

DEPARTMENT OF ELECTROMAGNETIC THEORY

<http://iris.elf.stuba.sk>

Head of Department

Doc. Ing. Ľubomír Šumichrast, PhD.

e-mail: lubomir.sumichrast@stuba.sk

Tel: +421-2-654 23 502

Fax: +421-2-654 20 415

I. STAFF

Professors	Prof. Ing. Jozef Jasenek, PhD., Prof. Ing. Jozef Sláma, PhD.
Associate Professors	Doc. Ing. Ivan Bojna, PhD., Doc. Ing. Jan Bydžovský, PhD., Doc. Ing. Peter Jahn, PhD., Doc. Ing. Vladimír Jančárik, PhD., Doc. Ing. Ľubomír Šumichrast, PhD., Doc. Ing. Elemír Ušák, PhD.
Assistant Professors	Ing. Jozefa Červeňová, PhD., Ing. Rastislav Dosoudil, PhD., Ing. Jaroslav Franek, PhD., Ing. Mojmír Kollár, PhD., Ing. Pavol Krivošík, PhD
Senior Scientists	Ing. Marian Štofka, PhD., Ing. Jozef Paľa, PhD.
Research Workers	Ing. Vladimír Olah, PhD., Ing. Marianna Ušáková
Technical Staff	Marta Jančovičová (secretary), Mária Brunovská, Milan Brunovský, Alojz Vďačný
PhD Students	Ing. Marek Hlaváč, Ing. Martin Šoka

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Electric Circuits
- Laboratory of Electromagnetic Field
- Laboratory of Optoelectronics
- Laboratory of Signal Processing
- Laboratory of Microwave Technology
- Laboratory of Pulse and Nonlinear Electrodynamics
- Laboratory of Electronics
- Laboratory of Applied Magnetism
- Laboratory of Magnetic Measurement
- Laboratory of Magnetic Materials Testing
- Laboratory of Magnetic Materials Technology
- Laboratory of Chemical Technology

II.2 Special Measuring Instruments and Computers

- Michelson interferometer for measurement of chromatic dispersion of single mode optical fibres
- Apparatus for generation of second harmonics in optical frequency range
- Apparatus for back-scattering measurement in optical fibers using photon counting method
- Correlator and Signal Analyzer, frequency range to 50 kHz
- Microwave power meter HP-432 B
- Spectral analyzer 10 MHz - 4 GHz
- Precision Wattmeter 104B, 4mW - 60 kW, up to 200 kHz
- VSM Magnetometer, H_m up to 0.8 MA/m, temperature range 77 K - 800 K
- Precision Gaussmeter, 1 μ T - 10 T at DC, up to 1 kHz AC

- Lock-in-amplifier DSP SR 850 2nV to 1V
- VHS Video-Cassette Drop-Out Measuring Apparatus
- High Coercivity Measuring Apparatus
- PC Controlled AC/DC Hysteresisgraph
- Automated System for Magnetic Susceptibility Temperature Dependence Measurement
- Universal Counter HP53132A up to 12.4 GHz
- Vibrator DERRITRON SC-3000 – mechanical resistance testing equipment
- RF Impedance/Material Analyzer HP4191 A 1 MHz-1 GHz, 1 mOhm - 100 kOhm, APC-7 coaxial (50 Ohm) input, GP-IB standard; spot, linear and logarithmic frequency sweep.
- HP4192A LF Gain Phase - Impedance Analyser, 5 Hz - 13 MHz, 0.1 mOhm - 1 MOhm, GPIB.
- Optical fiber reflectometer JDSU - MTS 6000L

III. TEACHING

III.1 Undergraduate Study (Bc.)

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

Electric Circuits I	(2nd+3rd sem., 3-2h)	J. Bydžovský, M. Kollár, E. Ušák
Electrotechnology I	(2nd+3rd sem., 3-2h)	E. Šumichrast
Electrotechnology	(2nd+3rd sem., 3-2h)	J. Sláma
Theory of Electricity I	(2nd+3rd sem., 3-2h)	P. Jahn, E. Ušák
Electric Circuits II	(3rd+4th sem., 3-2h)	M. Kollár, E. Ušák
Electrotechnology II	(2nd+3rd sem., 3-2h)	E. Šumichrast
Theory of Electricity II	(2nd+3rd sem., 3-2h)	P. Jahn E. Ušák
Theory of Electricity III	(2nd+3rd sem., 3-2h)	I. Bojna, J. Franek
Electromagnetic Field	(4th+5th sem., 3-2h)	J. Jasenek
Basics of Electrical Engineering	(FIIT 3rd sem., 3-2h)	V. Jančárik
Electronics	(FIIT 4th sem., 3-2h)	E. Ušák
Safety of Electric Equipment	(8th sem., 2-1h)	I. Bojna

III.2 Graduate Study (Ing.)

Magnetism	(1st sem., 2-2h)	E. Ušák
-----------	------------------	---------

III.3 Undergraduate and Graduate Study for Foreign Students (in English Language)

Electric Circuits I	(2nd sem., 2-2h)	R. Dosoudil
Electric Circuits II	(3rd sem., 4-2h)	M. Kollár
Electromagnetic Fields	(4th sem., 3-1h)	E. Šumichrast

IV. RESEARCH PROJECTS

- Optical polarization reflectometry and optical fibre sensors, 1/3097/06, J. Jasenek, E. Šumichrast

- Methods and algorithms for computer simulation of high-frequency electromagnetic fields with applications, G/4085/07, Ľ. Šumichrast, M. Kollár
- Research of magnetic materials for electrotechnology, electronics, recording media and applications connected with electromagnetic compatibility, G 1/3096/06, J. Sláma, A. Grusková
- Magneto-structural properties of metallic materials, development of new analysis methods with aim of their utilisation in non-invasive testing, G 1/3116/06, J. Bydžovský, E. Ušák
- APVV-51-45605-1 (project in co-operation with Slovak Academy of Sciences) Superconductors in environment of power electrical equipments, Ľ. Šumichrast
- APVT-54-052702 (project in co-operation with Slovak Academy of Sciences) Novel multiphase nanostructured materials with extraordinary physical properties, J. Bydžovský
- APVT – 99 – 017904 (project in co-operation with EVPÚ a.s. Nová Dubnica) Research and development of electrical application of nanocrystalline and amorphous materials, J. Bydžovský
- Universal Network for Magnetic Non-destructive Evaluation, International project, J. Bydžovský

V. COOPERATION

V.1 Cooperation in Slovakia

- Matador Púchov
- VA SNP Ľ. Mikuláš
- EÚ SAV, Bratislava
- FÚ SAV, Bratislava
- IBOK, Bratislava
- EVPÚ, Nová Dubnica
- TU Košice (KEMT)

V.2 International Cooperation

- School of Physics and Electronic Systems Engineering, University of South Australia, Pooraka
- TU Budapest, Hungary
- Doshisa University, Japan
- Nuclear Engineering Research Laboratory, University of Tokyo, Japan
- Department of Physics Colorado State University Fort Collins, USA
- Istituto Elettrotecnico Nazionale Galileo Ferraris, Torino, Italy (since 1 January 2006 the IEN is part of: I.N.R.I.M. - Istituto Nazionale di Ricerca Metrologica)
- TU Darmstadt, Institut für Hochfrequenztechnik, Germany
- TU Ilmenau, Germany
- TU Vienna, Austria
- Cardiff University, Wolfson Centre for Magnetic Technology, United Kingdom
- VEV Elektrotechnisch Vakondernus Nijkjerck, The Netherlands
- TU of Czenstochowa, Poland
- Warsaw University of Technology
- Moscow Energy Institute, Russia
- Lublin Technical University, Poland
- Institute of Physics, Academy of Sciences of Czech Republic, Prague, CzR
- Institute of Inorganic Chemistry, Academy of Sciences of Czech Republic, Prague, CzR
- Czech Technical University, Prague, CzR
- West Bohemian University, Pilsen, CzR
- Technical University, Brno, CzR
- CINVESTAV, Saltillo, Mexico
- Research Institute for Technical Physics and Materials Science, Hungarian Academy of Sciences, Budapest, Hungary

V.3 Membership in International Organizations and Societies

- J. Jasenek, IEEE, Optical Society of America, European Physical Society, The International

- Society for Optical Engineering (SPIE), European Association for International Education (EAIE), European Association for Education in Electrical and Information Engineering (EAEIE), American Society for Engineering Education (ASEE)
- M. Kollár, IEE Slovak Centre
 - J. Sláma, IEE Slovak Centre, SAES, European Physical Society
 - L. Šumichrast, IEEE, IEE Slovak Centre, European Physical Society, URSI (President of Slovak National Committee), Optical Society of America, European Physical Society

VI. THESES

VI.1 Masters Theses

none

VI.2 PhD Theses

- [1] Vladimír Olah: Electromagnetic Properties of Magnetic and Dielectric Materials and the Reliability of Devices Made of Them (supervisor E. Ušák, consulting supervisor J. Sláma)
- [2] Jozef Paľa: Magnetic nondestructive testing by Barkhausen noise analysis (supervisor J. Bydžovský)

VII. OTHER ACTIVITIES

- Presidentship of Slovak Committee of URSI and membership of International (L. Šumichrast)
- Membership in Evaluation Commission for Professorship in Electrical Engineering, at Czech Technical University Prague and Technical University Brno, Czech Republic (J. Sláma)
- Memberships in the Commission for the "PhD Degree Award" in the study field Theoretical Electromagnetic Engineering (5.2.10), (J. Jasenek, J. Sláma, L. Šumichrast, V. Jančárik, E. Ušák)
- Memberships in the Commission in the Commission for the "Award of the title of Associate Professor" in the study field Theoretical Electromagnetic Engineering (5.2.10), (J. Jasenek, J. Sláma, L. Šumichrast)
- Memberships in the Commission for the "PhD Degree Award" in the study field Electrical Power Engineering (5.2.11), (P. Jahn)
- Membership in Slovak Expertise Commission for Electronics (J. Jasenek)
- Membership in Working Group of Accreditation Commission of the Government of Slovak Republic (J. Jasenek)
- Membership in Inauguration Commission at Military Academy L. Mikuláš (J. Sláma)
- Membership in Commission for Degree Doctor of Scienciare (DrSc) in Theoretical Electromagnetic Engineering (5.2.10), (J. Jasenek)
- Membership in Slovak Academy of Engineering Sciences and Guarantor for Electrical Engineering (J. Sláma)
- Membership in Headquarters of the Slovak Association of Electrical Engineers, SEZ (I. Bojna)
- Membership in Committee of President of Institute for Standardization Metrology and Testing, for Government Policy and Approximation in Technical Standardization (I. Bojna)
- Expert No. 256 for Branch of Metrology at the Institute of Normalization, Measurement and Standards (ÚNMS) of Slovak Republic (J. Bydžovský)
- Cooperation with Encyclopaedic Institute of Slovak Academy of Sciences - Encyclopaedia Beliana, (J. Sláma, P. Jahn, J. Franek)
- Membership in the "Slovak Ministry Working Group" for the implementation of the European Qualification Framework in Slovakia (2007), (J. Jasenek)
- Head of Editorial Board of Journal: EE - Elektrotechnika a energetika (I. Bojna)
- Executive Editor of Journal of Electrical Engineering - Elektrotechnický časopis (M. Kollár)
- Member of the Working Group for the implementation of the National Qualification Framework established by the Ministry of Education of the SR (J. Jasenek)

- Participation in the EIE-Surveyor: Reference point for Electrical and Information Engineering in Europe, Project Nr. 225997-CP-1-2005-1-FR-ERASMUS-TNPP, Project funded by the European Commission, SOCRATES Thematic Network, (J. Jasenek)
- Membership in the Scientific Committee of the „18th AEAEEIE Annual Conference“, 2-4 July 2007, Prague, (J. Jasenek)
- Membership in the Scientific Committee of Advanced Aspects of Theoretical Electrical Engineering Sozopol '2007, (E. Šumichrast, M. Kollár)
- Membership in the Scientific Committee of AMTEE '2007, (E. Šumichrast, J. Sláma)

VIII. PUBLICATIONS

VIII.1 Journals

- [1] BOJNA, I.: Ad.: Verification of Installations Constructed under Former Standards. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 5 (2007), p. 20. (in Slovak)
- [2] BOJNA, I.: Safety at Work and Health Protection in Electrical Engineering and Power Engineering - Current Stage of Legal Regulations and Technical Standards. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 4 (2007), p. 26-28. (in Slovak)
- [3] BOJNA, I.: Functional Resistance of Electric Cable System in Fire. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 2 (2007), p. 36-37. (in Slovak)
- [4] BOJNA, I.: New Regulations Information. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 3 (2007), p. 18-19. (in Slovak)
- [5] BOJNA, I.: New Standards Information. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 1 (2007), p. 29-30. (in Slovak)
- [6] BOJNA, I.: New Standard for Protection Against Electric Shock in Low Voltage Electrical Installations. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 6 (2007), p. 25-27. (in Slovak)
- [7] BOJNA, I.: Protection Against Lightning - Set of Standards STN EN 62305. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 5 (2007), p. 14-16. (in Slovak)
- [8] BOJNA, I.: Protection Against Atmospheric or Switching Overvoltages According to STN 33 2000-4-443. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 5 (2007), p. 17-158. (in Slovak)
- [9] BOJNA, I.: The Fire Risk Materials Locations. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 6 (2007), p. 32. (in Slovak)
- [10] BOJNA, I.: Verifications of Low Voltage Installations According to STN 33 2000-6:2007. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 6 (2007), p. 28. (in Slovak)
- [11] BOJNA, I.: Verification of Installations Erected According to Former Standards. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 3 (2007), p. 15. (in Slovak)
- [12] BOJNA, I.: Earthing and Equipotential Bonding in Buildings with Information Technology. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 1 (2007), p. 26-27. (in Slovak)
- [13] BOJNA, I.: In Which Cases the Residual Current Device Protects? In: EE časopis pre

- elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 6 (2007), p. 29. (in Slovak)
- [14] BOJNA, I.: External Influences at Selection and Erection of Electrical Equipments. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 3 (2007), p. 16-17. (in Slovak)
- [15] BOJNA, I.: Common Rules for Technical Terminology and for Technical Text Typewriting. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, No. 2 (2007), p. 34-36. (in Slovak)
- [16] GERRITS, T., KRIVOŠÍK, P., SCHNEIDER, M.L., PATTON, C.E., SILVA, T.J.: Direct Detection of Nonlinear Ferromagnetic Resonance in Thin Films by the Magneto-Optical Kerr Effect. In: Physical Review Letters. - ISSN 0031-9007. - Vol. 98 (2007), p. 207602.1-4. (in English)
- [17] HLAVÁČ, M., JASENEK, J., ČERVENOVÁ, J.: Polarization Optical Reflectometer for Distributed Fibrous Sensors. In: Jemná mechanika a optika. - ISSN 0447-6441. - Vol. 52, No. 2 (2007), p. 37-39. (in Slovak)
- [18] JASENEK, J., JANČÁRIK, V., JANÍČEK, F., VAJDA, J.: The Harmonization of Education and the Application of the Tuning Project Method in Electrical and Information Engineering. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, Special Issue (2007), p. 9-12. (in Slovak)
- [19] JASENEK, J., JANÍČEK, F., VAJDA, J.: New Approaches to the Study Programmes Design. In: Academia. - ISSN 1335-5864. - Vol. 18, No. 3, p. 25-33. (in Slovak)
- [20] JASENEK, J., ČERVENOVÁ, J., HLAVÁČ, M.: The Use of Optical Coherence-Domain Reflectometry Based on Synthesized Coherence Function for the Stress Distribution Measurement. In: EE časopis pre elektrotechniku a energetiku. - ISSN 1335-2547. - Vol. 13, Special Issue (2007), p. 118-123. (in English)
- [21] KRIVOŠÍK, P., MO, N., KALARICKAL, S.S., PATTON, C.E.: Hamiltonian Formalism for Two Magnon Scattering Microwave Relaxation: Theory and Application. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 101 (2007), 083901.1-13. (in English)
- [22] MO, N., GREEN, J.J., KRIVOŠÍK, P., PATTON, C.E.: The Low Field Microwave Effective Linewidth in Polycrystalline Ferrites. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 101 (2007), 023914.1-10. (in English)
- [23] OLSON, H.M., KRIVOŠÍK, P., SRINIVASAN, K., PATTON, C.E.: Ferromagnetic Resonance Saturation and Second Order Suhl Spin Wave Instability Processes in the Permalloy Films. In: Journal of Applied Physics. - ISSN 0021-8979. - Vol. 101 (2007), 023904.1-12. (in English)
- [24] PALA, J., STUPAKOV, O., BYDŽOVSKÝ, J., TOMÁŠ, I., NOVÁK, V.: Magnetic Behaviour of Low-Carbon Steel in Parallel and Perpendicular Directions to Tensile Deformation. In: Journal of Magnetism and Magnetic Materials. - ISSN 0304-8853. - Vol. 310 (2007), p. 57-62. (in English)
- [25] POLÁK, M., KVITKOVIČ, J., MOZOLA, P., UŠÁK, E., BARNES, P.N., LEVIN, G.A.: Frequency Dependence of Hysteresis Loss in YBCO Tapes. In: Superconductor Science and Technology. - ISSN 0953-2048. - Vol. 20 (2007), p. 293-298. (in English)
- [26] STUPAKOV, O., PALA, J., TOMÁŠ, I., BYDŽOVSKÝ, J., NOVÁK, V.: Investigation of Magnetic Response to Plastic Deformation of Low-Carbon Steel. In: Materials Science and

- Engineering A. Structural Materials. Properties, Microstructure and Processing. - ISSN 0921-5093. - Vol. 462 (2007), p. 351-354. (in English)
- [27] ŠTOFKA, M.: Autozeroed Amplifier with Halved Noise Needs Few Components. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 22 (2007), p. 70-72. (in English)
- [28] ŠTOFKA, M.: Comparator Detects Position of Peaks and Valleys in a Waveform. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 11 (2007), p. 103-104. (in English)
- [29] ŠTOFKA, M.: Dual-Input Sample-and-Hold Amplifier Uses no External Resistors. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 24 (2007), on-line. (in English)
- [30] ŠTOFKA, M.: Gain-of-Two Instrumentation Amplifier Uses no External Resistors. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 4 (2007), p. 81. (in English)
- [31] ŠTOFKA, M.: Gain-of-Two Sample-and-Hold Amplifier Uses no External Resistors. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 23 (2007), p. 95-96. (in English)
- [32] ŠTOFKA, M.: Inverting Sample-and-Hold Amplifier Requires no External Resistors. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 16 (2007), p. 68-69. (in English)
- [33] ŠTOFKA, M.: Paralleling Decreases Autozero-Amplifier Noise by a Factor of Two. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 12 (2007), p. 94-95. (in English)
- [34] ŠTOFKA, M.: Simple Fixture Determines Leakage of Capacitors and Semiconductor Switches. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 12 (2007), p. 83-84. (in English)
- [35] ŠTOFKA, M.: Simple Test Setup Performs Functional Testing of Linear, Single-Cell Lithium Chargers. In: EDN. Electronics Design, Strategy, News. - ISSN 0012-7515. - Vol. 52, No. 10 (2007), p. 76-78. (in English)
- [36] UŠÁKOVÁ, M., LUKÁČ, J., DOSOUDIL, R., JANČÁRIK, V., GRUSKOVÁ, A., UŠÁK, E., SLÁMA, J., ŠUBRT, J.: Influence of Cu^{2+} Ions on Structural and Magnetic Properties of NiZn Ferrites. In: Journal of Materials Science: Materials in Electronics. - ISSN 0957-4522. - Vol. 18, No. 12 (2007), p. 1183-1189. (in English)

VIII.2 Conference Proceedings

- [1] BOJNA, I.: Actual Information of Technical Standardisation in Electrical Engineering Field. In: 26th Conference of Slovak Electrical Engineers: Bratislava, Slovak Republic, 21.-22.3.2007. - Bratislava: Slovenský elektrotechnický zväz, 2007. - p. 63-72. (in Slovak)
- [2] BOJNA, I.: Actual Information of Technical Standardization in Electrical Engineering Field. In: 27th Conference of Slovak Electrical Engineers: Poprad, Slovak Republic, 7.-8.11.2007. - Bratislava: Slovenský elektrotechnický zväz, 2007. - p. 71-81. (in Slovak)
- [3] BOJNA, I.: STN 33 2000-4-41:2007 New Standard for Protection Against Electric Shock. In: 27th Conference of Slovak Electrical Engineers: Poprad, Slovak Republic, 7.-8.11.2007. - Bratislava: Slovenský elektrotechnický zväz, 2007. - p. 52-89. (in Slovak)

- [4] BOJNA, I.: External Influences by Selection and Erection of Electrical Equipment According to STN 33 2000-5-51:2007. In: 27th Conference of Slovak Electrical Engineers: Poprad, Slovak Republic, 7.-8.11.2007. - Bratislava: Slovenský elektrotechnický zväz, 2007. - p. 90-97. (in Slovak)
- [5] BOJNA, I.: Identification of Cables and Conductors According to Technical Standards. In: 26th Conference of Slovak Electrical Engineers: Bratislava, Slovak Republic, 21.-22.3.2007. - Bratislava: Slovenský elektrotechnický zväz, 2007. - p. 73-79. (in Slovak)
- [6] BOJNA, I.: Intended Replacement of Actual STN 33 2000-4-41. In: Low-Tension Electrical Installations. Workshop: Bratislava, Slovak Republic, 13.-14.6.2007. - Bratislava: SÚTN, 2007. - p. 30-31. (in Slovak)
- [7] BOJNA, I.: STN 33 2000-5-51:2007. In: Low-Tension Electrical Installations. Workshop: Bratislava, Slovak Republic, 13.-14.6.2007. - Bratislava: SÚTN, 2007. - p. 16-17. (in Slovak)
- [8] BOJNA, I.: Set of Standards STN 33 2000. In: Low-Tension Electrical Installations. Workshop: Bratislava, Slovak Republic, 13.-14.6.2007. - Bratislava: SÚTN, 2007. - p. 5-6. (in Slovak)
- [9] BOJNA, I.: Innovation in Protection Against Electric Shock According to New Standard STN 33 2000-4-41: 2007. In: 5th Regional Electrotechnical Days: Nitra, Slovak Republic, 20.11.2007. - CD-Rom. (in Slovak)
- [10] ČERVENŇOVÁ, J.: E-Learning Course Electromagnetic Fields and Waves. In: Virtual University VU '07: 8th International Conference. Bratislava, Slovak Republic, 13.-14.12.2007. - Bratislava: STU, 2007. - ISBN 978-80-89316-09-0. - p. 90-92. (in English)
- [11] DOSOUDIL, R., UŠÁKOVÁ, A., FRANEK, J., GRUSKOVÁ, A., SLÁMA, J.: Complex Permeability Dispersion and EM-Wave Absorbing Characteristic of Polymer-Based Composites with Double Ferrite Filler. In: 18th Soft Magnetic Materials Conference: Book of Abstracts. Cardiff, U.K., 2.-5.9.2007. - Cardiff: Cardiff University, 2007. - p. 264. (in English)
- [12] DOSOUDIL, R., UŠÁKOVÁ, M., SLÁMA, J., GRUSKOVÁ, A.: Frequency Variation of Complex Permeability in Dual Ferrite Filler - Single Polymeric Matrix Composites. In: CSMAG 2007. 13th Czech and Slovak Conference on Magnetism: Košice, Slovak Republic, 9.-12.7.2007. - Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2007. - p. 8P02. (in English)
- [13] GRUSKOVÁ, A., SLÁMA, J., DOSOUDIL, R., UŠÁKOVÁ, M., JANČÁRIK, V., UŠÁK, E.: Microwave Properties of Some Substituted LiZn Ferrites. In: 18th Soft Magnetic Materials Conference: Book of Abstracts. Cardiff, U.K., 2.-5.9.2007. - Cardiff: Cardiff University, 2007. - p. 268. (in English)
- [14] GRUSKOVÁ, A., JANČÁRIK, V., SLÁMA, J., UŠÁKOVÁ, M.: Optimization of Magnetic and Structural Properties of Sr Ferrite Prepared by Low-Temperature Combustion. In: CSMAG 2007. 13th Czech and Slovak Conference on Magnetism: Košice, Slovak Republic, 9.-12.7.2007. - Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2007. - p. 7P06. (in English)
- [15] HLAVÁČ, M.: Distributed Fiber Optic Sensing for Traffic Monitoring Purposes. In: Proceedings of SPIE. Vol. 6619: Optical Fibre Sensors: Napoli, Italy, 4.-5.7.2007. - Washington: SPIE - The International Society for Optical Engineering, 2007. - p. 6619369.1-4. (in English)
- [16] HOHLFELD, J., ISLAM, M., BROWN, C., GIRT, E., KRIVOŠÍK, P., TONG, W., REBEI, A.,

- PATTON, C.E.: Origins of the Damping in Perpendicular Media - Three Component Ferromagnetic Resonance Linewidth in Co-Cr-Pt Alloy Films. In: 10th Joint MMM/Intermag Conference: Baltimore, USA, 7.-11.1.2007. - p. 344. (in English)
- [17] KALARICKAL, S.S., KRIVOŠÍK, P., DAS, J., KIM, K., PATTON, C.E.: Basic Origin of Ferromagnetic Resonance Linewidth in Fe-Ti-N Thin Films. In: 10th Joint MMM/Intermag Conference: Baltimore, USA, 7.-11.1.2007. - p. 26. (in English)
- [18] KOLLÁR, M., HRISTOFOROU, E.: Semi-Empirical Magnetostrictive Delay Line Modelling. In: 18th Soft Magnetic Materials Conference: Book of Abstracts. Cardiff, U.K., 2.-5.9.2007. - Cardiff: Cardiff University, 2007. - p. 133. (in English)
- [19] KOLLÁR, M.: The Preisach Model (1935) Presented in 2007. In: Summer School for Advanced Aspects of Theoretical Electrical Engineering Sozopol'07: Sozopol, Bulgaria, 10.-30.9.2007. - Sofia: Technical University, 2007. - p. 154-165. (in English)
- [20] KORENKO, B., HLAVÁČ, M.: Excitation of Semiconductor Laser for OTDR by Count of Photos. In: ŠVOČ 2007. Bratislava, Slovak Republic, 25.4.2007. - Bratislava: STU, 2007. - ISBN 978-80-227-2650-4. - CD-Rom. (in Slovak)
- [21] KUČHTA, J., FRANKO, M., FULIER, M., ŠVEC, P., BYDŽOVSKÝ, J.: Research and Development of Electrotechnical Applications of Nanocrystalline Materials. In: NANOVED 2007: 4th International Conference on Nanosciences and Nanotechnologies. Bratislava, Slovak Republic, 11.-14.11.2007. - Bratislava: Tribun, 2007. - ISBN 978-80-7399-121-0. - P13. (in English)
- [22] LIPKA, J., GONZÁLEZ-ANGELES, A., GRUSKOVÁ, A., JANČÁRIK, V., TÓTH, I., SLÁMA, J.: (Ni, Zn, Sn - Ru) and (Ni, Sn - Sn) Substituted Barium Ferrites Prepared by Mechanical Alloying. In: ICAME 2007. International Conference on the Applications of the Mössbauer Effect: Kanpur, India, 14.-19.10.2007. - Kanpur: Indian Institute of Technology, 2007. - T2-P26. (in English)
- [23] LIPKA, J., GONZÁLEZ, A., GRUSKOVÁ, A., SLÁMA, J., JANČÁRIK, V.: Structural and Magnetic Properties of $Ba_{0.5}Sr_{0.5}(ZnTi)_xFe_{12-2x}O_{19}$ Prepared by Mechanical Milling. In: 3rd Seeheim Conference on Magnetism: Frankfurt, Germany, 26.-30.8.2007. - Darmstadt: TU, 2007. - P-141. (in English)
- [24] MARUŠINCOVÁ, Z., SLÁMA, J.: Digest of Significant Jubilees in Study of Electromagnetic Phenomena. In: History of Electrical Engineering in Slovakia. Scientific Conference with International Participation. Banská Štiavnica, Slovak Republic, 28.-29.6.2007. - Zvolen: Technická univerzita vo Zvolene, 2007. - ISBN 978-80-228-1762-2. - p. 195-199. (in Slovak)
- [25] PALA, J., BYDŽOVSKÝ, J.: Dependence of Barkhausen Noise in Plastically Deformed Steel on Frequency and Nonlinearity of Magnetizing Field. In: CSMAG 2007. 13th Czech and Slovak Conference on Magnetism: Košice, Slovak Republic, 9.-12.7.2007. - Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2007. - p. 102. (in English)
- [26] SLÁMA, J., GRUSKOVÁ, A., GONZÁLEZ, A., JANČÁRIK, V., ŠTOFKA, M.: Electromagnetic Properties of Substituted Barium Hexaferrites. In: CSMAG 2007. 13th Czech and Slovak Conference on Magnetism: Košice, Slovak Republic, 9.-12.7.2007. - Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2007. - p. 8004. (in English)
- [27] SLÁMA, J., KOLLÁR, M.: Ľudovít Kneppo - Foundation and Building of Electrical Engineering at SVŠT. In: History of Electrical Engineering in Slovakia. Scientific Conference with International Participation. Banská Štiavnica, Slovak Republic, 28.-29.6.2007. - Zvolen:

- Technická univerzita vo Zvolene, 2007. - ISBN 978-80-228-1762-2. - p. 7-11. (in Slovak)
- [28] SLÁMA, J., GRUSKOVÁ, A., GONZÁLEZ, A., JANČÁRIK, V., UŠÁKOVÁ, M., ĎURMAN, V., LIPKA, J.: Magnetic Properties of Substituted Barium Strontium. In: 3rd Seeheim Conference on Magnetism: Frankfurt, Germany, 26.-30.8.2007. - Darmstadt: TU, 2007. - P-132. (in English)
- [29] SLÁMA, J., GRUSKOVÁ, A., JANČÁRIK, V., ŠIROKÝ, P., LEHOTSKÝ, M.: Modification of Frequency Spectra of Ferrite Composites. In: AMTEE 2007: Advanced Methods in the Theory of Electrical Engineering. Pilsen, Czech Republic, 10.-12.9.2007. - Plzeň: ZČU, 2007. - ISBN 978-80-7043-564-9. - CD-Rom. (in English)
- [30] SLÁMA, J., GRUSKOVÁ, A., UŠÁK, E., DOSOUDIL, R., JANČÁRIK, V.: Substituted NiZn Ferrites. In: 18th Soft Magnetic Materials Conference: Book of Abstracts. Cardiff, U.K., 2.-5.9.2007. - Cardiff: Cardiff University, 2007. - p. 275. (in English)
- [31] ŠUMICHRASŤ, E., EHRHARDT, M.: Continuous, Semi-Discrete and Fully-Discrete Formulation of the Transparent Boundary Conditions for the Beam Propagation Method. In: Summer School for Advanced Aspects of Theoretical Electrical Engineering Sozopol'07: Sozopol, Bulgaria, 10.-30.9.2007. - Sofia: Technical University, 2007. - p. 139-153. (in English)
- [32] ŠUMICHRASŤ, E., EHRHARDT, M.: On the Three Formulations of Transparent Boundaries for the Beam Propagation Method. In: AMTEE 2007: Advanced Methods in the Theory of Electrical Engineering. Pilsen, Czech Republic, 10.-12.9.2007. - Plzeň: ZČU, 2007. - ISBN 978-80-7043-564-9. - CD-Rom. (in English)
- [33] VALKO, P., UŠÁKOVÁ, M.: Minimal Surfaces and Intermediate State of Type-I Semiconductors. In: 15th Conference of Slovak Physicists: Stará Lesná, Slovak Republic, 11.-14.9.2006. - Košice: Slovak Physical Society, 2007. - ISBN 978-80-969124-4-5. - p. 117-118. (in English)
- [34] WARD, A., JASENEK, J., THIRIET, J.M.: The Application of the Tuning Methodology to the Electrical and Information Engineering Disciplines, an EIE Surveyor Project. In: Proceedings of the 18th EAEEIE Annual Conference: Prague, Czech Republic, 2.-4.7.2007. - Prague: CTU, 2007. - ISBN 978-80-01-03745-4. - CD-Rom. (in English)
- [35] ZEMANOVÁ, M., BLAHO, P., UŠÁK, E., GÁLIKOVÁ, Z., CHOVANCOVÁ, M.: Periodic-Reverse Current Nickel Pigmentation of Anodised Aluminium. In: 2.europäisches Pulse Plating Seminar: Wien, Austria, 9.3.2007. - CD-Rom. (in English)
- [36] ZEMANOVÁ, M., BLAHO, P., UŠÁK, E., GÁLIKOVÁ, Z., CHOVANCOVÁ, M.: Pigmentation of Anodically Oxidised Aluminium by Pulse Reverse Current. In: 49. International Galvanic Conference: Bratislava, Slovak Republic, 26.-27.6. 2007. - ISBN 978-80-227-2692-2. - p. 67-72. (in Slovak)

VIII.3 Books

- [1] BOJNA, I.: Low-Voltage Electrical Installations -Protection Against Electric Shock. - Bratislava: Slovenský elektrotechnický zväz, 2007. - 76 p. - ISBN 978-80-8095-021-7. (in Slovak)
- [2] BOJNA, I.: Low-Voltage Electrical Installations - External Influences Actuating on Electrical Equipment. - Bratislava: Slovenský elektrotechnický zväz, 2007. - 64 p. - ISBN 978-80-8095-022-4. (in Slovak)

VIII.4 Textbook

- [1] BOJNA, I.: Textbook for Professional Examination According to Notice 718/2002 - Bratislava: FEI STU, 2007. - 181 p. (in Slovak)

VIII.5 Standards

- [1] BOJNA, I.: STN 33 2000-5-51. Electrical Installations of Buildings. Part 5: Selection and Erection of Electrical Equipment: STN 33 2000-5-51. - 2007. - 85 p. (in Slovak)
- [2] BOJNA, I.: Low-Voltage Electrical Installations -Protection Against Electric Shock: STN 33 2000-4-41. - 2007. - 14 p. (in Slovak)
- [3] BOJNA, I.: STN 33 1500 Electrical Regulations. Verifications of Electrical Equipment. Amendment 1: STN 33 1500/Z1. - 2007. - 6 p. (in Slovak)