R&D Internship (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

Losses within the core and windings are one of the main effects limiting the efficiency, power capacity and power density of electrical power transformers.
Some of the promising newer technologies/materials used to realize the transformer core and windings are still not so well understood and a proper characterization and standardization does not exist yet. In that respect, proper characterization and modelling of these losses within a transformer is one of the essential tasks needed to enable a good design.
To that end, this project deals with experimental testing, characterization, and modelling of the core and winding losses. This research aims to generate a much-needed insight into the real loss behavior of the core and windings in the exact conditions and geometry setups as encountered in transformers, thus properly exposing all the relevant effects. Finally, firm guidelines are to be established, defining the good and bad practices, allowing to achieve the most efficient transformer design for the given application.

Our flexible work practices help you optimize personal and business performance while creating an environment where all employees can develop their skills and grow.

Your responsibilities

Design of the experimental setup, test samples and test protocol for the loss measurement
Selection of the representative downscaled samples
Testing and gathering of measurement data
Data post processing
Derivation of improved loss models
Reporting of the results

Your background

Bachelor or MSc degree in electrical engineering is required

Solid background in electromagnetics
Design of experiment
Electrical testing
Data post processing
Mathematical modeling
Some experience with MATLAB coding

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 38,000 people in 90 countries and generate business volumes of approximately $10 billion USD. www.hitachienergy.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 Energy Switzerland Ltd.
Marija Sikiric
Talent Acquisition

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