

講演会のご案内

Optimal Control and Optimization

講師: Lei Wang

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日付: 2019年02月12日 11:00~12:30

2019年02月20日 15:30~17:00

場所: KHB 131 室

Module I : An Optimal Control Problem for a Novel Linear Parameter Viable System

Module II : Basics of Optimal Control and Optimization - Difference and Connection

ABSTRACT

In this talk, we consider an optimal control problem for a novel linear parameter variable (LPV) system. The value of the variable parameter in the LPV system is updated at the end of each sampling interval through the observe equation of the system. It means that, in each sampling interval, the system of state equation will be different. Inspired by the idea of control parameterization method, the gradient information of the equivalent dynamic optimization problem is derived. Then an algorithm is presented for this kind of optimal control problem. Finally, the numerical results are given for an example



BIOGRAPHY OF LEI WANG

Lei Wang received the Ph.D. degree in operations research and control theory from Dalian University of Technology, Dalian, Liaoning, China, in 2010. Afterwards he joined School of Mathematical Science at Dalian University of Technology, where he is now an Associate Professor. Additionally he was Visiting Professor with Department of Mathematics and Statistics of Curtin University, Perth, Australia, April 2014-July 2015. He is currently serving as the dean of School of Mathematical Science, Dalian University of Technology. His research interests include optimal control and system identification of nonlinear systems, the theory, algorithm and application of operational research and control theory.