



Wir bringen Forschung
auf Top-Niveau voran –
und uns selbst.

Veränderung startet mit uns.

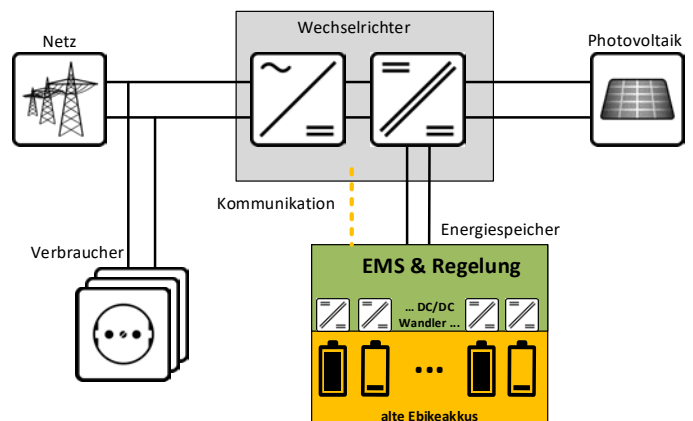
Master thesis „Second-Life Potential of E-Bike Batteries: Development of Innovative Power Electronics“

The increasing proliferation of small electric vehicles (e-bikes, e-scooters, etc.) is leading to a growing need for sustainable solutions for the repurposing of many discarded batteries. As part of this master's thesis, the technical implementation of these batteries with reduced range as stationary energy storage (Second Life) will be investigated. A newly developed power electronics system will enable the connection of the storage unit to an inverter. The latest generation of GaN transistors will be used for this purpose. The entire product development process of hardware development, from the initial concept to verification in field tests, will be completed.

For our "Power Converter Units" group, we are currently seeking a student assistant with the opportunity to write a thesis.

What you do with us

- You conduct simulations and comparisons of different topologies.
- Subsequently, your tasks include the assembly, commissioning, and measurement of the circuit.
- Your responsibilities also include the final documentation and presentation of the results.
- You will work with the PLECS software.
- You create circuit diagrams and perform component sizing.



What you bring with you

- You are studying electrical engineering or a comparable field.
- You have a basic understanding of the functioning of power electronics.
- You possess basic knowledge in electrical and energy engineering.
- You plan and complete tasks independently and with high quality.

Start: asap
Duration: 6 months
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