

Postdoc Game-theoretic Control for Systems of Hybrid Systems

Job description

The candidate will conduct theoretical and algorithmic research on complex multi-agent hybrid systems controlled by strategic agents. The research will develop and build upon tools from game theory and operator theory. The main application areas are distributed control for smart power systems and multi-vehicle automated driving. The position is in the context of the research project “Game theoretic Control for Complex Systems of Systems” (COSMOS), funded by the European Research Council as an ERC Starting Grant.

Department

The department Delft Center for Systems and Control (DCSC) of the faculty Mechanical, Maritime and Materials Engineering, coordinates the education and research activities in systems and control at Delft University of Technology. The Centers' research mission is to conduct fundamental research in systems dynamics and control, involving dynamic modelling, advanced control theory, optimisation and signal analysis. The research is motivated by advanced technology development in physical imaging systems, renewable energy, robotics and transportation systems.

Requirements

We are looking for 1 talented, outstanding PostDoc researcher with a PhD degree (or close to completion) in Systems and Control, or Applied Mathematics, or related field, with theoretical background and/or interest in System Theory, Automatic Control, Optimization, GameTheory, and with good command of the English language (knowledge of Dutch is not required).

Conditions of employment

Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities. The TU Delft offers a customisable compensation package, a discount on health insurance and sport memberships, and a monthly work costs contribution. Flexible work schedules can be arranged.

For international applicants we offer the Coming to Delft Service and Partner Career Advice to assist you with your relocation. An International Children's Centre offers childcare and there is an international primary school.

TU Delft (Delft University of Technology)

Delft University of Technology is built on strong foundations. As creators of the world-famous Dutch waterworks and pioneers in biotech, TU Delft is a top international university combining science, engineering and design. It delivers world class results in education, research and innovation to address challenges in the areas of energy, climate, mobility, health and digital society. For generations, our engineers have proven to be entrepreneurial problem-solvers, both in business and in a social context. At TU Delft we embrace diversity and aim to be as inclusive as possible (see our [Code of Conduct](#)). Together, we imagine, invent and create solutions using technology to have a positive impact on a global scale.

Challenge. Change. Impact!

Faculty Mechanical, Maritime and Materials Engineering

The Faculty of 3mE carries out pioneering research, leading to new fundamental insights and challenging applications in the field of mechanical engineering. From large-scale energy storage, medical instruments, control technology and robotics to smart materials, nanoscale structures and autonomous ships. The foundations and results of this research are reflected in outstanding, contemporary education, inspiring students and PhD candidates to become socially engaged and responsible engineers and scientists. The faculty of 3mE is a dynamic and innovative faculty with an international scope and high-tech lab facilities. Research and education focus on the design, manufacture, application and modification of products, materials, processes and mechanical devices, contributing to the development and growth of a sustainable society, as well as prosperity and welfare.

Click [here](#) to go to the website of the Faculty of Mechanical, Maritime and Materials Engineering. Do you want to experience working at our faculty? This [video](#) will introduce you to some of our researchers and their work.

Additional information

For information about this vacancy, you can contact Dr. Sergio Grammatico, email: s.grammatico@tudelft.nl, tel: +31 (0)15 2783593.

For information about the selection procedure, please contact Irina Bruckner, HR Advisor, email: application-3me@tudelft.nl.

Application procedure

To apply, please submit per e-mail:

- curriculum vitae;
- statement of motivation and research interests (up to one page);
- transcripts of all exams taken and obtained degrees (in English);

- names and contact information of up to three references (e.g. project/thesis supervisors);
- up to 3 research-oriented documents (e.g. thesis, conference/journal publication)

compiled into a single pdf file named "TUD00445_YourLastName" by October 15, 2020 to application-3me@tudelft.nl.

When applying for this position, please refer to vacancy number TUD00445.

Please note: Applications will not be processed if all documents required are not compiled into a single pdf document.

The starting date is flexible.

A pre-employment screening can be part of the application procedure.