

PROGRAM ELEKTRO 2006

Day/Time	Authors/Speaker	Contribution Title	Publication
Room NR 1			
23. May	Invited presentations		
9:00	Opening		
		Chairman: P. Bury	
9:15	A. de Paor, E. Burke	A new eccentric geomagnetic dipole to give the correct dip pole locations	AEEE/E
9:55	R. Kotiers	Liberalisation of the market with electric power in east and central Europe	
	Coffee-Break 10:35 - 10:55		
		Chairman: A. de Paor	
10:55	A. Kuchar	The turbulent telecommunications	AEEE/A
11:35	P. Peniak	Implementation of information systems in manufacturing area	AEEE/D
	Lunch 12:15 - 13:30		

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Day/Time	Authors / Speaker	Contribution Title	Publication
Room NS02			
23. May	Session F - afternoon 1		Chairman: P. Bury
13:30	M. Weis, D. Barančok, J. Cirák, P. Tomčík, J. Vajda	Novel materials for molecular electronics and their characterization	AEEE
13:45	J. Röschlová, M. Weis, A. Šatka, T. Pleceník, J. Pištora, D. Petridis, D. Barančok, J. Cirák	Ordered thin films of magnetic nanoparticles	AEEE
14:00	S. Jurečka, E. Pinčík, R. Brunner	Thin film solar cells and their optical properties	AEEE
14:15	J. Müllerová	Infrared insight into the network of hydrogenated amorphous and polycrystalline silicon thin films	AEEE
14:30	J. Doupovec, K. Jesenák, Kuchta	An attempt for sensorial use of optical fibres with silica aerogel cladding	Proceedings
14:45	J. Rusnák, M. Ružinský, M. Takahashi, A. M. Acevedo, E. Pinčík	Q-DLTS characterization of MOS structures with very thin SiO ₂ dielectric films	Proceedings
15:00	M. Kollár, J. Franek	Numerical modelling of electric conductance of a thin sheet	AEEE
Coffee-Break 15:15 - 15:35			
	Session F - afternoon 2		Chairman: J. Müllerová
15:35	L. Harmatha, P. Ballo, J. Breza, P. Písečný, M. Ťapajna	Properties of the Si-SiO ₂ interfaces in MOS structures with nitrogen doped silicon	AEEE
15:50	V. Jančárik, A. Grusková, J. Sláma, R. Dosoudil, A. González, G. Mendoza	Characteristics of magnetic properties of substituted hexagonal ferrites	AEEE
16:05	J. Sláma, E. Ušák, R. Dosoudil, A. Grusková, M. Ušáková, V. Jančárik	The influence of particle size and substituent contents on the magnetic properties of Be or Cu substituted NiZn ferrites	AEEE
16:20	I. Turek, D. Káčik, I. Martinček	The symmetry of optical field in photonic crystal fibre with trigonal symmetry	AEEE
16:35	S. Flickyngerová, V. Tvarožek, I. Novotný, A. Šatka, P. Šutta	ZnO nanostructures prepared by RF sputtering	AEEE
16:50	M. Paluga, P. Švec, D. Janičkovič, P. Mraňko, C. F. Conde	Investigation of surfaces of rapidly quenched Fe-Mo-Cu-B ribbons	Proceedings
17:05	P. Hockicko, P. Bury, M. Jamnický, I. Jamnický	Dielectric spectroscopy of ionic glasses of the system CuI-CuBr-Cu ₂ O-P ₂ O ₅	AEEE
17:20			

PROGRAM ELEKTRO 2006

Room NS02

24. May	Session F - morning 1	Chairman: L. Harmatha	
08:30	M. Zlomek, J. Rez	Computer controlled measurement of magnetizing characteristics of ferromagnetic materials	Proceedings
08:45	J. Švarný	High precision thermoelectric cooler controller for thermal stabilization of laser diode	Proceedings
09:00	T. Blecha, K. Heindl, V. Skočil, J. Braun	Scattering parameters of microstrip long wiring and influences of branch lines	Proceedings
09:15	K. Heindl, T. Blecha, V. Skočil, J. Braun	Calculation of S_{11} parameter of coplanar strip and influence of technology process	AEEE
09:30			
09:45	Closing statements		
10:00			
	Coffee-Break 10:15 - 10:35		
	Session C - morning 2B	Chairman: Altus, J.	
10:35	Z. Medvec, L. Prokop, M. Tinka	Estimation of energy not supply using time series	Proceedings
10:50	L. Prokop, Z. Medvec	Partial results from practical application of estimation of energy not supply	Proceedings
11:05	P. Drábek, J. Fořt, M. Pittermann	Negative influence of frequency converters on power distribution network	AEEE
11:20	M. Janda, K. Zeman	Suppression of current harmonics emission of traction drive through passive filter	Proceedings
11:35	E. Konečná	Simulation of electric quantities in lighting networks	Proceedings
11:50	Š. Lojek, J. Handke	Technical possibilities of limitation of the short-time voltage dips for MV network users	Proceedings
12:05	L. Juřica, Z. Hradílek, J. Dvorský, P. Krejčí	Application of new method of multi-criteria analysis	AEEE
12:20	T. Sikora, V. Král	Using various probability density functions for simulations by the montecarlo method	Proceedings
12:35	P. Bracíník, M. Novák	The analysis of wind power plants impact on electric power system	Proceedings
12:50	M. Roch, P. Bracíník, A. Hrebeňár	Solution concept of modular single phase active power filters	AEEE
	Lunch 13:05 - 14:30		

PROGRAM ELEKTRO 2006

Day/Time	Authors / Speaker	Contribution Title	Publication
Room NR 2			
23. May	Session E - afternoon 1	Chairman: I. Doležel	
13:30	J Bydžovský, T. Višňovec, E. Ušák	An optimisation of experimental data processing for MAT method application	AEEE
13:45	M. Murina, M. Steinbauer	Design of synthetic elements with transimpedance operational amplifiers	AEEE
14:00	J. Šuriansky, T. Frank	Visualisation of magnetic fields generated by Helmholtz coils	AEEE
14:15	P. Karban, I. Doležel, B. Ulrych	Levitation of superconductive cable in earth magnetic field	AEEE
14:30	D. Mayer, B. Ulrych	Analysis of an electromagnetic actuator with permanent magnet	AEEE
14:45	M. Krasl, B. Ulrych	Linear motor for drive of belt conveyor	AEEE
15:00	Z. Benešová, V. Kotlan	Propagation of surge waves on non-homogeneous transmission lines induced by lightning stroke	AEEE
	Coffee-Break 15:15 - 15:35		
	Session E - afternoon 2	Chairman: J. Šuriansky	
15:35	D. Mayer, M. Jedlička	General approach to computation of self- and mutual inductances of iron-free coils	AEEE
15:50	K. Hájek, V. Michal, J. Sedláček, M. Steinbauer	A simple method of goal – directed lossy synthesis and network optimization	AEEE
16:05	T. Bachorec, J. Dedkova	Non destructive testing – identification of defects in materials	AEEE
16:20	P. Drexler, P. Fiala, E. Kadlecová	Methods for free-space ultra-short solitary EMP measurement	AEEE
16:35	P. Fiala, T. Vojtek, I. Běhunek	Minigenerator – analysis, design and tests	AEEE
16:50	P. Fiala, I. Běhunek, E. Kadlecová	Numerical solution of the heat accumulation layer by means of FEM	AEEE
17:05	P. Fiala, I. Běhunek, E. Kadlecová	Energy balance and operating features of the heat accumulator	AEEE
17:20	C. Henzl, P. Kačor, J. Paleček	Investigation of magnetic fields in the subway station	AEEE

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Room NR 2

24. May	Session E - morning 1A	Chairman: A. de Paor	
8:30	J. Courtney, A. de Paor	Preliminary results for a monocular marker-free gait measurement system	AEEE
8:45	K. O'Neill, A. de Paor	The potency of optical and augmented reality mirror boxes in amputees and people with intact	AEEE
9:00	D. Ďuračková, P. Kružlic	Basic circuit for silicon cochlea	AEEE
9:15	K. Čápková, V. Blazek, I. Čáp	Investigation of brain arterial circle malformations using electrical modelling and simulation	AEEE
9:30	M. Steinbauer, E. Kadlecová	Design of special light source for biological application	AEEE
9:45	K. Bartušek, E. Kadlecová, M. Steinbauer	Simulation of material influences in MR tomography	AEEE
10:00	K. Maceika	Public protection from electromagnetic fields of industry frequency	AEEE
	Coffee-Break 10:15 - 10:35		
	Session E - morning 2A	Chairman: B. Ulrych	
10:35	Z. Pšenáková	Numerical modelling of electromagnetic field effects on the human body	AEEE
10:50	I. Čáp, K. Čápková	EMAT evaluation of thin conductive sheets	AEEE
11:05	L. Janoušek	Variation of eddy current density distribution and its effect on crack signal in eddy current non-destructive testing	AEEE
11:20	K. Grondžák	Inverse problems of eddy current testing and uncertainties evaluation	AEEE
11:35	D. Faktorová	Microwave nondestructive testing of dielectric materials	AEEE
11:50	T. Marek, D. Gombárska	Enhancement of the remote field eddy current testing performed from outside of a magnetic tube	AEEE
12:05	L. Bučkuliaková, T. Marek	Analysis of electric circuits with non-harmonic excitation using MATLAB	Proceedings
12:20	Closing statements		
12:35			
12:50			
	Lunch 13:05 - 14:30		

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Day/Time	Authors / Speaker	Contribution Title	Publication
Room NR1			
23. May	Session D - afternoon 1	Chairman: Nagy, P., Franeková, M.	
13:30	P. Holečko, I. Krbilová	IT security aspects of industrial control systems	AEEE
13:45	M. Seč, J. Mišuth, J. Čuntala, L. Hargaš, A. Kondelová	Protected microcomputers from VÚVT-Engineering	AEEE
14:00	G. Tarnai, B. Sági, I. Krbilová	Quantitative hazard and risk analysis	AEEE
14:15	D. Novák	Modelling of signal – level crossing system	AEEE
14:30	P. Chrtiansky, S. Kmeť	Information security management systems	Proceedings
14:45	T. Ciszewski, Z. Lukasik	Neural network based recognition of signal patterns in application to automatic ultrasonic testing of rails	AEEE
15:00	Coffee-Break 15:15 - 15:35		
	Session D - afternoon 2	Chairman: Nagy, P., Franeková, M.	
15:35	J. Hrad, T. Zeman	The “ELefANTS” project	Proceedings
15:50	P. Gorczyca, J. Mikulski, A. Białoń	Wireless local networks to record the railway traffic control equipment data	AEEE
16:05	J. Rofár, M. Franeková	Functional safety specification of communication profile PROFIsafe	AEEE
16:20	J. Hrbček, A. Janota	Predictive control of road tunnel ventilation	Proceedings
16:35	V. Šimák, T. Michulek	Stereovision applied to virtual robot control	Proceedings
16:50	L. Muzikářová, J. Mrázová	Bio-signals application in solution of human- machine interface	AEEE
17:05	M. Kornaszewski	Programmable logic controllers for systems of automatic of the level crossing	AEEE
17:20	P. Hofman	Control objectives for information and related technology (COBIT)	Proceedings

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Room NR1

24.May	Session D - morning 1	Chairman: Nagy, P., Muzikářová, Ľ.	
8:30	J. Ždánsky, K. Rástočný	Parameters evaluation of PLC dependability and safety	AEEE
8:45	K. Rástočný, M. Foltán	Primary factors affecting safety of control system	AEEE
9:00	J. Švec, J. Zahradník	Formal specification in "Z" Language by software Z/EVES	AEEE
9:15	N. Hanusová, J. Zahradník	System failure rate calculation	AEEE
9:30	S. Kocúr	Identification and modelling of linear dynamic systems	AEEE
	Coffee-Break 9:45 - 10:05		
	Session D - morning 2	Chairman: Nagy, P., Muzikářová, Ľ.	
10:05	T. Brončeková	Correct information – utopia or reality	Proceedings
10:20	P. Vestenický	Increasing of RFID system read range	AEEE
10:35	G. Cherneva, A. Andonov	Formation of signals harmonized with the channel of connection considering the boundary conditions for the interval of existence	Proceedings
10:50	J. Zahradník, A. Janota	Safety of transport process	AEEE
11:05	B. Vincze, G. Tarnai	Development and analysis of train brake curve calculation methods with complex simulation	AEEE
11:20	Closing statements		
	Lunch 13:05 - 14:30		

PROGRAM ELEKTRO 2006

Day/Time	Authors / Speaker	Contribution Title	Publication
Room NR 3			
23. May	Session C - afternoon 1	Chairman: Dodds, S.	
13:30	P. Brandstetter, R. Hrbac, M. Polak, L. Stepanec	Application of fuzzy logic in control of switched reluctance motor	AEEE
13:45	P. Brandštetter, P. Palacký, O. Fišer	Vector controlled AC drive without speed sensor	Proceedings
14:00	M. Krasl, R. Vlk	High temperature superconductors and their applications in electric machines	Proceedings
14:15	J. Suchý	Superconductive transformer	Proceedings
14:30	M. Procházka	Modeling of current transformers under saturation conditions	AEEE
14:45	J. Škubal	Stand for testing of electric drive of locomotive 109E	Proceedings
15:00	Coffee-Break 15:15 - 15:35		
	Session C - afternoon 2	Chairman: Pokorný, M.	
15:35	P. Moldřík, J. Gurecký	RC switch-disconnectors and circuit breakers in overhead MV systems – evaluation of economic efficiency	Proceedings
15:50	R. Šmidovič, J. Rusnák	The possibilities of optimal voltage control for pilot node in Lemešany	Proceedings
16:05	R. Šmidovič	Transposed and nontransposed transmission lines	Proceedings
16:20	Z. Łukasik, Z. Olczykowski	The electric power quality in the supply networks of the non-traction collections	Proceedings
16:35	J. Beran , S. Kmeť	Reliability and risk management	Proceedings
16:50	M. Bůžek	Risk analysis and reliability of electrical systems	Proceedings
17:05	J. Šouc, L. Frolek, F. Gömöry, M. Vojenčiak	Superconducting cable models and their characterization	Proceedings
17:20	M. Golasowski, S. Rusek, R. Goňo	Usage of database in electricity sector	Proceedings

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Room NR 3

24. May	Session C - morning 1	Chairman: Dodds, S.	
08:30	J. Michalík, J. Molnar, Z. Peroutka	Single phase current-source active rectifier for traction: control system design and practical problems	AEEE
08:45	M. Michalík, J. Fořt	The control of switched reluctance machines at low and medium speeds	Proceedings
09:00	M. Malek, J. Vittek	DSP or FPGA? drive control possibilities	Proceedings
09:15	X. T. Garcia, B. Zigmund, A. Terlizzi, R. Pavlanin, L. Salvatore	Comparison between FOC and DTC strategies for permanent magnet synchronous motors	AEEE
09:30	B. Zigmund, A. Terlizzi, X. T. Garcia, R. Pavlanin, L. Salvatore	Experimental evaluation of PI tuning techniques for field oriented control of permanent magnet synchronous motors	AEEE
09:45	I. A. Giannelli, J. Vittek, F. Cupertino	Vector control of doubly-fed induction generator for extraction of maximum power from wind	Proceedings
10:00	H. Příklad, L. Příklad	The CT drives with linear motors	Proceedings
	Coffee-Break 10:15 - 10:35		
	Session C - morning 2A	Chairman: Dodds, S.	
10:35	J. Danzer	Conditions on traction transformer supplying pulse rectifiers	Proceedings
10:50	Z. Peroutka, T. Glasberger	Algorithms of space vector PWM in overmodulation area	AEEE
11:05	P. Záskalický	Modelling of a serial wound DC motor supplied by a semi-controlled rectifier	AEEE
11:20	A. Hála	Linear actuator with axially oriented NdFeB permanent magnet	Proceedings
11:35	B. Skala, J. Fořt, L. Sýkorová	Special asynchronous dynamometer designed for fast transient phenomena	AEEE
11:50	M. Pittermann, P. Drábek, J. Fořt, P. Bárta	The distortion produced by the drive with double fed generator	Proceedings
12:05	I. A. Viorel, A. Banyai, C. S. Martis, B. Tataranu, I. Vintiloiu	On the segmented rotor reluctance synchronous motor saliency ratio calculation	AEEE
12:20	Closing statements		
12:35			
12:50			
	Lunch 13:05 - 14:30		

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Day/Time	Authors / Speaker	Contribution Title	Publication
Room NS 01			
23. May	Session B - afternoon 1	Chairman: P. Pavlásek	
13:30	J. Čuntala, A. Kondelová, I. Kožehuba	Simulation of electromagnetic shielding in Femlab environment	Proceedings
13:45	R. Šul, B. Dobrucký, R. Ovcaričik	New possibilities of power electronic structures using SiC technology	AEEE
14:00	T. Pavelek	The vector modulation of quasi-resonant converter	Proceedings
14:15	R. Pavlanin, M. Marinelli, B. Zigmund	Different view on PQ theory used in the control algorithm of active power filters	AEEE
14:30	L. Osmančik, P. Chlebiš, P. Moravčik	Four quadrant current source PWM rectifier by DSP controlled	Proceedings
14:45	V. Sládeček	Three phase soft commutation auxiliary resonant pole inverter	AEEE
15:00	Coffee-Break 15:15 - 15:35		
	Session B - afternoon 2	Chairman: P. Pavlásek	
15:35	M. Duč-Anci	Contribution to battery supplied electric vehicles a bust/book inverter	Proceedings
15:50	M. Dobrovolný	Image information exploitation in ACC systems	Proceedings
16:05	R. Soukup, K. Moravec	Metric DPMO as possibility of PCB assembly optimization	Proceedings
16:20	P. Šindler, J. Čuntala	Application module for speech recognition functions	Proceedings
16:35	R. Ovcaričik, P. Špánik, R. Šul, F. Chimento	Unequal input voltages distribution between the serial connected halfbridges	AEEE
16:50	Closing statements		
17:05			
17:20			

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Room NS 01

24. May	Session E - morning 1B	Chairman: J. Kijonka	
8:30	K. Chmelík, V. Čech, J. Foldyna	Influence of Electric Discharges on Bearings of Electric Machines	AEEE
8:45	J. Kijonka	Duality circuit models of transient phenomena	Proceedings
9:00	J. Kúdelčík, M. Gutten, M. Brandt	Development of electrical breakdown in transformer oil	AEEE
9:15	R. Angelova, T. Gichev	Formulas for determining the initial conditions after step-wise inductance changes in a quasi-linear circuit	Proceedings
9:30	G. A. Nenov	An approach to active network symbolic sensitivity analysis by using Chan-Mai signal-flow graphs	Proceedings
9:45	I. N. Asenova	An approach for determination of modified coates signal – flow graphs	Proceedings
10:00	P. Zemánek, Z. Hradílek	Mathematic model of direct resistance heating with computer support	Proceedings
	Coffee-Break 10:15 - 10:35		
	Session E - morning 2B	Chairman: J. Čuntala	
10:35	J. Metličková	Analysis electric phenomena in electric contacts	Proceedings
10:50	D. Jánsky	Simulations of physical fields in the contact system	Proceedings
11:05	J. Petrilak, P. Široký, J. Kopecký	The numerical analysis of electric circuit by using PC	Proceedings
11:20	J. Kopecky, J. Petrilak	Software of dynamic process measurement	Proceedings
11:35	M. Beňová	New definitions of circuit parameters by Fourier series	Proceedings
11:50	J. Lakatoš, J. Čuntala, A. Kondelová	Simulation of heat transfer and electromagnetic fields of protected microcomputers	AEEE
12:05	M. Šebök, M. Kučera	Radiation sensors and EMC	Proceedings
12:20	Closing statements		
12:35			
12:50			
	Lunch 13:05 - 14:30		

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Day/Time	Authors / Speaker	Contribution Title	Publication
Room NS10			
23. May	Session A - afternoon 1	Chairman: Wieser, V.	
13:30	B. Gódor	Address translation problems in IMS based next generation networks	AEEE
13:45	J. Hájek	Higher-order modulation QAM in the CATV	Proceedings
14:00	M. Koukal, R. Bestak	Enhancements in UMTS uplink	Proceedings
14:15	M. Krasnovský, V. Wieser	Broadband wireless access in B3G mobile networks	Proceedings
14:30	B. Krnáč	Possibilities of RFID technology exploitation in ITS	Proceedings
14:45	Z. Becvar, J. Zelenka, R. Bestak	Comparison of Handovers in UMTS and WIMAX	Proceedings
15:00	Coffee-Break 15:15 - 15:35		
	Session A - afternoon 2	Chairman: Jarina, R.	
15:35	G. Gražulevičius, A. Gražulevičius	Possibilities of the recognition of electromechanical devices by their noise characteristics	Proceedings
15:50	M. Benčo, R. Hudec	Assistive technology to semantic analysis of a multimedia data content	Proceedings
16:05	L. Hargaš, J. Čuntala	New method of LCD display viewing angle designation	AEEE
16:20	V. M. Sala, X. d. T. Garcia, J. Pou, T. Arias	New high power D-class amplifier with high quality of sound at low switching frequency	Proceedings
16:35	J. Huska, P. Kulla	Implementation of hybrid DCT/DPCM video-encoder in the DM642 EVM for educational purposes	AEEE
16:50	P. Kulla, Š. Slávik, J. Huska	Application of FPGA's in flexible analogue electronic image generator design	AEEE
17:05	I. Lungu, T. Vătuuiu, A. G. Fodor	Fragmentation solutions used in the projection of the distributed data base systems	Proceedings
17:20	J. Hlubík, L. Schwartz, V. Hottmar	CATV network evolution	AEEE

PROGRAM ELEKTRO 2006

Room NS10

24. May	Session A - morning 1	Chairman: Vaculík, M.	
8:30	W. M. Maziarz	Market of electronic services in Poland as a basis to develop economy based on knowledge - diagnosis and perspective of developed	AEEE
8:45	J. Dubovan, M. Dado	Location based services in GSM networks and new possibilities for their application in transport	AEEE
9:00	D. Repčík, M. Ďulík	Thin clients and X-Window system	Proceedings
9:15	P. Mach	Performance of ADSL2 technology	Proceedings
9:30	T. Vătuuiu, V. Popeangă	The informatization strategy for the audit and control activity at the Romanian court of counts	Proceedings
9:45	P. Ivaniga, L. Mikuš	Measuring of block error rates in high-speed digital networks	AEEE
10:00	M. Krahulík, J. Svoboda, P. Mach	Connection establishment in mesh and relay based networks	Proceedings
10:15	Z. Brabec	Information technology infrastructure library (ITIL)	Proceedings
10:30	P. Ivaniga, L. Mikuš	Error performance parameters for optical transport networks	Proceedings
10:45	P. Počta, M. Vaculík	Determination of test sequence for intrusive measurement of VTQoS in environment of fixed telecommunication network	AEEE
11:00	Closing statements		
	Coffee-Break 11:00 - 11:20		
	Lunch 13:05 - 14:30		