 61850 protocols
- > Conducting tests on the new device to ensure their readiness for communication protocol usage

Your Profile:

- > Bachelor's degree or Master's degree (or equivalent) in electrical engineering, communication engineering or computer science
- > Excellent verbal and written communication skills in English (German is a plus)
- > Excited to gain knowledge in IEC 61850
- > Good computer programming skill such as Python
- > Good knowledge of Linux is a plus

We offer You :

- > Flexible working hours
- > Opportunity for Bachelor or Master thesis in this area
- > You will have the opportunity to gain experience and participate in interesting and innovative international project
- > We prefer applications from severely disabled people if they are professionally qualified.
- > Remuneration 12.41 €/hour (without bachelor) and 12.77 €/hour (with bachelor's degree)

Contact: Please send your application to : bewerbung@offis.de

If you agree to our considering your application for other vacancies, then please inform us accordingly by including an informal consent in your covering email or attaching our [consent form \(PDF-Download\)](#) to your application.

Contact Person:

Dr.-Ing. Jirapa Kamsamrong
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Further information on the application procedure and data protection can be found at <https://t1p.de/OFFIS-Application-Data-Protection>.