



Internship: Development of power semiconductor module technologies 80 - 100% (f/m/d)

Hitachi ABB Power Grids is a pioneering technology leader that is helping to increase access to affordable, reliable, sustainable and modern energy for all. We help to power your home, keep the factories running, and our hospitals and schools open. Come as you are and prepare to get better as you learn from others. Bring your passion, bring your energy, and plug into a team that appreciates a simple truth: Diversity + Collaboration = Great Innovation

The energy landscape is rapidly changing, and it requires power distribution 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 Semiconductors Packaging and Applied Materials at our Swiss Power Grids Research Center in Baden-Dättwil is looking for an intern student with interest in FEM simulations and back-end semiconductor processes to help develop novel power semiconductor modules. As an intern you will interact with a dynamic and multidisciplinary team that will supervise and guide the project. If you have a strong technical background, motivation to develop innovative solutions, and you are goal-oriented, this is your opportunity to contribute in building a stronger and more sustainable energy future. The duration of the Internship is 6-12 months.

Your responsibilities

Support technology development and research activities for new power semiconductor modules

Thermal, electrical, and mechanical design optimization of new module concepts

Benchmarking of module concepts by finite-elements simulations

Process development of semiconductor bonding and interconnection technologies

Play an active role in short-loop manufacturing runs from technology demonstrators to product prototypes

Chip- and module-scale testing as well as investigating reliability issues and failure mechanisms through root cause analysis

Your background

Currently pursuing a M.Sc. degree in electrical engineering, mechanical engineering, physics, material science or a related discipline (official enrollment essential)

Experience with finite element simulation tools (COMSOL or Ansys) and computer aided design are considered as a strong plus

Experience in hands-on laboratory work

Programming skills (preferably LabView or Python) and know-how in data analysis tools and statistics advantageous

Fluency in written and spoken English (any other language skills are a benefit) and good communication and technical writing skills

Motivated and eager to learn more and become part of a multidisciplinary research team focused on innovation

More about us

Hitachi ABB Power Grids is a global technology leader with a combined heritage of almost 250 years, employing around 36,000 people in 90 countries. Headquartered in Switzerland, the business serves utility, industry and infrastructure customers across the value chain, and emerging areas like sustainable mobility, smart cities, energy storage and data centres. With a proven track record, global footprint and unparalleled installed base, Hitachi ABB Power Grids balances social, environmental and economic values, and is committed to powering good for a sustainable energy future, with pioneering and digital technologies, as the partner of choice for enabling a stronger, smarter and greener grid.

www.hitachiabb-powergrids.com

Interested in joining our team? If so, we look forward to receiving your full application (motivation letter, CV, references) only via our online careers tool.

Hitachi ABB Power Grids Switzerland

Richard Adu

Talent Acquisition

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