WORKSHOP
on Machine Learning in Control
LEAC (LEArning in Control)

CPS WEEK 2021

May 11, 2021
9:45 CET to 22:30 CET
(Online)

The venue gathers leading experts to present cutting edge results within the data-driven design of control systems.

BACKGROUND

Inquiries about the nature and structure of concepts, data- vs. model-based knowledge, have become central in CPS research. It is not surprising that the philosophical rivals, empiricism and rationalism have been battling for many hundred years. Despite advances in machine learning and success stories in social and mass media, learning is still very challenging.

This workshop is a consequence of the transition of the CPS community from the model-based to data-based methods. From the position of having only a few high-quality sensors to the case where data is omnipresent, but often of varying quality. We strive to learn the machines and infrastructures, to work autonomously, work together and collaborate with people.

We need new paradigms for the theory and practice of CPS. This workshop is the first step of joining research forces in formalizing and subsequently solving learning, safety assessment and verification problems.

CALL FOR PAPERS

We are inviting you to submit your work in progress on the topics related to the following areas and their applications:
- Reinforcement learning for CPS
- Machine learning techniques for CPS
- Modelling of human behavior and sociotechnical systems
- Safety verification and computation

SUBMISSIONS

Please send up to 4 pages short papers
Submission Deadline: Feb 22, 2021
Weblink to LEAC and submissions:
https://www.es.aau.dk/sections-labs/Automation-and-Control/Project+sites/swift/leac/

CHAIRS

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INVITED SPEAKERS

Claire Tomlin
(UC Berkeley, USA)
Aaron Aims
(California Institute of Technology, USA)
Michael Fisher
(University of Manchester, UK)
Akshay Rajhans
(MathWorks, USA)
Sayan Mitra
(University of Illinois, USA)
Cristina Seceleanu
(Mälardalen University, Sweden)
Radu Grosu
(Vienna University of Technology, Austria)
Joost-Pieter Katoen
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