

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

Our department was established in 1970 in the Academy of Architecture-Engineering and continued its educational activities in 1975 in the Faculty of Engineering and Architecture of Selcuk University. with the establishment of Konya Technical University in 2018, it continues its education, training and research activities under the Faculty of Engineering and Natural Sciences. Approximately 20 Graduate (Master's and Doctoral) students are admitted to our department every year. Since the 2005-2006 academic year, the Second Education Students have started to be accepted to the Master's Program without thesis. In our department, **“Electronics”, “Circuits and systems”, “Telecommunications”, “Electrical machines”, “Electrical installations”, “Electromagnetic fields and Microwave techniques,”** and **“Command and control systems, including”** There are seven disciplines. There are 7 Professors, 9 Associate Professors, 9 Doctor Faculty Members, 1 Doctor Lecturer, 12 Research Assistants, 2 Technicians and 1 Secretary working in our department. There are 5 laboratories actively used in the department.

Power Systems Laboratory at the Department of high-voltage power transformer, low voltage directly from iron, concrete pole Low Voltage, Low Voltage tree poles, conductors, cutter, parafu is modeling of power systems that are used in high voltage and low voltage insulators and line elements. In laboratory studies, power systems are modeled and analyzed using these line elements, measuring instruments and analysis devices.

In the L2 and L3 Laboratories of the Department, there are products and measuring devices for the design, production and analysis of electronic circuits, and the stages of card production and testing are carried out.

In the L4 laboratory of the department, **artificial intelligence, image processing and automation studies** are carried out in an integrated manner. The L4 Laboratory mainly consists of Mitsubishi Electric and Siemens products. There are PLC, HMI, Inverter, Servo Drive and Robot arm as products in the laboratory.

Applications such as image processing, product quality control, determining the type of product, etc. are carried out in the lab; the data obtained from image processing is sent to the

automation system, and the automation system responds in accordance with the incoming information. Studies on automation systems that incorporate artificial intelligence and image processing are conducted in this way.

Studies on the control of electric motors are conducted in the department's L5 Laboratory. Additionally, research on motor and driver design is done.

Other subjects studied in the Department are Electromagnetic Fields and Microwave Technique, Ground Penetrating Radar, Measurement of Electromagnetic Radiation, Numerical Calculations in Electromagnetics, Microstrip Antennas, Wireless Communication Applications, Wearable and Flexible Antenna Designs, RFID and Near Field Communication Systems, Biomedical Antenna Applications, Antenna Manufacturing Techniques, Electromagnetic Simulation Software, Computer Aided Antenna Design, Pattern Classification, Medical Image Analysis, Image Reconstruction, Image Segmentation, Image Noise Reduction, Hybrid Classifiers, Classifier Ensembles, Optimization, Augmented Reality, Image Processing, Artificial Intelligence, Unmanned Aerial Vehicle , Unmanned Underwater Vehicle, Unmanned Ground Vehicle, Intelligent Transportation, Human Robot Interactions, Autonomous Systems, Simultaneous Positioning and Mapping, Search and Rescue Algorithms, Traffic Routing and Coordination Applications, Biomedical Systems.