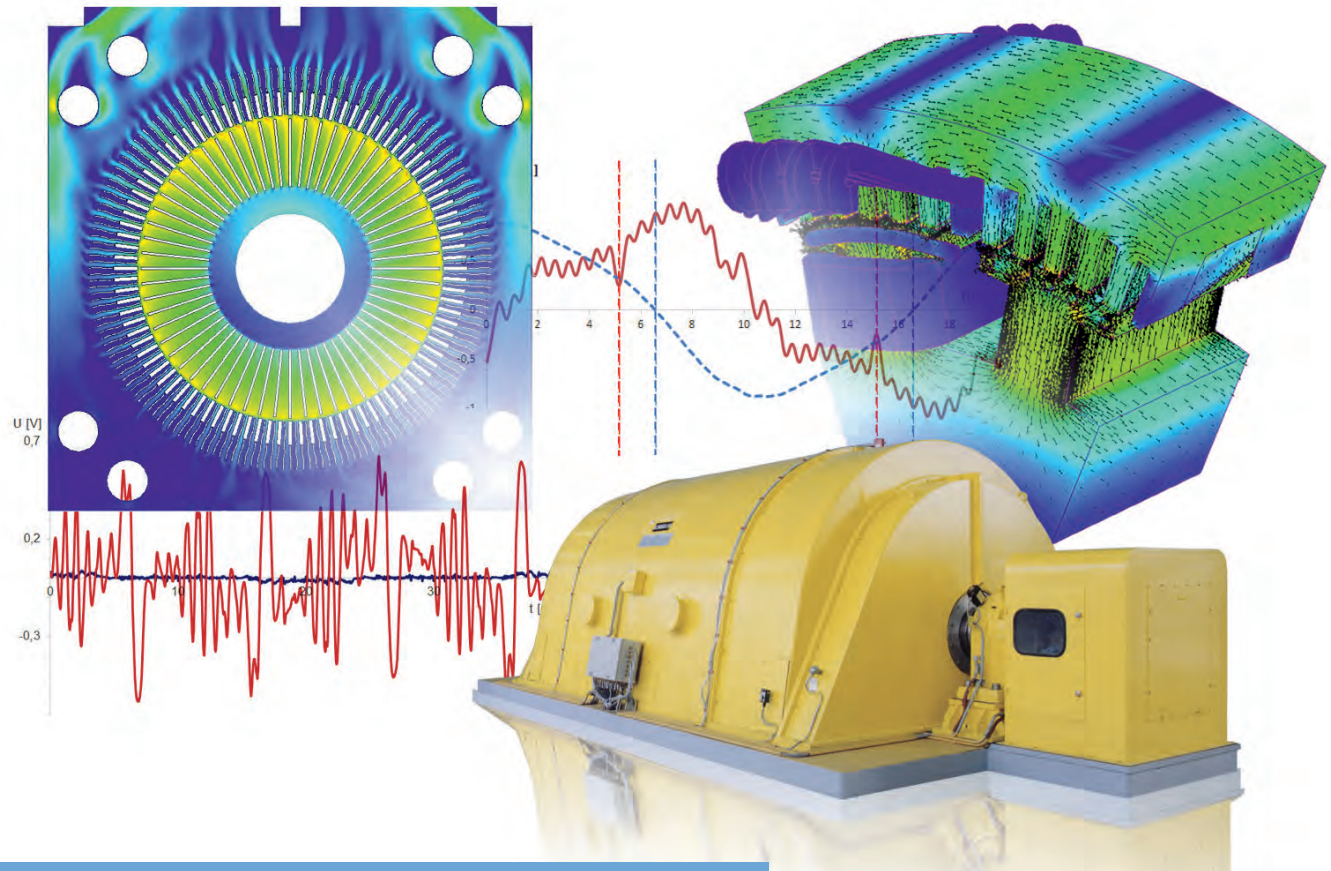
Rotating Machines Department
Main activities

Research and Development

In the field of the physical phenomena and design of rotating machines:

- Development of analytical calculation softwares for rotating electrical machines (electromagnetic, ventilation, thermal, mechanical)
- Methods development for the application of new calculation methods (2D and 3D FEM calculations, dynamic simulation...)
- Expertise and studies in the field of electromagnetic phenomena, fluid mechanics and heat transfer
- QA/QC supervision.



Laboratory for Noise and Vibration

Provides the following services:

- Vibration measurement
- Vibration diagnostics
- Test resistance to vibration and shocks
- Testing and assessment of the vibration impact on the health and work ability
- Testing, analysis and research of the acoustic features: machines, vehicles (train, tram), transformers, plant, equipment and devices
- Noise testing in the working and living environment.

KONČAR
Electrical Engineering
INSTITUTE

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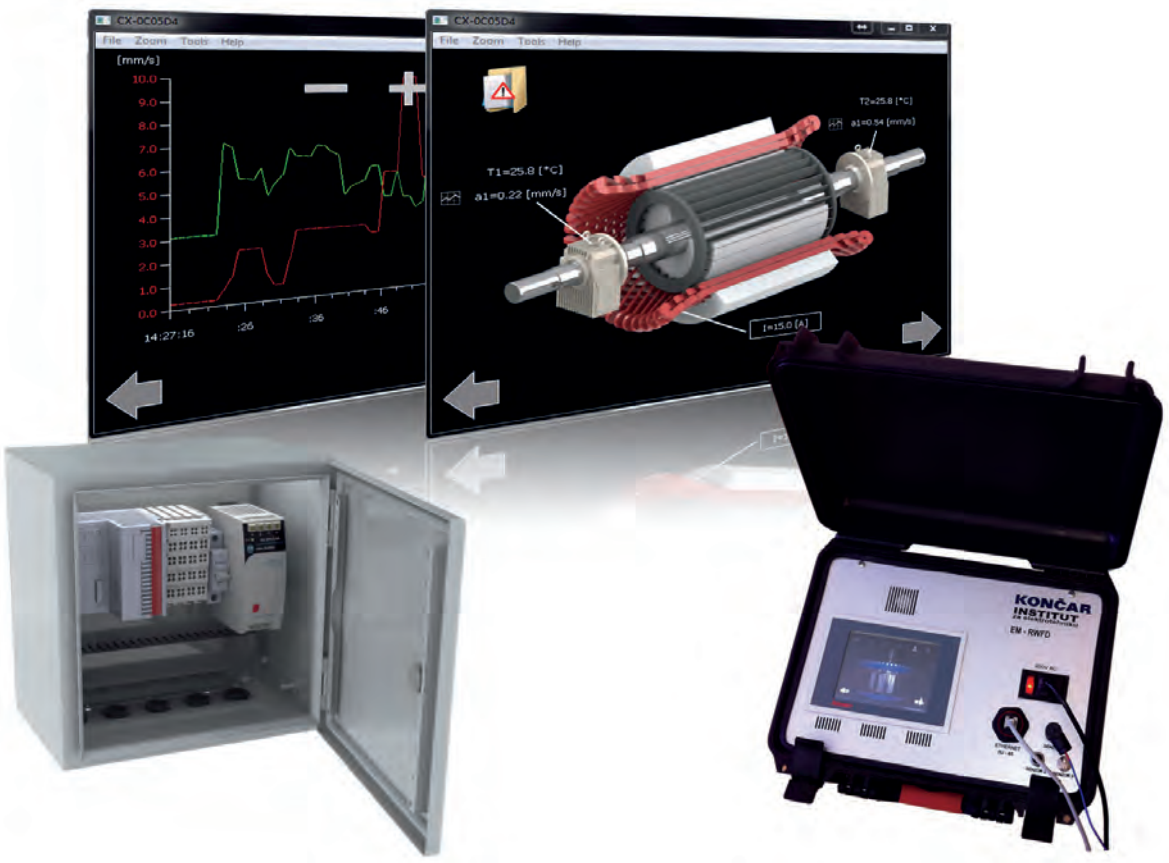
SYSTEM CERTIFIED
ISO 14001:2004 NR.00261/0
ISO 9001:2008 NR.01095/0
OHSAS 18001:2007 NR.00242/0

Rotating Machines Laboratory

Deals with laboratory and on the field diagnostic, testing and measurements:

- Measurements of insulating materials and systems which include all types of solid insulating materials for insulation and voltage separation in low and high voltage electrical rotating machines
- Testing of round and profile, insulated and non-insulated, conductors for electrical machine windings, power lines and cables
- Measurements of oriented and non-oriented magnetic sheets for rotating machines and transformers
- Measurements of magnets properties (remagraf, permagraf, pulse magnetizer)
- Sensor development.



Monitoring Department

Develops systems for monitoring, predictive maintenance, risk assessments and asset management:

- Monitoring system for hydro and turbo generators
- Monitoring system for wind turbine
- Expert system for monitoring and fault detection of high voltage induction motors
- Smart sensors for winding fault detection
- Sensors for magnetic field and flux density monitoring
- Black box for electrical machines.

KONČAR - Electrical Engineering Institute Inc.
Department for Rotating Machines

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