

Monday, 20.09.2021

- OS1 Systems Identification
- OS2 Electrical machines A
- OS3 Optimization and computer modeling A
- OS4 Optimization and computer modeling B
- OS5 Electrical machines B
- OS6 Innovative Models of Electrical Machines
- OS7 Permanent Magnet Machines
- OS8 Numerical Machines of Electromagnetic Devices
- OS9 Biomedical engineering A
- OS10 Optimization and computer modeling C
- OS11 Field theory A
- OS12 Field theory B
- OS13 Biomedical engineering B
- OS14 Materials Modelling A
- OS15 Materials Modelling B
- OS16 Materials Modelling C
- OS17 Artificial Intelligence - Virtual Reality Methodologies

15:00 Opening ceremony OC	
15:15 Plenary session 1 IL1	
15:30 Invited lecture	
15:45	
16:00 Coffee break	
16:15	
16:30 Oral session	Presentation 1
16:45 OS1	Presentation 2
17:00	Presentation 3
17:15	Presentation 4
17:30	Presentation 5
17:45 Coffee break	
18:00	
18:15 Oral session	Presentation 6
18:30 OS2	Presentation 7
18:45	Presentation 8
19:00	Presentation 9

Tuesday, 21.09.2021

09:00 Plenary session 1 IL2	
09:15 Invited lecture	
09:30	
09:45 Coffee break	
10:00	
10:15 Oral session	Presentation 10
10:30 OS3	Presentation 11
10:45	Presentation 12
11:00	Presentation 13
11:15	Presentation 14
11:30 Coffee break	
11:45	
12:00 Oral session	Presentation 15
12:15 OS4	Presentation 16
12:30	Presentation 17
12:45	Presentation 18
13:00 Steering Committee	
13:15	
13:30	
13:45	
14:00	
14:15	
14:30 Oral session	Presentation 19
14:45 OS5	Presentation 20
15:00	Presentation 21
15:15	Presentation 22
15:30	Presentation 23
15:45	Presentation 24
16:00 Coffee break	
16:15	
16:30 Oral session	Presentation 25
16:45 OS6	Presentation 26
17:00	Presentation 27
17:15	Presentation 28
17:30	Presentation 29
17:45 Coffee break	
18:00	
18:15 Oral session	Presentation 30
18:30 OS7	Presentation 31
18:45	Presentation 32
19:00	Presentation 33

Wednesday, 22.09.2021

10:15 Oral session	Presentation 34
10:30 OS8	Presentation 35
10:45	Presentation 36
11:00	Presentation 37
11:15	Presentation 38
11:30 Coffee break	
11:45	
12:00 Oral session	Presentation 39
12:15 OS9	Presentation 40
12:30	Presentation 41
12:45	Presentation 42
13:00 Lunch	
13:15	
13:30 Artistic show	
13:45	
14:00	
14:15	
14:30 Oral session	Presentation 43
14:45 OS10	Presentation 44
15:00	Presentation 45
15:15	Presentation 46
15:30	Presentation 47
15:45	Presentation 48
16:00 Coffee break	
16:15	
16:30 Oral session	Presentation 49
16:45 OS11	Presentation 50
17:00	Presentation 51
17:15	Presentation 52
17:30	Presentation 53
17:45 Coffee break	
18:00	
18:15 Oral session	Presentation 54
18:30 OS12	Presentation 55
18:45	Presentation 56
19:00	Presentation 57

Thursday, 23.09.2021

09:00 Oral session	Presentation 58
09:15 OS13	Presentation 59
09:30	Presentation 60
09:45 Coffee break	
10:00	
10:15 Oral session	Presentation 61
10:30 OS14	Presentation 62
10:45	Presentation 63
11:00	Presentation 64
11:15	Presentation 65
11:30 Coffee break	
11:45	
12:00 Oral session	Presentation 66
12:15 OS15	Presentation 67
12:30	Presentation 68
12:45	Presentation 69
13:00 Lunch	
13:15	
13:30	
13:45	
14:00	
14:15	
14:30 Oral session	Presentation 70
14:45 OS16	Presentation 71
15:00	Presentation 72
15:15	Presentation 73
15:30 Coffee break	
15:45	
16:00 OS17	Presentation 74
16:15	Presentation 75
16:30	Presentation 76
16:45 Closing Session	
17:00	

Monday, 20.09		Opening Ceremony - Rector of TUL prof. Krzysztof Jozwik and Prof. Slawomir Wiak	
		15:00-15:15	
Monday, 20.09		Plenary session 1 - Chairman Prof. Paolo Di Barba	
Invited Lecture 1		15:15-16:00	
Andrzej Krawczyk, Slawomir Wiak, Ewa Korzeniewska		SOME REMARKS ON 200 ANNIVERSARY OF THE OERSTED DISCOVERY - APPLIED AND COMPUTATIONAL ELECTROMAGNETICS IN POLAND	
Session 1 - Systems Identification		Chairman Prof. Slawomir Hausman	
		16:30-17:45	
	Presentation number:		
Lidija Petkovska	1	COST-EFFECTIVE OPTIMAL SYNTHESIS OF THE EFFICIENCY MAP OF PERMANENT MAGNET SYNCHRONOUS MOTORS	
Angela Najdoska, Goga Cvetkovski	2	DETERMINATION OF MAXIMUM SOLAR ENERGY FROM PHOTOVOLTAIC SYSTEM USING GENETIC ALGORITHM	
Amina Bensalah, Georges Barakat, and Yacine Amara	3	SIZING OPTIMIZATION OF INSERTED PERMANENT MAGNET SYNCHRONOUS GENERATOR FOR LARGE WIND TURBINE	
Alper Kerem	4	DESIGN AND PROTOTYPING OF GSM-BLUETOOTH BASED SOLAR ENERGY REMOTE MONITORING SYSTEM	
Khelil Djazia, Bouazabia Slimane, Mikropoulos Pantelis	5	ESTIMATION OF THE INSTANTANEOUS BREAKDOWN VOLTAGE OF LIGHTNING DISCHARGE	
Session 2 - Electrical Machines A		Chairman Prof. Maria Dems	
		18:15-19:15	
Joanna Bijak, Tomasz Trawiński, Marcin Szczygieł	6	A CAR WHEEL ENERGY HARVESTING SYSTEM REGARDED AS A ROBOTIC KINEMATIC CHAIN SYSTEM	
Ewa Napieralska, Daniel Roger, Krzysztof Komeza	7	DESIGN OF HIGH POWER SOLID-STATE TRANSFORMERS WITH GRAIN ORIENTED ELECTRICAL STEEL CORES	
Kenta Takei, Wataru Kitagawa, Takaharu Takeshita, Yoshio Fujimura	8	A STUDY OF IMPROVING RESPONSE CHARACTERISTICS OF STACKABLE ELECTROMAGNETIC ACTUATOR	
Valentin Mateev, Iliana Marinova	9	ELASTOMER MAGNETIC ACTUATOR MODELING	
Tuesday, 21.09		Plenary session 2 - Chairman Prof. Jan Sykulski	
Invited Lecture 2		9:00-9:45	
Paolo Di Barba, Maria Evelina Mognaschi, Slawomir Wiak		NEURAL META-MODELING OF FIELDS: A NEW DEAL IN COMPUTATIONAL ELECTROMAGNETICS	
Session 3 - Optimization and Computer Modeling A		Chairman Prof. Krzysztof Komeza	
		10:15-11:30	
Vasko Zdraveski, Jordanco Angelov, Petar Krstevski, Aleksandra Krkoleva Mateska, Jovica Vuletić, Mirko Todorovski	10	CABLE SIZE SELECTION AND RECONDUCTORING IN RADIAL DISTRIBUTION SYSTEMS USING ROBUST OPTIMIZATION MODEL	
Vasko Zdraveski, Jordančo Angelov, Jovica Vuletić, Mirko Todorovski	11	CONVEX RELAXATION VERSUS LINEARIZATION OF OPTIMAL POWER FLOW PROBLEMS IN RADIAL DISTRIBUTION NETWORKS – A CASE OF OPTIMAL DISTRIBUTED GENERATION PLACEMENT AND SIZING	
Fabian Müller, Martin Nell, Kay Hameyer	12	NONLINEAR PARAMETRIC SIMULATION BY PROPER GENERALIZED DECOMPOSITION ON THE EXAMPLE OF A SYNCHRONOUS MACHINE	
Goga Cvetkovski, Lidija Petkovska	13	GRAVITATIONAL SEARCH ALGORITHM IN FUNCTION OF EFFICIENCY IMPROVEMENT OF PM SYNCHRONOUS MOTOR	

Jovica Vuletic, Jordanco Angelov, Mirko Todorovski, Stojan Malceski	14	OPTIMAL SITING, SIZING AND OPERATION POINT SEARCH OF D-SVC IN RADIAL DISTRIBUTION SYSTEMS CONSIDERING ITS DYNAMIC HARMONIC SPECTRUM USING AN EXHAUSTIVE ANALYTICAL SEARCH
Session 4 - Optimization and Computer Modeling B		Chairman Prof. Manuel Pineda-Sánchez
		12:00-13:00
Vaclav Kotlan, Iveta Petrasova, Ivo Dolezel	15	OPTIMIZATION-BASED TECHNIQUE FOR LONG-TIME CONTROL OF INDIRECT INDUCTION HEATING
Lidija Petkovska, Paul Lefley and Goga Cvetkovski	16	SHAPING THE TOPOLOGY OF A SINGLE PHASE BRUSHLESS DC MOTOR FOR IMPROVED PERFORMANCE AND REDUCED COGGING TORQUE
Houda Fetoui, Ali Rezig	17	IMPACT OF ROTOR ECCENTRICITY ON VIBRATION BEHAVIOUR OF IN-WHEEL SRM MOTORS USED IN ELECTRIC VEHICLE
Sijie Ni, Grégory Bauw, Raphaël Romary, Bertrand Cassoret, Jean le Besnerais	18	DAMPER WINDING FOR NOISE AND VIBRATION REDUCTION OF PERMANENT MAGNET SYNCHRONOUS MACHINE
Steering Committee Meeting		13:00-14:00
Session 5 - Electrical Machines B		Chairman Prof. Ewa Napieralska
		14:30-16:00
Romain Cousseau, François Balavoine, Raphaël Romary, Miftah Irhoumah, Remus Pusca	19	COMPARATIVE STUDY OF PERMANENT MAGNET SYNCHRONOUS MACHINE VS SALIENT POLE SYNCHRONOUS MACHINE IN HIGH TEMPERATURE APPLICATION
Amar Tiourguiouine, Cristian Demian, Raphael Romary, Mehdi Zmirli, Philippe Bernard	20	DESIGN OF A VOLTAGE REGULATION DEVICE BASED ON VIRTUAL AIR GAP PRINCIPLE
Wojciech Burlikowski	21	DISCRETE DATABASES FOR MODELLING OF NONLINEAR CHARACTERISTICS IN SYNCHRONOUS RELUCTANCE MOTORS
Maria Dems, Krzysztof Komeza, Jacek Szulakowski, Witold Kubiak	22	EFFICIENCY OF THE INDUCTION MOTOR SUPPLIED FROM THE INVERTER OPERATING IN A LOW FREQUENCY RANGE
Alexei Adalev, Nikolay Korovkin, Mikhail Roytgarts, Andrei Smirnov	23	ELECTROMAGNETIC FORCES DISTRIBUTION IN THE STATOR WINDING UNDER EMERGENCY MODES OF TURBOGENERATORS
Carla Terron-Santiago, Ruben Puche-Panadero, Manuel Pineda-Sanchez, Angel Sapena- Bano	24	COMPARATIVE STUDY OF TWO DIFFERENT NUMERICAL TECHNIQUES FOR THE DEVELOPMENT OF HYBRID FEM-ANALYTICAL INDUCTION MACHINE MODEL FOR THE DIAGNOSIS OF ROTOR ECCENTRICITY
Session 6 - Innovative Models of Electrical Machines		Chairman Prof. Nouredine Takorabet
		16:30-17:45
Piotr Paplicki, Pawel Prajzencanc, Marcin Wardach, Ryszard Palka, Kamil Cierzniewski, Rafal Pstrokowski	25	INFLUENCE OF THE ANGULAR SPAN OF POLES ON THE COGGING TORQUE OF A HYBRID EXCITED AXIAL FLUX MACHINE
Antonio Blanco-Palmeiro, Xose m. Lopez-Fernandez, Sérgio Cruz	26	MAGNETO-THERMAL ANALYSIS OF A SIX-PHASE MACHINE FOR EV POWERTRAIN
Victor Antipov, Andrey Grozov, Anna Ivanova	27	THERMAL ANALYSIS OF SWITCHED RELUCTANCE MOTORS
Victor Antipov, Andrey Grozov, Anna Ivanova	28	NOVEL MODEL OF ROTOR DESIGN TO INCREASE THE AIR GAP FLUX OF SUPERCONDUCTING GENERATOR
Hakim Douar, Larbi Hadjout, Ailam el Hadj, Bruno Douine	29	STUDY OF A NEW AXIAL-FIELD SUPERCONDUCTOR INDUCTOR FOR A SYNCHRONOUS MACHINE
Session 7 - Permanent Magnet Machines		Chairman Prof. Lidija Petkovska

<p>Robin Krüger, Patricia Penabad Duran and Kay Hameyer</p> <p>Akira Heya</p> <p>Krzysztof Smółka, Anna Firych-Nowacka, Sławomir Wiak</p> <p>Marcin Wardach, Pawel Prajzendanc, Ryszard Palka, Kamil Cierzniewski, Jakub Ciurus, Michał Cichowicz, Adam Kaminski</p>		<p style="background-color: red; color: black; text-align: center;">18:15-19:30</p> <p>30 THE EFFECT OF HAIRPIN WINDINGS ON AC COPPER LOSSES IN PERMANENT MAGNET ELECTRICAL MACHINES FOR AUTOMOTIVE APPLICATIONS</p> <p>31 THREE-DEGREE-OF-FREEDOM VOICE COIL ACTUATOR DRIVEN BY FOUR-PHASE</p> <p>32 COMPARISON OF THE DESIGN OF 3-POLE BLDC MOTORS WITH A ROTOR BASED ON A SINGLE PERMANENT MAGNET</p> <p>33 RESEARCH ON A PERMANENT MAGNET SYNCHRONOUS RELUCTANCE MACHINE WITH HYBRID EXCITATION</p>
Wednesday, 22.09		
Session 8 - Numerical Machines of Electromagnetic Devices		Chairman Prof. Jean Philippe Lecointe
<p>Manuele Bertoluzzo, Paolo di Barba, Michele Forzan, Maria Evelina Mognaschi, Elisabetta Sieni</p> <p>Ilhem Bouchareb, Abdesselam Lebaroud</p> <p>Imene Djelamda, Ilhem Bouchareb, Abdesselam Lebaroud</p> <p>Carlos Guilerme da Costa Neves, Aly Ferreira Flores Filho and Luis Pereira</p> <p>Paolo di Barba, Sławomir Hausman, Łukasz Januszkiewicz, Piotr Korbel</p>		<p style="background-color: red; color: black; text-align: center;">10:15-11:30</p> <p>34 FINITE ELEMENT MODELS OF DYNAMIC-WPTS: A FIELD-CIRCUIT APPROACH</p> <p>35 FUZZY-BASED PATTERN RECOGNITION FOR AUTOMATIC DIAGNOSIS OF MAGNETIC HYSTERESIS EFFECT: APPLICATION ON 6/4 SRM FAULT TOLERANT POWER CONVERTER</p> <p>36 HMM-BASED AUTOMATIC EVALUATION OF ELECTROMAGNETIC COMPATIBILITY IN ELECTRIC VEHICLES</p> <p>37 3D TRANSIENT SIMULATION OF A AXIAL FLUX MAGNETIC GEAR ATTENTION TO FORCES ANALYSIS</p> <p>38 MULTI-FIDELITY DEEP NEURAL NETWORK MODEL OF INDOOR PATH LOSS</p>
Session 9 - Biomedical Engineering A		Chairman Prof. Andrzej Krawczyk
<p>Grzegorz Kłosowski, Tomasz Rymarczyk, Tomasz Cieplak, Piotr Bednarczuk</p> <p>Dariusz Wójcik, Bartosz Przysucha, Michał Gołąbek, Elżbieta Wośko, Tomasz Rymarczyk, Przemysław Adamkiewicz</p> <p>Łukasz Wąs, Piotr Milczarski, Sławomir Wiak</p> <p>Abdesselam Lebaroud</p>		<p style="background-color: red; color: black; text-align: center;">12:00-13:00</p> <p>39 ENSEMBLE LEARNING FOR MONITORING PROCESS IN ELECTRICAL TOMOGRAPHY</p> <p>40 QUICK HIGH-RESOLUTION ULTRASOUND REFLECTION TOMOGRAPHY</p> <p>41 EVALUATION OF DERMATOLOGICAL ASYMMETRY MEASURE OF SHAPE BY EXPECTATION-MAXIMIZATION</p> <p>42 SENSOR BASED ELECTROMAGNETIC WAVES FOR UNBLOCKS CLOGGED ARTERIES</p>
Session 10 - Optimization and Computer Modeling C		Chairman Prof. Kay Hameyer
<p>Paolo di Barba, Maria Evelina Mognaschi, Sławomir Wiak</p> <p>Carla Terron-Santiago, Javier Martinez-Andres, Jordi Burriel-Valencia, Manuel Pineda-Sanchez</p> <p>Grzegorz Kłosowski, Tomasz Rymarczyk, Tomasz Cieplak, Marcin Kowalski</p>		<p style="background-color: red; color: black; text-align: center;">14:30-16:00</p> <p>43 CNN-BASED SURROGATE MODEL OF THE ELECTROSTATIC FIELD FOR MEMS: A MULTI-FIDELITY APPROACH</p> <p>44 STUDY OF THE EFFECT OF SPACE HARMONICS ON FAULT DIAGNOSIS OF INDUCTION MACHINE MODELS BASED ON SPARSE IDENTIFICATION AND TRIGONOMETRIC INTERPOLATION POLYNOMIAL</p> <p>45 MONITORING OF FLOOD EMBANKMENTS THROUGH EIT MACHINE ENSEMBLE LEARNING</p>

Marcel Ciesielski, Pawel Witczak	46	USE OF FEM MODELING TO ANALYZE PHASE SHIFTING TRANSFORMER IN STEADY - STATE SERVICE CONDITIONS
Dawid Wajnert, Bronislaw Tomczuk	47	TWO MODELS FOR TIME-DOMAIN SIMULATION OF HYBRID MAGNETIC BEARINGS CHARACTERISTICS
H. Menana, N. Takorabet, H. Elmadah, K. Alitouche, R. Saou, D. Roger	48	WEAK MAGNETO-THERMAL COUPLING FOR MODELING OF A RELUCTANCE MOTOR WORKING AT HIGH TEMPERATURE
Session 11 - Field Theory A		Chairman Prof. Paolo Di Barba 16:30-17:45
Georges Barakat	49	2D HYBRID MAGNETO-THERMAL MODEL FOR PM INDUCTION HEATING DEVICE WITH ROTATING MOVEMENT
Aziz Zeroul, Larbi Hadjout, Youcef Ouazir, Smail Mezani, Mohammed Messadi	50	3D FAST ANALYTICAL COMPUTATION OF A PERMANENT MAGNETS AXIAL COUPLER
Kevin Jansen, Alexander Kern, Christoph Mülder, Kay Hameyer	51	STUDY OF MAGNETIC FORCE EXCITATIONS IN SALIENT POLE SYNCHRONOUS GENERATORS CONSIDERING GEOMETRICAL MODIFICATIONS BY CONFORMAL MAPPING
Mario Versaci, Paolo di Barba	52	DEFORMABLE MEMS WITH FRINGING FIELD: A NEW UNIQUENESS CONDITION FOR IDENTIFYING THE ELECTRODE PROFILE
Andrea Gaetano Chiariello, Antonio Iaiunese, Raffaele Martone, Pasquale Zumbolo	53	DIVERGENCE-FREE CHEBYSHEV POLYNOMIAL INTERPOLATION FOR FAST MAGNETIC FIELD EVALUATION
Session 12 - Field Theory B		Chairman Prof. Wojciech Pietrowski 18:15-19:30
Etse Kokouvi, Lionel Pichon, Mohamed Touré, Mariem Ksouri	54	EFFICIENT SENSITIVITY ANALYSIS OF THE EMC BCI TEST
Christoph Jörgens, Markus Clemens	55	ELECTRIC FIELD SIMULATIONS OF FIELD GRADING TECHNIQUES IN HVDC CABLE JOINTS
Oleksii Bialobrzheskyi, Rod`kin Dmytro, Andrii Gladyr	56	ELECTRICAL POWER COMPONENTS DECOMPOSITION OF PERIODIC POLYHARMONIC CURRENT
Alexandre H. S.Oliveira, Glauco Fontgalland, Humberto D. Andrade	57	PROPAGATION LOSS MODEL BASED IN MULTICOMMODITY FLOW FOR INDOOR ENVIRONMENTS AND SWIPT APPLICATIONS
Thursday, 24.09		
Session 13 - Biomedical Engineering B		Chairman Prof. Xose M Lopez-Fernandez 9:00-9:45
Katarzyna Wojtera, Krzysztof Smółka, Łukasz Szymański, Sławomir Wiak	58	HOW ELECTROMAGNETIC FIELD CAN AFFECT HUMAN BODY?
Chauviere Simon, Belguerras Lamia, Lubin Thierry Mezani Smail	59	DESIGN AND TEST OF AN OPEN COMPACT EXTREMITY PORTABLE MRI SYSTEM
Dorota Kamińska, Grzegorz Zwoliński, Anna Laska-Leśniewicz	60	USING VR EXPERIENCE TO CORRECT POSTURE DEFECTS
Session 14 - Materials Modelling A		Chairman Prof. Ivo Dolezel 10:15-11:30
Bartosz Przysucha, Tomasz Rymarczyk, Dariusz Wójcik	61	AUTOMATIC DISTURBANCE DETECTION IN BODY SURFACE POTENTIAL MAPPING MEASUREMENTS
Dorota Kamińska	62	POSITIONING PHYSICAL OBJECTS IN A VIRTUAL ENVIRONMENT - ENHANCING THE EXPERIENCE WITH HAPTICS.

Ronan Corin, Jean-Philippe Lecointe, Cristian Demian, Jonathan Blaszkowski	63	ANALYSIS OF THE GRAIN ORIENTED ELECTRICAL STEEL HETEROGENEITIES AND THEIR INFLUENCE ON THE EPSTEIN FRAME LOSS MEASUREMENTS
Abderrahmane Rebhaoui, Sid-Ali Randi, Cristian Demian, Jean-Philippe Lecointe	64	USE OF GRAIN ORIENTED ELECTRICAL STEEL SHEETS FOR ELECTRIC MOTOR IN AUTOMOTIVE APPLICATION: TOOTH SEGMENTATION
Stamatios Amanatiadis, Theodoros Zygiridis, and Nikolaos Kantartzis	65	EFFICIENT GRAPHENE MICROSTRIP PLASMONIC MODE CONVERTER UTILISING BEND GEOMETRIES
Session 15 - Materials Modelling B		Chairman Prof. Goga Cvetkovski 12:00-13:00
Xiao Xiao, Fabian Müller, Martin Nell, Kay Hameyer,	66	PREDICTION OF HYSTERESIS LOSSES BY AN ADVANCED VECTOR HYSTERESIS STOP MODEL WITH THRESHOLD SURFACES
Yuji Kurosawa, Yuji Enomoto, Naoya Soda	67	EVALUATION OF MAGNETIC PROPERTIES OF TWO KINDS OF PERMENDURS BY VECTOR MAGNETIC MEASUREMENT
Valentin Mateev, Iliana Marinova, Martin Ralchev	68	MAGNETIC PARTICLE CONVECTION MODELING DURING 3D FFF/FDM PRINTING
Valentin Mateev, Iliana Marinova, Martin Ralchev	69	MAGNETIC PROPERTIES OF 3D FFF/FDM PRINTED MAGNETIC MATERIAL
Session 16 - Materials Modelling C		Chairman Prof. Maria Evelina Mognaschi 14:30-15:30
Paul Clérico, Lionel Pichon, Xavier Mininger, Olivier Dubrunfaut, Delong He, Jinbo Bai, Laurent Prévond	70	DESIGN OF A WIDE FREQUENCY BAND COMPOSITE SHIELD
Łukasz Pietrzak, Grzegorz Raniszewski	71	POLYMER COMPOSITES WITH CARBON NANOTUBES FOR APPLICATIONS IN ELECTRICAL ENGINEERING
Grzegorz Raniszewski, Łukasz Pietrzak	72	CARBON NANOTUBES FOR ENERGY STORAGE DEVICES IN ELECTRIC VEHICLES
Athanasios Papadimopoulos, Alessio di Iorio	73	PLASMA MONOPOLE ANTENNA ARRAY
Session 17 - Artificial Intelligence - Virtual Reality Methodologies		Chairman Prof. Jacek Kucharski 16:00-16:45
Filip Vaverka, Milan Smetana, Daniela Gombarska, Ladislav Janousek	74	EVALUATION OF ARTIFICIAL NOTCHES IN CONDUCTIVE BIOMATERIALS BY SWEEP FREQUENCY EDDY CURRENT TESTING
Dorota Kamińska, Grzegorz Zwoliński, Anna Firych-Nowacka	75	VIRTUAL REALITY DESIGN FOR PROGRAMMABLE LOGICCONTROLLER
Jacek Stańdo, Dorota Kamińska, Anna Laska-Leśniewicz	76	THE USE VIRTUAL REALITY FOR TEACHING SYSTEMS OF LINEAR EQUATIONS.
Thursday, 23.09		Closing Session - Dean of Faculty Prof. Jacek Kucharski and Prof. Sławomir Wiak 16:45-17.00