TUDelft Delft University of Technology

Postdoc Vacancy Announcement

The Cognitive Robotics Department (CoR) and the Delft Center for Systems and Control (DCSC) at the Delft University of Technology, the Netherlands, announce a vacancy for a postdoc position on:

Decision making and learning for mobile robots

Project description
The goal of this project is to develop novel motion planning techniques for mobile robots, which build upon state of the art machine learning, yet provide structural guarantees. Theory will be developed and then tested with one of the available robotic platforms in the lab, that include Micro Air Vehicles, mobile manipulators and a self-driving car. We are broadly interested in any of the following research topics:

- Multi-robot learning
- Machine learning for motion planning of mobile robots in dynamic environments
- Real-time and reliable decision-making tools under uncertainty

The exact research topic can be adapted to the applicant's background and interests.

The researcher will be jointly supervised by **Prof. Jens Kober** and **Prof. Javier Alonso-Mora** from CoR and **Prof. Peyman Mohajerin Esfahani** from DCSC. Our current research covers machine learning for robot control, data-driven-optimization, motion planning and multi-robot control. For a glimpse of our research visit www.alonsomora.com, www.jenskober.de, and http://www.dcsc.tudelft.nl/~mohajerin/.

What do we ask?
We are looking for a candidate with a PhD degree in systems and control, robotics, operations research, applied mathematics, artificial intelligence, machine learning, or a related subject. The candidate must have strong analytical skills and must be able to work at the intersection of several research domains. Experience with real robot applications is a plus. The applicant should have demonstrated ability to conduct high-quality research according to international standards, as demonstrated by publications in international, high-quality journals. A very good command of the English language is required, as well as excellent communication skills.

What do we offer?
We offer the opportunity to do scientifically challenging research in a multi-disciplinary research group. As an employee of the university you will receive a competitive salary. Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities. Assistance with accommodation can be arranged. The position is available immediately and the starting date is flexible, preferably before the end of 2018.

How to apply?
Please submit your application by email to Dr. Alonso-Mora (J.AlonsoMora@tudelft.nl). Applications will be reviewed until the position is filled. Include a detailed curriculum vitae, a motivation letter stating why the proposed research topic interests you, links to your top three publications, the names and addresses of two reference persons, and any other information that might be relevant to your application.

About 3mE and TU Delft
The 3mE Faculty trains committed engineering students, PhD candidates and post-doctoral researchers in ground-breaking scientific research in the fields of mechanical, maritime and materials engineering. 3mE is the epitome of a dynamic, innovative faculty, with a European scope that contributes demonstrable economic and social benefits. TU Delft consistently ranks among the top universities in the engineering field.