

Student Assistant (HiWi) at Energy Lab 2.0

Technical Editing of a CIGRE Technical Brochure on Power-Electronics-Based Transformers

Job Description:

Power-electronics-based transformers (PET), also known as Solid-State or Smart Transformers, are a key technology for integrating renewable energy sources and electric vehicles into the distribution grid. Within the international CIGRE Working Group B4.91, experts from industry and academia are preparing a Technical Brochure that will provide guidelines on PET topologies, control, grid codes, testing and grid services. Our group contributes to this document and is looking for a student assistant to support the final editing phase. You will help turn contributions from many different authors into a consistent, high-quality publication – and get first-hand insight into how international technical guidelines are created.

Your Tasks:

- Redraw figures from the authors' drafts (converter topologies, circuit diagrams, control block diagrams, plots) in a uniform, high-quality vector style
- Typeset and harmonise equations, using a consistent notation, nomenclature and SI units throughout the document
- Proofread chapters for technical and linguistic consistency (terminology, abbreviations, cross-references, figure and table captions)
- Check and format the bibliography and ensure compliance with the CIGRE template
- Keep track of open points and coordinate small corrections with the chapter authors

Your Profile:

- Bachelor's or Master's student in Electrical Engineering, Mechatronics, Physics or a related field
- Basic knowledge of power electronics and/or power systems (reading circuit and control diagrams)
- Good LaTeX skills; experience with TikZ/CircuitikZ, Inkscape, Visio or similar tools is a plus
- Careful and detail-oriented way of working
- Very good written English

You will learn:

- Insight into the state of the art of Solid-State/Smart Transformers
- How international guidelines and standards are developed within CIGRE
- Professional scientific writing, figure design and typesetting
- Contact with researchers and industry experts – a good starting point for a later thesis

Conditions: approx. 40 h/month (flexible working hours, partly remote possible), starting as soon as possible, duration approx. 3 months.

Contact:



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Start: as soon as possible

