Job posting

Type of position
✓ scientific
☐ administrative

Target group
✓ graduates
✓ post docs
☐ other

Title
2 PhD positions in Hyperloop Engineering and Physics

Institution
University of Applied Sciences Emden/Leer, Faculty of Technology, Emden Campus

Position
In the framework of the Horizon2020 project "ePlcenter", funded by the European Commission, we are looking for two highly motivated and bright PhD students. We seek candidates with interests in physics, engineering, computer science, simulation and modelling.

The Institute for Hyperloop Technology (IHT) at the University of Applied Sciences Emden/Leer, Faculty of Technology, Emden Campus, has two openings to be filled as of March 1st, 2021 with half of the regular weekly working hours of a full-time job - limited until November 30th, 2023.

The University of Applied Sciences Emden/Leer is a driving force for the region and sets an example for innovative developments in the northwest with excellent equipment for applied research. The "ePlcenter" project, which is funded by the EU with approx. 7 million Euro, is being carried out by 37 international partners who are developing the logistics of the future. You can rely on the research group with an excellent infrastructure at the university as well as the project partners of the research consortium "ePlcenter". You will conceptualize the testing environment of hyperloop technology for laboratory-scale physical demonstrators and the full-scale test track. Preparing design studies and perform validations of the test setup by simulations and modeling involves also control and automation tasks, programming and implementation of complex systems.

You will contribute to a climate-friendly society in an innovative field of research with outstanding importance for sustainability in the transport sector. Within the scope of our cooperation with the Carl von Ossietzky University Oldenburg in Engineering Physics, we offer an inspiring working atmosphere for the successful completion of a doctorate.
Responsibilities

- Interdisciplinary linking of physics and engineering science challenges in an Hyperloop transportation system
- Development of design studies, simulation and modelling of test operations
- Conception and execution of experiments and construction of demonstrators
- Design, acquisition, and integration of system components, real-time capable interfaces and control software
- Preparation and presentation of research results in appropriate media, publications and at scientific conferences

Requirements

- Above-average university degree (Master, Diploma), preferably physics or relevant engineering sciences
- Motivation to research climate-friendly transportation and logistics systems
- Experience in experimental or engineering practice, simulation and modeling
- Knowledge in automation and control engineering
- Distinct flexibility, willingness to learn as well as readiness for interdisciplinary cooperation and teamwork
- Very good communication skills, both written and spoken, in German and English

Application procedure (deadline etc.)

We offer independent work within a committed team in close contact with lecturers, staff, and students.

For further information, please contact Prof. Dr. Walter Neu (e-mail: walter.neu@hs-emden-leer.de) or Prof. Dr.-Ing. Thomas Schüning (e-mail: thomas.schuening@hs-emden-leer.de).

Equal opportunities are an integral part of our personnel policy. The university strives to increase the number of female employees and therefore strongly encourages qualified women to apply. Disabled applicants will be given preference when equal qualifications are present.

We look forward to your application!
Please forward your application by January 31st, 2021 including all relevant documents, quoting the reference number, online via our career portal.

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Prof. Dr. Walter Neu (e-mail: walter.neu@hs-emden-leer.de) and Prof. Dr.-Ing. Thomas Schüning (e-mail: thomas.schuening@hs-emden-leer.de) are available to answer any questions you may have.