

KONČAR – Electrical Engineering Institute

Reliable partner in the areas of electrical engineering, rail vehicles and infrastructure, laboratory testing, diagnostics, and certification

KONČAR
ELECTRICAL ENGINEERING
INSTITUTE

The part of....

PARENT COMPANY

KONČAR – ELECTRICAL INDUSTRY

BUSINESS SEGMENTS

POWER GENERATION	POWER TRANSMISSION AND DISTRIBUTION	RAIL SOLUTIONS AND INFRASTRUCTURE	DIGITAL SOLUTIONS AND PLATFORMS
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COMPANIES

SWITCHGEAR
DALEKOVOD
DIGITAL
DISTRIBUTION AND SPECIAL TRANSFORMERS
ELECTRIC VEHICLES
ELECTRONICS AND INFORMATICS
GENERATORS AND MOTORS
ELECTRICAL ENGINEERING INSTITUTE
ENGINEERING CO.
MOTORS AND ELECTRICAL SYSTEMS
METAL STRUCTURES
INSTRUMENT TRANSFORMERS
RENEWABLE SOURCES

AFFILIATED COMPANY

POWER TRANSFORMERS

JOINT SERVICE CENTER

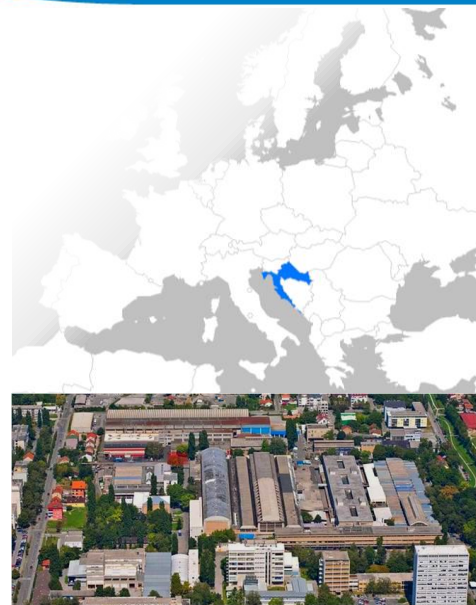
INFRASTRUCTURE AND SERVICES

KONČAR
ELECTRICAL ENGINEERING
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Who we are...

- Established in 1961, reorganized in 1991
- Based in Zagreb, Croatia
- Independent company within KONČAR Group

19,18		1
mil. € operating income in 2024		Laboratory Center
220	78%	750
employees	employees with high or higher education	accredited test methods



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KONČAR – Institute has...

Integrated Management System:

Quality Management System	ISO 9001 HRN EN ISO/IEC 17025 HRN EN ISO/IEC 17065
Environmental Management System	ISO 14001
Occupational Health and Safety Management System	ISO 45001



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Accreditation and Certificates



Accreditation in accordance with **HRN EN ISO/IEC 17025:**

- » for the scope of testing specified in Accreditation Certificate No. 1035
- » for the scope of calibration specified Accreditation Certificate No. 2057

Accreditation in accordance with **HRN EN ISO/IEC 17065:**

- » for the scope of certification specified in Accreditation Certificate No. 3169

Accreditation in accordance with **HRN EN ISO/IEC 17020:**

- » for the scope of inspection specified in Accreditation Certificate No. 6544



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Certification body for products

NB 2494|The Institute is a Notified Body of the European Commission:

- Low-voltage electric equipment
- High-voltage electric equipment
- Machinery
- Gas appliances
- Electromagnetic compatibility
- Radio and telecommunication terminal equipment
- Rail equipment
- Welding procedures
- Noise emission
- Corrosion protection
- IP and IK degree of protection
- Environmental conformity assessment
- ...

KONČAR-Institut za elektrotehniku d.d.

Fallerovo šetalište 22, p.p. 202
10002 Zagreb
Country : Croatia

Phone : 00 385 1 3655 277
Fax : 00 385 1 3655 277

Email : scert@koncar-institut.hr
Website : www.koncar-institut.hr

Notified Body number : 2494

Last approval date : 01/07/2013

Legislations

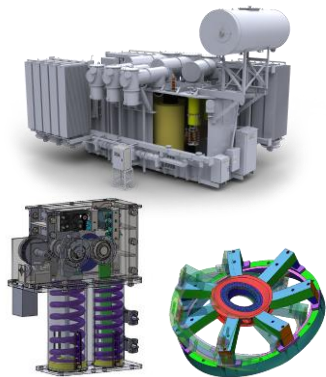
- 2014/53/EU Radio equipment
- 2014/68/EU Pressure equipment
- 2000/14/EC Noise emission in the environment by equipment for use outdoors
- 2014/30/EU Electromagnetic compatibility
- Regulation (EU) 2016/426 Appliances burning gaseous fuels

The Institute helps manufacturers in assessing the conformity of their products with the European directives and standards before labeling CE marking and placing on the EU market

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Key activities:

Power Engineering and Railway



Research and development



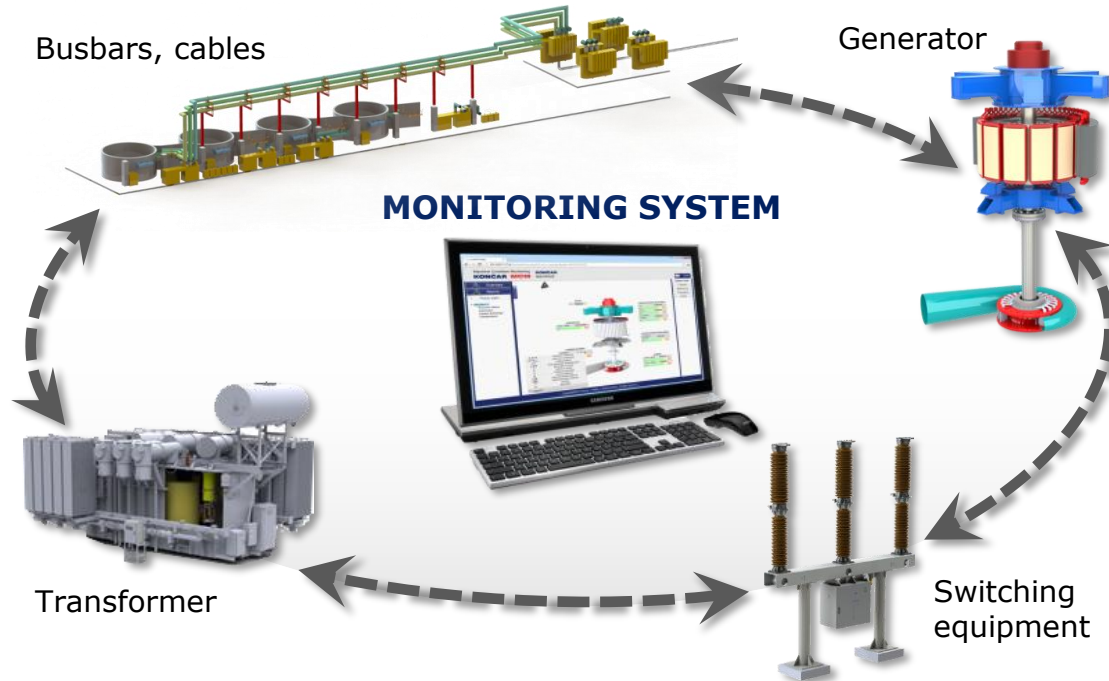
Monitoring and control
solutions



On-site (field) and laboratory
testing
Certification of electrical products

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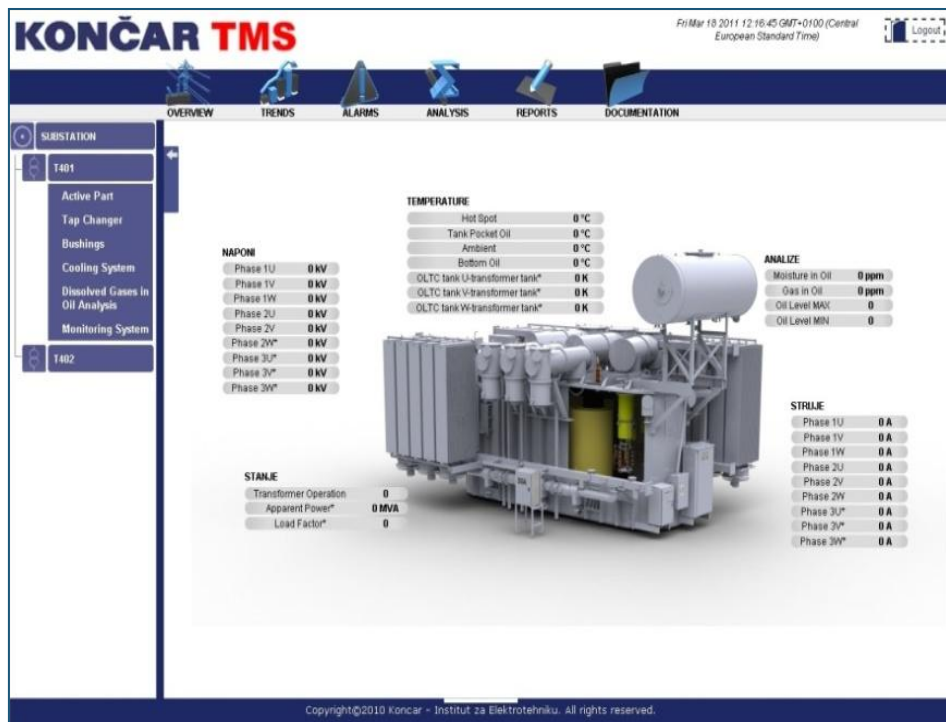
Integration of transformer, machine and bay monitoring system



Asset Management

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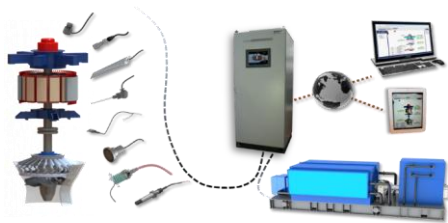
Transformers and bushings monitoring system



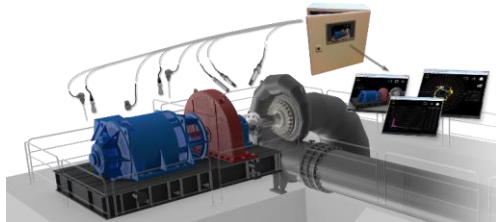
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Rotating machines monitoring system

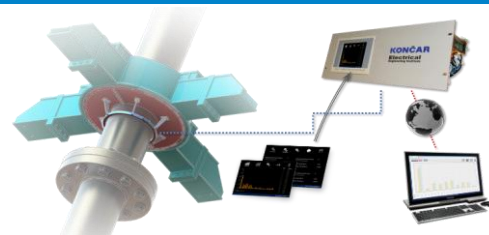
LARGE HYDRO POWER PLANTS



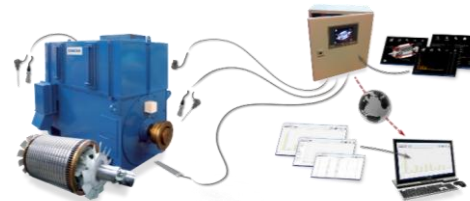
SMALL HYDRO POWER PLANTS



HYDRO AND TURBO GENERATORS



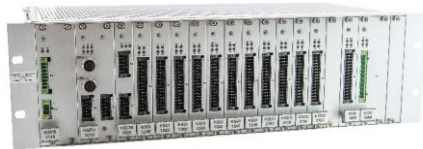
INDUCTION MOTORS



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Embedded control system

HW/SW components and platforms



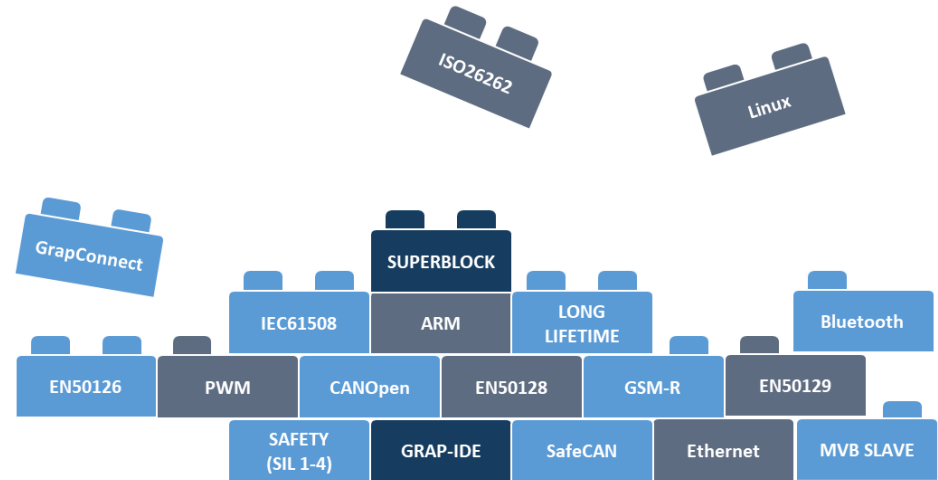
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Development of systems with functional safety requirements

For almost three decades we are helping our clients in solving challenges related to embedded control solutions.

Our approach:

- Customers are our partners
- Experienced, highly competent and creative associates
- Harmonisation of customer's requirements with the LCC, RAMS and CENELEC
- Philosophy like LEGOs: **develop once - use multiple times**
- Proprietary software development environment - **Grap IDE**



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Compliance with highest safety requirements

We have specialized ourselves in providing solutions which fulfils functional safety requirements – **EN 50126/8/9 up to SIL4**

FUNCTIONAL SAFETY IN DIFFERENT AREAS					
Domain	Domain-Specific Safety Levels				
Railway (CENELEC 50126/128/129)	-	SIL-1	SIL-2	SIL-3	SIL-4
General (IEC-61508)	-	SIL-1	SIL-2	SIL-3	SIL-4
Automotive (ISO 26262)	QM	ASIL-A	ASIL-B/C	ASIL-D	-
Aviation (DO-178/254)	DAL-E	DAL-D	DAL-C	DAL-B	DAL-A

Some of the references:



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Testing facilities



High Voltage
Laboratory



High Power
Laboratory



Laboratory for
EMC and Safety



Environmental
Laboratory



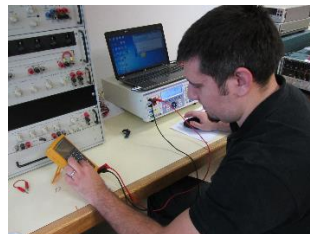
Laboratory for Power
Systems and Drives



Laboratory for
Mechanical and
Technological Testing



Laboratory for
Rotating Machines
and Electrical Drives



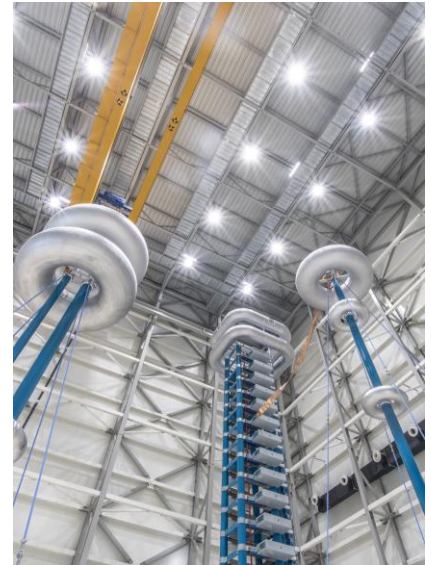
Calibration
Laboratory



Laboratory for
Physical and
Chemical Testing

Approvals

- Laboratory Center is approved for testing by Abu Dhabi Transmission and Despatch Company - **TRANSCO**, a subsidiary of Abu Dhabi National Energy Company (TAQA), and Saudi Electricity Company - **SEC**
- Laboratory Center is approved by Dubai Electricity and Water Authority - **DEWA** to perform type tests for the following power equipment:
 - » MV Power Cables
 - » LV Power Cables
 - » Oil Distribution Transformers (type and special tests)
 - » Cast Resin Distribution Transformers (type and special tests)
 - » RMU and SWGR
 - » Prefabricated Substation
 - » Current Transformers
 - » Voltage Transformers
 - » MV Cable Accessories
 - » Metallic Connectors
 - » MV Capacitors and reactors

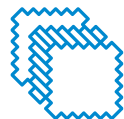


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One-stop testing and calibration services



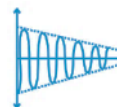
High-voltage and low-voltage power equipment



Material properties



Environmental impact



Electromagnetic compatibility



Electrical safety



Radio equipment



Sources of electromagnetic fields



Acoustics (noise)



Low-voltage electrical installations and lightning protection systems



Testing the physical-chemical properties of materials



Calibration of measuring and test equipment

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Field tests and diagnostics

Power and measuring
transformers



Generators
and motors



Switchgear
equipment

Energy
efficiency

Electromagnetic
compatibility



Electromagnetic
fields



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