



DLR – DAAD Fellowships

Fellowship No. 411

- Research Area :** Transportation/Energy
- Research Topic:** **Design and development of a holistic layer model for complex maritime systems**
- DLR Institute:** Institute for the Protection of Maritime Infrastructures (MI),
DLR Bremerhaven
- Position:** Postdoctoral Fellow
- Openings:** 1
- Job Specification:** The Department Resilience of Maritime Systems develops methods that enable measuring and describing the achieved degree of resilience of maritime infrastructures, e.g. offshore windfarms, ports or subsea installations. A fundamental challenge of such assessment of complex systems is the coupling of elements that differ in its nature, e.g. technical or social, as well as in the required and/or available level of detail. In order to formalize this process, we seek for a postdoctoral fellow to research on a holistic abstraction layer model for complex maritime systems with the purpose of assisting structured resilience assessment. Requirements on this model are the integration of technical, social and environmental elements, an unambiguous definition and demarcation of abstraction layers and the formulation of interfaces between adjacent layers. Furthermore, the model shall be validated against several infrastructures considered in the department.
- Required Qualification:** Doctorate in an engineering field (e.g. systems engineering, mechanical engineering, marine engineering, electrical engineering) or natural sciences (e.g. mathematics, techno-mathematics, physics)
- Advantageous Skills:** Experience in the development and simulation of functional and/or socio-technical system models

English competence: Fluent in speaking and writing (see requirements on www.daad.de/dlr)

Earliest Start Date: November 2019

Application Deadline: April 2020

Further Information: <http://www.dlr.de>
<http://www.daad.de/dlr>