

AEROSPACE ENGINEERING (LM52)

(Brindisi - Università degli Studi)

Insegnamento ELECTRICAL ENERGY FOR AEROSPACE: STORAGE (MOD.2) C.I.

GenCod A006603

Docente titolare Aime LAY EKUAKILLE

Insegnamento ELECTRICAL ENERGY FOR AEROSPACE: STORAGE (MOD.2) C.I.

Insegnamento in inglese ELECTRICAL ENERGY FOR AEROSPACE: STORAGE

Settore disciplinare ING-IND/21

Corso di studi di riferimento AEROSPACE ENGINEERING

Tipo corso di studi Laurea Magistrale

Crediti 3.0

Ripartizione oraria Ore Attività frontale: 27.0

Per immatricolati nel 2021/2022

Erogato nel 2021/2022

Anno di corso 1

Lingua

Percorso CURRICULUM AEROSPACE SYSTEMS

Sede Brindisi

Periodo Primo Semestre

Tipo esame Orale

Valutazione

Orario dell'insegnamento

<https://easyroom.unisalento.it/Orario>

BREVE DESCRIZIONE DEL CORSO

Introduction
International norms and standards
Electrical power generation in civil and military systems
Conventional and hybrid electrical power generation

Storage systems: batteries and supercapacitors
Solid and liquid state batteries
Supercapacitors

Reliability and test of storage systems
Energy saving and haversting

PREREQUISITI

A strong background of the below courses is required: Physics, Electrical Engineering, Chemistry, and Metallurgy. A knowledge of Matlab programming environment is desirable and helpful.

OBIETTIVI FORMATIVI

The energy autonomy of aerospace systems is one of the constrained safety criteria for their use. The conversion of different forms of energy in electrical power energy (EPE), along with the EPE within the aerospace systems, is the main objective for the student, in terms of qualitative and quantitative dimensioning. The student will be able to choose the type of device and carry out some simulations regarding the electrochemistry and energy operating mode.

METODI DIDATTICI

Lessons and exercises

MODALITA' D'ESAME

Interview (oral exam) after a mini-project to be submitted and evaluated

ALTRE INFORMAZIONI UTILI

Available for Master Degree thesids

