DEPARTMENT OF ELECTROTECHNOLOGY
http://www.elf.stuba.sk/Katedry/KETG/

Head of Department
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I. STAFF

Associate Professors  Doc. Ing. Anna Grusková, PhD.,  Doc. Ing. Jaroslav Lešák, PhD.,
                    Doc. Ing. Vladimír Šály, PhD.
Assistant Professors  Ing. Miroslav Kopča, PhD.,  Ing. Soňa Milovská, PhD.,
                    Ing. Juraj Packa, PhD.
Senior Scientists    Ing. Vladimir Ŏrman, PhD.,  Ing. Michal Ružinský, PhD.
Technical Staff      Anna Ferenčíková (secretary),  Marián Kamendy
PhD. Students        Ing. Tomáš Ďuriš, RNDr. Darina Kevická, Ing. Mária Papáňová,
                     Ing. Michal Váry, Ing. Šlávka Vicenová,

II. EQUIPMENT

II.1 Teaching and Research Laboratories
- Photovoltaic Laboratory
- High Voltage Laboratory
- Laboratory of Cables and Wires
- Laboratory of Health Protection at Work
- Laboratory of Dielectric Properties of Materials
- Laboratory of Electrical Components
- Laboratory of Liquid Dielectrics
- Laboratory of Electrochemistry
- Laboratory of Magnetic Materials

II.2 Special Measuring Instruments and Computers
- 300 W Solar Simulator for Photovoltaics
- System for Measuring of Complex Impedance
- Vibration Magnetometer PVM-1
- Equipments for combined ageing tests of insulating systems

III. TEACHING

III.1 Undergraduate Study (Bc.)
Subject, semester, hours per week for lectures and for seminars or practical exercises, name of lecturer

Safety and Protection of Health at Work I  (1st sem., 1-2h)  M.Kopča, V.Šály, J.Packa
Materials for Electrical Engineering      (3rd sem., 2-3h)  V.Šály
Safety and Protection of Health at Work II (4th sem., 1-4h)  M.Kopča, V.Šály
Electrochemistry                         (5th sem., 2-2h)  A.Grusková
Renewable Energy Sources     (5th sem., 2-2h)  M.Ružinský
Materials and Processing      (6th sem., 2-2h)  V.Šály
Diagnostic Methods in Electrotechnology   (6th sem., 2-3h)  V.Ďurman
Manufacturing Processes       (6th sem., 2-2h)  V.Šály
High Voltage Systems        (7th sem., 2-2h)  J.Lelák
Metallic and Optical Cables  (8th sem., 2-2h)  J.Lelák

III.2 Graduate Study (Ing.)
Technology of Electronic Devices      (1st sem., 2-2h)  M.Kopča
Technology of Electric Machines    (2nd sem., 2-2h)  J.Lelák
Technology of Magnetics and Ceramics  (2nd sem., 2-2h)  A.Grusková

III.3 Undergraduate Study (Bc. Distance Education Method)
Safety and Protection of Health at Work I     (1st sem.)   M.Kopča
Materials for Electrical Engineering (3rd sem.)   J.Lelák

IV. RESEARCH PROJECTS
- Photovoltaic Renewable Energy Sources - Solar Cells, Modules and Systems. G 1/0164/03, M.Ružinský
- Diagnostics and Degradation Degree Determination of Electrical Insulation and Insulation Systems. G 1/0167/03, J. Lelák
- New Diagnostic Methods for PVC Cables Status Detection. AV/803/2002, J. Lelák
- Multimedia Study Materials for the Bachelor Study at the FEI STU. KEGA, M. Huba, M. Kopča
- Unconventional Multi-Phase Nanostructural Materials with Extraordinary Physical Properties. APVT-51-052702. P. Švec (SAS), V.Ďurman
- Research of the Materials Based on Inclusive Compounds and Their Using. M. Reháková, V. Šály

International Scientific Projects:
- Project in Fifth Framework Programme of European Union: Preparation and Research of Doped Ionic Conductor LiNbO3 for Electrochrom Element or Electrolytes for Lithium-ionic Microbatteries. V.Šály, Slovak-Greek cooperation.
- Research of Magnetic Materials Based on Iron Oxides with the Aim of Applications in Electronic and Recording Systems. VT – Cooperation Slovak/Czech, A. Grusková, J. Sláma

V. COOPERATION
V.1 Cooperation in Slovakia
- VÚJE j.s.c., Trnava
- CERAM j.s.c., Nové Sady
- Kablo Bratislava
- VUKI j.s.c., Bratislava
- SE a.s. OZ EBO, Jaslovské Bohunice
- Galantaterm, s.r.o., Galanta
- OBO Bettermann Slovakia, Bratislava
- Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava
- Institute of Physics, Slovak Academy of Sciences, Bratislava
- VUSAPL, Nitra
- THERMO-SOLAR p.l.c., Žiar n. Hronom
- ELBA a.s. Kremnica
- BEZ a.s. Bratislava
- TAU-CHEM Ltd, Bratislava
- All Deco s.r.o. Jaslovské Bohunice
- Sylex s.r.o. Bratislava
- Institute of Materials Research, Slovak Academy of Sciences, Košice
- Elektroservis a.s. Bratislava
- SONY Slovakia, Trnava Plant
- UPŠ Košice

V.2 International Cooperation
- Technical University, Brno, CzR
- Czech Technical University, Prague, CzR
- ABB Corporate Research, Baden Daettwil, Switzerland
- Institute of Anorganic Chemistry, Academy of Sciences, Řež, CzR
- Piezoceramics, p.l.c. Hradec Králové, CzR
- Motorpal, a.s. Světlá Hora, CzR
- PROTECH Group, s.r.o., Klatovy, CzR
- TECNATOM, s.a., Madrid, Spain
- IMEC Leuven, Belgium
- Frauenhofer Institute for Solar Energy Systems ISE, Freiburg, Germany
- Universita degli Studi di Firenze, Italy
- EC JCR Ispra, Italy
- SEI - Sistemi Energetici Integrati Prato, Italy
- BP Solar Frederick, MD, USA and BP Solar, Vienna, Austria
- Solartec, p.l.c., Rožnov pod Radhoštěm, CzR
- WAGO Electric Gmbh., Vienna, Austria
- Foundation for Research and Technology, MRG-IESL, Heraklion, Crete, Greece
- WSC – World Solar Challenge, Adelaide, Australia
- Institute of Microelectronics and Optoelectronics, Warsaw University of Technology, Poland
- Foundation for the Development of Material Science, Cracow University of Technology, Cracow, Poland
- National Renewable Energy Laboratory, Golden, CO and Washington, DC, USA
- WREN - World Renewable Energy Network, Reading, UK
- CINVESTAV, Saltillo, Mexico
- Aristotle University, Thessaloniki, Greece
- U.S.DOE/American Solar Challenge/Formula Sun, Washington, DC, USA
- TECHNOFI, Sophia-Antipolis, France
V.3 Membership in International Organizations and Societies
- M. Ružinský: WREN - World Renewable Energy Council Network, UK (Affiliated to UNESCO)
- M. Ružinský: Senior Member, IEEE - EDS (Electron Devices Society), USA
- A. Grusková: member of International Steering Committee EMFM
- A. Grusková: member of European Physical Society

V.4 Contracts
- Lelák J. at all.: Combined ageing test of epoxy systems. Contract with ABB Corporate Research, Baden Daettwil, Switzerland
- Lelák J. at all: Measurement of electrical properties cable deposits from NPP. Contract with VUJE a.s. Trnava

VI. THESIS

VI.1 Masters Theses
Masters theses supervised at the Department of Electrotechnology. The names of supervisors are in brackets.

[1] Z. Halász: Influence of Zn-Ti substitutions on magnetic and electric properties of Li ferrites. (A. Grusková)

VI.2 Doctoral Theses


VII. OTHER ACTIVITIES

- members of International Steering Committee for „World Renewable Energy Congress IX“ (M. Ružinský, V. Šály)
- activities in Czech-Slovak section CS-IEEE (M. Ružinský)
- collaboration with IEEE-EDS Photovoltaic Devices Technical Committee and EDS Administrative Committee (AdCom), USA (M. Ružinský)
- invited lecture „Photovoltaic Renewable energy R&D, Education and Training at the SUT“, ARC Photovoltaic Centre of Excellence / UNSW Sydney, Australia, September 2005 (M.Ružinský)
- active participation in Maria Curie Programme at the University of Technology Cracow, Poland (T. Ďuriš)
VIII. PUBLICATIONS

VIII.1 Journals


VIII.2 Conferences


VIII.3 Book


VIII.4 Textbook