Starting from 1987 Institute’s of Industrial Electronics and Electrical Engineering is one of biggest among 35 institutes of Riga Technical University. Main research lines:

- Energy-saving multifunctional energy converters and their control systems;
- Smart transport systems and their control;
- Smart electrical technologies and energy-efficient production automation.

Institute annually publishes 80 to 90 scientific articles; arranges RTUCON annual international scientific conference; issues periodical scientific journal „Electrical, Control and Communication Engineering“; has realized more than 25 projects, fulfilled industrial research tasks.

IEEE collaborates with other scientific institutions industrie enterprises all over the world. Institute of Industrial Electronics and Electrical Technologies carries out professional studies within bachelor’s master’s and doctoral programmes in smart elektrotechnology specialties:

- Adaptronics;
- Computer control of electrical technologies.

Our researchers continuously develop and create a new knowledge in all types of converters, energy flow measurement and IKT application programs for optimal reduction of losses.

Various „electronic transformers“ are used in DC micronetworks that operate in existing AC networks environment. There were few and still are ongoing some big and noticeable projects. For example:

- In October enden project Development of Training Network for Improving Education in Energy Saving. The project contributed education process in such aspects of this topics energy saving like enhancement of energy efficiency, use of renewable sources. Project’s coordinator – Riga Technical University.
- Automation and Robotics for European Sustainable manufacturing (AREUS) are still on run and include ten partner organizations from Germany, Sweden, Finland, Denmark and Latvia. Aim is to develop smart, green solutions for industrial robotics – and demonstrate their viability for industrial production with great efficiency in energy and cost reduction while incurring the lowest possible eco-footprints!