

FACULTY OF ELECTRICAL ENGINEERING, RICE
UNIVERSITY OF WEST BOHEMIA



Activities of the Faculty of Electrical Engineering (FEE) are directed towards continuous development in research as well as in education. Full support is given to research grant applications and to prestigious research projects. Participation in EU projects and projects coordinated by the national technology centers is encouraged. FEE has a long standing tradition in cooperation with industry. Five faculty departments offer their research and development capacities, expertise and technical equipment to partners from industry in both the Czech Republic and abroad. The list of industrial and research references can be provided on demand.

At present, R&D activities at FEE are concentrated into a new research center **“Regional Innovation Centre for Electrical Engineering (RICE)”**. Construction of RICE infrastructure was funded from the European Regional Development Fund (ERDF) and started in October 2010 with budget of 25 mil. EUR. The centre offers excellent research infrastructure such as a medium-voltage hall laboratory/testing facility of power electronics and transportation systems

for testing up to 31 kV / 4 MW, special laboratories focused on material research particularly in organic-based sensors, including a so-called “clean room”, special microscopic laboratory, or X-ray diagnostics. Therefore, RICE is able to secure the whole research process – from basic research, through development, up to prototyping and full test coverage of functional samples.

Institute Highlights:

- Research on new drive concepts and advanced technologies for a new generation of transport systems with special regard to traction vehicles.
- Power electronics and electrical drives.
- Materials research with a main focus on organic-based electronics, smart sensors and multi-sensor systems.
- Control systems for transport technology and power engineering.
- Research on new equipment and technologies for more efficient energy conservation in the fields of power and



heat generation, mining, heavy engineering industry and nuclear energy production.

- Development of advanced nuclear technologies, including, for example, special detectors used in nuclear power engineering and space research
- System diagnostics and identification – research and development of new diagnostic methods. Complex systems for automatic testing of equipment functionality and reliability
- Research and development of innovative solutions of physical fields and their mutual interactions.
- Certified test laboratory (EMC, etc.). Full test coverage during product development.

