学术报告会

报告题目：Stabilization of Exponentially Unstable Linear Systems with Multiple Input Delays by Truncated Predictor Feedback

报告人：Yusheng Wei (University of Virginia, USA)

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地点： 电信学院 2-410

邀请： 林宗利 教授

 Abstract:

This talk considers the problem of stabilizing exponentially unstable linear systems with multiple delays in the input. A truncated predictor feedback law, parameterized in a scalar parameter, is constructed. Stability analysis shows that, when the delays satisfy a certain condition, a range of the parameter values can be determined within which the closed-loop system is asymptotically stable. Furthermore, under some conditions on the open loop system, we show that maximum allowable delay approaches infinity as all open-loop poles of the system approach the imaginary axis. A numerical example illustrates the theoretical results.

Biography:

Yusheng Wei, Ph.D. candidate at Charles L. Brown Department of Electrical and Computer Engineering, University of Virginia. He received the Bachelor's degree of Automation from the Department of Control Science and Engineering at Harbin Institute of Technology, Harbin, China, in 2014. His current research interest is stabilization of time-delay systems, and image tracking and control of UAVs on ROS.