



Cursos de Verano 2022

SANTANDER



SEMINARIO

Technologies for future Services and Business models based on Safe and Autonomous Drones

July 18-22

CO-DIRECTORS

Mauro Gil

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SEMINARIO

The number and importance of new services and business models based on drones are continuously growing. If in 2019 the UAV market was USD 19.3 billion and it is projected to reach USD 45.8 billion by 2025 with the creation of more than 100.000 jobs. Consequently, there is an increasing interest in new technologies able to ensure an efficient development of complex drone-based services.

The course aims to provide interested participants with a research roadmap and state-of-the-art in enabling technologies for drones. The course, derived from the research activities in the COMP4DRONES project, covers key technologies in this domain, such as smart sensing, trusted communication and model-based system engineering. The technologies will be demonstrated on four industrial application domains for drones (transport, logistics, agriculture, supervision and inspection).

The course is targeted to engineers and managers in companies providing drone-based services, researchers in industry and academia, entrepreneurs and public in general interested in the last technologies supporting the development of those complex services.

The official language of the course is English.

Código 657w – Tarifa C – 1 ECTS

Patrocinio:



Solicitud Online

Para cualquier incidencia técnica con la solicitud puede enviar un correo electrónico a: cau@uimp.es



Plazos

Solicitud de becas

- Hasta el día 3 de mayo

Apertura de matrícula

- Desde el 20 de abril de 2022 (plazas limitadas)

Contacto

- De 9:00 a 14:00 h.
- De 16:00 a 18:00 h. (excepto viernes)

Hasta el 17 de junio

SANTANDER

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A partir del 20 de junio

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Monday, July 18

10:00 Summer School Opening

Reda Nouacer

Research Programs Officer, CEA - France

10:30 Comp4Drones: Key enabling technology framework for drones

Reda Nouacer

Research Programs Officer, CEA - France

12:00 Safe Integration of UAV in the Airspace

Javier Barcala

Security & Aerial Vehicles Director, Indra – Spain

15:30 UAV Architecture and Challenges: C4D Reference Architecture

Emmanuel Grolleau

Full Professor, ENSMA – France

16:30 C4D-RA Implementation on the Paparazzi autopilot

Emmanuel Grolleau

Full Professor, ENSMA – France

Tuesday, July 19

9:30 Neuromorphic sensors and processing systems for drone applications

Paul Detterer

AI Hardware Expert, IMEC/TUE - The Netherlands

12:00 AI with grid cells and synthetic data

Roberts Kadikis

Head of Robotics and Machine Perception Lab., EDI – Latvia

15:30 Risk Analysis and Certification Frameworks for Critical Trusted AI Applications

Adedjouma Morayo

Ph.D. Research Scientist, CEA LIST – France

16:30 USPACE regulation and simulation

Nicholas de Kergorlay

Drones & UTM Systems Research Chair, ENAC-Airbus-Sopra Steria - France

Wednesday, July 20

9:30 Cellular connectivity and telecommunication infrastructure for UAS solutions

Gints Jakovels

Innovation Lead of UAS/UTM Solutions, Latvijas Mobilais Telefons SIA – Latvia

12:00 A positioning solution for long indoor infrastructures relying on robust and enriched ultra wideband (UWB) communication

Fernando Herrera

Senior R&D Expert, Acorde – Spain

15:30 Other European R&D Projects in UAV applications
Autonomous Drones for Infrastructure Inspections: Design and Challenges

Emad Samuel Malki Ebeid

Associate Professor, Head of Drone Infrastructure Inspection and Interaction Research Group, University of Southern Denmark – Denmark

16:30 Drone development from existing vehicle technologies

Morten Larsen

Senior Researcher, AnyWi – The Netherlands

Thursday, July 21

9:30 Building An All-European HPC Processor using Open technologies

Matoussi Oumaima

Research Engineer Expert in NoC, CEA - France

12:00 Modeling and Simulation of UAV-based Services

Eugenio Villar

Professor in Electronics Technology, Univ. of Cantabria – Spain

15:30 Model Based Development and Testing: case study cryptography

Otto Brechelmacher

Research Engineer, AIT – Austria

16:30 Droneport: From Concept To Simulation and Prototype

Ondrej Severa

Researcher at NTIS, University West Bohemia – Czech Republic

Friday, July 22

9:30 Use-Cases Demonstrations

Mauro Gil

Innovation Manager, INDRA – Spain

12:00 Round Table:

Innovation vs Regulation. Opportunities and Challenges

Chair: **Réda Nouacer**

Innovation Manager, Indra – Spain

Teresa Riesgo

Secretary General for Innovation, Spanish Ministry of Science and Innovation – Spain

Nicholas de Kergorlay

USPACE Expert - France

Javier Viejo Acosta

Business Development Director, INDRA - Spain

Emmanuel Grolleau

Full Professor, ENSMA – France

13:30 Summer School Closing Session

Réda Nouacer

Innovation Manager, Indra – Spain



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