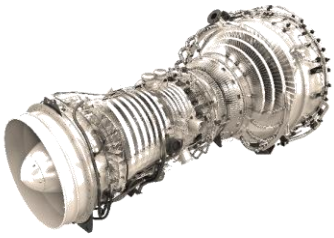
Lecture (English Language)
„Machines and Processes of Energy Conversion“






Prof. M. Lorenz, Dr. H. Kubach, Dr. B. Pritz

Dates: We. 8:00-9:30 and Fr. 14:00-15:30

Room: We. Hertz Hs. (10.11), Fr. Engler-Bunte-Hörsaal (40.50) | Campus South

Content

- Introduction to Energy Engineering
- Radial and Axial Turbines
- Pumps
- Compressors
- Fans
- Wind Turbines
- Fuel Cells
- Energy storage
- Electric motors
- Heat pumps
- Combined heat and power (CHP)
- Diesel engines
- Gasoline engines
- Hydrogen engines

Learning Objectives

Students can identify and describe the basic energy conversion processes and the machines that perform them. They can explain the application of energy conversion processes in various machines. They can draw up energy balances for the various energy conversion processes. They can analyze and evaluate the processes and machines in terms of functionality and efficiency, and solve simple technical problems related to the operation of the machines.

Exam

written exam, duration 2 hours