

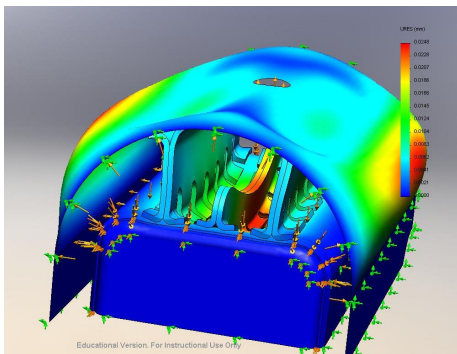
Specialty 142 Power Engineering

Educational program "Engineering and computer technologies of thermal power systems"

The specialty "Energy Engineering" trains specialists in computer design of energy systems for efficient and environmentally friendly fuel resources using in the energy, industry, utilities and agricultural sectors of the economy. The specialty is especially relevant in connection with the increasing use of alternative energy sources – fuels of biological origin, industrial and household waste, secondary resources, etc.



Heat generating facility



Simulation of boiler deformation process
in Ansys Fluent software

During education the main attention is paid to the means of computer 2D and 3D design, as well as the study of software methods for modeling physical processes in energy – combustion, heat transfer, aerodynamics and strength. Students learn the latest computer programs and programming languages: AutoCAD, Inventor, Mathcad, SolidWorks, ANSYS-Fluent, 3D Max, Python, C ++.

Future specialists will be able to perform work on the design, operation, manufacture, installation, commissioning and repair of power equipment. The acquired basic knowledge and practical skills allow graduates to work with variety of thermal installations - power, industrial and built boilers, industrial furnaces, steam and gas turbines and others. To deepen the knowledge and success of practical skills, research practice is done at thermal power plants, power engineering enterprises and research institutions, where student get acquainted with advanced engineering developers and scientific achievements.

The modern experimental and computer base allows involving senior students in scientific and engineering work both directly at the department and in the relevant institutions. The best students have the opportunity to intern and get an education abroad (USA, Canada, Sweden, Norway, Portugal, etc.), as well as to continue their postgraduate studies and obtain the PhD degree.

Graduates work in engineering and management positions in energy companies, thermal power plants, design and research organizations, well-known manufacturers of energy equipment: Vaillant, Viessmann, Buderus and others. The activities of engineers after graduation are using and energy efficient technologies implementation, substitution of natural gas for alternative fuels, increasing the efficiency of fuel equipment.



Modern energy enterprise