

Instalatii electrice de bord II

Onboard electrical installations II

Obiectiv principal

Contribuie la formarea viitorilor ingineri de profil aerospacial, familiarizându-i cu principalele aspectele teoretice și practice legate de componența, caracteristicile, funcționarea și exploatarea instalațiilor electrice de la bordul aeronavelor.

Course Objective

Contributes to the formation of future aerospace engineers, familiarizing them with the main theoretical and practical aspects related to the composition, characteristics, operation and operation of electrical installations on board aircraft.

Curs

2 ore pe săptămână, total 28 ore

- Generatoare de c.c. pentru aeronave.
- Reglarea automata a tensiunii generatoarelor de c.c. de bord.
- Mersul in paralel al surselor de c.c. de bord.
- Comanda si protectia surselor electrice de bord de c.c.
- Producerea c.a. la bordul aeronavelor.
- Reglarea automata a generatoarelor sincrone.
- Pornirea automata a motoarelor de avion.
- Utilizari ale energiei electrice la bord.

Course

2 hours weekly, total 28 hours

- Generators of d.c. for aircraft.
- Automatically adjust the voltage of the generators on board.
- Functioning in parallel with d.c. sources of on board.
- Command and protection of on-board electrical power sources.
- Production of alternativ current on board aircraft.
- Automatic adjustment of synchronous generators.
- Automatic start of aircraft engines.
- Uses of electricity on board.

Laborator

2 ore pe săptămână, total 28 ore

- Alimentarea si pornirea motoarelor turboreactoare ale aeronavelor subsonice de tip IAR-93.
- Pornirea motoarelor turboreactoare.
- Instalatia de alimentare electrica cu curent continuu de la bordul aeronavelor supersonice de tip MIG-2.
- Sistem de comanda automata a regimurilor motoarelor turboreactoare ale aeronavelor supersonice de tip MIG-21.
- Tester pentru verificarea echipamentului KAF din componenta sistemului de control automat al regimurilor motoarelor turboreactoare.
- Tester pentru verificarea echipamentului KPR-15 din componenta sistemului de control automat al regimurilor motoarelor turboreactoare.
- Tester pentru verificarea echipamentelor DMR, AV-7 44, AZP, AZS, contactorilor si releelor din componenta instalatiei electrice de pornire a motoarelor turboreactoare.
- Sistem antiderapaj.
- Instalatie de alimentare cu c.c. a retelelor electrice de la bordul aeronavelor de tip IAR-93.
- Instalatia electrica de pornire a motoarelor de tip VIPER.

Laboratory

2 hours weekly, total 28 hours

- Powering and starting turbojet engines of IAR-93 type subsonic aircraft.
- Starting the turbo engine.
- On-board DC power supply onboard MIG-2 supersonic aircraft.
- MIG-21 supersonic aircraft type control system.
- Tester for checking the KAF equipment in the automatic control system of the turbo engine operating systems.
- Tester for checking the KPR-15 equipment of the automatic control system of the turbo engine operating systems.
- Tester for checking the DMR, AV-7 44, AZP, AZS, contactors and relays of the turboreactor starting electrical system.
- Anti-jam system.
- A d.c. of the IAR-93 type aircraft electrical networks.
- Electrical startup of VIPER motors.