

DEPARTMENT OF ELECTRICAL MACHINES AND DEVICES

<http://www.kesp.elf.stuba.sk/>

Head of Department

Doc. Ing. Ľudovít Hüttner, PhD.

Tel.: ++421-2-602 91 471

++421-918 640 418

e-mail: ludovit.huttner@stuba.sk

Fax : ++421-2-654 20 415

STAFF

Professors	Prof. Ing. Ladislav Hruškovič, DrSc., Prof. Ing. Ľudovít Klug, PhD.
Associate Professors	Doc. Ing. Ľudovít Hüttner, PhD., Doc. Ing. Neitus Lipták, PhD., Doc. Ing. Ferdinand Valent, PhD.
Assistant Professors	Ing. Ladislav Borba, PhD., Ing. Ľudovít Jurčacko
Technical Staff	Jana Jusková (secretary), Jozef Hubač
PhD. Students	Ing. Michal Duč-Anci, Ing. Vladimír Kujan, Ing. Dárius Tavalý

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory for Testing and Measurement of Electric Machines
- Laboratory of Special Electric Machines
- Laboratory of Short Circuit Tests (with a high current generator source 35 kA, 2 MVA, 440 V)
- Laboratory of Short Circuit Tests (with a capacitor source)
- Laboratory of Controlled Drives and Servosystems
- Laboratory of Power Electronics
- Laboratory of PLCs
- SUN Workstations equipped workroom for CAMS and FEM experiments

II.2 Special Measuring Instruments and Computers

- Lucas-Nülle didactic equipment for subjects Power Electronics and Controlled Drives
- SIMOVERT, SIMOREG and VONSCH power converters
- State accredited Testing Laboratory of FEI STU for Electric Apparatus (SLEPr)
- Laboratory stands with digital signal processors TMS 320 C 50
- PLA Workplace

III. TEACHING

III.1 Undergraduate Study (Bc.)

Subject, semester, hours per week for lectures and for seminars or practical exercises, name of the lecturer

Power Elements and Systems	(3rd sem., 3-2h)	Ľ.Hüttner, F.Janiček
Power Elements and Systems	(4th sem., 3-2h)	Ľ.Hüttner, F.Janiček
Electric Machines I	(5th sem., 3-2h)	Ľ.Klug

Electric Machines II	(6th sem., 3-2h)	E.Klug
Electric Heating Devices	(6th sem., 3-2h)	E.Hüttner
Electric Apparatus	(7th sem., 3-2h)	F.Valent
Power Electronics	(7th sem., 3-2h)	L.Borba
CAD of Electric Machines	(7th sem., 3-2h)	E.Klug
CAMS of Electric Power Systems	(7th sem., 2-3h)	N.Lipták
Electric Drives	(8th sem., 3-2h)	L.Borba
Design of Power Engineering Equipment	(8th sem., 3-2h)	F.Valent

III.2 Graduate Study (Ing.)

CAD of Electric Power Equipment	(1st sem., 2-2h)	E.Klug, E.Hüttner
Electric Drives and Power Electronics	(1st sem., 2-2h)	L.Borba
Electric Traction Systems	(1st sem., 2-2h)	L.Borba
Selected Chapters from Electric Apparatus	(2nd sem., 2-2h)	F.Valent
Modern Methods of Power Systems Control	(2nd sem., 2-3h)	N.Lipták
Special Electric Machines	(2nd sem., 3-2h)	E.Klug
Power Engineering Equipment Production	(2nd sem., 2-2h)	E.Klug, E. Hüttner
Utilisation of Electrical Energy	(3rd sem, 2-2h)	E. Hüttner, A.Smola

III.3 Undergraduate Study (Bc. Distance Education Method)

Electric Machines	(3rd year)	E.Hüttner
Electric Drives	(3rd year)	L.Borba
Electric Apparatus	(4th year)	E.Hüttner
Utilisation of Electrical Energy	(4th year)	E. Hüttner, A.Smola

IV. RESEARCH PROJECTS

- Theoretical fundamentals of the power system stability in the interconnected European system. VEGA 1/3092/06, F. Janíček
- Research and development of new generation of electrical linear drives with high accuracy of positioning. APVV-99-031205, EVPÚ Nová Dubnica, SR, J.Kuchta

V. COOPERATION

V.1 Cooperation in Slovakia

- ELOSYS Trenčín
- KIWA spol. s r.o. Nitra
- Siemens s.r.o. Bratislava
- TU Košice
- ŽU Žilina
- LEGRAND Slovakia

- MOELLER Slovakia
- OEZ Slovakia
- SCHNEIDER-ELECTRIC, s.r.o.
- BSH Drives and Pumps, Michalovce
- OSRAM Slovakia, a.s., Nové Zámky
- PHOENIX CONTACT, Košice
- PPA Control, a.s.

V.2 International Cooperation

- DEHN+SOHNE, Neumarkt, Germany
- OEZ Letohrad, CzR
- HESS TRADING, Sudoměřica, CzR
- M.SCHNEIDER, Vienna, Austria,
- MOELLER, Schrems, Austria
- PHOENIX CONTACT, Brno, CzR
- ČVUT Prague, CzR
- VUT Brno, CzR
- Politechnika Gliwice, Poland
- VŠB Ostrava, CzR
- ZČU Plzeň, CzR

V.3 Membership in Slovak Organizations and Societies

- E. Hüttner.: Vice-chairman of Common departmental committee of scientific department 26-32-9 Electromechanical Energy Conversion in Slovak Republic
- L. Hruškovič, N. Lipták, F. Valent.: Members of Common departmental committee of scientific department 26-32-9 Electromechanical Energy Conversion in Slovak Republic
- L. Hruškovič, E. Klug, E. Hüttner, N. Lipták, F. Valent: Members of Common departmental committee of scientific department 5.2.11 Electromechanical Energy Conversion at STU FEI
- E. Hüttner.: Member of Common departmental committee of scientific department 5.2.11 Electromechanical Energy Conversion at University of Žilina

V.4 Membership in International Organizations and Societies

- E. Hüttner, F. Valent: IEE
- E. Hüttner: Member of Editorial board of the journal "Electrical machines building and electrical equipment" , Odessa National Polytechnic University, Ukraine

VI. THESES

VI.1 Masters Theses

Masters theses supervised at the Department of Electric Machines and Devices. The names of supervisors are in brackets.

- [1] B.Bednárík: Determination of Properties of High Speed Motor Using Permanent Magnet (E.Klug)
- [2] P.Feranec: Design of Overvoltage Protection of Data Networks (F.Valent)
- [3] M.Štefanka: Electric Propulsion with the Induction Motor and Voltage Frequency Converter (L.Borba)
- [4] B.Smorada: The Coordination of Protective Devices in the Low Voltage Power Distribution of Buildings (F.Valent)

VII. OTHER ACTIVITIES

none

VIII. PUBLICATIONS

VIII.1 Journals

VIII.2 Conferences

VIII.3 Patents and standarts