



Internship Research & Development – Reliability of semiconductor devices 100% (f/m/d)

At Hitachi Energy our purpose is advancing a sustainable energy future for all. We bring power to our homes, schools, hospitals and factories. Join us and work with fantastic people, while learning and developing yourself on projects that have a real impact to our communities and society. Bring your passion, bring your energy, and be part of a global team that appreciates a simple truth: Diversity + Collaboration = Great Innovation

The energy landscape is rapidly changing, and it requires power distributions systems of increasing complexity to be resilient and highly reliable. Emerging technologies required to withstand these systems involve increasing converter-interfaced and time varying renewable energy sources to electrify new sectors, such as transport and industries that challenge transmission and distribution system operators.

The R&D team Semiconductor Packaging and Applied Materials at our Swiss Hitachi Energy Research Center is looking for an Intern or MSc thesis student having background in physics, electrical engineering or material science to help investigate reliability of semiconductor devices and power modules.

The intern will interact with a dynamic and multidisciplinary international team that will supervise and guide the project. If you have a strong technical background, motivation to bring innovative solutions, and you are goal-oriented, this is your opportunity to contribute to development of a more sustainable energy future

Internship duration 6-12 months

Your responsibilities

Contribute to the design and optimization of various setups used to test power semiconductors.

Develop a data acquisition software needed to run high precision measurements.

Execute various measurements followed by data analysis and interpretation of results needed to understand reliability of semiconductor devices.

Simulation-based electromagnetic design and optimization of power electronics system.

Document and communicate the developed solutions and achieved results.

Your background

Currently pursuing a M.S. degree in physics or electrical engineering (basic knowledge of semiconductor physics and semiconductor devices would be an advantage), material science or similar.

Familiar with the electrical measurements (data acquisition, test equipment, test design) used to perform characterization of semiconductor devices.

Knowledge of programming languages (e.g., MATLAB, Python, C) and simulation tools. Experience with LabView programming.

Fluency in written and spoken English is mandatory, any other language skills are a benefit

Good communication and technical writing skills.

More about us

Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. We serve customers in the utility, industry and infrastructure sectors with innovative solutions and services across the value chain. Together with customers and partners, we pioneer technologies and enable the digital transformation required to accelerate the energy transition towards a carbon-neutral future. We are advancing the world's energy system to become more sustainable, flexible and secure whilst balancing social, environmental and economic value. Hitachi Energy has a proven track record and unparalleled installed base in more than 140 countries. Headquartered in Switzerland, we employ around 40,000 people in 90 countries and generate business volumes of approximately \$10 billion USD. www.hitachienergy.com

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