1. ICMET MISSION

ICMET is a Competence Center in the field of research, development, testing and certification of electrical products quality and technological transfer, permanently engaged in the innovative research contained in European Union research platforms, nationally and internationally recognized by accreditations at European level in the area of high voltage, high current and electromagnetic compatibility tests.

2. MAIN OBJECTIVES

2.1. Maintaining the status of national research-development institute

2.2. Maintaining/extending the accreditations according to ISO/IEC 17025, obtained by the constituent laboratories both at national level and European level and recognized worldwide

2.3. Maintaining/extending the authorizations and certifications obtained by ICMET:

- nationally:

2.3.1. ICMET acceptance as ca supplier of products and services for SC Transelectrica SA

2.3.2. ICMET attestation by the Romanian Energy Regulatory Authority – ANRE – so:

- Attestation - type E1 for "design of electric stations and installations intended to the electric part of the electric power plants" "
- Attestation - type E2 for "manufacturing of electric stations and carrying out works at the electric part of the electric power plants "

2.3.3. Trading authorization for products intended to SC Electrica SA

2.3.4. ARCE (Romanian Agency for Energy Conservation) authorization as energy auditor

2.3.5. ISCIR (State inspection for boilers, vessels under pressure and hoisting unit control) authorization in the activity fields of ICMET Craiova

- internationally:

2.3.6. STL (Short-Circuit Testing Liaison) member status for the High Power Laboratory

2.4. Maintaining/obtaining the certification of the quality management, environment management and labour safety and health management systems

2.4.1. Maintaining the certification of the quality management system, according to EN ISO 9001

2.4.2. Maintaining the certification of the environment management system, according to EN ISO 14 001

2.4.3. Obtaining the certification of labour safety and health management system, according to OHSAS 18 001

2.5. Maintaining ICMET brand registered at OMPI Geneva

2.6. Developing and modernizing the testing and research - development capability with a view to complying with the present technique stage and the standards in force

2.6.1. Modernization of High Power Laboratory by structural funds financing of the project „**High Power Laboratory Modernization with a view to reaching the technical and qualitative level compliant with EU requirements"** that will be achieved in the programme **POS CCE – priority axis 2 – CDI – Operation 2.2.1**.

2.6.2. Laboratory for SAR evaluation and certification at mobile phone terminals

2.6.3. Installation for circuit breakers and switch disconnectors testing at capacitive current coupling

2.6.4. Infrastructure development and extension of Electric Materials Laboratory competencies for activities of monitoring and diagnosis on transformer insulation condition

2.6.5. Proposal of new projects within the Sectoral Operational Programme "Increase of Economic Competitiveness", Priority axis 2, Major field of intervention 2.2 Investments in RDI infrastructure

2.6.6. Development of some medium and long term maintenance programs for the basic laboratory equipment

2.6.7. Organizing periodical working meetings with world wide known personalities in ICMET activity field

2.7. Development in experimental research field

2.7.1. Development and application of fiber optic measurement technique and transmission of information on voltages, currents, powers from high potential to the National Power Grid

2.7.2. Application of high accuracy and electromagnetic compatibility static switching to medium voltage laboratory equipment

2.7.3. Electric and magnetic fields measurement in transformer stations with a view to obtaining environmental approvals, including achievement of electromagnetic field maps

2.7.4. Partial discharge measurement by electric and acoustic emission method with a view to locating them, including manufacturing of equipment intended to this end

2.7.5. On-site, on-line and laboratory diagnosis of electric power equipment (power transformers, HV circuit breakers, electric generators from thermo and hydro- power plants etc.) by partial discharge measurement, frequency characteristic measurement, dielectric spectroscopy, oil dissolved gas analysis etc.

2.7.6. Development and type tests in accredited laboratories for: power/instrument transformers; high voltage switchgear and controlgear; transformer substations; current limiting reactors; coupling coils; arresters; insulator chains for overhead lines; medium and high voltage cables; earthing and shortcircuiting devices; switch disconnectors; fuses; low voltage instruments and equipment a.s.o.

2.7.7. Nationally and internationally accredited tests in EU regulated fields – electromagnetic compatibility, low voltage, radio equipments, telecommunication terminals

2.7.8. Electroinsulating material characterization tests including materials taken from equipments in operation

2.7.9. Development of partnerships with universities especially for projects assuming the physical achievement of models and prototypes

2.7.10. Technologies using the effect of compressed air at supersonic speeds

2.7.11. Development of force measuring systems with applications in metallurgy, coal mining, shipyards etc.

2.8. Development in research, development, innovation and technological transfer field

2.8.1. Electric power supply safety increase by:

- development of monitoring and diagnosis systems for transformers, high power generators and other electric power equipment, increase of the number of monitored parameters
- development of on-line treatment methods for paper – oil complex insulation of power transformers
- modernization of the excitation systems at generators, hydro-generators, electric motors
- constructive optimization of medium voltage electric stations

2.8.2. Increase of electric power efficiency

- active filtering and compensation systems
- electric power quality monitoring systems for medium voltage networks
- stress relief equipment and technologies for metallic constructions using controlled mechanical vibrations generated with different actuator types

2.8.3. Environmental protection

- use of new, advanced materials able to provide increased performances of products and equipment
- use of winding wires isolated by biodegradable enamels in the manufacture of transformers and electric machines
- development of technologies for recovering the materials from electric components

2.8.4. Technological transfer

- assimilating into production the composite insulators, at industrial manufacturers
- assimilating into production the medium voltage disconnectors with composite insulators and remote control,
- assimilating into production the terminals for medium voltage cables with embedded current and voltage sensors
- assimilating into production the medium voltage connecting sleeves
- achieving the test stands for transformers, motors, electroinsulating materials for SMEs
- achieving an IT system for energy consumption man agement at electric locos

2.8.5. Safety increase in the operation of hoisting units by:

- developing the load measurement and limitation electronic systems .

Achieved projects

Programme: POSDRU
- Ministry of Labour, Family and Social Protection (MMFPS), General Directorate Managing Authority for the Sectoral Operational Programme „Human Resources Development" (AMPOSDRU)
Contract POSDRU/81/3.2/S/58406 „**TRAINING AND PROMOTING THE USE OF NEW TECHNOLOGIES FOR INCREASING THE ADAPTABILITY OF EMPLOYEES AND MANAGERS FROM ALL LEVELS IN ELECTRICAL ENGINEERING FIELD TO THE CURRENT REQUIREMENTS OF LABOUR MARKET** " within the Sectoral Operational Programme „Human Resources Development" 2007-2013 Priority axis 3 „Increasing the adaptability of workers and enterprises" Major intervention field 3.2 „Competencies for competitiveness"
Project manager: Dipl.eng.. Duta Marian

Pogramme:
POSCCE
Project No. 86: "**HIGH POWER LABORATORY MODERNIZATION WITH A VIEW TO REACHING THE TECHNICAL AND QUALITATIVE LEVEL COMPLIANT WITH EU REQUIREMENTS**"
Project manager :Ph.D. Curcanu George

Contract no. 126/02.06.2010
„**IMPROVEMENT OF ADMINISTRATIVE AND MANAGERIAL PERFORMANCES OF ICMET Craiova**"
Project manager :Dipl.eng. Duta Marian

MISTEC
Project name/initiative:
Contract of co-financing from national budget No. 45069/9.06.2011 „**JOINT RISK MONITORING DURING EMERGENCIES IN THE DANUBE BORDER AREA**" Romania- Bulgaria cross-border cooperation 2007-2013
Project manager: Dipl.eng. Vintila Adrian

DIELECTRIC SPECTROSCOPY – AN INNOVATIVE TECHNOLOGY FOR THE POWER EQUIPMENT DIAGNOSIS
Project manager:
Dipl.eng. Popa Dorin

ANALYSIS OF ENERGY EFFICIENCY IN USING THE VARIABLE SPEED DRIVES FROM INDUSTRIAL INSTALLATIONS
Project manager:Dipl.eng. Sebastian Popescu

Sectoral
STRENGTHENING THE COMPETITIVENESS OF INNOVATIVE CLUSTERS AND COMPARATIVE EVALUATION OF INDUSTRIAL SECTORS COMPETITIVENESS – INSTRUMENTS OF SUSTAINABLE INDUSTRIAL POLICY, ADAPTED TO GLOBALIZATION ERA
Project responsible:Dipl.eng. Popa Dorin