MASTÈRE SPÉCIALISÉ®
AIR NAVIGATION SYSTEMS ENGINEERING AND OPERATIONS

TYPE DE DIPLÔME
Mastère spécialisé

NIVEAU D'ÉTUDE VISÉ : BAC +6

DOMAINE D'ÉTUDE : Génie électrique, Ingénierie des systèmes, Systèmes embarqués, Électronique - Électrotechnique, Systèmes embarqués, Traitement du signal, Réseaux - Télécommunication

Domaine : Sciences, Ingénierie et Technologies

Présentation

Commercial air transport Business should double before 20 years according to the most realistic forecasts. Therefore ICAO, States, Authorities of the Civil aviation should anticipate and prepare technically and operationally this growth by, establishing and implementing an effective global air navigation services system, absorbing the air traffic growth by a more integrated flight management into their different phases, reducing waiting times on the ground or during flight, and implementing new optimized operational concepts for eco-effective trajectories.

For more information about "Advanced Master" delivered by ENAC, please click here.

ÉTABLISSEMENT(S)
ENAC - Ecole nationale de l'aviation civile

LIEU(X) D'ENSEIGNEMENT
Toulouse

Objectifs

The new ENAC's Advanced Master "Air Navigation Systems Engineering and Operations ", MS ANSEO, is based on a systemic approach of Air Navigation System, on an unique and integrated program with opened to three operational options: ATM, CNS/GNSS and Avionics. The MS ANSEO role is to educate new generation of Air Navigation Systems experts providing up-do-date skills and transverse knowledge to develop and operate the Air Navigation System meeting the worldwide Air Transport challenges.
Future graduates of the MS ANSEO will be qualified managers of interdisciplinary teams to develop or to improve technical Air Navigation System, whether at sub-systems level (plane, ground, management of air traffic) or at architecture system integrating interactions between these sub-systems. Thanks to their high techniques monitoring, legal and regulations awareness of the global Air Navigation System, they will be able to monitor, to optimize systems evolution, whether it is at the equipment level or at the system level, or to propose operational and technical road maps, and to define the development and operational standards.
So, whether it is for senior or for junior engineers in their first years of their professional life, the MS ANSEO will give them the best means, after their graduation, the understanding of the complexity of technical Air Navigation systems, to allow them to develop adapted solutions, to make the decisions and to take the most relevant technical and operational choice meeting their particular needs satisfying of the worldwide overall objectives.

Parcours

Phase académique

- Long project (Obligatoire)
  · TX6900E - Long project
- ATM option programme (Obligatoire)
  · SA6011E - Safety Assessment Methodology (SAM)
  · AT6001E - Integration of ATM in airport design and operations
  · AT6002E - ATM operations (ACC)
  · AT6003E - Airspace design
  · AT6004E - ATM sustainable development
  · AT6005E - Advanced ATM
  · AT6006E - Trajectory Based Operations

Common programme

- Technical part (Obligatoire)
  · NA6000E - General introduction to Air Navigation Technical Systems
  · AV6000E - The Aircraft & Introduction to avionics systems
  · AT6000E - ATM Overview
  · CN6001E - CNS Overview
- Regulatory part (Obligatoire)
  · RG6001E - Regulatory framework
- Engineering methods part (Obligatoire)
  · SA6010E - Safety and security management in Aviation
  · CS6002E - System Engineering
  · CS6001E - Project Management

- Projet de fin d'études (Obligatoire)
  · TX5900 - Professional thesis

Perspectives professionnelles

Future graduates of ANSEO Advanced Master will be qualified managers of interdisciplinary teams to develop or to improve technical Air Navigation Systems, whether at sub-system level (aircraft, ground, management of air traffic) or for architecture systems integrating interactions between these sub-systems. They will acquire advanced monitoring techniques and legal and regulatory awareness of the global Air Navigation System. As a result they will be able to monitor and optimize system evolution, at either the equipment or system level, or to propose operational and technical road maps, and define development and operational standards.

Contact