National technical University "Kharkov polytechnic institute"

Institute of Education and Science in Power Engineering, Electronics and Electromechanics

Department of Turbine construction

Areas of studying:

Specialty "Power engineering"
specialization "Computer Engineering of the Turbomachinery”

Programming skills and ability to use modern mathematical software for computer-aided design of complex technical systems.

Using specialized software for design of flow parts of steam and gas turbines, the design of cooling systems of gas turbines, modeling workflows in the turbines, the design of flow path.

Areas of studying:

Specialty "Power engineering"
specialization "Turbines",
"Gas turbines and compressor stations"

Operation and regulation of steam and gas turbines, gas supply systems

Research on improving the flow parts of turbines and cooling systems of the gas turbines using computer-aided design

Organization and management of installation, repair and adjustment work on thermal and nuclear power plants, modernization of turbine equipment

Design of power plants and gas transport networks

Analysis of workflows and choice of optimal design of power equipment and gas transportation schemes

Areas of studying:

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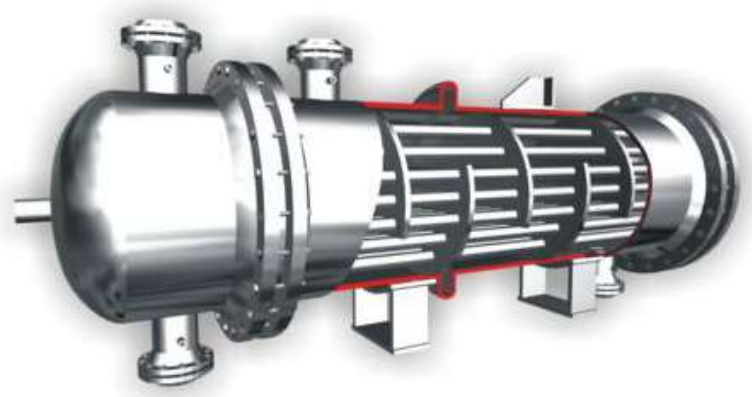
Specialty – “Thermal Engineering”
Specialization - "Thermal processes in the energy equipment"

Programming skills and the ability to use advanced software for computer-aided design of heating equipment.

Design of heating equipment and modeling of thermal processes.

Design of heat power installations for various purposes: heat exchangers of power plants, district heating systems, refrigeration units, air conditioning systems.



Employment perspectives:

Turbine plants, departments of turbine's computer-aided design

Gas pumping and distribution stations

Companies and departments of computer-aided design (CAD) of power equipment

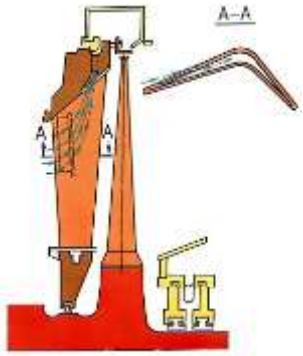
Departments of CAD of heating equipment

Departments of CAD of heating, ventilation and air condition systems

General academic disciplines (bachelor's level)

CAD (Computer Aided Design)

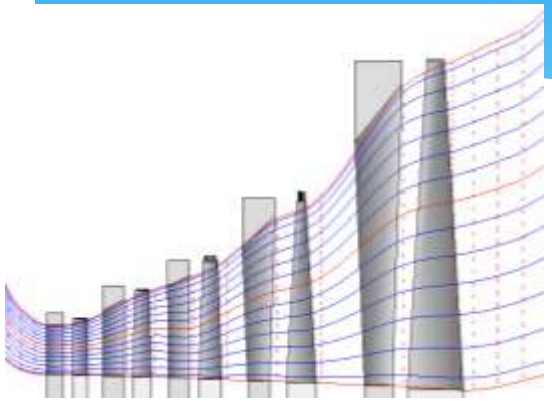
Mathematical methods and models in Power Engineering



Systems Analysis of Thermal Physics Problems

Thermal and nuclear power stations

General academic disciplines (bachelor's level)

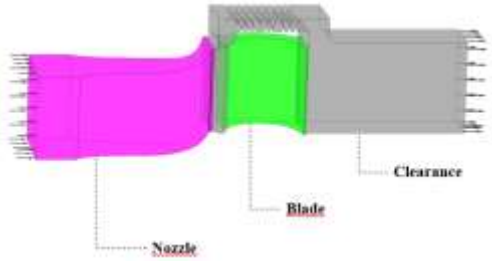


Gas dynamics of turbomachinery

Heat and mass transfer

Engineering thermodynamics

Theory of steam and gas turbines



Heat and mass transfer processes and installations

Combustion theory and combustion installations

Fundamentals of the computer programming of energy problems

General academic disciplines (master's level)

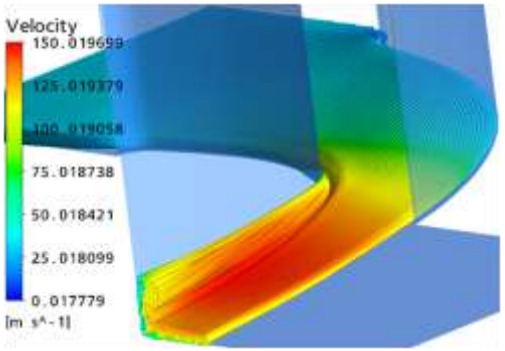
Theory of the Optimal Turbine Design

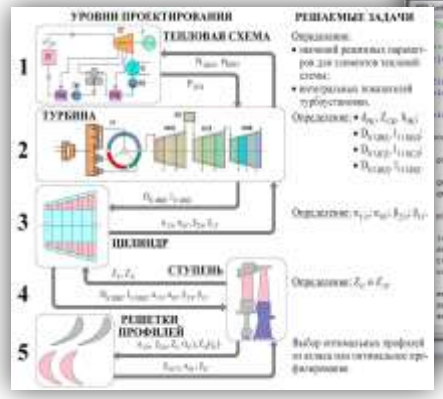
Computational Fluid Dynamics (CFD)

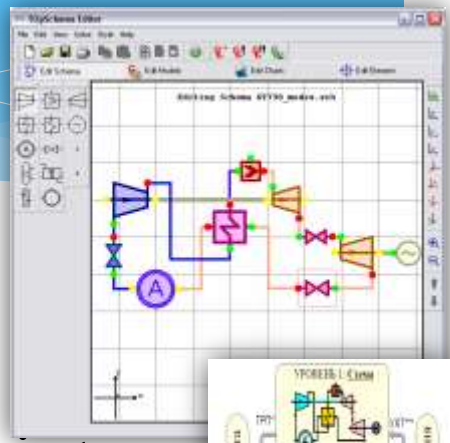
Computer design of the turbine blade rows

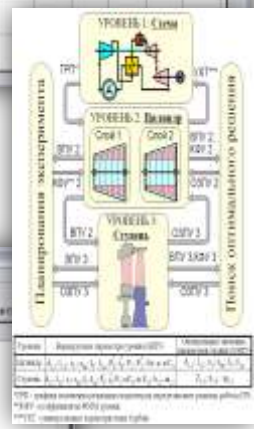
Adjustment of steam and gas turbines

Design and technology of gas turbine manufacturing









General academic disciplines (master's level)

Operation of thermal power equipment

Secondary air system of gas turbines (SAS)

Gas pumping stations and gas networks

Theory and practice of the heat exchangers

Combined Cycle Gas Turbine installations (CCGT) and gas turbines

Our contacts:

Kharkov, Ukraine

Kyrpychova str. 2

National Technical University “Kharkov polytechnic institute”