



The objective of the FLEMING project is to revolutionize the continuous function monitoring and in particular the current sensor application in power distribution grids. By using methods of artificial intelligence (AI), combined with an improvement of the associated sensor technology, a significant contribution to the success of the energy and mobility turnaround in Germany is to be made. Particular attention will be paid to the strong fluctuations in feed-in flows caused by the energy revolution and to the new demands of consumers resulting from e-mobility.

The project aims to transfer the principle of designing digital twins from the manufacturing industry to companies in the energy industry, in particular grid operators.

The objective and result of the thesis is the development of a recommended data structure (keyword: "digital twin"), an application concept for AI solutions, as well as a toolbox of established methods for the prediction and diagnosis of events in the components of the distribution network.

Therefore we offer from now on the possibility to create a

Bachelor / Master / project work on the topic Development of digital twins for energy companies (grid operators)

Your tasks

- Support of a current and interesting research project,
- Independent research of scientific texts (German / English) and preparation of literature,
- Documentation of results.

We offer you

- Collaboration on scientific publications,
- Interesting and demanding tasks,
- The opportunity to acquire knowledge close to practice,
- Cooperation with renowned companies and research partners,
- The possibility of flexible time management and independent work.

Contact person

Martin Bremer, M.Sc.
Phone: +49 241 47705-511
E-mail: Martin.Bremer@fir.rwth-aachen.de

Your profile

- Students from the fields of electrical engineering, mechanical engineering or industrial engineering,
- Very good knowledge of German and English, both written and spoken,
- Basic understanding of UML and artificial intelligence methods,
- Committed, team-oriented and independent working style.

If you are interested, please send your documents (short cover letter, curriculum vitae, certificates, current excerpt from the grade sheet) in digital form to the e-mail address given.