

- Special Lecture -

Type-2 Fuzzy System and Its Application on
Vehicle Active Suspension System

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Date: November 17th (Tue), 16:30-17:30
Room: Hino Campus 2-401
Participation Fee: Free

Abstract: The general theory of type-2 fuzzy sets and systems are introduced. Some applications of type-2 fuzzy systems are reviewed to show the advantages. As one of applications of type-2 fuzzy systems, my PhD research is also included, especially focus on the interval type-2 fuzzy control system for vehicle active suspension system. Based on a new electric vehicle active suspension model, two adaptive interval type-2 fuzzy controllers were proposed to improve the riding comfort and handling performance. The stability analysis of proposed control system was derived and the related stability conditions with the interval constraints were obtained. Finally, the problems and challenges about type-2 fuzzy systems will be discussed.