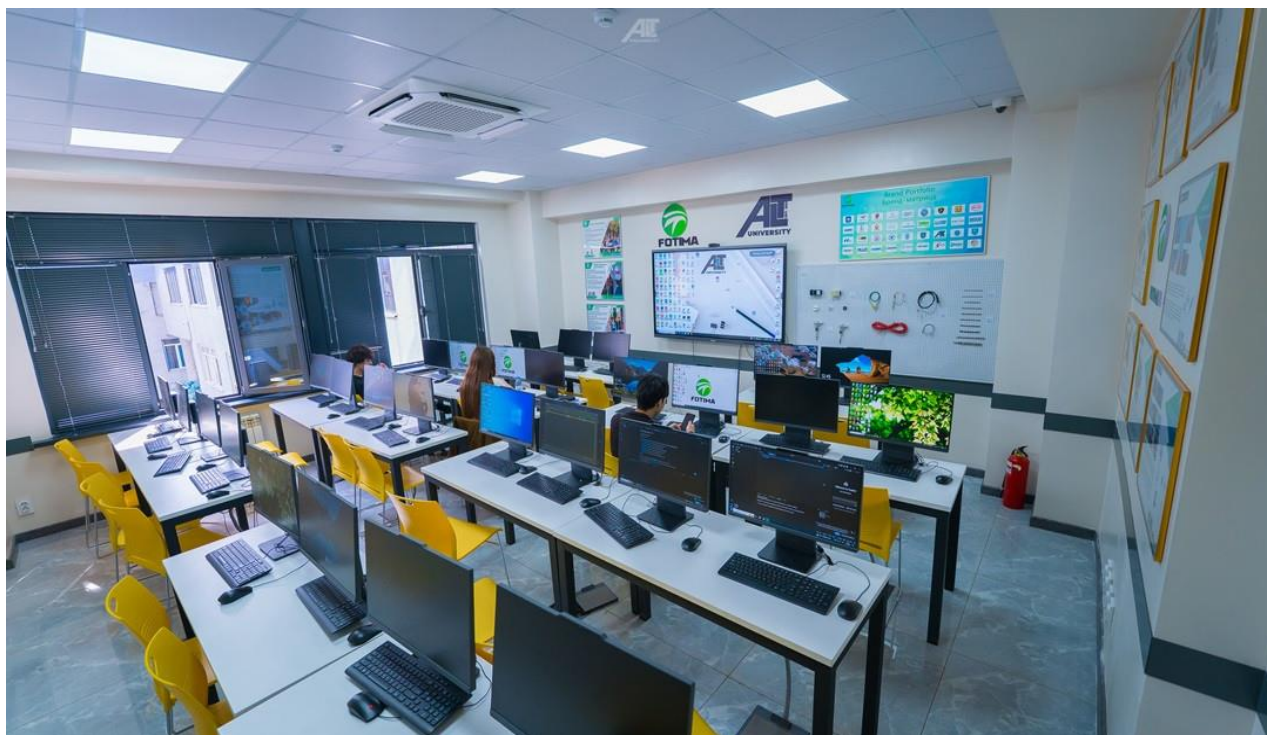


Teaching Laboratory «Fotima Sensor Global Lab».



Purpose of the laboratory - The purpose of the laboratory is to develop practical competencies in the study, investigation, and calculation of temperature sensors and automatic control devices for thermal processes. To master the principles of measuring and monitoring temperature parameters, configuring temperature control equipment, and analyzing the operation of automatic control systems for thermal power equipment using modern laboratory facilities and international educational approaches.

Objectives of the laboratory:

- To study the design, operating principles, and characteristics of temperature sensors and temperature control devices.
- To calculate the main parameters of sensors and investigate their accuracy, sensitivity, and measurement ranges.
- To master methods of measuring, monitoring, and automatically regulating temperature in thermal power systems.
- To conduct laboratory experiments to investigate temperature operating conditions and analyze the characteristics of automation equipment.
- To develop skills in selecting, connecting, configuring, and practically applying measuring instruments and controllers in heat supply systems and thermal power installations.
- To use modern international educational methodologies and technical solutions to improve the quality of students' practical training.

Uniqueness of the laboratory: The uniqueness of the “Fotima” laboratory lies in its ability to provide comprehensive study and practical investigation of temperature sensors and temperature control equipment, including engineering calculations and experimental verification of the results obtained. The use of modern laboratory equipment based on international technical approaches and educational practices promotes the integration of theoretical knowledge with real-world

challenges in thermal power engineering and helps develop professional competencies that are in demand in the international engineering environment.

Effectiveness of the laboratory: The effectiveness of the laboratory lies in improving the quality of students' practical training and developing their skills in engineering calculations, experimental research, and the configuration of temperature monitoring and control systems. Laboratory sessions enable students to master methods of measuring and analyzing temperature parameters, evaluate sensor accuracy and the effectiveness of thermal process control, and apply their knowledge to the design and operation of thermal power equipment. The focus on international educational approaches promotes students' professional mobility and readiness to work with modern thermal power technologies.

