

## **Student job (HiWi): Protection studies of DC distribution grids**

### **Context:**

Power generation plants, transmission grids and distribution networks are constantly expanding to cope with growing demand. At the same time, the environmental impact due to the burning of fossil fuels needs to be minimized. Renewable energy has a key role to play in this effort. The fast development of power electronics converter based on direct-current (DC) technology is driving the transformation of power energy systems. Many studies show the advantages of DC systems for integrating renewable energy sources into the grid. Protection design is still one of the key challenges, which delays the fast implementation of DC grids.

### **Your Project:**

Your task in this project is to conduct literature research on the current state of the art of protection in DC distribution grids focusing on fault clearance and service restoration methods.

### **Your Profile:**

- Bachelor or master student in electrical engineering, computer science, or similar
- Fundamental knowledge about power systems and/or power electronics
- Basic experience with Matlab/Simulink

### **Our offer:**

- The position starts with a 3 months contract, with possibility of extension
- The regular weekly working time is 8-12 hours

If you are interested, please send your CV and current grades.

### **Contact:**

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