The 205th TCU-ARL Seminar

Intelligent Robotics Center, Tokyo City University

In this seminar, we would like to invite a famous researcher in the theories of model predictive control and moving horizon estimation. This seminar is welcomed to anyone interested in it. Please join us freely!

Title: Machine Learning in Control

Speaker: Mazen Alamir, Professor
Research Director, CNRS
Gipsa-lab, Control Systems Dept., University of Grenoble, France

Time: Nov. 29th, 2022　9:10～10:10　(Tokyo Time)

Place: 13L, Bldg. 1, Setagaya Campus, Tokyo City University

Zoom: 967 259 9746 (PW: 401042)
https://us02web.zoom.us/j/9672599746

Abstract:

Machine learning softwares offer a set of efficient tools to identify complex relationships to perform regression or classification. On the other hand, almost any control-related problem amounts to finding such relationships for use in feedback implementation or state estimation to cite but two examples. Therefore, it is obvious that there is potential fertile synergy between these two fields. This talk gives two examples of such combination in the field of nonlinear Model Predictive Control but also suggests some other possibilities and the associated underlying conditions of success.

Biography:

Mazen Alamir is a research director at CNRS. He graduated in mechanics in Grenoble, France, in 1990, and in aeronautics from Toulouse, France, in 1992. He received the Ph.D. degree in nonlinear model predictive control from the Grenoble Institute of Technology, Grenoble, France, in 1995. He served as Head of the Systems and Complexity Research Group of Gipsa-Lab, Grenoble. He served an Associate Editor of the IEEE Transactions on automatic control (2012 and 2020). His main research topics are model predictive control, receding horizon observers, features generation from time series. His domain of application covers mechatronics, industrial predictive maintenance, optimal cancer treatment, smart districts, cryogenics, micro-grids and process control.

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