SÉMINAIRE INTER-PÔLES IRSEEM

Thématique :

Synthèse d'observateurs Grand gains Filtrés pour l'estimation d'états et des incertitudes pour les drones

irseem

ESIGELEC SCHOOL OF ENGINEERING SMART AND CONNECTED SYSTEMS

UNIVERSITÉ DE ROUEN NORMANDIE

Jeudi 31 mars 2022

14h30 - 15h00

Amphi Robert VALLÉE

Filtered High-Gain Observer Design For a Class of Nonlinear Systems subject to Delayed Measurements : Application to a Quadrotor UAV.

In this work, a novel structure of a Filtered high-gain Observer is proposed for a class of nonlinear systems subject to delayed measurements, bounded disturbances and noise measurements effects. The structure of the proposed observer is able to obtain a larger bound of the Maximum Allowable Value of Time Delay (MAVTD) that ensures the convergence of the observer in comparison with the one obtained by standard High Gain methodology. The convergence of the proposed observer is provided by means of Lyapunov-Krasovskii func]onal. The efficiency of the proposed observer has been validated experimentally on real UAV systems.

Après avoir suivi des études d'ingénierie dans les domaines de la robotique et de l'automatisation, **Quang Truc DAM** rejoint les équipes de l'ESIGELEC en novembre 2021. Il effectue notamment des missions au sein de l'IRSEEM autour des thématiques du contrôle de l'automatisme, de la simulation, de l'aérospatial et de la programmation.