Ομιλητής: Professor Antonios TSOURDOS Head of the Centre for Autonomous and Cyber-Physical Systems Θέμα: Multiple Unmanned Aircraft System – Architectures, Algorithms and Applications

Περίληψη: The autonomy framework is the first modular, fully integrated, reusable and reconfigurable system which can complete guidance, navigation, control and operations of multiple UAV vehicles in different environments and constraints. Using the most recent advances in sensing, AI, sensor fusion, control theory, estimation, navigation and using the paradigm of modularity, a new single, fully integrated, reconfigurable, modular, generic autonomous system architecture can be developed and demonstrated, for multiple high impact applications in order to autonomously operate systems, vehicles or systems of systems. The proposed autonomy framework has fundamental and key differentiating characteristics compared to existing autonomous systems: A fully integrated autonomous system which can operate in real time with modular blocks (planning, perception, GNC, operations) and a multiple decision making and reconfiguration layer system.

Ημερομηνία: Τρίτη, 29 Ιουνίου 2021

Ωρα: 18:00

Link:

https://upatras-gr.zoom.us/j/93537747753?pwd=NW1KaUUrUIIxQWFCRTA0dGNyQVhZQT09

Βιογραφικά/επαγγελαμτικά στοιχεία:

Professor Antonios Tsourdos is the Director of Research for the Cranfield University School of Aerospace, Transport and Manufacturing and the Head of the Centre for Autonomous and Cyber-Physical Systems. Professor Tsourdos was a member of the Team Stellar, the winning team for the UK MoD Grand Challenge (2008) and the IET Innovation Award (Category Team, 2009). He is an editorial board member of the International Journal of Systems Science, the Aerospace Science & Technology and the Journal of Aerospace Engineering – Proceedings of the Institution of Mechanical Engineers Part G. Professor Tsourdos is the chair of the International Federation of Automatic Control (IFAC) Technical Committee on Aerospace Control and member ofAIAA Unmanned Systems Program Committee and IMechE Robotics & MechatronicsTechnical Committee as well as the EPSRC UK-RAS Network Committee. Current research projects include the UKRI funded projects UAS Authentication Service (UASAS) and Robots In Controlled Healthcare Environments, the EPSRC programme grant CASCADE (Complex Autonomous aircraft Systems Configuration, Analysis and Design Exploratory) and the UKRI Trustworthy Autonomous Systems Node in Security.