

20J010 Internship Proposal

Title: Mapping of hydrogen mobility solutions and analysis of total cost of ownership for hydrogen, electric and thermal options

EIFER (European Institute for Energy Research) was established in 2001 as collaboration between the Karlsruhe Institute of Technology (KIT) and Electricité de France (EDF). Today EIFER has an international team of more than 100 researchers.

The Low Carbon Hydrogen System department brings together 20 researchers working on the development of hydrogen including laboratory test, demonstration field projects, technologies and market potentials assessment and strategic positioning.

This internship aims to evaluate the potential of hydrogen mobility for different market segments based on the total cost of ownership methodology (TCO).

The assigned tasks involve

- Mapping of companies and projects related to hydrogen mobility, especially on heavy duty vehicles, ships and trains
- Provide a product description: roadmap, technical and economical data related to the solution (engine power, tank size, battery hybridization, costs, etc.)
- Create a model that compares total cost of ownership (TCO) of the different mobility solutions running with hydrogen, battery, natural gas and fuel
- Organize and provide data analysis for each mobility options
- Implementation of the results on a knowledge management software

Required qualifications / skills / interests

- Master student in Energy/Electrical/Mechanical Engineering or similar
- Good understanding of the energy sector is a must
- Good knowledge of computational science or high motivation to learn
- The position requires interdisciplinary and analytical thinking, good presentation and communication skills, ability to work independently and responsibly in a structured way and to convey clear and efficient messages
- A very good level in English is mandatory. French or German knowledge would be a plus.

Conditions

- Duration: 6 months, starting as soon as possible
- Working hours: 39.5 hours per week
- Working place: home-office, as far as possible some punctual physical meetings at EIFER, Emmy-Noether-Str. 11, 76131 Karlsruhe, Germany
- Monthly compensation: 450 €

Contact

If you want to join a highly motivated research group, **please forward your electronic application with one single pdf of max. 5MB to jobs@eifer.org. Please refer to the offer number 20J010.**

For additional information concerning the work, please contact Arnaud Roulland (roulland@eifer.org) or Annabelle Brisse (brisse@eifer.org).