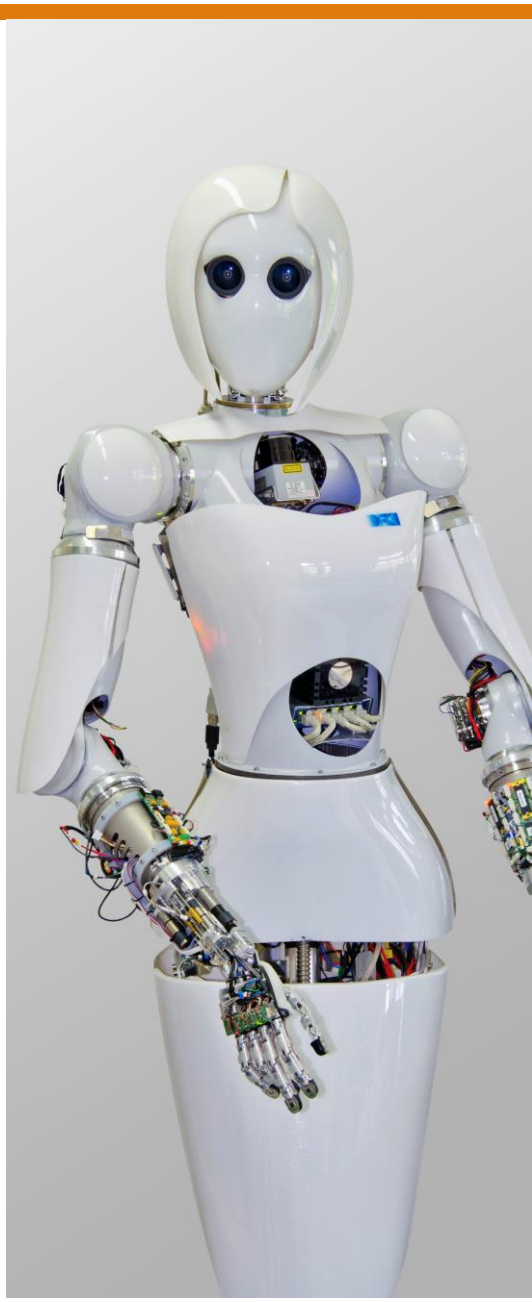
German Research Center for Artificial Intelligence
Deutsches Forschungszentrum für Künstliche Intelligenz

27.10.2020

Within the European Training Network (ETN) project "*Reliable AI for Marine Robotics*" - **REMARO**, the Robotics Innovation Center (RIC) research department in Bremen we are looking for a

Early Stage Researcher (m/f/d)

(full-time, initially limited to 3 years)



The candidate will work full-time in the field of underwater robotics with the aim of researching and developing intelligent perception techniques for 3D reconstruction of underwater scenes focusing on sonar-based imaging in combination with other acoustic and visual based underwater sensors.

The duration of employment is 3 years and during that time the candidate will be offered the possibility to be enrolled in the PhD programme at the University of Bremen under the supervision of Prof. Dr. Dr. h.c. Frank Kirchner.

Your tasks:

- Familiarize yourself with current state-of-the-art in the fields of (1) underwater sonar-based SLAM, (2) 3D reconstruction from sonar images, (3) deep-learning methods, (4) underwater sensor fusion.
- Develop novel solutions for 3D reconstruction of underwater scenes using sonar-based imaging sensors.
- Integrate the developed solutions as standalone software modules for generating dense 3D maps for autonomous underwater vehicles (AUVs)
- Embed the developed 3D reconstruction solutions into a SLAM backend of an AUV and testing in actual real-world experiments field missions

Our requirements:

- Master's degree (or equivalent) in any of the following fields: computer science, mechanical/electrical engineering, physics, mathematics or related fields.
- Background in some of the following topics: autonomous systems, robot navigation and sensor fusion, machine learning, image processing
- Good programming skills in C/C++ and Python
- Good English oral and written communication skills
- Enjoy working in a dynamically growing team

This position is part of 15 PhD positions within the project REMARO, located in Copenhagen, Oslo, Porto, Bremen, Aachen, and Delft. We look forward to receiving your application. **For more info on how to apply please visit the following link https://remaro.eu/index.php/2020/10/15/15-phd-positions-apply-now/.** Make sure to select position #3 if you are interested in this position. We look forward to receiving your complete application documents with your earliest possible starting date until January 1, 2021. Please note that we do not accept applications via email.

The German Research Center for Artificial Intelligence (DFKI) is Germany's leading business-oriented research institution in the field of innovative software technologies based on artificial intelligence methods. In the international scientific community, DFKI ranks among the most recognized "Centers of Excellence" and currently is the biggest research center worldwide in the area of Artificial Intelligence and its application in terms of number of employees and the volume of external funds. The DFKI cooperates closely with national and international companies.

Severely disabled applicants and peers are given special consideration if they are equally suitable. The DFKI intends to increase the share of women in the field of science and therefore urges women to apply.

Deutsches Forschungszentrum für Künstliche Intelligenz GmbH
Research Department
Robotics Innovation Center
Robert-Hooke-Str. 1
28359 Bremen, Germany
www.dfki.de/ric

Phone: +49 421 17845 6632
ric-application@dfki.de

Curious about DFKI RIC and Bremen? For more information, visit!

Information to Data Protection Regulation