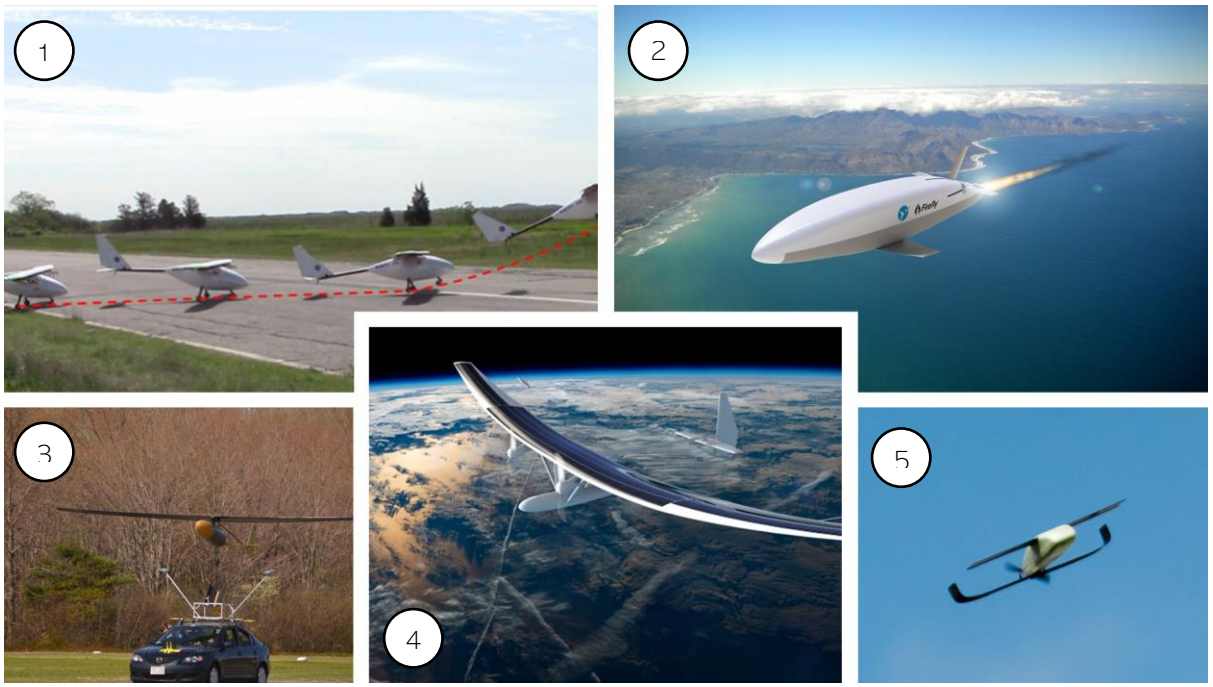
SEMINARS @ DEM DEPARTAMENTO DE ENGENHARIA MECÂNICA TÉCNICO LISBOA

Wednesday, 19th January 2022, 14h
Amphiteather: FA3, Alameda

Student Based Design and Prototyping of Innovative Flight Vehicles

This seminar will discuss an approach to developing innovative aircraft and UAS vehicles where external sponsors commission university student teams to design and prototype high risk vehicle concepts. The students are given mission requirements which cannot be met with traditional vehicles and develop preliminary designs in a capstone vehicle case. The designs are refined, prototyped and test flown in follow on laboratory courses. The most recent design class was taught remotely and included a number of IST students through the MIT Portugal Program. The structure of the program will be presented and a number of example vehicles will be discussed including 1) eSTOL: 4 Seat Hybrid Electric eSTOL Aircraft with 100M Takeoff and Land Footprint; 2) Firefly: Small Deployable Rocket Powered UAS, 3) Jungle Hawk Owl: Long (5 day) Communications Relay Vehicle; 4) SACOS: Stratospheric Airborne Climate Observatory System; and 5) Perdix: Small Deployable Swarm UAS.



Prof. R John Hansman
MIT, Dep. Aeronautics & Astronautics
Co-Director MIT Portugal Program

R. John Hansman is the MIT Portugal Program Director at MIT. He's the T. Wilson Professor of Aeronautics & Astronautics MIT, where he is the Director of the MIT International Center for Air Transportation.
He conducts research in the application of information technology in operational aerospace systems. Dr. Hansman holds 6 patents and has authored over 250 technical publications. He has over 6000 hours of pilot-in-command time in airplanes, helicopters, and sailplanes including meteorological, production, and engineering flight test experience.
Professor Hansman chairs the US Federal Aviation Administration Research Engineering & Development Advisory Committee (REDAC) as well as other national and international advisory committees.He is a member of the US National Academy of Engineering (NAE), is a Fellow of the AIAA and has received numerous awards including the AIAA Dryden Lectureship in Aeronautics Research, the ATCA Kriske Air Traffic Award, Wright Brothers Master Pilot Award, a Laurel from Aviation Week & Space Technology, and the FAA Excellence in Aviation Award.