

DISC Summer School (HYBRID)

PLANNING, LEARNING AND CONTROL FOR MULTI-ROBOT AND MULTI-AGENT SYSTEMS

Invitation

Javier Alonso Mora, Ming Cao and Ömür Arslan have the pleasure to invite you to participate in the DISC Summer School “Planning, Learning and Control for Multi-Robot and Multi-Agent Systems”. The invitation is aimed at PhD and research students, staff members, researchers and engineers engaged in the systems and control area.

Multi-robot and Multi-agent Systems

In the (near) future fleets of autonomous cars will coordinate to provide on-demand transportation while making our roads safer; mobile robots will coordinate in manufacturing and logistic processes; and teams of aerial robots will provide automated inspection and surveillance. These applications require novel methods and theoretical developments in the systems and control field that account for the interaction and coordination with other agents in complex environments.

In this Summer school, we will present recent developments towards the endeavour of pervasive multi-robot and multi-agent systems. The lectures and tutorials will cover the concepts of communication-based coordination (consensus, distributed optimization and formation control), interaction (decision-making in multi-agent systems), motion planning and learning. The lectures contain both recent control theoretical development, as well as, application within the robotics field. Additional, we are hoping that this Summer school will serve to partially bridge the gap between controls and AI research for multi-robot and multi-agent systems.

Lecturers

The main program will consist of a number of international and national speakers. The following lecturers have already confirmed:

- Jen Jen Chung, ETH Zurich, CH
- Dimos Dimarogonas, KTH, Sweden
- Dan Halperin, Tel Aviv University, IL
- Vijay Kumar, University of Pennsylvania, USA
- Naomi Leonard, Princeton, USA
- Eduardo Montijano, University of Zaragoza
- Frans Oliehoek, TU Delft, NL
- Daniela Rus MIT, USA

Complemented by talks given by DISC lecturers

- Bart Besselink, University of Groningen, NL
- Sergio Grammatico, TU Delft, NL
- Zhiyong Sun, TU/e, NL

- Manuel Mazo, TU Delft, NL

Dates and time

June 8-11, 2021

Set-up and program

From June 8-10 the Summer School will be virtual in MS Teams. Every day will include exercises and group work to ensure the Summer School is interactive and engaging.

On June 11 we are organizing a physical meeting in Utrecht, at [cursus- en vergadercentrum Domstad](#).

The number of participants we can welcome in Utrecht is limited. For those participants who are not able to come to Utrecht there will be live streaming. If the regulations do not allow a meeting in Utrecht, the last day of the Summer School will also be virtual for all participants.

Click here for the [preliminary program](#). Please note there may be changes.

ECTS

PhD students can obtain 1,5 credit for the DISC Summer School. We expect active participation in the assignments and discussions.

Fee

	DISC members	Non-DISC members
Register before May 9, 2021	€175	€225
Register after May 9, 2021	€225	€350

Registration

Register for the Summer School on the [DISC course platform](#). Registration closes on May 22, 2021.

The maximum number of participants is 50. The number of participants we can receive in Utrecht on June 11 may be restricted due to COVID-19 regulations.

Payments

All payments must be made in EUR, incorporating all charges.

For transfer from a Dutch account:

IBAN: NL65INGB0003127876

Stichting SMBT

Postbus 3351

2601 DJ Delft

For all other accounts:

Bijlmerdreef 109

NL-1102 BW Amsterdam

BIC: INGBNL 2A

IBAN: NL65INGB0003127876

Account holder: Stichting SMBT

Please indicate your name and mention “Disc Summer School 2021” on the transfer, otherwise your payment cannot be traced to your reservation. Payment must be received before the start of the Summer School. Unfortunately Credit Card payments cannot be accepted.

Cancellation

Cancellation is possible until May 22, 2021. After that no refunds are possible. Cancellations must be emailed to m.w.otte@tudelft.nl.

More information

For further information, contact the DISC administrative office: Martha Otte (m.w.otte@tudelft.nl) or the organizers: Javier Alonso-Mora (j.alonsomora@tudelft.nl), Ömür Arslan (o.arslan@tue.nl) and Ming Cao (m.cao@rug.nl).