
Energetics

Finalità

The course is aimed at providing the sufficient knowledge to analyze energy systems, plants and renewable sources.

Programma

Energy and exergy analysis. Energy sources. Oil, gas, coal, uranium. Pollution and environment. Renewable sources. Geothermal energy. Energy from water and oceans (waves, tidal, OTEC). Wind energy. Solar energy. Photovoltaic plants. Solar thermal energy, Trombe wall, passive house. Solar collectors, efficiency. Hot water domestic systems. Heating systems.

Attività d'esercitazione

Applications and exercises are presented during the course.

Modalità d'esame

Written examination

Propedeuticità

Applied physics and thermal sciences.

Testi consigliati

Comini et al. "Energetica Generale", SGE Padova, 2005, ISBN 88-86281-99-4

Dentice d'Accadia, et al. "Applicazioni di Energetica", Liguori Editore, ISBN 88-207-2897-4

Teacher notes.