

THE UNIVERSITY



OF HONG KONG

DEPARTMENT OF MECHANICAL ENGINEERING

SEMINAR

Online

Title: Model Predictive Control for Robotic Trajectory Tracking on Manifolds

Speaker: Mr. Lu Guozheng (MPhil candidate)
Department of Mechanical Engineering
The University of Hong Kong
Hong Kong

Date: 28 April, 2021 (Wednesday)

Time: 10:00 a.m.

Zoom Link: 1) Link to join the meeting:

<https://hku.zoom.us/j/3305348904?pwd=MDZ3N1AybmdEZlRkZjh4Y1RiMjFvZz09>

2) Meeting ID: 330 534 8904

3) Password: 603017

Abstract:

Analytic tools based on differential manifolds provide an elegant and general treatment of robot kinematics, bringing significant insight into robotic nonlinear control theory which includes much of differential geometry. The nonlinear model predictive control exhibits advantages of high tracking performance and constraint handling, by solving a constrained optimal problem in a finite receding horizon. In this seminar, the speaker will present the recent research progress about embedding manifold structure into model predictive control for robot trajectory tracking.

ALL INTERESTED ARE WELCOME

For further information, please contact Dr. F. Zhang at 3917 7909.

Research area: Robotics and Control