

FACULTY OF MATERIALS SCIENCE AND TECHNOLOGY
www.mtf.stuba.sk

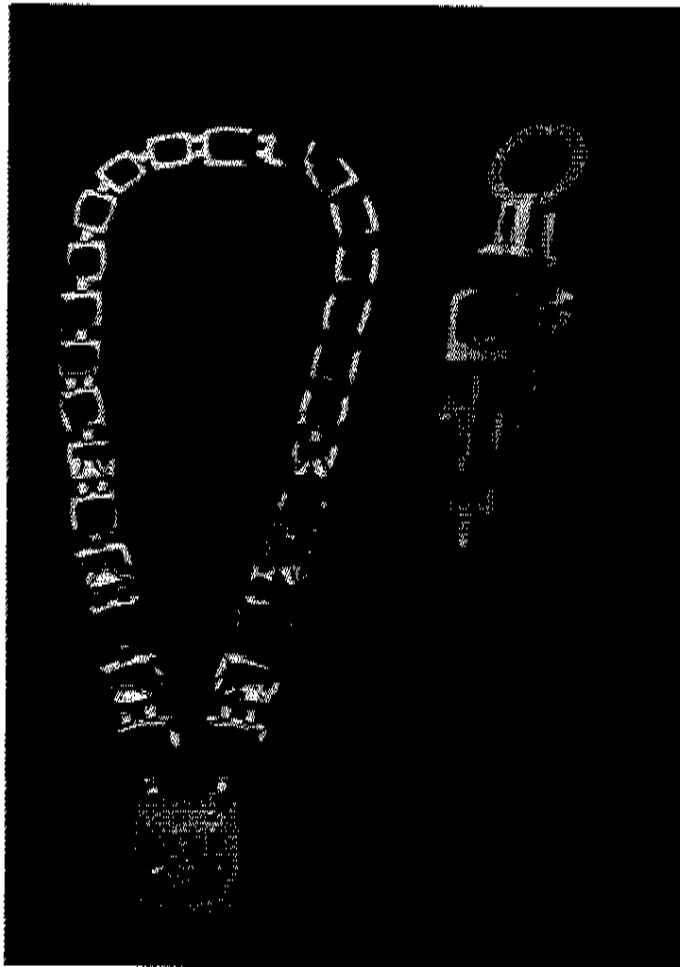
ANNUAL REPORT 2004

SLOVAK UNIVERSITY OF TECHNOLOGY
BRATISLAVA

© Authorised contributions from departments

TABLE OF CONTENTS

FOREWORD.....		5
DEPARTMENT OF APPLIED MECHANICS.....	<i>K api</i>	14
DEPARTMENT OF ENGINEERING PEDAGOGY AND PSYCHOLOGY.....	<i>KIPP</i>	23
DEPARTMENT OF ENVIRONMENTAL AND SAFETY ENGINEERING.....	<i>KED1</i>	31
DEPARTMENT OF FORMING.....	<i>KIP</i> <i>KIV</i>	43
DEPARTMENT OF FOUNDRY.....	<i>KZ1</i>	51
DEPARTMENT OF HUMANE SCIENCES.....	<i>K4U</i>	59
DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT.....	<i>KZIM</i>	65
DEPARTMENT OF INFORMATION TECHNOLOGY AND AUTOMATION.....	<i>KATA</i>	81
DEPARTMENT OF LANGUAGES.....	<i>K050</i>	91
DEPARTMENT OF MACHINING AND ASSEMBLY.....	<i>KOM</i>	99
DEPARTMENT OF MATERIALS ENGINEERING.....	<i>KM1</i>	109
DEPARTMENT OF MATHEMATICS.....	<i>KM</i>	119
DEPARTMENT OF NON-METALIC MATERIALS.....	<i>KUM</i>	125
DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS.....	<i>KTUS</i>	133
DEPARTMENT OF PHYSICS.....	<i>KE</i>	139
DEPARTMENT OF QUALITY ENGINEERING.....	<i>KIK</i>	149
DEPARTMENT OF TECHNOLOGICAL DEVICES AND SYSTEMS.....	<i>KTBS</i>	159
DEPARTMENT OF WELDING.....	<i>KWJ</i>	167
COMPUTATIONAL TECHNOLOGY CENTRE.....		175
CENTRAL LIBRARY – STUDY AND INFORMATION CENTRE.....		177
APPENDIX A LIST OF FACULTY DEPARTMENTS.....		178
APPENDIX B LIST OF ACCREDITED STUDY PROGRAMMES.....		179



Insignia

Foreword

The Faculty of Materials Science and Technology (MtF) in Trnava was established on 1 January 1986 by decree of the Czechoslovak Government. It was originally named the Faculty of Machine Technology. However, the history of this Faculty is much older than the date of its establishment shows. Its history is closely connected with the technological branches of machine construction, the foundations of which were laid at the Department of Mechanical and Electrical Engineering in the forties.

In February 1991 the Academic Senate of the Faculty suggested a new name for this institution - the Faculty of Materials Science and Technology - which is its present official name. Faculty of Materials Science and Technology is one of the six faculties of the Slovak University of Technology (STU), the oldest and the largest University of Technology in Slovakia.

In the academic year 2004-2005 the Faculty comprises the following departments:

- Department of Applied Mechanics
- Department of Engineering Pedagogy and Psychology
- Department of Environmental and Safety Engineering
- Department of Forming
- Department of Foundry
- Department of Humane Sciences
- Department of Industrial Engineering and Management
- Department of Information Technology and Automation
- Department of Languages
- Department of Machining and Assembly
- Department of Materials Engineering
- Department of Mathematics
- Department of Non-Metallic Materials
- Department of Physical Education and Sports
- Department of Physics
- Department of Quality Engineering
- Department of Technological Devices and Systems
- Department of Welding
- Detached workplaces in Brezno, Dubnica, Nitra and Komárno.

The educational and research activities of the Faculty are aimed at training the experts and solving research tasks in the field of industrial (partially mechanical engineering) production, where issues related to engineering materials,

materials, technological processes, production management and quality control, information technologies and automation processes in production plants, together with ecological and humane aspects of production processes are being dealt with.

Following the requirement for diversification of all forms of study and graduate profiles, the Faculty provides Bachelor's degree courses (BSc.), Master's degree courses (MSc.), and postgraduate doctoral (PhD) degree courses. In the academic year 2004/2005 - 5667 students studied at the Faculty in various courses.

As it follows from the results of the successful accreditation carried out at the Faculty in the year 2001, the following majors can be studied within the below mentioned types of accredited courses:

STUDY BRANCH, STUDY FORM AND STUDY DURATION

BACHELOR STUDY:

- Machine Production Technology
- Technological Devices and Systems
- Materials Engineering
- Environmental Engineering
- Safety Technology- Safety of Technology Systems and Processes
- Information Technology and Automation in Industry
- Quality Engineering
- Industrial Engineering and Management

Study form: full-time, part-time, Study duration: 3 years full-time, 4 years part-time

MASTER OF SCIENCE STUDY:

- Machine Production Technology
- Technological Devices and Systems
- Materials Engineering
- Environmental Engineering
- Information Technology and Automation in Industry
- Quality Engineering
- Industrial Engineering and Management

Study form: full-time, part-time; Study duration: 2 years full-time, 2,5 years part-time

POSTGRADUATE STUDY (PhD):

Automation and Control
Materials Engineering
Machine Technologies and Materials
Quality Engineering
Plant Management
Theory of Technical Subjects Training

Study form: full-time and part-time; Study duration: 3 years full-time, 5 years part-time

COMPLEMENTARY TEACHER TRAINING:

Teaching Technical Subjects

Study form: part-time; Study duration: 2 year

In January 2004 the Faculty submitted 37 study programmes to the Accreditation Commission of Slovak Government. All of them have been approved and the Faculty will start teaching courses within the newly accredited programs from the academic year 2005-2006.

The scientific research of the Faculty of Materials Science and Technology respects the scientific and educational profile of the Faculty and is carried out in the following forms:

grant research, institutional research, research within the framework of programmes of international scientific and research co-operation, research within the framework of entrepreneurial Faculty activities.

The basic organisational units promoting the scientific research programme at the Faculty are the departments.

In organising the activities the Faculty builds upon its traditional and long-term relations with foreign partner universities and foreign enterprises. The most important are: Technische Universität Wien Austria, Technische Universität Darmstadt Germany, Technische Universität Cottbus Germany, Fachhochschule Koethen Germany, State University of Technology in Izhevsk Russia, IFW e.V. Dresden Germany, NIS USA, University of Ljubljana Slovenia, Herning Institute of Business administration and Technology in Denmark, Purdue University Kokomo USA.

International co-operation programmes concentrate especially on co-operation in curriculum development and innovation, professional growth of the Faculty staff and the exchange of students, pedagogic documentation and other

information. TEMPUS and CEEPUS (Central European Programme for University Studies) programmes represent a significant form of the updating of our foreign activities.

February 2005

Jozef Sablik, PhD, Professor
Dean of the Faculty

Presidium of the Faculty**Dean :**

Jozef Sablik, PhD, Prof.



Oliver Moravčík, PhD, Prof. – deputy dean;
vice-dean for

- personnel and economic affairs
- professional staff development



Alexander Štrpka, PhD, Assoc. Prof. – vice-dean for

- education
- student social programme



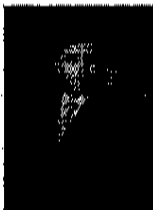
Jozef Mudrik, PhD, Assoc. Prof. – vice-dean for

- scientific research and management
- international projects
- technology transfer



Jozef Vaský, PhD, Assoc. Prof. – vice-dean for

- international contacts
- IT implementation and development
- public relations



Anton Ulik, PhD, Assoc. Prof. – vice-dean for

- technical and investment development
- entrepreneurial activities
- publishing

Address: Materiálovotechnologická fakulta STU
Paulínska 16, 917 24 Trnava
Slovak Republic

Tel: ++421-33-5511 028 *E-mail:*
dekan@mtf.stuba.sk

Fax: ++421-33-5511 758 *http:* //www.mtf.stuba.sk

Scientific Board

Chairman: Jozef Sablik, PhD, Prof.
Vice-chairman: Jozef Mudrik, PhD, Assoc. Prof.
Members:

Viktor Bajčík, PhD, Assoc. Prof.	Marián Dugovič, MSc. Eng.
Karol Balog, PhD, Prof.	Vladimír Giba, MSc.Eng. PhD
Jaroslav Červeňanský, PhD, Assoc. Prof.	Štefan Kassay, PhD, Prof.
Peter Grgač, PhD, Prof.	Peter Kostka, PhD, Assoc. Prof.
Ivan Hrivňák, PhD, Prof.	Aleš Gregar, PhD, Assoc. Prof.
Alexander Janáč, PhD, Prof.	Štefan Schmidt, MSc. Eng.
Ján Kalužný, PhD, Prof.	Miroslav Badida, PhD, Prof.
Marianna Kundrátová, PhD, Assoc. Prof.	Matej Bílý, PhD, Prof.
Alexander Linczényi, PhD, Prof.	Miroslav Solava, MSc. Eng.
Oliver Moravčík, PhD, Prof.	Branko Katalinic, PhD, Prof.
Marián Murgaš, PhD, Prof.	Milan Belko, MSc. Eng. PhD
Peter Schreiber, PhD, Assoc. Prof.	Luboš Lopatka, MSc. Eng.
Alexander Štrpka, PhD, Assoc. Prof.	Miroslav Šeřík, MSc. Eng.
Milan Turňa, PhD, Prof.	Lubomír Jahnátek, PhD, Assoc. Prof.
Anton Ulík, PhD, Assoc. Prof.	Peter Horyl, PhD, Prof.
Jozef Vaský, PhD, Assoc. Prof.	

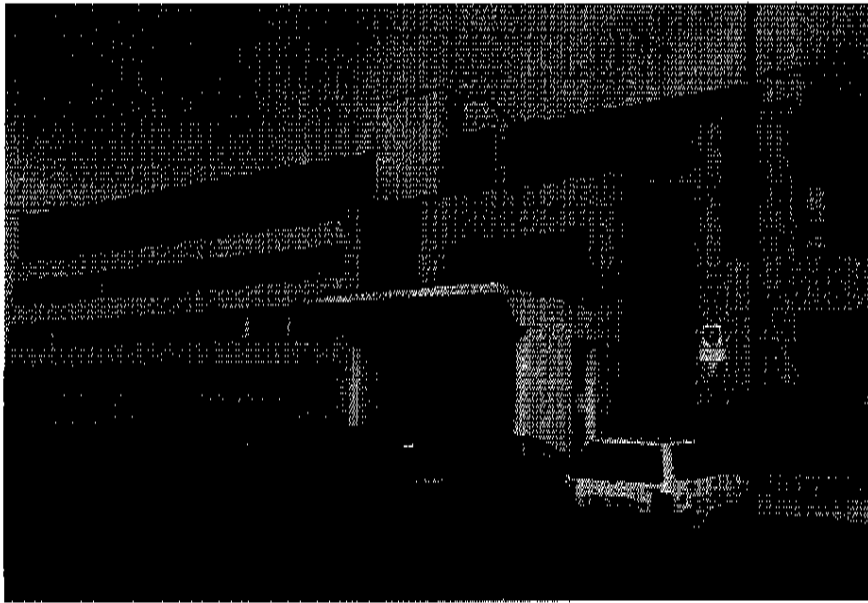
Academic Senate

Chairman of Senate: Peter Grgač, PhD, Prof.
Members:

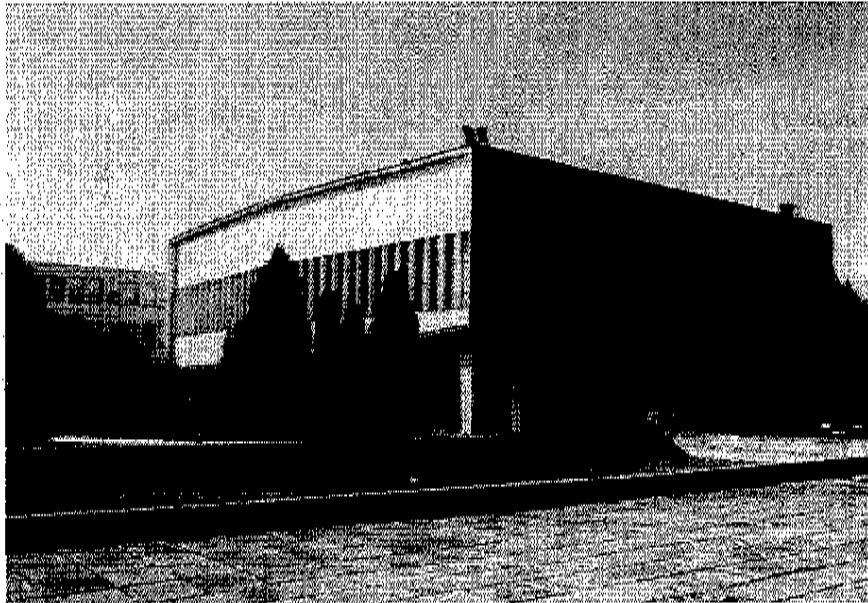
Karol Balog, PhD, Prof.	Juraj Míština, MSc. Eng.
Miloš Čambál, PhD, Assoc. Prof.	Milan Naď, MSc. Eng. PhD
Jaroslav Červeňanský, PhD, Assoc. Prof.	Jozef Peterka, PhD, Assoc. Prof.
Peter Grgač, PhD, Prof.	Peter Schreiber, PhD, Assoc. Prof.
Roman Hrmó, MSc. Eng. PhD	Alexander Štrpka, PhD, Assoc. Prof.
Ivan Jurčo, PhD, Assoc. Prof.	Pavol Tanuška, MSc. Eng. PhD
Marian Merica, PhD, Assoc. Prof.	Karol Velišek, PhD, Assoc. Prof.

Members of Chamber of Students:

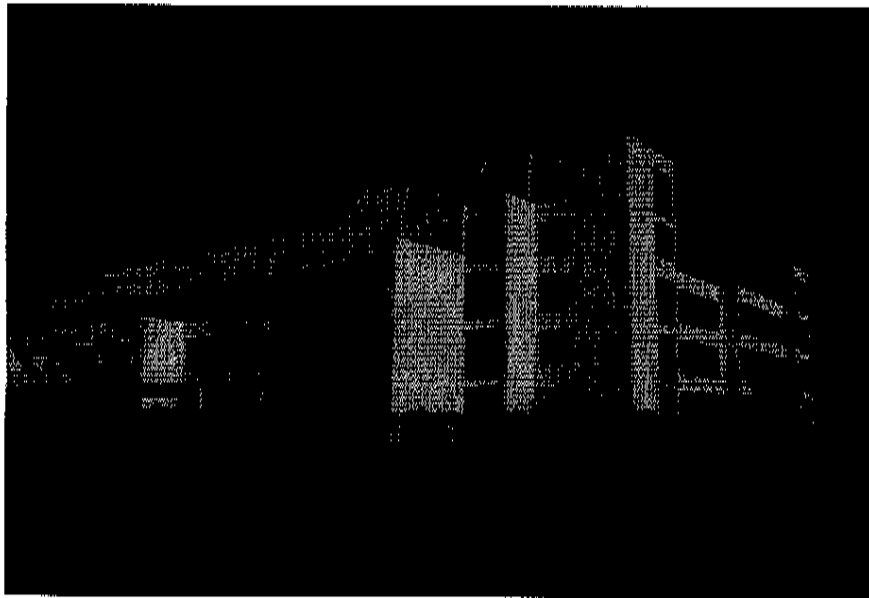
Peter Iring	Andrej Véber
Tomáš Galko	Michal Lenhardt
Katarína Bergerová	Martina Jakábová, MSc. Eng.
Branislav Trenčan	



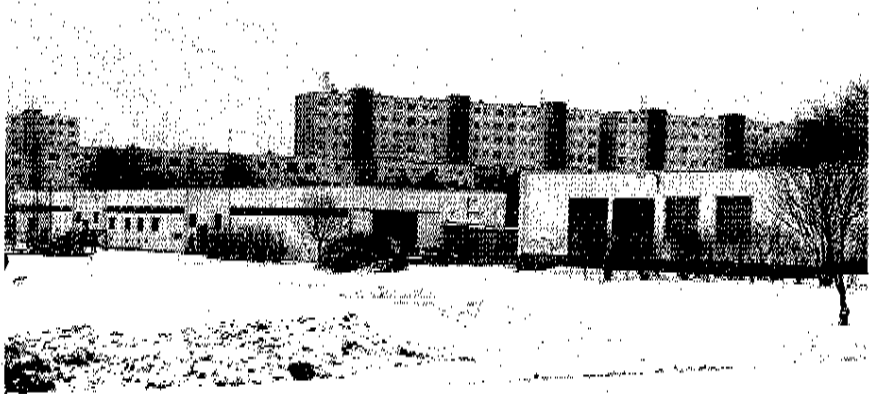
Paulinska Street campus



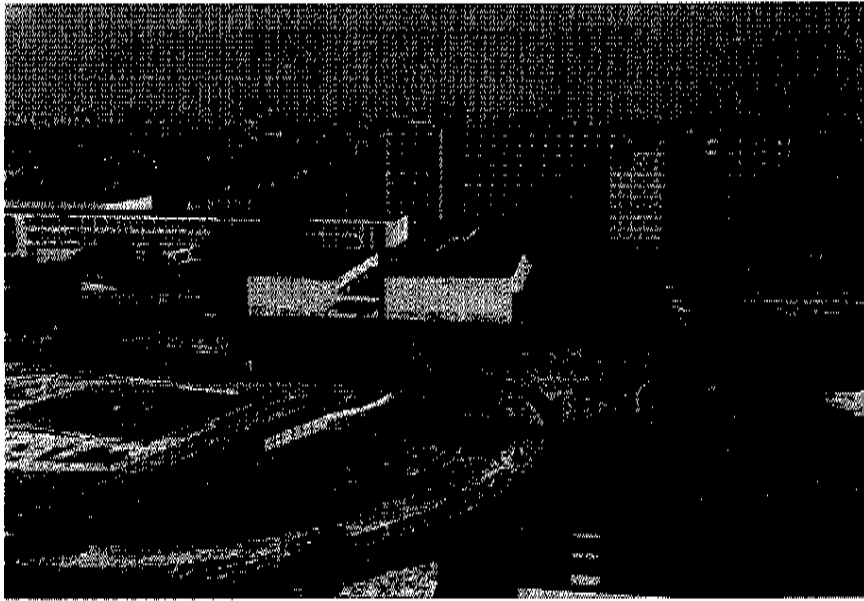
Bottova Street campus



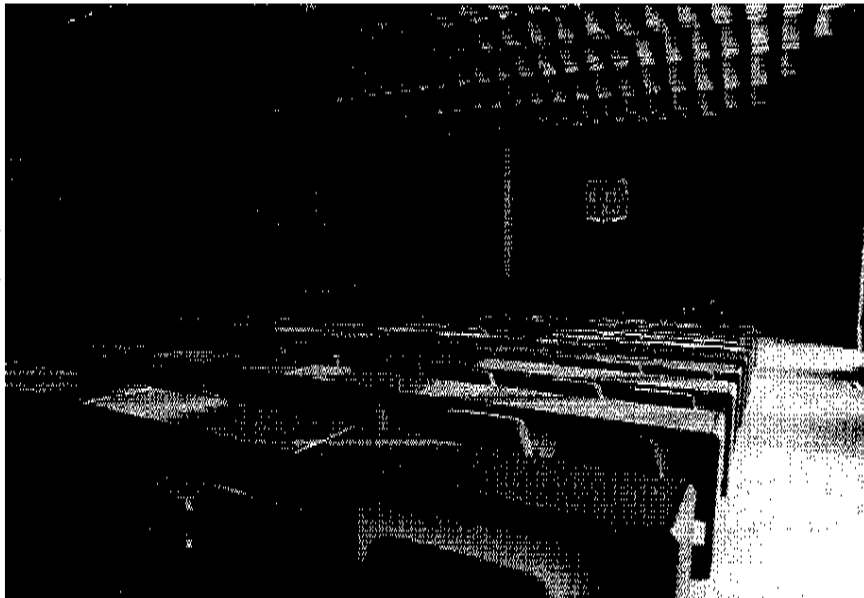
Heavy laboratories



Light laboratories



Student hostel



Aula Maxima – the main lecture hall

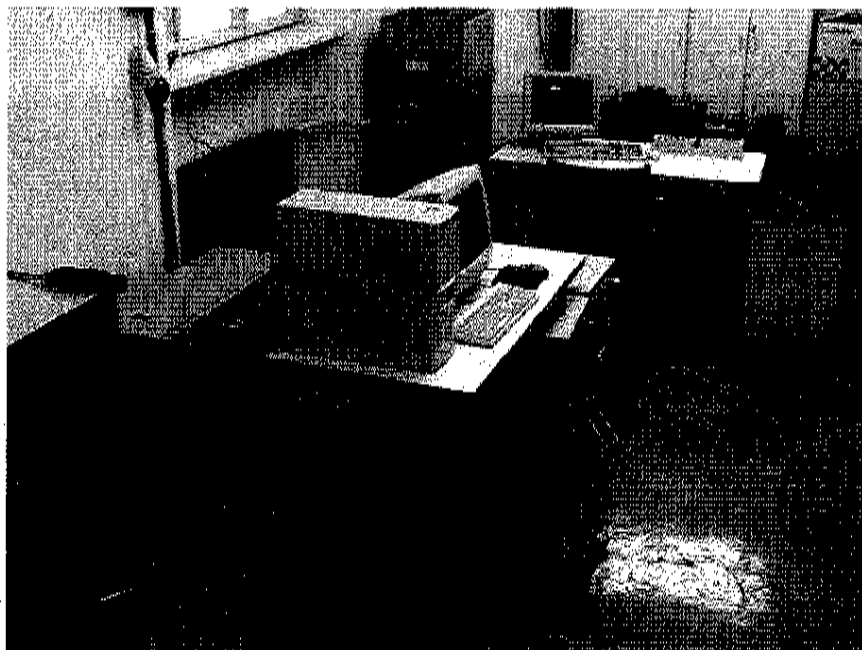
DEPARTMENT OF APPLIED MECHANICS

Head of the Department
Milan Nad', MSc.(Eng.), PhD

Tel.: ++ 421-33-5511733
Fax: ++ 421-33-5511668
E-mail: kam@mtf.stuba.sk

I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	4	Technical and Admin. Staff:	3
Senior Lecturers:	11	PhD Students:	6
Lectures:	1		



Tribotestor and the stand for measuring the dynamic properties

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Mechanical laboratory
- Tribological laboratory
- Computational laboratory
- Specialised CAD laboratory
- Manufacturing workshop

II.2 Special Measuring Instruments and Systems

- Experimental stand for testing of mechatronic systems.
- Equipment for testing of tribological material properties.
- Codes - ANSYS, DYNAST, AutoCAD.
- Equipment for noise measurements.
- Equipment for strain gauges measurements.
- Equipment for measurements of heat transfer coefficient in fluids.

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Basics of Engineering Design	1	2-2	Král, Lacko, Muráň
Mechanics of Solids	3	2-2	Mudrik, Labašová
Mechanics of Solids	3	3-3	Naď
Strength of Materials	4	2-2	Jelemenský
Practice of Basics of Engineering Design	4	0-2	Oravcová, Riečičiarová
Practice of Mechanics of Solids	3	0-2	Naď, Labašová
Practice of Strength of Materials	3,4	0-2	Đuriš, Nánási
Mechanisms and Machine Parts	4	2-2	Muráň
Strength of Materials	3	1-2	Jelemenský, Nánási
Mechanisms and Machine Parts	5	3-2	Král
Basics of Engineering Design	1	9-9	Muráň, Riečičiarová
Mechanics of Solids	5	20-7	Naď
Mechanisms and Machine Parts	6	9-9	Muráň
Mechanisms and Machine Parts	6	9-5	Muráň
Hydro-Thermomechanics	5	7-7	Behúlová, Taraba
Practice of Hydro-Thermomechanics	4	0-2	Behúlová
Hydro-Thermomechanics	4	1-2	Kraváriková
Hydro-Thermomechanics	6	9-9	Behúlová
Practice of Mechanics of Solids	5	0-9	Naď
Noise and Vibrations	5	2-2	Mudrik
Hydro-Thermomechanics	4	2-2	Taraba

Name of subject	Semester	H/W L-P	Reader's name
Practice of Basics of Engineering Design	3,4,6	0-9	Tomaniček, Riečičiarová, Oravcová
Strenght of Materials	5	9-9	Nánási
Practice of Strenght of Materials	5	0-9	Đuriš
Mechanics of Solids	4	9-9	Mudrik
Practice of Strenght of Materials	4, 5	0-9	Đuriš
Practice of Hydro-Thermomechanics	5,6	0-9	Behúlová, Kraváriková
Strenght of Materials	5	7-7	Jelemenský

III.2 Graduate Study (Ing.)

H/W Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Theory and Technology Industry Heating	3	2-2	Taraba
Mechanics of Materials	1	9-9	Nánási
Mechanics of Solids	11	14-14	Naď
Basics of Engineering Design	11	9-5	Tomaniček
Mechanics of Materials	1	2-2	Nánási
Mechanics of Materials II	3	1-1	Taraba
Mechanics of Materials II	3	5-5	Taraba
Strength of Materials	11	9-9	Nánási
Thermodynamics	1	2-1	Behúlová

IV. RESEARCH TARGETS

- Modelling, analysis, simulation and experimental investigation of machine aggregates as mechatronic systems.
- Investigation of new materials with progressive tribological properties.
- Research and application of new approaches in numerical methods - analysis and simulation of technological and industrial processes, static and dynamic analysis of engineering structures.
- Research and development in the field of theoretical and applied mechanics.

V. RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Analysis and numerical simulation of temperature and stress-strain state in progressive technological and assembly processes. VEGA 1/9381/02

- Dynamic analysis and synthesis of rotational machine aggregate. VEGA 1/9102/02
- Prismatic workpieces clamping by modular system fixtures. VEGA 1/0307/037 - participation with Department of Technological Devices and Systems.
- Environmental suitable additive materials and technology for joining metallic and non-metallic materials and their combinations in solid state. VEGA 1/0122/037 - participation with Department of Welding
- New wear resistant materials of eutectic type. VEGA 1/0305/037 - participation with Department of Materials Engineering

V.3 International Projects

- „Methods of analysis and synthesis of rotational machine aggregates with gearing. International project - foreign partners: IzhGTU Izhevsk - Russia, IMS TU Brno - Czech Republic
- „FEM analysis and optimization of dynamic and incremental semi-product heating for innovation forming processes“. International project - foreign partner: Technical university, Chemnitz, Germany.
- “Study and numerical simulation of thermal and humidity states of materials for the mass and energy transfer by the convective heat transfer”. International project - foreign partner: University of Technology, Brno, Czech Republic.

VI. CO-OPERATION

VI.1 National Co-operation

- Department of Machine Parts, Faculty of Mechanical Engineering, Slovak University of Technology in Bratislava

VI.2 International Co-operation

- Co-operation with foreign partners: IzhGTU Izhevsk, Russia; BAS Sofia, Bulgaria; TU Warsaw, Poland; IM RAS Moscow, Russia; IMS TU Brno, Czech Republic

VI.3 Contracts with Industry

- Co-operation with EBO Jaslovské Bohunice, EMO Mochovce, VUJE Trnava, ÚJD.

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Mudrik Jozef - staff - Institute of Mechanics, Izh.GTU Izhevsk, Russia
- Taraba Bohumil, Behúlová Mária, Lašček Milan - staff - University of Technology, Brno, Czech Republic
- Behúlová Mária, Vražič Igor, Lašček Milan - staff - Technical university, Chemnitz, Germany
- Milan Nad' – staff – Warsaw University of Technology, Warsaw, Poland

VIII.2 Foreign Visitors to the Department

- Goľdfarb V. J., Seletkov I.V., Repko A., Kulemin V., Plechanov F., Gubert A., - IzhGTU Izhevsk, Russia
- Šťastník S., Zach J., Kminová H. - University of Technology, Brno, Czech Republic
- Mašek B., Malina J. - Technical university, Chemnitz, Germany
- Oleksiuk W., Bodnicki M., Moscicki W. – Warsaw University of Technology, Warsaw, Poland
- Starzhinski V. – National Academy of Sciences Belarus, Gomel, Belarus
- Mitutsova L. – BAS, Sofia, Bulgaria

VIII.3 Organised Conferences, Seminars and Workshops

- 7th International Conference „Dynamics of Machine Aggregates 2004“, 14-15. October 2004, Trnava

IX. PUBLICATION

TARABA Bohumil – BEHŮLOVÁ Mária – KRAVÁRIKOVÁ Helena. *Fluid Mechanics. Thermomechanics*. Bratislava: STU, 2004. 241 s. ISBN 80-227-2041-0

KRÁL Štefan – BOŠANSKÝ Miroslav. *Engineering Design I – Working Book*. Bratislava: STU, 2004. ISBN 80-227-2082-8

KRÁL Štefan. Kinematic accuracy and dynamic properties of gearing. In *Acta Mechanica Slovaca*, 2004, č. 3-C, s. 115 – 118. ISSN 1335-2393

MUDRIK Jozef. Torsional vibrations of electromechanical systems. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

NAĎ Milan – ĎURIŠ Rastislav. Modification of dynamical properties of circular discs by stress fields. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

LABAŠOVÁ Eva – LABAŠ Vladimír. Modification of resonance method for determination of dynamic Young's modulus. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 75 - 80. ISSN 1336-1589

LIPA Zdenko – JANÁČ Alexander – TOMANIČEK Stanislav – TOMANIČKOVÁ Dagmar. Hyperdiagrams of cutting tool wear. Part 2. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 81 - 84. ISSN 1336-1589

MUDRIK Jozef. Electromechanical properties of separately excited direct-current motor. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 105 - 111. ISSN 1336-1589

BEHŮLOVÁ Mária. Simulation model of induction heating for the process of rotary spin extrusion – part 2. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 9 – 15. ISSN 1336-1589

LAŠČEK Milan – HAZLINGER Marián. The heat treatment of the high speed steel (STN 41 9811) influenced by numerical simulation. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 109 - 114. ISSN 1336-1589

TARABA Bohumil. The heat transfer coefficient determination by the convective cooling in quench-oil isorapid 438. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 173 - 178. ISSN 1336-1589

LABAŠOVÁ Eva, LABAŠ Vladimír. Optional subject selection from the point of view of students. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

ĎURIŠ Rastislav – KUTIŠ Vladimír. A comparison of various formulations for geometric non-linear analysis. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 83-86. ISBN 80-227-2076-3

KRAVÁRIKOVÁ Helena. Analysis of numerical simulation angular weld. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 281-286. ISBN 80-227-2076-3

NAĎ Milan. Finite element analysis of the sandwich plate vibrations. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 395-398. ISBN 80-227-2076-3

ORAVCOVÁ Jarmila. Basic starting points for experimental research kinematic inaccuracies of the spiroid gears. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 415-418. ISBN 80-227-2076-3

RIEČIČAROVÁ Eva. Characteristics of the spiroid gears. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 481-484. ISBN 80-227-2076-3

TARABA Bohumil. Analysis of temperature fields by laser beam surface making. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, II.diel, s. 557-560. ISBN 80-227-2076-3

TOMANÍČEK Stanislav. Application of 3D CAD software in process plans – II. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 571-574. ISBN 80-227-2076-3

LACKO František. Various application of the calculation standard for determination of the tower calculation loads of a building crane. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 747-754. ISBN 80-227-2117-4

LAŠČEK Milan. Structure Changes Of By Powder Metallurgy Process Made High Speed Steel After Unconventional Heat Treatment (Experimental Results). In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 762-765. ISBN 80-227-2117-4

VRAŽIČ Igor, BEHÚLOVÁ Mária, MAŠEK Bohuslav, MEYER Lothar W. Numerical simulation of Induction heat treatment of hollow shafts from 20MOCRS4 steel. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1497-1505. ISBN 80-227-2117-4

ĎURIŠ Rastislav. Nonlinear analysis of mises truss problem and comparison of various nonlinear formulations. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004, p.11. ISBN 80-227-2125-5

KRÁL Štefan. Addition dynamic load and his results. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004, p. 12. ISBN 80-227-2125-5

KRAVÁRIKOVÁ Helena. Experimental measurement of temperatures and deformations during welding. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004, p. 13. ISBN 80-227-2125-5

LABAŠOVÁ Eva, LABAŠ Vladimír. Contribution to measurement of dynamic Young's modulus by resonance method. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004, p. 16. ISBN 80-227-2125-5

NAĎ Milan. Free vibration of viscoelastically damped sandwich plates - the effect of geometrical and material core parameters. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004. p.19. SBN 80-227-2125-5

NÁNÁSI Tibor Variational statement for boundary problems. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004. p. 20. ISBN 80-227-2125-5

RIEČIČIAROVÁ Eva Contribution to the mechanical efficiency of the spiroid-gears. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004. p.23. ISBN 80-227-2125-5

TOMANÍČEK Stanislav Teaching of design fundamentals with 3D software application. In *7th International conference DYNAMICS OF MACHINE AGGREGATES*. Bratislava: STU, 2004. p.28. ISBN 80-227-2125-5

KRÁL Štefan. Kinematic Accuracy and Dynamic Properties of Gearing. In *Proceedings The elevenenth World Congress in Mechanism and Machine Science*. China: Machine Press, 2004, s. 720 – 722.

MUDRIK Jozef. The effect of electrical drive parameters on vibrations in machine aggregate. In *Inženýrská mechanika 2004. Engineering mechanics 2004*. Praha: ČSAV, 2004. CD. ISBN 80-85918-88-9

NÁNÁSI Tibor. Relations between frequency equations of beams. In *Inženýrská mechanika 2004. Engineering mechanics 2004*. Praha: ČSAV, 2004. CD. ISBN 80-85918-88-9

NAĎ Milan. Influence of the pre-stressed areas on circular disc vibrations. In *Inženýrská mechanika 2004. Engineering mechanics 2004*. Praha: ČSAV, 2004. CD. ISBN 80-85918-88-9

NAĎ Milan. Vibration of circular discs with in-plane stress fields. In *II. mezinárodní konference o pružinách a využití software v konstruování*. Praha: ČZU, 2004, s. 34 – 37. ISBN 80-213-1125-8

TOMANÍČEK Stanislav. Teaching of design fundamentals with 3D software. In *II. mezinárodní konference o pružinách a využití software v konstruování*. Praha: ČZU, 2004, s. 66 - 68. ISBN 80-213-1125-8

NAĎ Milan. The influence of core parameters on dynamical properties of the sandwich plates. In *Noise and vibration in practice*. Bratislava: STU, 2004, s. 35 – 38. ISBN 80-227-2066-6

NÁNÁSI Tibor. Simple resolution of frequency dependencies. In *Noise and vibration in practice*. Bratislava: STU, 2004, s. 95-96. ISBN 80-227-2066-6

LIPTÁK Milan – BEHÚLOVÁ Mária – GRGAČ Peter. Influence of melt undercooling on the microstructure of alloy of the Fe-C-Cr-V type. In *SEMDOK 2004*. Žilina: ŽU, 2004, s. 163 - 168. ISBN 80-8070-178-4

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Principles of the education quality assurance system at the Slovak University of Technology in Bratislava. In *Technické univerzity: integrácia s evropskými a medzinárodnými systémami vzdelávania*. Iževsk: MORF, 2004, s. 189-202. ISBN 5-7526-0186-X

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Quality of university education in the field of engineering. In *Technické univerzity: integrácia s evropskými a medzinárodnými systémami vzdelávania*. Iževsk: MORF, 2004, s. 202-211. ISBN 5-7526-0186-X

BEHŮLOVÁ Mária. Methodology of numerical solution of electro-magnetic and temperature fields by induction heating using the program system ANSYS. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 127 – 132. ISBN 80-239-3561-5

LAŠČEK Milan. High speed steels structure changes applying by unconventional heat treatment. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 75 - 78. ISBN 80-239-3561-5

LACKO František. Analyses of possibility of tower bending compensation with tower building crane equipped with non-rotary tower. In *Zdvíhacie zariadenia v teórii a praxi*. Košice: Viena, 2004, s. 69 – 75. ISBN 80-88922-85-2

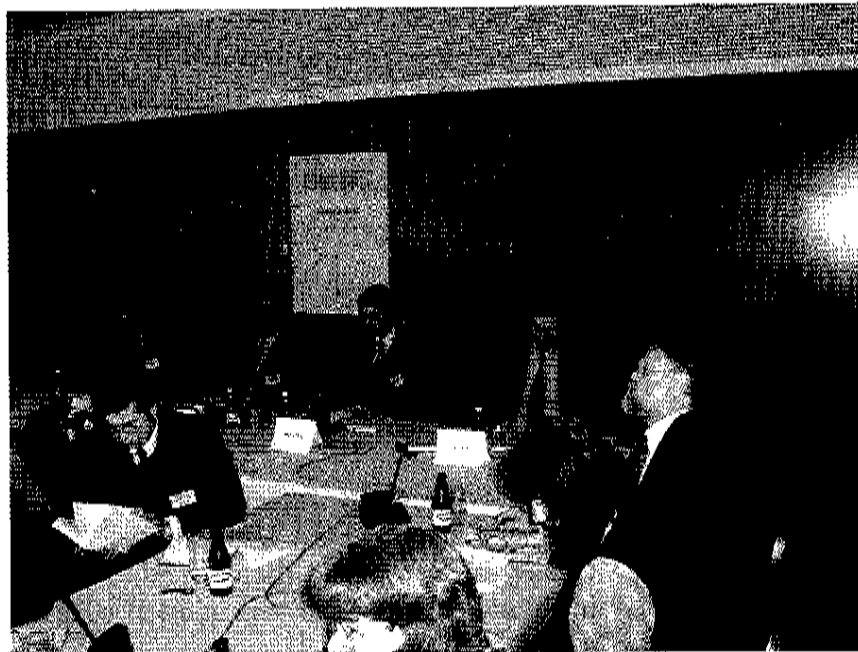
DEPARTMENT OF ENGINEERING PEDAGOGY AND PSYCHOLOGY

Head of the Department:
Roman Hrmo, PhD., Assoc. Prof.

Tel/Fax: ++421-2-5443 1730
E-mail: kipp@cvtstu.cvt.stuba.sk

I. STAFF

Professors:	2	Research Fellows:	2
Assoc. Professors:	4	Technical and Admin. Staff:	3
Senior Lecturers:	6	PhD Students:	5
Lecturers:	0		



The international research conference Schola 2004

II. EQUIPMENT**II.1 Teaching and Research Laboratories****II.2 Special Measuring Instruments and Systems****III. TEACHING****III.1 Bachelor Study (Bc.)***H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
Industrial Psychology	5	0-2	Schuller
Communication in Management	8	0-2	Chmelárová

III.2 Graduate Study (Ing.)*H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
Psychology in Management	9	0-2	Kováč
Psychology in Management	10	0-2	Kováč, Schuller
Industrial Psychology	7	0-2	Schuller

IV. RESEARCH TARGETS**V. EDUCATION AND RESEARCH PROJECTS**

- Engineer pedagogy – its dominant determinants and functions after entering Slovakia the European Union. *Grant VEGA 1/2533/05.*
- The Key Competencies of Students in Technical Study Branches in National and European Context. *Grant VEGA 1/2531/05.*
- Implementation of „Quality of School“ to the curriculum of Complementary Teacher Training and experimental verification of education this subjects. *Grant KEGA 3/2380/04.*

VI. COOPERATION

- Beloruskij Politechnicheskiy Institute, Minsk

- Technische Universität, Dresden
- Muszaki Egyetem, Budapest
- Politechnika Slonska, Gliwice
- Universität für Bildungswissenschaften, Klagenfurt
- Technische Universität, Wien
- Technische Universität, Darmstadt
- Technische Hochschule, Hannover
- Technische Hochschule, Zürich

VII. THESIS

VII.1 Graduate Thesis

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Complementary Pedagogical Study - four-semester, daily:

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Pedagogy I	1	2,3-0	Budínek, Kostelník
Psychology I	1	2,3-0	Bustinová, Chmelárová
School Youth Biology	1	1,53-0	Tináková
History of Engineering	1	1,53-0	Hambalík
Pedagogy II	2	1,4-0,92	Budínek, Kostelník
Psychology II	2	1,4-0,92	Bustinová, Chmelárová
Didactics of Special Technical Subjects I	2	1,4-0,92	Vašková, Hrmo, Kunderátová, Tináková, Koláriková
Didactics of Special Technical Subjects II	3	2,3-0	Vašková, Hrmo, Kunderátová, Tináková, Koláriková
Adult Education	3	1,53-0	Kostelník
Basics of Legal Education	3	1,53-0	Kopšová
Mental Hygiene	3	1,53-0	Bajčík
Didactic Techniques	3	1,53-0	Hambalík
Seminar on Pedagogical Practice	4	0-1,53	Vašková, Hrmo, Kunderátová, Tináková, Koláriková
Pedagogical Practice	4	0-3,1	Vašková, Hrmo, Kunderátová, Tináková, Koláriková

VIII.2 Graduation Exam Subjects

- Pedagogy
- Didactics
- Psychology

In 2004 the Department also delivered the following courses:

- Complementary Pedagogical Study (part-time) - three-semester / 300 hrs
Note: Both types of the Complementary Teacher Training are accredited by the European Monitoring Committee of the International Society of Engineering Pedagogy (IGIP) for an „ING.PAED-IGIP“ degree standards.
- Pedagogical Study for Higher Education Teachers - in compliance with the European standards - 204 hrs.
- The Second Qualification Exam for the High School Pedagogical Workers with at least 10-year Experience - 30 hrs and defence of final work.
- Complementary Pedagogical Study for Master of Vocational Training with at least 3-year Pedagogical Experience (part-time) - four-semester / 217 hrs.

IX. PUBLICATIONS

TUREK Ivan. *Inovation in Theory of Instraction. Príspevok k realizácii projektu Milénium vo vyučovacom procese na základných a stredných školách*. Bratislava : MPC, 2004. 358 s. ISBN 80-8052-188-3

Collectin of Case Studies. (kol). Bratislava : STU, 2004. 47 s. ISBN 80.227-2140-9

DRIENSKY Dušan. Humanization of Technical Education. In *Aula*, 2004, 15, č. 2, s. 15 – 20. ISSN 1335-5864

DRIENSKY Dušan. Historical Technical Development in Slovakia and its Role by Training of Future Technicians and Engineers. In *Technológia vzdelávania*, 2004, 7, č. 2, s. 4-5.

REŠETOVÁ Kvetoslava. The significance of correct quote in activities of publication. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 149 - 153. ISSN 1336-1589

KRELOVÁ Katarína. New trends in complementary teacher training. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

CHMELÁROVÁ Zuzana – BUSTINOVÁ Ludmila. Comparison of Value Scale of Students of Individual Faculties at the Slovak University of Technology. In *Academia*, 2004, roč. 15, č. 3, s. 48 – 52. ISSN1335-5864

HRMO Roman – TUREK Ivan. About New Conception of Complementary Pedagogical Training. In *Aula*, 2004, 12, č. 1, s. 80 – 88. ISSN

TUREK Ivan. Case Study – Effective method of Education. In *Pedagogické rozhľady*, 2004, č.1, s. 15-18. ISSN 1335-0404

REŠETOVÁ Kvetoslava. Electronic Publishing as One of Forms Informative Management of Academic Library. In *Knižnica*, 2004, roč. 5, č. 10, s. 446-447. ISSN 1335-7026

HRMO Roman – KRELOVÁ Katarína. Teachers and IKT. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 149-152. ISBN 80-227-2076-3

TINÁKOVÁ Katarína. Quality of university education from the FEI student point of view. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 561-564. ISBN 80-227-2076-3

VAŠKOVÁ Ľubica. Environmental conscioussness of the future engineers. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 631-634. ISBN 80-227-2076-3

BAJČÍK Viktor, KUNDRÁTOVÁ Mariana, VAŠKOVÁ Ľubica. Learning skills of students. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 46-53. ISBN 80-227-2117-4

BUSTINOVA Ludmila. Self-recognition as a prerequisite of successful university study. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 136-138. ISBN 80-227-2117-4

DRIENSKY Dušan. Aspects of pedagogy at introduction in study at the slovak university of technology faculty of materials science and technology. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 237-240. ISBN 80-227-2117-4

HAMBALÍK Alexander. Experiences In Teaching Subject 'Introduction To Engineering Studies' At Slovak University Of Technology, Faculty Of Mechanical Engineering . In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 340-341. ISBN 80-227-2117-4

HRMO Roman. Curriculum design and experimental verification of teaching the subject "introduction to university study". In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 403-407. ISBN 80-227-2117-4

KOLÁRIKOVÁ Helena. Requirements of university of technology to preparation of aspirants about study. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 618-621. ISBN 80-227-2117-4

KOSTELNÍK Jan. Pedagogical Aspects of the transition from secondary school to university. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 636-639. ISBN 80-227-2117-4

KRELOVÁ Katarína. Different Ways of learning. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 680-683. ISBN 80-227-2117-4

KUNDRÁTOVÁ Marianna. Die Experimentelle Überprüfung Des Unterrichtsfachs Einführung In Das Hochschulstudium. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 733-737. ISBN 80-227-2117-4

TINÁKOVÁ Katarína. How Effectively Write Notes From Lectures At University. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1353 - 1357. ISBN 80-227-2117-4

TUREK Ivan, BAJČÍK Viktor. Learning styles. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1409-1416. ISBN 80-227-2117-4

HRMO Roman – VAŠKOVÁ Lubica. The Students of Slovak University of Technology after Enter Slovakia to European Union. In *XVII. DIDMATTECH 2004 : Technika – Informatyka – Edukacja*. Rzeszow: Uniwersytet Rzeszowski, 2004, s. 315-319. ISBN 83-88845-39-X

KRELOVÁ Katarína. Trends in Education of Future Teachers. In *XVII. DIDMATTECH 2004 : Technika – Informatyka – Edukacja*. Rzeszow: Uniwersytet Rzeszowski, 2004, s. 356-362. ISBN 83-88845-39-X

MIŠTINA Juraj – HRMO Roman. The Internet Phenomenon – Ethical Challenge in Engineering Education of the Information Age. In *International Conference on Engineering Education and Research „Progress Through Partnership“*. Ostrava: VŠB TU, 2004, s. 315-320. ISSN 1562-3580

TUREK Ivan – HRMO Roman. Proposal of the Standards for the Complementary Teacher Training. Graduates at Technical Universities in the Slovak Republic. In *Local Identity – Global Awareness : Engineering Education Today. 33rd International Symposium IGIP/IEEE/ASEE*. Fribourg: EIA-FR, 2004, s. 855 – 860. ISBN 2-940156-28-X

HRMO Roman. New Requirements on Work of Teachers and Innovation of Complementary Pedagogical Study. In *Modernizace vysokoškolské výuky technických předmětů I*. Hradec Králové : Gaudeamus, 2004, s. 52 – 55. ISBN 80-7041-318-2

KRELOVÁ Katarína. IKT and education. In *Modernizace vysokoškolské výuky technických předmětů I*. Hradec Králové: Gaudeamus, 2004, s. 84-87. ISBN 80-7041-318-2

TUREK Ivan. Case Study – Effective method of Education. In *Modernizace vysokoškolské výuky technických předmětů I*. Hradec Králové: Gaudeamus, 2004, s. 173-176. ISBN 80-7041-318-2

TUREK Ivan. Effectiveness of Modular – Credit System of Complementary Pedagogical Training. DPŠ. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 40 – 66. ISBN 80-227-2143-3

BUSTINOVÁ Ludmila. Experiences with Modular – Credit System of Complementary Pedagogical Training. *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 88 - 92. ISBN 80-227-2143-3

HAMBALÍK Alexander. Influence of Pre – Enter Portfolio of Students of Slovak University of Technology on Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 112 - 115. ISBN 80-227-2143-3

HRMO Roman. Characteristic of Innovative Complementary Pedagogical Training for Teachers of Technical Subjects at Secondary Schools. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 120 – 134. ISBN 80-227-2143-3

CHMELÁROVÁ Zuzana. Are our Students Proactive or Reactive? In *Schola 2004 : 6. medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 135 - 137. ISBN 80-227-2143-3

JURIGOVÁ Eva. Development of Key Competencies at Innovative Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava : STU, 2004, s. 138 – 141. ISBN 80-227-2143-3

KOLÁRIKOVÁ Helena. Pedagogical Practise at Experimental Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 142 - 145. ISBN 80-227-2143-3

KOSTELNÍK Jan. To Education of Pedagogical Moduls at Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 146 -151. ISBN 80-227-2143-3

KRELOVÁ Katarína. Application of Case Study at Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 152 - 157. ISBN 80-227-2143-3

KUNDRÁTOVÁ Mariana – VAŠKOVÁ Ľubica. To Innovations at Module Nonmaterial Equipment of Teaching Technical Subjects. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 178 - 183. ISBN 80-227-2143-3

TINÁKOVÁ Katarína. Portfolio of Students at Complementary Pedagogical Training and its Evaluation. In *Schola 2004 : 6. medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 261 – 265. ISBN 80-227-2143-3

VADKERTIOVÁ Eva. Application of E-learning at Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 276 - 281. ISBN 80-227-2143-3

VAŠKOVÁ Eubica – KUNDRÁTOVÁ Mariana. Evaluation of Quality Education of Complementary Pedagogical Training. In *Schola 2004 : 6.medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 287 - 291. ISBN 80-227-2143-3

DRIENSKY Dušan. Experiences with Modular – Credit System of Complementary Pedagogical Training at modul „Material Didactic Equipments“. In *Schola 2004 : 6. medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava : STU, 2004, s. 309 - 312. ISBN 80-227-2143-3

REŠETOVÁ, Kvetoslava. Informative Management as Support of Control Universities. In *Univerzitné informačné systémy UNINFOS '04*. Bratislava: STU, 2004, s. 224 – 230. ISBN 80-227-2096-8

HRMO Roman, MIŠTINA Juraj: Internet Communication Skills and Etiquette in Engineering Pedagogy. In *Teoretyczne i praktyczne problemy edukacji technicznej i informatycznej 2003*. Rzeszów: 2003. ISBN 83-88845-35-7, pp.271-279

DEPARTMENT OF ENVIRONMENTAL AND SAFETY ENGINEERING

Head of the Department:
Karol Balog, PhD, Prof.

Tel.: ++421-33-5521 063
Fax: ++421-33-5521 063
E-mail: kebi@mtf.stuba.sk

I. STAFF

Professors:	2	Research Fellows:	1
Assoc. Professors:	2	Technical and Admin. Staff:	2
Senior Lecturers:	5	PhD Students:	5
Lecturers:	3		



Chemical laboratory

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Teaching laboratory for chemistry
- Laboratory of flammability testing
- Laboratory of instrumental methods
- Laboratory of environmental processes
- Microbiological laboratory

II.2 Special Measuring Instruments and Systems

- Polaro ECOR 626 Metrohm Ltd Swiss DC polarography/voltammetry
DP polarography /voltammetry
- PHOTOMETER SQ 118, Merck Germany
- HPLC Hitachi system, Hitachi Belgium
- Spectrophotometer GENESYS 8, Merck Germany
- Equipment for determination of ignition temperature and activation energy of dust, Czech Republic
- Vertical oven for determination of ignition and flammable temperature of solid materials, Czech Republic
- Multi-parameter instrument Multi 340i (measurement of conductivity, dissolved oxygen, pH), Merck Germany

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week *L-P:* Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Chemistry	1	2-1	Škárka, Michalíková, Soldán, Soldánová
Industrial Technologies and Production Equipments	1	3-2	Škárka
Work Safety	1	1-1	Sabo, Lošák, Wittlinger
Basics of Environmentalics	4	2-1	Wittlinger, Rusko
Ecological Disposal with Materials and Wastes	5	3-2	Soldán, Soldánová
Basics of Safety Engineering	5	2-1	Sabo, Vrábelová
Methods of Risk Assessment	5	2-1	Sabo, Bábellová
Basics of Environmental and Safety Management	5	2-1	Polívka, Balog
Bachelor Project	5	0-2	KEBI
	6	0-5	KEBI
Industrial Toxicology	5	2-1	Tureková, Balog
	6	2-2	Tureková, Balog
Basics of Environmental Engineering	6	3-4	Hostin, Michalíková, Soldán, Soldánová
Basics of Environmental Monitoring	6	3-1	Hostin
Environmental Law	6	2-0	Rusko

Name of subject	Semester	H/W L-P	Reader's name
Reserved Technical Equipments	5	2-1	Sabo, Lošák
Management of Hazardous Activity	5	2-1	Poór
Safety of Working Environment	5	2-2	Tureková
Accident Planning	5	2-2	Boleman
Reliability of Technical Systems	6	1-1	Sabo, Lošák

III.2 Graduate Study (Ing.)

H/W: Hours per Week L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Environmental Chemistry	7	2-4	Michalíková, Soldánová
Processes and Equipments of Environmental Technologies	7	2-2	Hostin
Basics of Biological Systems	7	2-0	Škárka
Safety Engineering	7	2-2	Sabo, Vrābel'ová
Reliability of Technical Systems	7	2-1	Sabo, Lošák
Environmental Engineering	8	2-2	Michalíková, Hostin, Soldán
Environmental Management	8	2-1	Polívka
Chemical Technologies and Environment	8	2-1	Škárka
Risk Assessment	8	2-1	Sabo
Fire Engineering	8	2-1	Balog, Lošák
Waste Technologies	9	2-2	Debnár
Environmental Informatics	9	2-3	Balog, Rusko
Working Environment in Industry	9	2-0	Tureková
Remediation of Ecosystems	9	2-2	Rusko
Monitoring Systems in Environment	9	2-3	Hostin, Michalíková, Soldán, Soldánová
Environmental Law	9	2-1	Tureková
Final Project	9, 11	0-5	KEBI
Environmental Engineering II	11	2-2	Michalíková
Environmental Engineering III	11	2-2	Hostin, Soldánová

IV. RESEARCH TARGETS

- Assessment of wastes of cutting fluids, cooling emulsion and their life cycle prolongation, changes of composition during microbial contamination
- Risk assessment and hazard analysis of industrial fire
- Hazard assessment of dangerous wastes and hazardous substances
- Risk assessment of halons and halons alternatives
- Fire hazard analysis of industrial dust and flammable materials
- Safety analysis of technical systems
- The use of progressive oxidation processes for degradation of phenolic substances
- Application of sprinkler SETUR for removal of some water pollutants

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Social Assurance of Internal PhD. Students.

V.3 International Projects

- Occupational Safety and Health Systems in the European Union.

VI. CO-OPERATION

VI.1 National Co-operation

- Technical University of Košice, Faculty of Mechanical Engineering
- Technical University in Zvolen, Faculty of Wood Sciences and Technology
- University of Žilina, Faculty of Special Engineering
- Fire Research Institute Bratislava
- Ministry of the Environment of Slovak Republic
- Slovak Environment Agency, Center of Waste Management, Bratislava
- Ministry of Labour, Social Affairs and Family of the Slovak Republic
- The National Labour Inspectorate
- The Slovak Association of Fire Protection Development
- Academy of Police, Ministry of Interior of the Slovak Republic

VI.2 International Co-operation

- VŠB - Technical University of Ostrava, Faculty of Safety Engineering, Czech Republic
- Technical Institute of Fire Protection, Prague
- University Pardubice, Department of Theory and Technology of Explosives
- Faculty of Forestry and Environment, Czech University of Agriculture, Czech Republic
- Association of Fire and Safety Engineering, Czech Republic

VI.3 Contracts with Industry

- HIVUS Ltd., Žilina (Elimination of air polluted volatile compounds which originate from roasted coffee by ozone)

- POZAGAZ Inc., Malacky (Safety Audit in POZAGAZ Malacky)
- Nuclear power plants Jaslovské Bohunice (Assessment of intumescent fire protection coating of PVC cables)

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis in 2004 (72) available at:
<http://olih.cvt.stuba.sk>.

VII.2 Dissertations (PhD.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Technical Institute of Fire Protection, Prague.
- Department of Safety Engineering, Technical University Ostrava.
- Department of Fire Protection, Technical University Budapest.
- Department of Theory and Technology of Explosives, University Pardubice.

VIII.2 Foreign Visitors to the Department

- Technical Institute of Fire Protection, Prague.
- Department of Safety Engineering, Technical University Ostrava.
- Faculty of Forestry, Czech University of Agriculture Prague
- Department of Work Research, Brandenburg Technical University Cottbus
- University of Sevilla, Spain

VIII.3 Organised Conferences, Seminars and Workshops

IX. PUBLICATIONS

HAJNIK Bartolomej – RUSKO Miroslav. *Environmental oriented personal management in practice*. Trnava: SP Synergia, 2004. 206 s. ISBN 80-85599-32-5

GONDA Pavel – WITTLINGER Viktor. *Rationalisation of electricity power consumption*. Bratislava: Kontakt Plus, 2004. 196 s. ISBN 80-88855-51-9

SABO Milan. *Basic of Safety Engineering*. Bratislava: STU, 2004. 177 s. ISBN 80-227-2054-2

HOSTIN Stanislav – ŠILHÁR Stanislav SOLDÁN Maroš – LACUŠKA Miroslav. *Environmental engineering I*. Bratislava: STU, 2004. 229 s. ISBN 80-227-2013-5

PIATRIK Milan – TUREKOVÁ Ivana – RUSKO Ivan. *Environmental legislative II*. Banská Bystrica: UMB, 2004. 150 s. ISBN 80-8055-958-9

TUREKOVÁ Ivana – BALOG Karol. High-thermal degradation study on PVC cables by the thermal analysis methods. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

HOSTIN Stanislav – KREHLÍKOVÁ Andrea – PALO Vladimír – KOČIAN Jaroslav. Application of headspace gas chromatography (HSGC) for monitoring of air polluted with volatile compounds which originate from roasted coffee. In *Vedecké práce Mf STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 67 - 71. ISSN 1336-1589

HOSTIN Stanislav – GERULOVÁ Kristína. Utilization of the plant *Lemna sp.* for removal of Cr^{VI+} from water. In *Vedecké práce Mf STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 73 - 77. ISSN 1336-1589

RUSKO Miroslav – VOLÁKOVÁ Monika. Survey on utilization of environmental labelling and LCA in Slovakia. In *Environmentálni značení*, 2004, roč. 2, č. 6, s. 6 – 7. ISSN 1212-4761

RUSKO Miroslav – KORAUŠ Anton. Ecolabelling a Ecodesign. In *Euro zpravodaj*, 2004, roč. 3, č. 3, s. 66-68. ISSN 1213-6913

SABO Milan. The philosophy of safety at design of product. In *Bezpečná práca*, 2004, 35, č. 4, s. 29 - 31.

SABO Milan. The health and safety management assets in business enterprise. In *Bezpečná práca*, 2004, 35, č. 4, s. 9 - 10.

RUSKO Miroslav – KORAUŠ Anton. Ecolabelling and ecodesign. In *Životné prostredie*, 2004, roč. 38, č. 4, s. 178 – 181. ISSN 0044-4863

LOŠAK Gabriel – TURŇOVÁ Zuzana. Hazardous gases arising from welding. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 321-324. ISBN 80-227-2076-3

LOŠÁK Gabriel – TURŇOVÁ Zuzana. Safety management. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 325-326. ISBN 80-227-2076-3

LOŠÁK Gabriel – TURŇOVÁ Zuzana. Radiation hazard of arc welding. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 327-330. ISBN 80-227-2076-3

RUSKO Miroslav – BALOG Karol. Environmental and regional state aid in the European Union and Slovak Republic. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 489-492. ISBN 80-227-2076-3

RUSKO Miroslav – KOTOVICOVÁ Jana. Environmental labelling of the products. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, II.diel, s. 493-496. ISBN 80-227-2076-3

KOTOVICOVÁ Jana – RUSKO Miroslav. Utilisation of cleaner production methodology on the example water supply. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 265-268. ISBN 80-227-2076-3

TUREKOVÁ Ivana – BÁBELOVÁ Erika. The intumescent coats. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 587-590. ISBN 80-227-2076-3

TURŇOVÁ Zuzana. Hazards plasma arc processes. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 605-608. ISBN 80-227-2076-3

TURŇOVÁ Zuzana – HODÚLOVÁ Erika. The safety of soldering technology. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 609-612. ISBN 80-227-2076-3

VRÁBELOVÁ Xénia – SABO Milan. Social-psychological factors of the reliability and safety of the work. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 639-642. ISBN 80-227-2076-3

LOŠÁK Gabriel. Problem of work safety in the operAtion of plasma spraying. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 801-805. ISBN 80-227-2117-4

RUSKO Miroslav, KORAUŠ Anton. Ecolabelling, Life Cycle Assessment, Ecodesign And Green Marketing. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1171-1175. ISBN 80-227-2117-4

RUSKO Miroslav, KREČMEROVÁ Tatiana. Ecodesign, ecolabelling and life cycle assessment as a voluntary regulative tools of the environmental oriented product policy. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1176-1180. ISBN 80-227-2117-4

RUSKO Miroslav, MACKOVÁ Adriana, BEVILAQUA Dušan. Application of rappam methodology on pressures and threat in national park slovak paradise. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1181-1186. ISBN 80-227-2117-4

SOLDÁN Maroš, VYJIDÁKOVÁ Martina. The Usage of Ozone For Phenol Degradation. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1251-1254. ISBN 80-227-2117-4

SOLDÁNOVÁ Zuzana, JANČÍKOVÁ Gabriela. The Usage of Slurry For Hexavalent Chromium Adsorption. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1255-1259. ISBN 80-227-2117-4

TUREKOVÁ Ivana, BÁBELOVÁ Erika. Fire Protection Of Wood Applying Intumescent Coating. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1417-1423. ISBN 80-227-2117-4

TUREKOVÁ Ivana, BALOG Karol. Flammability parameters of wood dusts. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1424-1431. ISBN 80-227-2117-4

TURŇOVÁ Zuzana. Human factors in laser safety. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1432-1434. ISBN 80-227-2117-4

VRÁBELOVÁ Xénia, SABO Milan. Organizational failures into the system "human - machine - environment". In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1494-1496. ISBN 80-227-2117-4

BÁBELOVÁ, E. – TUREKOVÁ, I. Environment and fires. In *IV. elektronnejaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. ISBN 5-7526-0185-1

SOLDÁN, M. – SOLDÁNOVÁ, Z. The methods of phosphorus and nitrogen elimination from waste waters. In *IV. elektronnejaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 122-126. ISBN 5-7526-0185-1

SOLDÁNOVÁ, Z. – SOLDÁN, M. Removal of chromium (VI) from aqueous solutions with the use of biomass. In *IV. elektronnejaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 126-130. ISBN 5-7526-0185-1

VRÁBELOVÁ Xénia – RUSNÁK Juraj. The risk of incorrect solution of safety system. In *Kvalita a spoľahlivosť strojov. Quality and reliability of machines*. Nitra: SPU, 2004, s. 106 – 108. ISBN 80-8069-369-2

TURŇOVÁ Zuzana – LOŠÁK Gabriel. Safety of laser technologies. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 584-589. ISBN 80-8073-136-5

TUREKOVÁ Ivana – BÁBELOVÁ Erika. Assessment of efficiency of select intumescent coat. In *Požární ochrana 2004*. Ostrava: SPaBI, 2004, s. 596 – 604. ISBN 80-86634-39-6

WITTLINGER Viktor. Historia magistra vitae. In *Schola 2004 : 6 .medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 292 - 294. ISBN 80-227-2143-3

WITTLINGER Viktor. Experience with computer aided check up of knowledge. In *Schola 2004: 6. medzinárodná vedecká konferencia KIPP: Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 295 - 298. ISBN 80-227-2143-3

VRÁBEĽOVÁ Xénia - SABO Milan. The effect of human factor to system safety and reliability. In *APROCHEM 2004*. Praha: PetroCHemProgress, 2004, s. 563 – 567. ISBN 80-02-01576-2

LOŠÁK Gabriel. Health safety in plasma spraying. In *Bezpečnosť a ochrana zdravia pri práci 2004*. Ostrava : VŠB, 2004, s. 107 – 111. ISBN 80-86634-36-4

SABO Milan. The consideration about the philosophy of safety at design of product. In *Bezpečnosť a ochrana zdravia pri práci 2004*. Ostrava: VŠB, 2004, s. 148 - 154. ISBN 80-86634-36-4

TUREKOVÁ Ivana. Chemical factors by production and use of coats. In *Bezpečnosť a ochrana zdravia pri práci 2004*. Ostrava: VŠB, 2004, s. 191 - 195. ISBN 80-86634-36-4

TURŇOVÁ Zuzana. Risks resulting from laser technologies. In *Bezpečnosť a ochrana zdravia pri práci 2004*. Ostrava : VŠB, 2004, s. 196 - 206. ISBN 978-80-86634-36-4

SOLDÁN Maroš – SOLDÁNOVÁ Zuzana. The methods of phosphorus and nitrogen elimination from waste waters. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť A*. Zvolen: TU, 2004, s. 91 – 95. ISBN 80-228-1332-X

SOLDÁN Maroš. The monitoring of phenol in waste waters using HPLC. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť A*. Zvolen : TU, 2004, s. 97 – 101. ISBN 80-228-1332-X

MICHALÍKOVÁ Anna – SOLDÁNOVÁ Zuzana. Modification of waste water with contents of phenol. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť A*. Zvolen: TU, 2004, s. 103 - 107. ISBN 80-228-1332-X

SOLDÁNOVÁ Zuzana – MICHALÍKOVÁ Anna. The use of biomass to the sorption of Chromium (VI). In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť A*. Zvolen: TU, 2004, s. 109-113. ISBN 80-228-1332-X

TUREKOVÁ Ivana – VANDÁK Roman. Persistent organic pollutants and methods of their elimination. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B*. Zvolen: TU, 2004, s. 27 – 34. ISBN 80-228-1332-X

KELLEROVÁ Eva – BALOG Karol – RUSKO Miroslav. Risk factors and indicators of indoor environment. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B*. Zvolen: TU, 2004, s. 81 – 86. ISBN 80-228-1332-X

MICHALÍKOVÁ Anna – DAUBNEROVÁ Bibiana – SOLDÁN Maroš. Environmental policy and waste management in SCP Ruzomberok. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 97-101. ISBN 80-228-1332-X

KREČMEROVÁ Tatiana – DEBNÁR Peter – RUSKO Miroslav. Electronic scarp. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 111-116. ISBN 80-228-1332-X

BÁBELOVÁ Erika – SABO Milan. Physical-chemical and hazardous attributes of the goundrons. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 129-134. ISBN 80-228-1332-X

RUSKO Miroslav – KREČMEROVÁ Tatiana – ŠNOPKO Augustín. Life cycle assessment – technique for assessing the environmental aspects and potential impacts associated with a product. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 127-136. ISBN 80-228-1332-X

RUSKO Miroslav. The comparison of geosynthetic clay liners. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 147-153. ISBN 80-228-1332-X

RUSKO Miroslav – LACIKA Stanislav – KORAUŠ Anton. Level of regional state aid in the Slovak Republic. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 155 – 160. ISBN 80-228-1332-X

RUSKO Miroslav – LACIKA Stanislav – KORAUŠ Anton. Conditions for authorising environmental aid in the European Union and in the Slovak Republic. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 161-168. ISBN 80-228-1332-X

RUSKO Miroslav – BALOG Karol – VEREŠ Michal. State aid for automobile industry and environment. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 169 – 177. ISBN 80-228-1332-X

KUBIŠOVÁ Katarína – RUSKO Miroslav. The comparison of tasks set by the work plan and legislative plan of the Slovak government for the year 2003. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 179-182. ISBN 80-228-1332-X

KRAJČOVIČOVÁ Zuzana – KAŠÁKOVÁ Dana – RUSKO Miroslav. Environmental policy in department of interior of Slovakia. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 183 – 186. ISBN 80-228-1332-X

WITTLINGER Viktor. Transportation in the forthcoming decades. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 187-195. ISBN 80-228-1332-X

ZACHAR Gabriel – BALOG Karol – RUSKO Miroslav. Risk situations in natural environment and their solving. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B.* Zvolen: TU, 2004, s. 197 – 206. ISBN 80-228-1332-X

LOŠÁK Gabriel – TURŇOVÁ Zuzana. Mobile phones using and their environmental aspects. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B*. Zvolen: TU, 2004, s. 207 – 212. ISBN 80-228-1332-X

SABO Milan – BÁBELOVÁ Erika. Audit of the safety in enterprise. In *Monitorovanie a hodnotenie stavu životného prostredia V. Časť B*. Zvolen: TU, 2004, s. 233-240. ISBN 80-228-1332-X

SABO Milan – VRÁBELOVÁ Xénia. A few remarks to safety philosophy of design. In *Nové trendy v konštruovaní a v tvorbe technickej dokumentácie 2004*. Nitra : SPU, 2004, s. 125 – 127. ISBN 80-8069-362-5

SOLDÁNOVÁ, Z. – SOLDÁN, M. Environmental model of chromium removal from printing industry waste waters. In *Polygrafia Academica 2004*. Bratislava: STU, 2004, s. 171 – 175. ISBN 80-227-2100-X

KUBIŠOVÁ Katarína – RUSKO Miroslav. Environmental legislative activities in the Slovak Republic since the year 1993. In *Priemyselná toxikológia '04*. Bratislava: ZSVTS, 2004, s. 82 – 90. ISBN 80-968011-4-7

RUSKO Miroslav. The geosynthetic clay liners and their properties. In *Priemyselná toxikológia '04*. Bratislava: ZSVTS, 2004, s. 52 - 58. ISBN 80-968011-4-7

BALOG Karol – OSVALD Anton – FILIPY Bohdan. Effect of external conditions on wood and wood based materials inflamability. In *Wood and Fire Safety*. Zvolen: TU, 2004, nestr. ISBN 80-228-1321-4

BALOG Karol – TUREKOVÁ Ivana. Effect of oxygen concentration on smoldering rate of wood sawdust. In *Wood and Fire Safety*. Zvolen: TU, 2004, nestr. ISBN 80-228-1321-4

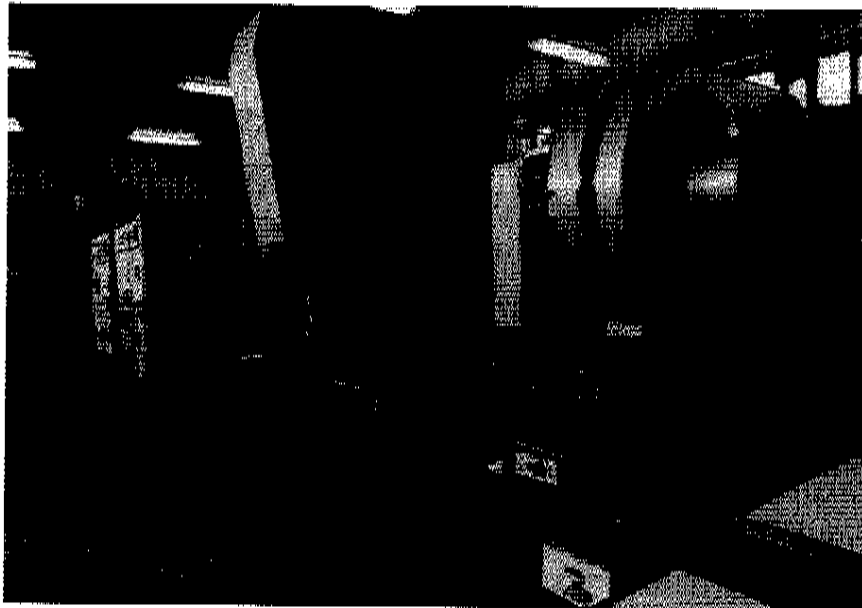
DEPARTMENT OF FORMING

Head of the Department:
Jozef Břilik, PhD., Assoc. Prof.

Tel.: ++421-33-5521105
Fax: ++421-33-5521105
E-mail: kt@mtf.stuba.sk

I. STAFF

Professors:	2	Research Fellows:	2
Assoc. Professors:	3	Technical and Admin. Staff:	3
Senior Lecturers:	2	PhD Students:	7
Lecturers:	0		



Eccentric presses

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratories of Forming
- Laboratories of Computing Machinery
- Laboratories of High-parametric Forming

II.2 Special Measuring Instruments and Systems

- EU40 and TIRATEST tearing machine
- Hardness tester
- Pendulum impact
- Tool - maker's microscope
- Profile projector
- Pyrometer AMIR 7811-50
- Thermometer TESTO 945

III. TEACHING

III.1 Bachelor Study (BC.)

H/W: Hours per Week *L-P:* Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Technology of Forming	5	2-2	Kotras
Technology of Forming	4	2-1	Bača

III.2 Graduate Study (ING.)

H/W: Hours per Week *L-P:* Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Theory of Forming	7	3-1	Polák, Bilík
Volume Forming	9	2-2	Bača
Plat Forming	9	2-2	Kotras
Machines and Equipment for Forming	8	2-2	Ulík
Final Project	9	0-5	Bača, Kapustová
Technical Preparation for Manufacturing	9	2-2	Polák
Machines for Forming	7	2-2	Ulík
Modelling of Forming Processes	9	2-1	Tittel
Safety of Machines and Production Facilities	9	2-1	Kapustová
Automation of Forming	8	2-1	Ulík
Experimental Methods of Forming	7	2-1	Tittel
High Parametric Forming	9	2-1	Bača
Design Possibilities	9	2-2	Bilík

IV. RESEARCH TARGETS

- Research of new materials forming
- Formability of new materials
- High parametrical forming
- Hardening of surface layer
- Experimental methods for forming
- Computer Simulation

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Development and fabrication of physical model of device for dynamic forming. No.790 VEGA. Project is oriented to patent applications, where it is getting original solution of scanning trajectory in formed material. After technical realization it is required suitable hardware. It will be possible to determine speed and acceleration of forming tool. This model permits stright forming tool and comparation of these results with those obtained by optical scanners application (by direct measurement). Except of that, that device permits to determine kinetic energy and forming work come clear to determine of the value such as transformation of investigated material, transforming speed, as well as transforming exceleation. It will realised by model with respect to the project and it will be enabled the direct monitoring of the temperature changes of forming material. After that the verified model instrument will be able to project as the forming instrument of a new conceptions such as which will enlage on chance to monitor desireded parameters.
- The research of non-ferrous alloys plastic properties and their utilization at precision forming. No.703 VEGA. The research of plastic properies in various conditions of metal materials forming and generalization of results by new criterion of metals formability. Experimental verification of new methods for titanium and aluminium alloys at introduction of automatized laboratory measurents results processing of volume forming processes simulation. Verification of formability criterion for precission parts production technology.

VI. CO-OPERATION

VI.1 National Co-operation

- University of Žilina, Faculty of Mechanical Engineering, Žilina
- University of Technology Košice, Faculty of Metallurgy, Košice
- University of Technology Košice, Faculty of Mechanical Engineering, Košice
- Slovak University of Technology, Faculty of Mechanical Engineering, Bratislava

VI.2 International Co-operation

- University of mining, TU Ostrava, Czech Republik
- Politechnika Katowice, Poland
- VUT Brno, Czech Republik

VI.3 Contracts with Industry

- SE, EBO Jaslovské Bohunice
- PAL – INALFA Vráble

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (39) in 2004 available at:
<http://oljib.cvt.stuba.sk>.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

Bílik, Jozef. The theoretical and technologic aspects of surface layers mechanical strenghtening.

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

VIII.2 Foreign Visitors to the Department

VIII.3 Organised Conferences, Seminars and Workshops

Conference: FORMING 2004, hotel Helios, Štrbské pleso

- Seminars:
- The trends of forming development with utilization of incremental forming processes.
 - The utilization of FASTFORM and DYNAFORM simulation softwares in flat forming processes.
 - The measuring tensometers.

IX. PUBLICATIONS

BÍLIK Jozef – KAPUSTOVÁ Mária – ULÍK Anton. *Technology of Forming. Guide for Practices*. Bratislava: STU, 2004. 171 s. ISBN 80-227-2099-2

BAČA Jozef – BÍLIK Jozef – TITTEL Viktor. *Technology of Forming. Part – Flat Forming*. Bratislava: STU, 2004. 97 s. ISBN 80-227-2156-5

BAČA Jozef – ČAUS Alexander S. Effect of Plastic Deformation on the Structure and Properties of Cast Iron with Globular Graphite. In *Metal Science and Heat Treatment*, 2004, 46, č. 5-5, s. 188 – 191. ISSN 0026-0673

BAČA Jozef – ČAUS Alexander S. The influence of plastic deformation on structure and properties of ductile cast iron. In *Metalovedenje i termičeskaja obrabotka metallov*, 2004, č. 5, s. 11 – 14. ISSN 0026-0819

KAPUSTOVÁ Mária – JANÁČ Alexander – TRUBENOVÁ Jaroslava. Importance of Evaluation of Human Body total loading in order to analyse the comfort at Forging press workplace. In *Manufacturing Engineering. Výrobné inžinierstvo*, 2004, 3, č. 1, s. 25 – 29. ISSN 1335-7972

BÍLIK Jozef – BAČA Jozef. Analysis of surface layers mechanical strengthening by dynamical shot peening. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

KAPUSTOVÁ Mária. Application of mathematical methods by ecologisation of working environment in engineering operations. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

BÍLIK Jozef – BAČA Jozef. The influence of surface layer mechanical strengthening by dynamical shot peening on properties of surface layers. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 9 – 14. ISSN 1336-1589

KAPUSTOVÁ Mária. The new methodology of the human body working load classification at work in engineering production. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 67 - 73. ISSN 1336-1589

KAPUSTOVÁ Mária – KOŠŤÁLOVÁ Miroslava. Practical consequence of plasticity temperature reliance of steel 14 220 for another development of warm forming technology. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 97 – 102. ISSN 1336-1589

TITTEL Viktor. Using of work of deformation to evaluation of wire formability. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

TITTEL Viktor. Steel wires and strands for prestressed concrete. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

KOTRAS Peter – LAZAR Roman. Contact friction at cold forming. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 269-272. ISBN 80-227-2076-3

MUTIŠOVÁ Ľubica – POLÁK Karol. Lubrication for isothermal forging. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 391-394. ISBN 80-227-2076-3

JANÁČ, A. – KAPUSTOVÁ, M. – TRUBENOVÁ, J. Characterization of mathematical model for comfort at work determination in engineering operations. In *Annals of DAAAM for 2004 & Proceedings*. Viena: DAAAM International, 2004, s. 181 - 182. ISBN 3-9011509-42-9

BAČA Jozef – SHIMANOVICH Igor – SHIMANOVICH Olga. The impact rotary drawing friction on the characteristics of metal flow in the deformations zone. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 35-40. ISBN 80-227-2117-4

LAZAR Roman – Milan MARÔNEK – Mária DOMÁNKOVÁ – Ľuboš KVASNA – Peter KOTRAS. Influence Of Nitrooxidation Layer On Mechanical Properties Of Welding Joints. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 766-772. ISBN 80-227-2117-4

TITTEL Viktor. The Development Of Technology Of Steel Wires Production For Reinforcing Elements Of High Strength For Prestressed Concrete . In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1358-1364. ISBN 80-227-2117-4

LAZAR Roman. Influence of nitrooxidation on mechanical properties and deep-drawing property of low-alloy deep-drawing sheet metals. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 76-79. ISBN 5-7526-0185-1

SOBOTA, R. – BAČA, J. Barrel's shape numerical justification after upsetting by computer simulation. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 83-88. ISBN 5-7526-0185-1

MUTIŠOVA, L. – POLÁK, K. – BUJNOVÁ, E. Izotermičeskaja kovka. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 89-91. ISBN 5-7526-0185-1

KOŠŤÁLOVÁ Miroslava. Application of 3D modelling in designing of cutting tools. In *IV. elektronijaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 73-76.. ISBN 5-7526-0185-1

POLÁK Karol – MURGAŠ Marián – SÁDOVSKÝ Jozef – HERIBAN František. The forging in integral relation ship. In *7th International Conference FORM 2004: Forming Technology, Tools and Machines*. Brno: VUT, 2004, s. 115- 118. ISBN 80-86607-11-9

SOBOTA Róbert – BAČA Jozef. Barrel's shape numerical justification after upsetting by computer simulation. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

BÍLIK Jozef – BAČA Jozef. Mechanical strenghtening of surface layers by dynamic shot peening. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

TITTEL Viktor. The technology development of production steel wire and ropes into pre-stressed concrete without patenting wire rod. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

TITTEL Viktor. On evaluation of wire formability. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

BÍLIK Jozef – ULÍK Anton – VRANKOVÁ, E. The theoretical and technological aspects of cutting plans creation. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 40-43. ISBN 80-227-2043-7

KAPUSTOVÁ Mária. The new methodology of the human body's working load classification in engineering operations. In *Vysokie technologii 2004*. Iževsk: IŽGTU, 2004, s. 22 – 26. ISBN 5-7526-0208-4

KOŠŤÁLOVÁ Miroslava – KAPUSTOVÁ Mária. Consequence of temperature reliance of steel 14 220 plasticity for development of warm forming technology. In *Vysokie technologii 2004*. Iževsk: IŽGTU, 2004, s. 65 - 69. ISBN 5-7526-0208-4

TITTEL Viktor – SOBOTA Róbert. The formability of cold Drawn steel wires. In *DOKSEM 2004*. Žilina: ŽU, 2004, s. 118-122. ISBN 80-8070-323-X

BÍLIK Jozef – KAPUSTOVÁ Mária – DOMÁNKOVÁ Mária – KOŠŤÁLOVÁ Miroslava. The research of thermal influence on plasticity of non Ferrous Metals and steel. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 11 – 16. ISBN 80-227-2091-7

LAZAR Roman – KOTRAS Peter. The nitrooxidation a its influence of forming characteristics of low carbon steel sheets. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 154-159. ISBN 80-227-2091-7

POLÁK Karol – MURGAŠ Marián – SÁDOVSKÝ Jozef – HERIBAN František. The forging in integral relation ship. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 208 - 211. ISBN 80-227-2091-7

SOBOTA Róbert – BAČA Jozef. The mathematical expression of barrels shape after stamping. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 244 - 249. ISBN 80-227-2091-7

TITTEL Viktor. The evelopment of technology for production of steel wires used as high strength bracing wires in concrete. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 280-285. ISBN 80-227-2091-7

BÍLIK Jozef – BAČA Jozef – ŽATKOVIČ Juraj. The physical model of the temperature measurement in the area of material forming. In *Transfer 2004 : Využitvanie nových poznatkov v strojárskkej praxi*. Trenčín: GC-TECH, 2004, s. 68 – 71. ISBN 80-8075-030-0

DEPARTMENT OF FOUNDRY

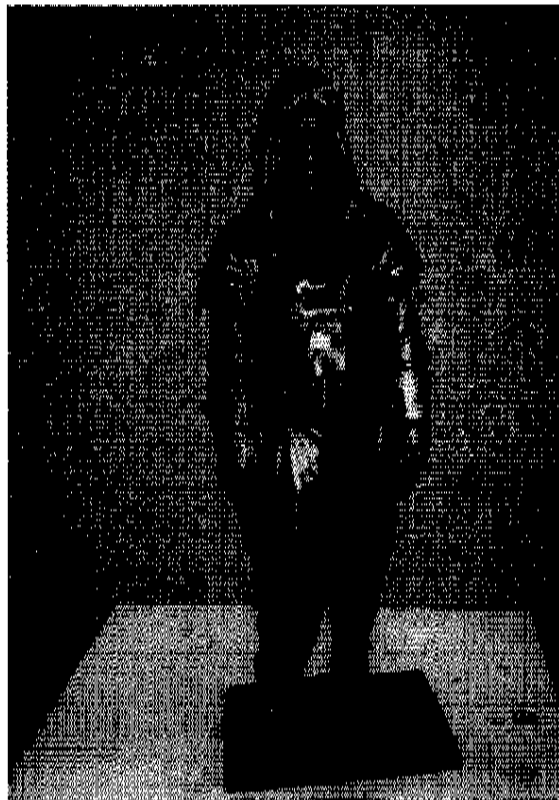
Head of the Department:
Marian Murgaš, PhD, Prof.

Tel.: ++421-33-5521247
Fax: ++421-33-5521247
E-mail: kzl@mtf.stuba.sk

I. STAFF

Profesors: 2
Assoc. Professors: 2
Senior Lecturers: 4
lectures: 0

Research Fellows: 1
Technical and Admin. Staff: 3
PhD Students: 5



The statue of M. R. Štefánik – the bronze casting

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of foundry theory
- Laboratory of powder metallurgy
- Laboratory of plasma-electrolytic technology
- Laboratory of molten metal - foundry
- Laboratory of electromagnetic method and magnetohydrodynamics
- Laboratory of manual formation

II.2 Special Measuring Instruments and Systems

- The vertical electromagnetic caster for the small profiles
- The high-frequency generator of 400 kHz for the levitation melting
- The medium-frequency induction furnaces 40/2 x 100 kg
- The vacuum induction furnace 50 l
- The electric resistance furnace of 90 kg for non-ferrous metals
- The electric chamber furnace 35 l

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Engineering Technologies and devices	1	3 - 2	Pokusa
Foundry Technology	4	2 - 1	Pokusa
Foundry Technology (Dubnica nad Váhom)	4	2 - 1	Beznák
Foundry Technology (Brezno)	4	2 - 1	Chaus
Foundry Technology (Komárno)	4	2 - 1	Belica

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Foundry Technology	5,8	2 - 2	Pokusa, Podhorský
Theory of Technological Processes	8	3 - 2	Pokusa
Theory of Foundry	8	3 - 1	Chaus
Investment Casting	8	2 - 1	Murgaš
Machines for Welding and Foundry Technology	8	3 - 3	Beznák
Engineering Technologies and Ecology	8	2 - 1	Murgaš
Non-conventional Metallurgical Processes	9	3 - 2	Murgaš

Name of subject	Semester	H/W L-P	Reader's name
Foundry Metals and Alloys	9	3 - 2	Chaus
Non-conventional Manufacturing Method in Foundry	9	2 - 2	Pokusa
Effects of Foundry Technology and PM on Environment	9	2 - 1	Murgaš
Moulds Casting Processes	9	2 - 1	Murgaš
Final Project	9	0 - 2	Tóth, Beznák
Technical Equipments in Foundry Technology and PM	8	2 - 2	Pokusa
Technical Preparation of Manufacturing in Foundry Technology and PM	8	2 - 1	Chaus
Technology of Composite Materials Processing	8	2 - 1	Murgaš
Programming in Foundry and PM	8	1 - 2	Podhorský

IV. RESEARCH TARGETS

- Foundry technology - preparation of the molten metal
- Preparation of moulding materials
- Powder metallurgy - technology of the powder processing
- Plasma-electrolytic technology - surface treatment of the metals
- Magnetohydrodynamics
- Continuous casting

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Project VEGA No. 1/8270/01 – “Electrolytic-plasma technology for metallic surface treatment”
- Project VEGA No. 1/9104/02 – “The investigation of the effect of additive application of physic-metallurgical methods and electromagnetic processing on the properties of the cast metal materials”
- Project VEGA No. 1/0306/03 – “Research of affects of disperse high melting temperature additions on the structure formation and service properties of cast high-speed steels”

VI. CO-OPERATION

VI.1 National Co-operation

VI.2 International Co-operation

VI.3 Contracts with Industry

- LUX Group s.r.o., Bratislava - The development of small castings made from Al-alloys.
- CastArts for slovak sculptors
- Rautenbach Slovakia Žiar nad Hronom
- Konštrukta Trenčín
- Illichmann Žarnovica

VII. THESIS AND DISERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (44) in 2004 available at:
<http://olib.cvt.stuba.sk>.

VII.2 PhD Thesis

Rolanf Šuba: The special methods of metal powder material sintering (doc. Ing. Anton Pokusa, CSc.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

VIII.2 Foreign Visitors to the Department

VIII.3 Organized Conferences, Seminars and Workshops

IX. PUBLICATIONS

POKUSA Anton. *Electrocontact sintering*. Bratislava: STU, 2004, 119 s. ISBN 80-227-2061-5

BAČA Jozef – ČAUS Alexander S. Effect of Plastic Deformation on the Structure and Properties of Cast Iron with Globular Graphite. In *Metal Science and Heat Treatment*, 2004, 46, č. 5-5, s. 188 – 191. ISSN 0026-0673

CHAUS, A. S. Use of REM-Based Modifying Agents for Improving the Structure and Properties of Čast Tungsten-Molybdenum High-Speed Steels. In *Metal Science and Heat Treatment*, 2004, 46, č. 9-10, s. 415-422. ISSN 0026-0673

ČAUS, A.S. – LEGERSKA, M. – RUDNICKIJ, F.I. – KONSTANTJUK, A.N. – RUDNICKIJ, K.F. Perspektivy ispol'zovanija bystrorežuščich stalej dlja izgotovlenija litogo metallorežuščego instrumenta. Puti ulučšenija struktury i svojstv. In *Litje i metallurgija*, 2004, 30, č. 2, s. 98 – 104. ISSN 1683-6065

ČAUS, A.S. – LEGERSKA, M. – RUDNICKIJ, F.I. – KONSTANTJUK, A.N. – RUDNICKIJ, K.F. Perspektivy ispol'zovanija bystrorežuščich stalej dlja izgotovlenija litogo metallorežuščego instrumenta. Osobennosti struktury i svojstv litych i deformirovannyh stalej. In *Litje i metallurgija*, 2004, 30, č. 2, s. 90 - 97. ISSN 1683-6065

BAČA Jozef – ČAUS Alexander S. Vlijanie plastičeskoj deformacii na strukturu i svojstva čuguna s šarovidnym grafitom. In *Metalovedenije i termičeskaja obrabotka metallov*, 2004, č. 5, s. 11 – 14. ISSN 0026-0819

ČAUS, A. S. Ispol'zovanije modifikatorov na baze R3M dlja ulučšenija struktury i svojstv litych vol'framomolibdenovyh bystrorežuščich stalej. In *Metalovedenije i termičeskaja obrabotka metallov*, 2004, č. 10, s. 12 - 17. ISSN 0026-0819

MURGAŠ Marián – POKUSOVÁ Marcela. Liatina ADI. Austempered ductile iron. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 307 - 312. ISSN 1335-2393

PODHORSKÝ Štefan. A progressive method of surface finishing of stainless steels. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 347 - 352. ISSN 1335-2393

POKUSA Anton – ŠUBA Roland – DŘÍMAL Daniel – TOMAŠÍKOVÁ Lucia. The force effects acting during electrocontact sintering. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 353-358. ISSN 1335-2393

BEZNÁK Matej. Main aspects influencing the technology of precision ceramic moulds. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

TÓTH Roman – SOLÁR Jozef. The parts edges rounding – off after plasma – electrolytic polishing. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 159 - 164. ISSN 1336-1589

MURGAŠ Marián – POKUSOVÁ Marcela. Abrasion resistant austenitic cast iron. In *Strojárstvo Strojirenství*, 2004, 8, č. 4, s. 54. ISSN 1335-2938

PODHORSKÝ Štefan. Polishing of the stainless steel using the plasma charge. In *Strojárstvo Strojirenství*, 2004, 8, č. 4, s. 54. ISSN 1335-2938

BELICA Eugen. Using of the moulding plaster-anhydrite mixture for the lost wax technology in the art foundry. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 29-32. ISBN 80-227-2076-3

BEZNÁK Matej. Precision casting into ceramic moulds for forging and pressing tools' production. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 33-36. ISBN 80-227-2076-3

POKUSA Anton. Coating of the castings at casting process. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 451-454. ISBN 80-227-2076-3

POKUSOVÁ Marcela. Electromagnetic shaping of continuous cast strim from aluminium alloy. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 455-458. ISBN 80-227-2076-3

TÓTH Roman. The holes polishing conditions by plasma – electrolytic technology. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 579-582. ISBN 80-227-2076-3

BELICA Eugen. Using of plaster-anhydrite moulding mixtures with the lost wax pattern technology for the art casting production. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 87-90. ISBN 80-227-2117-4

MURGAŠ Marián – BERTA Igor – DŘÍMAL Daniel. Austempered Ductile Iron. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 961-968. ISBN 80-227-2117-4

POKUSA Anton – ŠUBA Roland. The influence of metal powders granulometry and amount of admixed lubricants on their compressibility. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1067-1074. ISBN 80-227-2117-4

POKUSA Anton – TOMAŠÍKOVÁ Lucia. The coating of parts created during casting process. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1075-1083. ISBN 80-227-2117-4

POKUSOVÁ Marcela – MURGAŠ Marián. The conductive stirrer for continuous casting of steel. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1084-1092. ISBN 80-227-2117-4

DŘÍMAL Daniel – ŠUBA Róland. The possibilities of coating creation by electrocontact sintering. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 241-248. ISBN 80-227-2117-4

POLÁK Karol – MURGAŠ Marián – SÁDOVSKÝ Jozef – HERIBAN František. The forging in integral relation ship. In *7th International Conference FORM 2004: Forming Technology, Tools and Machines*. Brno: VUT, 2004, s. 115- 118. ISBN 80-86607-11-9

MURGAŠ Marián – POKUSOVÁ Marcela – BERTA Igor. Electromagnetic stirring at continuous casting of slabs. In *Metal 2004*. Ostrava: Tanger, 2004, CD. ISBN 80-85988-95-X

POKUSOVÁ Marcela – MURGAŠ Marián. Processing of the scrap foundry Al-Si alloys with the increased Fe content. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

ČAUS, A. S. – RUDNICKIJ, F. I. Ulučšenije struktury i svojstv litych bystrorežuščich stalej. In *Perspektivy razvitija poverchnostnogo i objemnogo upročnenija splavov*. Minsk: BNTU, 2004, s. 114 – 123. ISBN 985-479-094-0

CHAUS, A.S. – LEGERSKA Monika – PONKRATIN, J. I. Cast high-speed steels and prospect of their applicatuons at metalcutting tools casting. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. 44-49. ISBN 80-8070-231-4

PODHORSKÝ Štefan. Surface finishing of precision castings by plasma discharges in electrolyte. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. 69-74. ISBN 80-8070-231-4

BEZNÁK Matej. Possibilities of forging die inserts production by precision casting using permanent pattern. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. 97-102. ISBN 80-8070-231-4

TÓTH Roman. The technological process design at casts polishing by plasma-electrolytic technology. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. 247-252. ISBN 80-8070-231-4

BELICA Eugen. The kinetics of moulding mixture based on plaster-anhydrite. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. 299-304. ISBN 80-8070-231-4

MURGAŠ Marián. Processing of the Al-Si alloy scrap. In *Spolupráca/Współpraca 2004. 10. medzinárodná konferencia*. Žilina: ŽU, 2004, s. xxx. ISBN 80-8070-231-4

MURGAŠ Marián – POKUSA Anton. Creation of metal surface layer on castings form the mold coating. In *Vady odlitků způsobené formovacími materiály*. Brno: Česká slévárenská společnost, 2004, s. 127-132. ISBN 80-02-01632-7

POLÁK Karol – MURGAŠ Marián – SÁDOVSKÝ Jozef – HERIBAN František. The forging in integral relation ship. In *Forming 2004 : Plasticita materiálov*. Bratislava: STU, 2004, s. 208 - 211. ISBN 80-227-2091-7

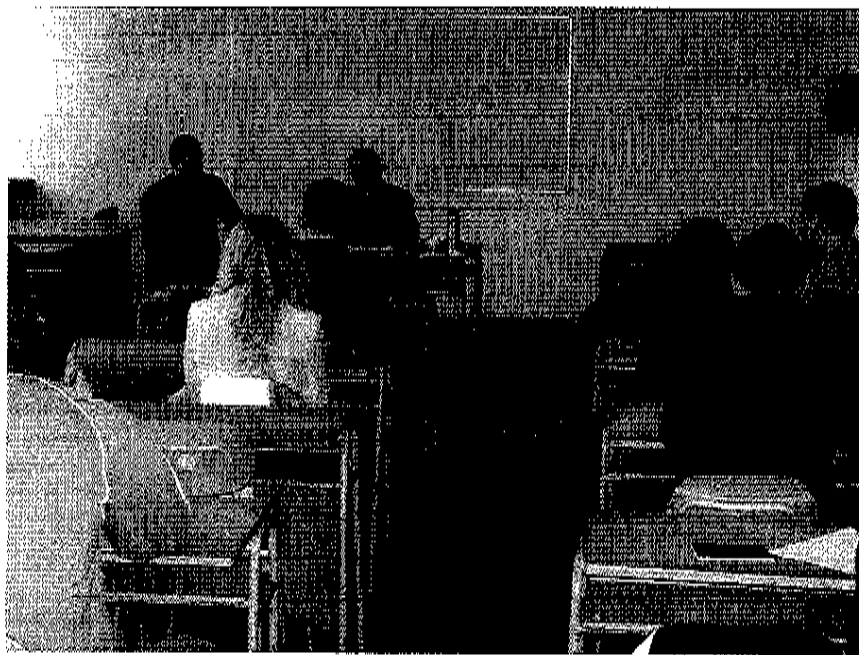
DEPARTMENT OF HUMANE SCIENCES

Head of the Department:
Viliam Končal, PhD, Assoc. Prof.

Tel.: ++421-33-5447842
Fax : ++421-33-5447842
E-mail: khv@mtf.stuba.sk

I. STAFF

Professors:	0	Research Fellows:	0
Assoc. Professors:	2	Technical and Admin. Staff:	1
Senior Lecturers:	9	PhD Students:	0
Lecturers:	1		



Testing students

II. EQUIPMENT**II.1 Teaching and Research Laboratories****II.2 Special Measuring Instruments and Systems****III. TEACHING****III.1 Bachelor Study (Bc.)***H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
History of the Science and Technology	1	0-2	Petráš
Principles of the Philosophy, Methodology and Logic	1	0-2	Skalský
Philosophy of Technology	2	0-2	Skalský
Foundations of Law for Technics and Managers I.	5	0-2	Halada
Ground of the Communication	2	0-2	Odlerová
Sociology	4	0-2	Mocker
General Economic Theory	4	0-2	Mrvová
Politology	3	0-2	Končal
History of Economic Theory	5	1-2	Mrvová
Humane Ecology	6	0-2	Odlerová
Industrial Sociology	5	0-2	Mocker
Synergetic	3	0-2	Hrčková

III.2 Graduate Study (Ing.)*H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
International Economic Relations	1	0-2	Mrvová
History of Philosophy	12	0-2	Odlerová
Ground of the Communication	12	0-2	Odlerová
Foundations of Law for Technics and Managers II.	2	0-2	Halada
Introduction into methodology and methodics Research Work	3	0-2	Skalský
Introduction into Research Work	12	1-2	Skalský
Prognostics	2	0-2	Hrčková
Social Politics	1	0-2	Holkovič

IV. RESEARCH TARGETS

- Human Sciences
- Social Sciences

- Philosophy
- Cosmology
- Physics
- Deep Ecology

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

The Human and Social Sciences - the Adviser Garant of the process Human Education of the Students on the Technical University

V.2 National Grants (KEGA)

V.3 International Projects

- Knowing me knowing you.
- Socrates Grundtvig2 - Habio

VI. CO-OPERATION

VI.1 National Co-operation

VI.2 International Co-operation

- Technical University Izhevsk - Russia

VI.3 Contracts with Industry

VII. THESES AND DISSERTATIONS

VII.1 Graduate Theses

VII.2 Dissertations (PhD.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

VIII.2 Foreign Visitors to the Department

Ph.D.Assoc.Prof. Alexander Balitsky – Izevsk State Technical University, Russia

VIII.3 Organised Conferences, Seminars and Workshops

IX. PUBLICATIONS

KONČAL Viliam – BALITSKIY Alexander. *Politology*. Bratislava: STU, 2004. 140 s. ISBN 80-227-2147-6

PETRÁŠ Milan. First slovak textbook of mathematics for university learning. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 125 - 129. ISSN 1336-1589

HALADA Andrej. New regularization of the appellations of origin. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 115 – 118. ISBN 80-227-2076-3

HOLKOVIČ Ľubomír. High school education in the Slovak Republik. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 139 - 142. ISBN 80-227-2076-3

HRČKOVÁ Eva. The thinking of the concept. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 147-148. ISBN 80-227-2076-3

CHYBA Juraj. Engineers and society. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 183-188. ISBN 80-227-2076-3

JANTOŠOVIČOVÁ Mária. The meaning of the education as factor of social differentiation. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 209-214. ISBN 80-227-2076-3

KONČAL Viliam. The basic questions of social communication. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 247-250. ISBN 80-227-2076-3

MRVOVÁ Ľubica. Costs – effectiveness criterion of industrial enterprise management evaluation environmental investment enterprise. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 383-386. ISBN 80-227-2076-3

ODLEROVÁ Eva. Education for the environment. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 403-405. ISBN 80-227-2076-3

RAJSKÝ Andrej. A young generation of Europe and an antic cultural heritage. Challenges and revisions. (Same reflections about the orations of H-G- Gadamer). In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 463-469. ISBN 80-227-2076-3

SKALSKÝ Vladimír. Observations and the model of our observed relativistic universe. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 517-520. ISBN 80-227-2076-3

SKALSKÝ Vladimír. The Friedmannian Universe Models in the light of the Wilkinson Microwave anisotropy probe (WMAP) Observations. In *Astrophysics and cosmology after gamow – theory and observations*. Odessa: Astroprint, 2004. s. 60. ISBN 966-318-184-2

CHYBA Juraj, KONČAL Viliam. Ingenieurausbildung aus der sicht von humanwissenschaften. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 425-431. ISBN 80-227-2117-4

JANTOŠOVIČOVÁ Mária. From The History Of Sociotecchnique In Slovakia. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 470-475. ISBN 80-227-2117-4

SKALSKY Vladimir. The Model Of Our Observed Relativistic Universe And The Wilkinson Microwave Anisotropy Probe Observations. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1236-1242. ISBN 80-227-2117-4

MRVOVÁ Ľubica. The positive evaluation of the results EMS after implementation in industrial enterprise. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 286- 288. ISBN 80-960189-0-7

SAVICKI, S. – BALITSKIJ, A.G. Puti garmonizacii evropejskogo obrazovateľnogo prostranstva. In *Techničeskie universitety: integracija s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 138 – 146. ISBN 5-7526-0186-X

JANTOŠOVIČOVÁ Mária. Education as instrument of personnal management. In *Acta Academica Trenchiniensis*. Trenčín: TUAD, 2004, s. 111- 113. ISBN 80-8075-018-1

BALICKIJ, A. G. – SAVICKI, C. Rynočnaja sistema chozjajstvovania i model' vyššego obrazovanija. In *XIV ural'skie sociologičeskije čtenija. Sbornik materialov*. Tjumeň: Tjumenskij gosudarstvennyj universitet, 2003, s. 183 – 186. ISBN 5-88081-351-7

SAVICKI, S. – BALICKIJ, A. Model' vyššego obrazovanija v evropejskom prostranstve. In Sostojanie i problemy razvitija srednego professional'nogo obrazovanija v sisteme mnogourovnevoj podgotovki specialistov. In *Sostojanie i problemy razvitija srednego professional'nogo obrazovanija v sisteme mnogourovnevoj podgotovki specialistov*. Iževsk: IŽGTU, 2003, s. 85 – 91. ISBN 5-7526-0168-1

SAVICKI, S. – BALICKIJ, A. Evropejskaja sistema perevoda kreditov (ECTS). In *Sostojanie i problemy razvitija srednego professional'nogo obrazovanija v sisteme mnogourovnevoj podgotovki specialistov*. Iževsk: IŽGTU, 2003, s. 91 - 96. ISBN 5-7526-0168-1

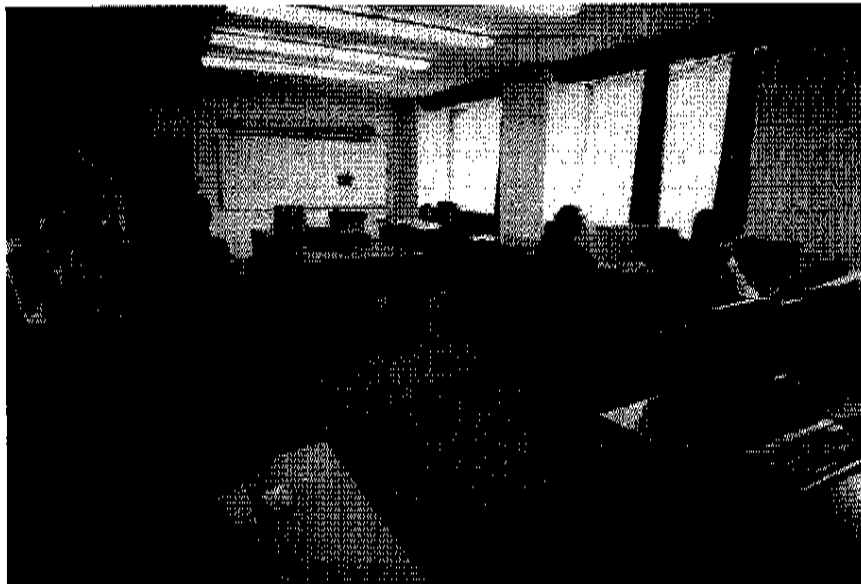
DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

Head of the Department
Miloš Čambál, PhD., Assoc. Prof.

Tel.: +421-33-5511 240
E-mail: kpim@mtf.stuba.sk

I. STAFF

Professors:	3	Research Fellows:	3
Assoc. Professors:	8	Technical and Admin. Staff:	3
Senior Lecturers:	19	PhD Students:	41
Lecturers:	0		



The computer room

II. EQUIPMENT

II.1 Teaching and Research Laboratory

- Personal Computer Laboratory
- Ergonomic Laboratory

II.2 Special Measuring Instruments and Systems

- Testing system for psychology studies Ergometer
- Basic technical equipment for labour environment studies

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of Subject	Semester	H/W L-P	Reader's name
Enterprise Economy I	5	3-2	Burcl
Enterprise Management	5	3-2	Čambál
Accounting	5	2-2	Horváthová
Ergonomic	5	2-1	Hatiar
Semester Project	5	0-2	Štrpka
Marketing	6	3-1	Jedlička
Production Management	6	3-2	Rybanský
Personnel Management	6	2-2	Holková
Computers in Enterprise Practice	6	0-3	Vadkertí
Enterprise Economy II	6	2-2	Černá
Bachelor Project	6	0-5	Horiňák
Basis Management and Marketing	6	3-2	Jedlička
Managerial Ethics	6	2-1	Holková

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of Subject	Semester	H/W L-P	Reader's name
Innovation Management	1	3-2	Horňák
Operational Research	1	3-3	Štrpka
Information Management	1	2-3	Šujanová
Taxation	1	2-2	Homokyová
Accounting in Enterprise Activities	1	1-2	Horváthová
Financial Management	2	3-2	Chynoradská
Strategic Management	2	3-2	Sakál
Logistics	2	2-2	Čabadaj
Annual project	2	0-5	Jedlička
Marketing Strategy	2	2-1	Jedlička
Management Simulation	2	1-2	Ončák
Economical Analysis	3	2-2	Doubková
Management of Investment Development	3	3-2	Sablík
Project Management	3	2-2	Ončák
Final Project	3	0-5	Čambál
Assertion of Creative Methods	3	2-1	Horňák

IV. RESEARCH TARGETS

- Progressive forms of managers education
- Advanced information technologies implementation
- Environmental Management
- Organizational Culture
- Project Management

V. EDUCATION AND RESEARCH PROJECTS

V.I Institutional Projects

- Exploitation personnel indicators at human resource of management in business practice in connection with Slovak republic's entry to the EU
- New marketing-management trends leading to increase corporate competitiveness
- Progressive trends in business logistics

- Substance and value of firm industrial and intellectual property, its creation, maintenance, protection, valuation and its main contribution to the firm value maximalization
- Selection and verification of the appropriate methods for the suggestion, optimisation and supervision of the EU-projects

V.2 National Grants (VEGA, KEGA)

- Environmentally oriented management, marketing and logistic in strategy business units (VEGA 1/9099/02)
- The Possibility of Development of Creative Potential of Manager in Small and Middle Enterprise in Slovakia as a Support of Enterprise Culture (1/1244/04)

V.3 International Projects

- Project Manager – Course Project Management

VI. CO-OPERATION

VI.1 National Co-operation

- Technical University Košice
- Technical University Zvolen
- Faculty of Engineering Bratislava
- Faculty of Engineering Žilina
- University of Economics Bratislava, Faculty of Business Management

VI.2 International Co-operation

- Department of Work Sciences, Brandenburg Technical University, Cottbus, Germany
- Agricultural University of Poznań Chair of Economic and Wood Industry Management, Poznań, Poland
- Institut für Festkörper und Werkstofforschung, Dresden, Germany
- Ufa State Aviation Technical University, Ufa, Russia
- University Pardubice, Faculty of Chemical Technology, Pardubice, Czech republic

- Technical University of Ostrava, Faculty of Metallurgy and Materials Engineering, Ostrava, Czech republic
- University in Zelena Gora, Poland
- University in Zagreb, Faculty of Forestry, Zagreb, Croatia
- Polytechnic Institute, Kiew, Ukraine

VI.3 Contracts with Industry

- Contract with Railways of Slovak republic in field of work rationalisation
- Contract with Joint-stock company Slovenské elektrárne „Development of managers skills“
- Contract with Tauris Siesta, a. s. „Environmentally oriented management, marketing and logistic“
- Contract with System-Ratech, s. r. o. „Information system of bridges districts“

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (341) in 2004 available at:
<http://olib.cvt.stuba.sk>

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members for Foreign Institutions

VIII.2 Foreign Visitors to the Department

- Bulgarian Technical Institute, Sofia, Bulgaria
- Brandenburg Technical University, Cottbus, Germany
- Moscow Energetical Institute (MEI), Moscow, Russia

VIII.3 Organised Conferences, Seminars and Workshops

- International Scientific Conference „Up-to-Date approaches to business management“
- Specialised course in the field of work rationalisation
- Seminars in the field of project management
- Seminars in the field of manager`s skills

IX. PUBLICATIONS

BURCL Rudolf – BESTVINOVÁ Viera. *Business economics*. Bratislava: STU, 2004. 249 s. ISBN 80-227-2122-0

SAKÁL Peter – PODSKLAN Adrián. *Strategic management*. Bratislava: STU, 2004. 256 s. ISBN 80-227-2153-0

PODSKLAN Adrián – VIDOVÁ Helena – MOLNÁROVÁ Dagmar. Strategies for a sustainable growth. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

ŠTRPKA Alexander. Optimierung der Grösse von Produktionskapazität. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

SABLIK Jozef – ŠUTAJ-EŠTOK Andrej. An approach to process management adjustment in a production plant. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

BURCL Rudolf. Economics valuation methodology of ecological investment in business. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 15 - 21. ISSN 1336-1589

BURCL Rudolf – BESTVINOVÁ Viera. Chosen problems of project controlling from environmental point of view. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 23-27. ISSN 1336-1589

JEDLIČKA Milan. The philosophy and concept of specific type place strategy. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 61 - 66. ISSN 1336-1589

RYBANSKÝ Rudolf – BESTVINOVÁ Jana. Relations and interdependence between strategic and operative management. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 131 – 135. ISSN 1336-1589

SABLIK Jozef – ZÁBOJNÍK Juraj. Role of controlling in the system of management. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 137 - 143. ISSN 1336-1589

ŠTRPKA Alexander. Optimization methods by decision in the project management. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 151 - 157. ISSN 1336-1589

BESTVINOVÁ Viera – CAMPBELL Jana. Kennzahlensystem des ökologieorientierten Controlling für die Phase der Beschaffung, Produktion und des Vertriebs. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 17 - 23. ISSN 1336-1589

BESTVINOVÁ Viera. Errichtung des Kennzahlensystems für das ökologieorientiertem Controlling. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 25-28. ISSN 1336-1589

BURCL Rudolf. Reales System der Betriebsbereitschaft des Langfristigen Sachvermögens. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 51 - 55. ISSN 1336-1589

ČAMBÁL Miloš – BARAN Dušan. Rating – ratio of economic situation in specific country. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 57 - 62. ISSN 1336-1589

JACINTO Domingos – MOLNÁROVÁ Dagmar. The importance of corporate identity in market environment. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 85 - 89. ISSN 1336-1589

JEDLIČKA Milan. Concepts for building of the integrated marketing communication. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 91 - 96. ISSN 1336-1589

SABLIK Jozef – ŠUTAJ-EŠTOK Andrej. Process management, management of processes, process approach – correlations. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 155 – 158. ISSN 1336-1589

SAKÁL Peter – SAKÁLOVÁ Eva. System analyses of profile of strategic management school suitable for business of 21th century. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 159 - 163. ISSN 1336-1589

ŠTRPKA Alexander. Optimization models for decision by risk in the project management. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 165 - 172. ISSN 1336-1589

VAŇOVÁ Jaromíra – KUČEROVÁ Marta. Work performance evaluation – personal management tool. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004 č. 17, s. 183 – 186. ISSN 1336-1589

JEDLIČKA Milan. Decennium of the marketing communications and what next? In *Moderní řízení*, 2004, č. 6, s. 28 – 29. ISSN

HATIAR Karol. Ergonomics and preventive ergonomic programs. In *Bezpečná práca*, 2004, 35, č. 1, s. 8 – 13.

HATJAR Karol. Risk evaluation in work process in light of ergonomics. In *Bezpečná práca*, 2004, 35, č. 3, s. 3 – 10.

HATJAR Karol – KOBETIČOVÁ Lucia – HAJNIK Bartolomej. Ergonomic analysis via modified questionnaire „Nordic Questionnaire“. In *Bezpečná práca*, 2004, 35, č. 4, s. 20 – 28.

JEDLIČKA Milan. Specificity of the systematic application of the method CRM. In *Kvalita*, 2004, 12, č. 2, s. 41 - 44.

BABELOVÁ Zdenka. Characteristic of high-productive team and possibilities to it's efficiency increase. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 5 – 8. ISBN 80-227-2076-3

BAKOŠOVÁ Helan – DUDOKOVÁ Malvína. Appreciation of logistics processes by means of chosen logistics indicators II. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 9-12. ISBN 80-227-2076-3

BURCL Rudolf. Exploitation of human potential in management. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 41 – 44. ISBN 80-227-2076-3

DUDOKOVÁ Malvína – BAKOŠOVÁ Helena. Appreciation of logistics processes by means of chosen logistics indicators I. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 79 – 82. ISBN 80-227-2076-3

CHOVANOVA Henrieta – JAKÁBOVÁ Martina. Manual of project management. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, I.diel, s. 179-182. ISBN 80-227-2076-3

JACINTO Domingos – MOLNÁROVÁ Dagmar. Modern trends in business unit managed by environmental and marketing. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 189-192. ISBN 80-227-2076-3

JAKÁBOVÁ Martina. Project team. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 193-196. ISBN 80-227-2076-3

JANOVSKÁ Kamila – SAKÁL Peter. Logistics as an important factor of competitive. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 205-208. ISBN 80-227-2076-3

KNAPOVÁ Dušana. Types of environmentally oriented strategies. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 239-242. ISBN 80-227-2076-3

KOŽÍKOVÁ Oľga. Leader as an effective tool of existence of company. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 273-276. ISBN 80-227-2076-3

PREČINSKÁ Zuzana. Meaning and realization of the promotion in the industrial companies in a context of the integration of Slovakia to EU. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 459-462. ISBN 80-227-2076-3

ŠRAMOVÁ Petra. Making positive organization culture for better employee's motivation to work performance. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 537-540. ISBN 80-227-2076-3

ŠUJANOVÁ Jana. Information and communication technologies in the knowledge management. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 553-556. ISBN 80-227-2076-3

VÝBOCH Jozef – MOLNÁROVÁ Dagmar. Application of the information systems in the project management. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 655-658. ISBN 80-227-2076-3

BABEĽOVÁ Zdenka. Utilization of Balanced Scorecard in Human resources management. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 31-34. ISBN 80-227-2117-4

BURCL Rudolf. System der fürsorge um progressive technik. system of maintenance of progressive technology. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 129-135. ISBN 80-227-2117-4

CABADAJ Ján. Logistics processes in the global business chain. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 139-149. ISBN 80-227-2117-4

DRAHŇOVSKÝ Juraj – RYBANSKÝ Rudolf – ŠČASNOVIČ Radovan. Supply policy suggestion in an enterprise. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 230-236. ISBN 80-227-2117-4

CHOVANOVÁ Henrieta. The OPM3, what is it and how can it be used? In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 416-418. ISBN 80-227-2117-4

JÁNOŠÍKOVÁ Slávka – SABLÍK Jozef – JAHNÁTEK Lubomír. Development of The Rate of Exchange of Skk And Its Effect To Efficiency of the Slovak Export Bodies. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 449-454. ISBN 80-227-2117-4

JEDLIČKA Martin. The software process assessment methodologies. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 482-490. ISBN 80-227-2117-4

JEDLIČKA Milan. Marketing communication on world global market. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 491-498. ISBN 80-227-2117-4

KOŽÍKOVÁ, O. Effective Using Time by Time Management. In *CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 102, CD. ISBN 80-227-2121-2

JAKÁBOVÁ Martina. Creative problem solving. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 432-439. ISBN 80-227-2117-4

MOLNÁROVÁ Dagmar – JACINTO Domingos. Environmental orientation as basic element of corporate image and corporate identity creation in 21st Century. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 925-928. ISBN 80-227-2117-4

SABLIK Jozef – COOK Thomas M. – HATIAR Karol. Ergonomics training program in the department of industrial engineering and management of stu, faculty of materials science and technology in Trnava. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1198-1206. ISBN 80-227-2117-4

ŠTRPKA Alexander. Anwendungen der dynamischen Optimierung in der Betriebspraxis. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1328-1337. ISBN 80-227-2117-4

VÝBOCH Jozef. E-communication in the project management. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1506-1508. ISBN 80-227-2117-4

BABELOVÁ, Z. – DRAHŇOVSKÝ, J. Diagnostic of the educational requirements in personnel practice of the company. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. ISBN 5-7526-0185-1

JAKÁBOVÁ, M. – KOŽÍKOVÁ, O. Euromanagement and future. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. ISBN 5-7526-0185-1

BAKOŠOVÁ, H. Enhancement Flexibility of Logistics Processes by means of Lean Production. In *IV. elektronjaja zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. ISBN 5-7526-0185-1

BABELOVÁ Zdenka. Personnel controlling utilization by staff efficiency monitoring. In *Diagnostika podniku, controllingu a logistika*. Žilina: EDIS, 2004, s. 10-12. ISBN 80-8070-208-X

BAKOŠOVÁ Helena. Status of Environmental Logistics Goals within Hierarchy of Firm Goals. In *Diagnostika podniku, controllingu a logistika*. Žilina: EDIS, 2004, s. 13-16. ISBN 80-8070-208-X

DUDOKOVÁ Malvína. Enterprise efficiency measuring as a presumption of the successful strategy. In *Diagnostika podniku, controllingu a logistika*. Žilina: EDIS, 2004, s. 53-56. ISBN 80-8070-208-X

MOLNÁROVÁ Dagmar. Marketing planning as an enterprise competitive resource. In *Diagnostika podniku, controllingu a logistika*. Žilina: EDIS, 2004, s. 225-228. ISBN 80-8070-208-X

VIDOVÁ Helena – JACINTO Domingos. Controlling as a significant support of the marketing management of 21st century. In *Diagnostika podniku, controllingu a logistika*. Žilina: EDIS, 2004, s. 355-359. ISBN 80-8070-208-X

BAKOŠOVÁ, H. – VIDOVÁ, H. – JACINTO, D. – PODSKEAN, A. Controlling contribution for efficient environmental management.. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

MOLNÁROVÁ Dagmar – VÝBOCH Jozef. Successful customer acquisition. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

DUDOKOVÁ Malvína. Consequence of environment defence strategy. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

JAKÁBOVÁ Martina. The funds before and after admission to the European Union. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

KOŽÍKOVÁ Oľga. Delegation of the work tasks and responsibilities. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

DRAHŇOVSKÝ Juraj. Maintenance organisation by the system TPM. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

CHOVANOVÁ Henrieta. Ability of the exploitation exact methods in project planning. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

BABELOVÁ Zdenka. Effects of employees efficiency on company efficiency. In *Juniorstav 2004. 6. odborná konference doktorského studia*. Brno: VUT, 2004. CD. ISBN 80-214-2560-1

BAKOŠOVÁ Helena – FIDLER Martin. Relay management in small and middle enterprises creating EMS. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 30 – 33. ISBN 80-960189-0-7

DUDOKOVÁ, M. Balanced Scorecard – an instrument for measuring and enterprise efficiency rising. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 98-101. ISBN 80-960189-0-7

HALENÁROVÁ Kristína. Employee leasing as a specific form of the staff acquisition after the integration of Slovak republic into the EU. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 124-127. ISBN 80-960189-0-7

CHOVANOVÁ Henrieta. Forwardness evaluation of the project management. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 157-160. ISBN 80-960189-0-7

JACINTO Domingos – MOLNÁROVÁ Dagmar. Modern trends in business unit managed by environmental and marketing. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 161 - 164. ISBN 80-960189-0-7

JAKÁBOVÁ Martina – KOŽÍKOVÁ Oľga. The standard of building and development curomanagement. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 165 - 168. ISBN 80-960189-0-7

KNAPOVÁ Dušana. External surrounding analysis by the environmental strategy creating. In *Moderné prístupy k manažmentu podniku*. Bratislava : GC-TECH, 2004, s. 186 - 189. ISBN 80-960189-0-7

MOLNÁROVÁ Dagmar – JACINTO Domingos. Firm image and identity as enterprise competitive resources by the customers acquisition. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 278 - 281. ISBN 80-960189-0-7

PREČINSKÁ Zuzana. Modern trends in employee education system. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 321 – 324. ISBN 80-960189-0-7

ŠRAMOVÁ Petra. Positive corporate culture forming for more motivation indemnity of the employees. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 405 – 408. ISBN 80-960189-0-7

VIDOVÁ Helena. Controlling awareness analysis in terms of slovak business practice. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 432 - 437. ISBN 80-960189-0-7

KUČEROVÁ Marta – VAŇOVÁ Jaromíra. Improvement of quality management system in small and middle enterprise. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 205 – 208. ISBN 80-960189-0-7

SABLIK Jozef. Current state of the project management in the world and possibilities for application in our circumstances. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 4-5. ISBN 80-227-2055-0

ONČÁK Peter. Tools and methods for the support of the efficient design and project management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 6-9. ISBN 80-227-2055-0

ČAMBÁL Miloš. Project team management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 10-15. ISBN 80-227-2055-0

ČERNÁ Eubica – JAKÁBOVÁ Martina. Eurofunds. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 69. ISBN 80-227-2055-0

RYBANSKÝ Rudolf – DRAHŇOVSKÝ Juraj. Public acquisition in entry conditions into EU. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 16-19. ISBN 80-227-2055-0

CHOVANOVÁ Henrieta. The assessment of project management level application in the organisation. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 36-39. ISBN 80-227-2055-0

ŠTRPKA Alexander. Possibility of applications of exact methods in the project management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 40 - 45. ISBN 80-227-2055-0

ŠUJANOVÁ Jana. Application of the knowledge management in the project management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 46- 48. ISBN 80-227-2055-0

ČERNÁ Ľubica. The chosen aspect of the education of grown-ups in the project management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 49-52. ISBN 80-227-2055-0

JAKÁBOVÁ Martina. Metóda PCM – project cycle management. The PCM method – Project Cycle Management. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 53-57. ISBN 80-227-2055-0

VÝBOCH Jozef. Planning and project control of the information systems. In *Projektový manažment a jeho využitie v praxi, metódy a nástroje. Medzinárodný seminár*. Bratislava: STU, 2004, s. 58-64. ISBN 80-227-2055-0

CHYNORADSKÁ-ŠEFČÍKOVÁ Miriam. Intellectual property and intangible assets of company and its market valuations as the substantial part of firm market value. In *Radioelektronika, elektrotechnika, energetika. 10. meždunarodnaja naučno-techničeskaja konferencia studentov i aspirantov*. Moskva: MEI, 2004, Tom 1., s. 212. ISBN 5-87789-019-0

BABELOVÁ, Z. Effects of investment to the human resources on company efficiency increase and company strategy realization. In *Radioelektronika, elektrotechnika, energetika. 10. meždunarodnaja naučno-techničeskaja konferencia studentov i aspirantov*. Moskva: MEI, 2004, Tom 1., s. 206. ISBN 5-87789-019-0

BAKOŠOVÁ, H. – VIDOVÁ, H. – PODSKLAN, A. Importance of Controlling as a New Tool for Efficient and Effective Environmental Management. In *Radioelektronika, elektrotechnika, energetika. 10. meždunarodnaja naučno-techničeskaja konferencia studentov i aspirantov*. Moskva: MEI, 2004, Tom 1., s. 206. ISBN 5-87789-019-0

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Principles of the education quality assurance system at the Slovak University of Technology in Bratislava. In *Techničeskie universitety: integracija s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 189-202. ISBN 5-7526-0186-X

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Quality of university education in the field of engineering. In *Techničeskie universitety: integracija s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 202-211. ISBN 5-7526-0186-X

HORŇÁK František. Systematic managers education supporting the manager creativity progress. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

DRAHŇOVSKÝ Juraj – RYBANSKÝ Rudolf – ŠČASNOVIČ Radovan. Employee education in enterprise management. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

VIDOVÁ Helena. Project management in logistics. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

KARKUSOVÁ Zuzana – KNAPOVÁ Dušana. Principle and methods of the creativity in human relations. In 7. medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

JAKÁBOVÁ Martina. Method „Logframe“. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

JACINTO Domingos – MOLNÁROVÁ Dagmar. Firm identity and image creating as an important element of the enterprise competitive. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

CHOVANOVÁ Henrieta. Forwardness determination of the project management in the enterprises. In 7. medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

HATIAR Karol – COOK Thomas M. – SAKÁL, P. The project „Subscriber ergonomics“ in the enterprises in Slovak republic. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

HALENÁROVÁ Kristína – ŠRAMOVÁ Petra. Intuitive creative methods utilization as a considerable instrument for the creative potential rising in the 21st century enterprise. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

HAJNIK Bartolomej – SAKÁL Peter. Personnel orientation in crisis management. In 7. medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

BÁBELOVÁ Zdenka. Personnel audit as a strategic management instrument. In 7.medzinárodná konferencia *Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7

KOŽÍKOVÁ Oľga – JAKÁBOVÁ Martina. Project manager vs. project leader. In *Manažment ľudského potenciálu v podniku*. Zvolen: TU, 2004, s. 93 – 96. ISBN 80-228-1330-3

HAJNIK Bartolomej – SAKÁL Peter. Human resources preparation for the environmental crisis management sphere. In *Manažment ľudského potenciálu v podniku*. Zvolen: TU, 2004, s313 - 316. ISBN 80-228-1330-3

JEDLIČKA Milan. Marketing utilization in the globalised markets. In *Marketing a obchod 2004 – rok európskej integrácie. Marketing and trade 2004 – the year of european integration*. Zvolen: Ústav pre výchovu a vzdelávanie pracovníkov lesného a vodného hospodárstva 2004, s. 103 – 107. ISBN 80-89100-20-1

BURCL Rudolf. Economy and ecology of maintenance. In *Transfer 2004 : Využívanie nových poznatkov v strojárskkej praxi*. Trenčín : GC-TECH, 2004, s. 93 - 96. ISBN 80-8075-030-0

DRAHŇOVSKÝ, J. – JAKÁBOVÁ, M. – KOŽÍKOVÁ, O. – PALAJ, J. Single European Union – the Main Principles and Rules for Acting. In *Mesto Trnava sa otvára Európskej únii*. Trnava: Mesto Trnava, 2004, s. 5 – 14.

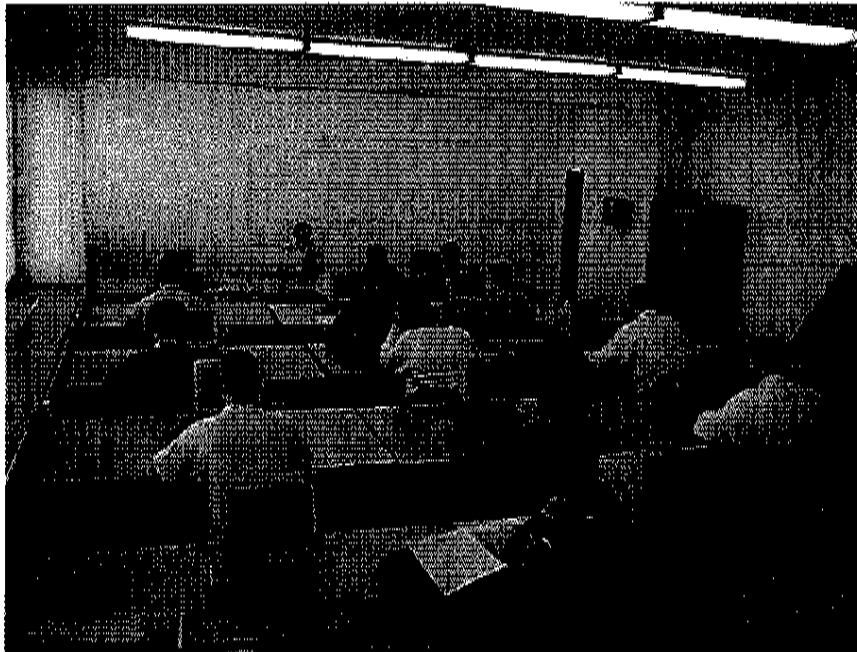
DEPARTMENT OF INFORMATION TECHNOLOGY AND AUTOMATION

Head of the Department:
Peter Schreiber, PhD, Assoc. Prof.

Tel.: ++421-33-5447734
Fax: ++421-33-5447733
E-mail: kaia@mtf.stuba.sk

I. STAFF

Professors:	3	Research Fellows:	2
Assoc. Professors:	5	Technical and Admin. Staff:	4
Senior Lecturers:	13	Ph.D. Students:	9
Lecturers:	0		



The computer room

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- CAD/CAM System Pro/ENGINEER Laboratory (1 Sun Ultra Creator 3D, 4 Sun SPARCstation 4, 3 HP 715/50, 3 workstation HP 715/15 Apollo, 3 X-terminal)
- Automation and Control Laboratory
- Laboratory for software development I (5 Pentium I, 6 Pentium II)
- Laboratory for software development II (10 Celeron)
- Special PC Laboratory (20 Pentium I)
- Internet Laboratory (7 Pentium I)
- Robotics Laboratory
- X-Terminals Laboratory (16 terminals)
- Multimedia Laboratory (3 Celeron 2 GHz, 2 videorecorders, 2 PC cameras, TV-set, printer, scanner)
- Audiovizual classroom (Pentium II, PC projector, audio system, wireless microphone)
- Data Acquisition laboratory

II.2 Special Measuring Instruments and Systems

- PLC Systems

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Information Technology Basics I,II	1,2	1-2	Schreiber
Software Technologies I,II	3,4	1-2	Tanuška, Michalčonok
Graphical Data Processing	5	3-3	Nemlaha
Database Systems	5	3-3	Tanuška
System Programming	5	2-2	Halenár
Computer Networks	5	2-2	Halenár
Project	5	0-4	Vážan
Economical Computer Science	6	2-2	Iringová
Automation in Industry	6	3-3	Božek
Information Systems	6	3-3	Tanuška
Computer Science and Society	6	2-0	Schreiber

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Theory of Automatic Control	7	3-3	Vrban, Gese
System Programming I,II	7,8	2-2	Michalčonok, Halenár
Artificial Intelligence	7	2-3	Schreiber
Graphical Systems I, II	7,8	2-3	Vaský, Nemláha
Technical Devices of Automatic Control	8	3-3	Michalčonok
Information Systems I, II	8,9	3-3	Mišút, Tanuška
Modelling and System Simulation	8	2-2	Važan
CIM	7	3-3	Važan
Control of the Automatic Production Devices	7	3-3	Božek
NC Programming	7	3-3	Mudrončík
Production System Planning	8	3-2	Mišút
Digital Control Systems	8	3-2	Božek
Computer Networks	9	3-3	Halenár
Production Systems Design	9	2-3	Mišút
Computer Science and Society	9	2-0	Schreiber
Project	9	0-5	Važan
CAD/CAM Systems	9	3-3	Vaský
Production Systems Control	9	3-3	Važan

IV. RESEARCH TARGETS

- Information and database systems
- Client-server architecture systems (design, tuning, data management, data security, applications)
- Control systems sensibility and robustness
- Artificial intelligence and expert systems
- System modelling and simulation (discrete-event simulation, Petri-nets, queuing theory)
- Computer networks
- Computer graphics, graphical and CAD/CAM systems
- CIM
- Multimedia, virtual reality
- E-learning

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Analysis of the parametrical sensitivity of dynamic systems and processes – VEGA
- Digital phase control system of high accuracy electric drives and their imitation through computer simulation means – Vega
- New algorithms of power system control in primary and secondary control – Vega
- A program system for generating 3D model from technical drawing – Vega
- Virtual laboratory of production system control – Kega
- New learning technologies – Kega

V.3 International Projects

- Socrates Programme (student mobilities abroad, 10 stays in Germany, 2 in Belgium)
- PTP I-II – Partnership for Tomorrow (University of Alberta, Canada), Quality Assurance of High Education

VI. CO-OPERATION

VI.1 National Co-operation

- Faculty of Electrotechnic and Computer Science STU Bratislava
- Faculty of Engineering STU Bratislava
- Trnava University Trnava
- University of Cyril and Metod Trnava
- Faculty of Electrotechnic TU Košice
- Faculty of pedagogical sciences UKF Nitra
- Faculty of Engineering Žilina
- Research Institute of Nuclear Power Supply Trnava
- Nuclear Power Station Jaslovske Bohunice
- AITEN ltd. Trnava

VI.2 International Co-operation

- IFW e. V. Dresden, Germany
- TU Darmstadt, Germany
- University of Lisboa, Portugal
- Politechničeskij universitet Peterburg, Russia

- University of Zielona Gora, Poland
- Politechničeskij institut Iževsr, Russia
- KAHO Gent, Belgium
- FH Köthen, Germany
- FH Darmstadt, Germany
- Brandenburgische Technische Universität, Cottbus, Germany

VI.3 Contracts with Industry

- The proposal of the methodology for the data evaluation in selected technical systems
- The implementation of the methodology for the waste management in the Nuclear power station Jaslovske Bohunice
- IT courses in the Nuclear power station Jaslovske Bohunice
- Identification of the fail sources binary control devices in the Nuclear power station Jaslovske Bohunice
- Project of a support system for the accident control in the Nuclear power station Jaslovske Bohunice (contract with the Research Institute of Nuclear Power Supply Trnava)
- The proposal of the methodology for the evaluation of measured values of switches HL4/8, HG3/8, VF and VD4
- The implementation of the methodology for integral scantiness benchmark of C30
- The evaluation of measured values in TDS system.

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (149) in 2004 available at:
<http://olib.cvt.stuba.sk>.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- IFW Dresden, Germany (2 stays)
- FH Köthen, Germany (2 stays)
- TU Ilmenau, Germany /1 stay)

VIII.2 Foreign Visitors to the Department

- FH Köthen, Germany (1 stays)
- IFW Dresden, Germany (3 stays)
- BTU Cottbus, Germany (1 stays)

VIII.3 Organised Conferences, Seminars and Workshops

IX. PUBLICATIONS

TANUŠKA, Pavol – SCHREIBER, Peter – VAŽAN, Pavol. *Information systems II*. Trnava: Tripsoft, 2004. ISBN 80-968734-6-6

VRBAN Anton. *Separatly capitols of technic systems*. Bratislava: STU, 2004. 110 s. ISBN 80-227-2010-0

KEBÍSEK Michal – TANUŠKA Pavol.. The utilization possibility of genetic Algorithms at the knowledge discovery in large databases. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

TANUŠKA Pavol – ELIÁŠ Andrej. The system proposal of monitoring and evaluation of dose rate through GIS ArcView. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

VRBAN Anton – MORAVČÍK Oliver. Sensitivity regulating circuit. In *Vedecké práce MfF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 171 - 177. ISSN 1336-1589

RAKOVSKÝ Martin – MUDRONČÍK Dušan. Reduction algorithms of pilot bus candidates. In *Vedecké práce MfF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 143 - 148. ISSN 1336-1589

BOŽEK Pavol. Task of laboratory exams in modern systém of quality control. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

HALENÁR Robert – VRBAN Anton. Method of determination tolerance linear dynamic system. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 119-124. ISBN 80-227-2076-3

VRBAN Anton. Cybernetic look on the control of system society. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, II.diel, s. 643-648. ISBN 80-227-2076-3

VRBAN Anton – MORAVČÍK Oliver. Sensitivity regulating circuit. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 649-654. ISBN 80-227-2076-3

HUSÁROVÁ Bohuslava – JUHÁS Martin. Simulation model design for temperature adjustment. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1556-1561. ISBN 80-227-2117-4

ELIAS Andrej – MICHALCONOK German. Battery analyzing system. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 249-255. ISBN 80-227-2117-4

HALENÁR Igor – CHYNORANSKY Branislav. Monitoring of local area network for vuje Trnava a.s. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 309-317. ISBN 80-227-2117-4

HALENÁR Igor – HALENÁR Robert. Issues of application design and functionality criteria and their impact on usability. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 318-322. ISBN 80-227-2117-4

HALENÁR Robert – VRBAN Anton. Contribution to the methodes of tolerance definitions of LDS. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 323-331. ISBN 80-227-2117-4

JEDLIČKA Martin. The software process assessment methodologies. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 482-490. ISBN 80-227-2117-4

KEBÍSEK Michal – SCHREIBER Peter. The possibility of utilization of neural networks at the data mining. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 589-595. ISBN 80-227-2117-4

MAKYŠ Peter – VIDOVÁ Helena. Knowledge discovery from databases in marketing. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 826-833. ISBN 80-227-2117-4

MIHÁL Adrián. Maßkettenlösung für die kompensationsmethode. Solution of dimensional perimeters for compensation method. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 871-875. ISBN 80-227-2117-4

MICHALČONOK German – PAVLINOVA Jevgenija. Imitating Model of the Measuring Phase. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 876-882. ISBN 80-227-2117-4

MICHALČONOK German – STRÉMY Maximilián. The combined discrete systems. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 883-889. ISBN 80-227-2117-4

MIKSA František. Residual Stress Distribution In Commuter Car Wheels. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 904-908. ISBN 80-227-2117-4

MORAVČÍK Oliver – VRBAN Anton. Contribution to sensitivity of linear dynamic systems. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava : STU, 2004, s. 939-944. ISBN 80-227-2117-4

VASKÝ Jozef – ELIÁŠ Michal – PALAJ Ján. Experimental Verification Of 3d Model Generation From 2d Vector Record. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1462-1466. ISBN 80-227-2117-4

VAŽAN Pavel. Simulation optimization in Manufacturing Systems control. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1467-1473. ISBN 80-227-2117-4

JEDLIČKA Martin. Analysis of software quality approaches. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R291/1-7. ISBN 80-7194-662-1

MICHALČONOK German – STRÉMY Maximilián. Simulation modeling of control systems based on standardized function blocks for motion control. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R224/1-8. ISBN 80-7194-662-1

RAKOVSKÝ Martin – MUDRONČÍK Dušan. Software support for pilot bus selection. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R254b/1-6. ISBN 80-7194-662-1

TANUŠKA Pavol – SCHREIBER Peter. Validation of data warehouses in term of significant standards and guidelines. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R284/1-6. ISBN 80-7194-662-1

KEBÍSEK Michal – MAKYŠ Peter. Knowledge discovery in database and possibilities of they usage in industrial process control. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R300/1-6. ISBN 80-7194-662-1

VAŽAN Pavel – MORAVČÍK Oliver. Possibilities of costs optimization in flexible manufacturing systems. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R286/1-8. ISBN 80-7194-662-1

MUDRONČÍK Dušan – REMIÁŠ Peter – POLLÁK Peter. Virtual controller KRGN 90. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R254/1-17. ISBN 80-7194-662-1

BOŽEK Pavol – MIKSA František. Some aspects of security systems. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R283/1-6. ISBN 80-7194-662-1

BOŽEK Pavol – MOLDA Peter – TÓTHOVÁ Mária. Mathematical analyses of motoring cable synchronization. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R273/1-6. ISBN 80-7194-662-1

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Principles of the education quality assurance system at the Slovak University of Technology in Bratislava. In *Technické univerzity: integrácia s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 189-202. ISBN 5-7526-0186-X

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Quality of university education in the field of engineering. In *Technické univerzity: integrácia s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 202-211. ISBN 5-7526-0186-X

MAKYŠ Peter – KEBÍSEK Michal. Data processing possibilities decision support in production systém control. In *Informačné technológie v manažmente výrobných systémov*. Nitra: SPU, 2004 s. 144 – 149. ISBN 80-8069-364-1

MUDRONČÍK Dušan – FRITZ Miloslav – BEZÁK Tomáš. Virtual controller UDC 3000 Honeywell. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. 291. ISBN 80-7194-662-1

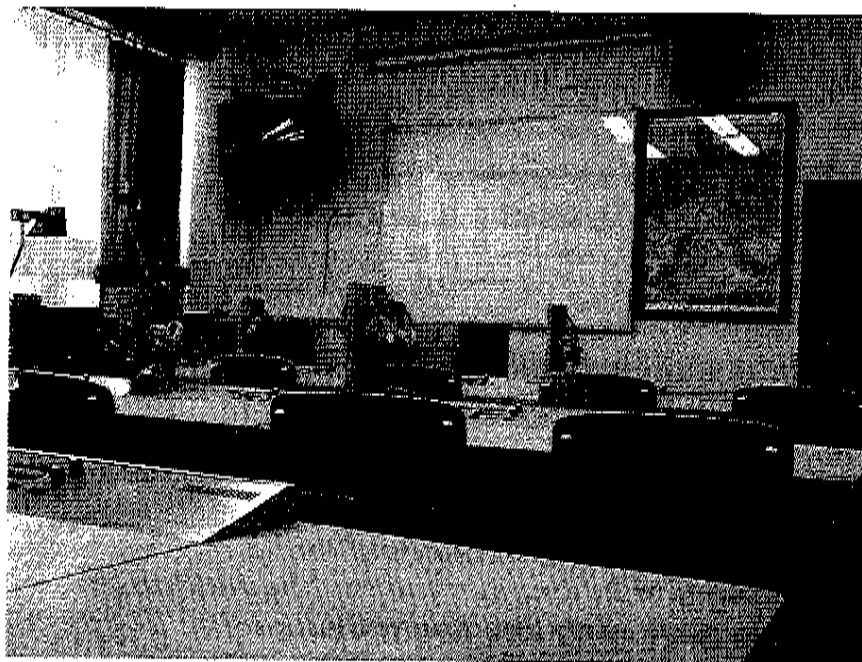
DEPARTMENT OF LANGUAGES

Head of the Department:
Juraj Miština, MSc.

Tel.: ++421-33-511 500
Fax: ++421-33-511 758
E-mail: kojp@mtf.stuba.sk

I. STAFF

Professors:	0	Research Fellows:	0
Assoc. Professors:	0	Technical and Admin. Staff:	1
Senior Lecturers:	10	PhD Students:	0
Lecturers:	0		



Language laboratory

II. EQUIPMENT**II.1 Teaching Language Laboratories**

- Audio-Video Workshop

II.2 Special Measuring Instruments and Systems**III. TEACHING****III.1 Bachelor Study (Bc.)**

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
English	2 – 5	0-2	Mironovová, Rusková, Miština, Waleková, Čagáňová, Česneková
German	2 – 5	0-2	Reháková, Fedič, Česneková
Russian	2 – 5	0-2	Rusková, Bujnová
French	2 – 5	0-2	Nižňanová

III.2 Graduate Study (Ing.)**III.3 Ph.D. Study**

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
English	1/2	0-2	Mironovová, Miština, Čagáňová
German	1/2	0-2	Reháková
Russian	1/2	0-2	Bujnová

IV. RESEARCH TARGETS

- Improving professional communication of PhD candidates in written and spoken English using e-mail and Internet
- Investigating methodological aspects of foreign language teaching and implementation of the research results into educational process.
- Foreign language curriculum improvement based on the needs analysis of the Faculty graduates and undergraduates in the field of international professional communication.

- Setting the network for professional information exchange and disseminating effective and attractive LSP (Languages for Specific Purposes) ideas.
- Joining other national networks, disseminating the Slovak experience abroad, strengthening the position and status of the language departments in the engineering universities, basically the status of the Faculty and Slovak University of Technology, innovating continuously the ESP content, tailoring it to the needs of opening global job market.
- Investigating methodology aspects of information and communication technology (ICT) and multimedia use in teaching languages for specific purposes. Developing students' specific skills in the field of using advanced presentation technology, ICT and electronic presentation materials design and soft skills.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Designing Interactive Multimedia Teacher Training Programme for Teachers of Foreign Languages for Specific Purposes. KEGA research grant No 3/57294 327.

The purpose of the Project is to design an open teacher training programme in a form of an interactive CD which will reinforce the Project impact. The Project team is working on an interactive multimedia material, where teaching tips will be supported by pictures, video clips, animation and other forms of visualisation to make it more attractive and user friendly not only for participants, but in a form of interactive compact disc or web site for wider range of potential users. The ambition of the Project is to cater for wide scale of professional needs and interests of the language teachers, to set the network for professional information exchange and disseminate effective and attractive LSP ideas via internet or using IT. The Project had an ambition to become a model of alternative in-service training for foreign language teachers, or as a model for on-line teacher training in Slovakia.

V.3 International Projects

- A Model for an International Collaborative Student Experience - technical English collaboration between Purdue University (USA) and Slovak University of Technology, University Grant (US – SK bilateral project).

VI. CO-OPERATION

VI.1 National Co-operation

- Language Department, Faculty of Electrical Engineering and Information Technology STU Bratislava

VI.2 International Co-operation

- The British Council in Bratislava
- Purdue University, Kokomo, Indiana, USA
- The Goethe Institute in Bratislava
- Ambassade de France en Slovaquie, Service de Cooperation et D'Action Culturelle
- Herning Institute of Business Administration and Technology, Denmark
- Copenhagen University, School of Engineering, Denmark
- ČVUT (Czech Technical University), Prague, Czech Republic

VI.3 Contracts with Industry

- ABANICO France Ltd.

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Mgr. Juraj Miština - Copenhagen University, School of Engineering, Denmark - Socrates Erasmus teacher's mobility;

- PhDr. Emília Mironovová, Mgr. Juraj Miština - International Conference on Engineering Education and Research "Progress Through Partnership" in Bouzov, ICEE Annual Conference, Czech Republic;
- PhDr. Emília Mironovová, Mgr. Gabriela Waleková - 7th International Conference on Interactive Computer Aided Learning", Villach, Austria;
- Mgr. Dušan Fedič - International Conference Trends in Technical Education, Olomouc, Czech Republic;
- Mgr. Dagmar Cagaňová, PhD. - International conference „English is not Enough“, Olomouc, Czech Republic;

VIII.2 Foreign Visitors to the Department

- Assoc. Prof. Kevin Taylor, Purdue University, Kokomo, Indiana. USA

VIII.3 Organised Conferences, Seminars and Workshops

- Co-organisers of SCHOLA 2003 – 5th International Scientific Conference
- Students Scientific Conference / English and German Language Sections, April 2004
- “Information and communication technology in engineering education” – workshop.

IX. PUBLICATIONS

KOZÍK Tomáš – PAVELKA Jozef – MIŠTINA Juraj. Technical Education in the Slovak Republic within the Context of EU Countries Educational Systems. In KOZÍK, Tomáš a kol. *Technické vzdelávanie v informačnej spoločnosti*. Nitra: UKF, 2004, s. 29 – 54. ISBN 80-8050-745-7

MIŠTINA Juraj – KOZÍK Tomáš. Professional Language Training in Technical Branches of University Study. In KOZÍK, Tomáš a kol. *Technické vzdelávanie v informačnej spoločnosti*. Nitra: UKF, 2004, s. 320 - 340. ISBN 80-8050-745-7

HUBA Mikuláš – BIELIKOVÁ Mária – BISTÁK Pavol – KOMÁRIK Emil – MIRONOVOVÁ Emília – ROVANOVA Ľubica – ŽÁKLOVÁ Katarína. *Team work*. Bratislava: STU, 2004. 136 s. ISBN 80-227-2119-0

FEDIČ Dušan. Teacher's working style in the process of learning specialized vocabulary by the students of technical universities. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 87 – 90. ISBN 80-227-2076-3

- MIŠTINA Juraj. E-learning: significant support of technical education in information society. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 367-370. ISBN 80-227-2076-3
- REHÁKOVÁ Anna. Information and communication technologies utilization in the proces of foreign language teaching. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 477-480. ISBN 80-227-2076-3
- WALEKOVÁ Gabriela. Appropriate text selection in teaching foreign language for specific purposes. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 659-662. ISBN 80-227-2076-3
- FEDIČ Dušan. Impact of teacher's working style on language preparation of technical universities students. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 256-258. ISBN 80-227-2117-4
- MIŠTINA Juraj. English – the global language of information society. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 909-912. ISBN 80-227-2117-4
- MIRONOVOVA Emilia – WALEKOVÁ Gabriela – TAYLOR Kevin. Professional issues Discussion In An International on-line Forum. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 913-916. ISBN 80-227-2117-4
- REHÁKOVÁ Anna. Utilization of information and communication technologies in the process of foreign language teaching at technical faculties in Slovakia. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1151-1155. ISBN 80-227-2117-4
- RUSKOVÁ Dagmar – CAGÁŇOVÁ Dagmar. The place and role of information and communication technologies in foreign language teaching. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1187-1190. ISBN 80-227-2117-4
- MIŠTINA Juraj. Cybercommunication – the Latest Issue in Technical Education. In *ICETA 2004*. Košice: Elfa, 2004, s. 227 – 232. ISBN 80-89066-85-2
- MIRONOVOVÁ Emilia – TAYLOR Kevin – WALEKOVÁ Gabriel. On-line International Internet Meetings on Professional Issues. In *ICL 2004 - Interactive Computer Aided Learning*. Villach: Kassel university press, 2004. nestr. CD. ISBN 3-89958-089-3
- MIRONOVOVÁ Emilia – MIŠTINA Juraj. Foreign Languages in Engineering University Education. In *International Conference on Engineering Education and Research „Progress Through Partnership“*. Ostrava: VŠB TU, 2004, s. 1655-1660. ISSN 1562-3580
- MIŠTINA Juraj – HRMO Roman. The Internet Phenomenon – Ethical Challenge in Engineering Education of the Information Age. In *International Conference on Engineering Education and Research „Progress Through Partnership“*. Ostrava: VŠB TU, 2004, s. 315-320. ISSN 1562-3580

MIŠTINA Juraj. Engineering Students' Proficiency in Internet Communication Skills. In *Modernizace vysokoškolské výuky technických předmětů I*. Hradec Králové: Gaudeamus, 2004, s. 110-113. ISBN 80-7041-318-2

MIRONOVÁ Emília. Teaching English to STU Students of the University of Third Age. In *Schola 2004: 6. medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 198 - 202. ISBN 80-227-2143-3

MIŠTINA Juraj. Language Competencies as a part of Engineering Education. In *Schola 2004 : 6. medzinárodná vedecká konferencia KIPP : Inovácie v doplňujúcom pedagogickom štúdiu*. Bratislava: STU, 2004, s. 313 - 316. ISBN 80-227-2143-3

FEDIČ Dušan. Impact of teachers working style on preparation of technical universities students for professional presentation. In *Trendy technického vzdelávani. Technická a informační výchova*. Praha: Votobia, 2004. ISBN 80-7220-182-4

MIŠTINA Juraj. E-Communication Skills Development as a Part of Language Training of Technical University Undergraduates. In *5th International Conference VIRTUAL UNIVERSITY*. Bratislava: STU, 2004, s. 88-90. ISBN 80-227-2171-9

DEPARTMENT OF MACHINING AND ASSEMBLY

Head of the Department:
Alexander Janáč, PhD, Prof.

Tel.: ++421-33-55 21 061
Fax: ++421-33-55 21 061
E-mail: kom@mtf.stuba.sk

I. STAFF

Professors:	2	Research Fellows:	2
Assoc. Professors:	5	Technical and Admin. Staff:	4
Senior Lecturers:	1	PhD Students:	7
Lecturers:	5		



„DECKEL“ CNC milling machine

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Measurement Laboratory
- Assembly Laboratory
- Mechanical Engineering Laboratory
- CAD/CAM Laboratory

II.2 Special Measuring Instruments and Systems

- CCD camera
- Zeiss length gauge 1 m
- Zeiss universal microscope
- Zeiss universal length gauge
- Hilger Watts autocollimator + mirror polygon
- Zeiss collimator + telescope

II.3 Special Technological Equipment

- Milling machine Deckel inclusive educational computerised system
- CNC lathe SUI 500 Combi

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Industrial Technologies and Production Equipment	1	3-2	Lipa, Štefánek
Machining Technology and Metrology	4	3-2	Lipa, Maduda
Machining technology	5	2-2	Peterka
Fundamentals of Assembly	5	2-0	Valentovič
Metrology Practice	5	0-3	Maduda, Görög
Semester Project	5	0-2	Janáč
Final Work	6	0-5	Janáč
Metrology	6	2-1	Maduda, Görög
CAD/CAM systems	6	2-2	Peterka

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Machining Theory	7	2-2	Peterka
Cutting Machines and Equipment	7	2-2	Valentovič
Assembly Technology	7	2-1	Valentovič
NC Machine Programming I	7	1-2	Peterka, Görög
Geometrical Product Specification	7	2-1	Štefánek
NC Machine Programming II	8	0-3	Peterka, Görög
Progressive Machining Methods	9	3-2	Štefánek
Production Planning	9	2-2	Štefánek
Mechanisation and Automation	9	3-2	Valentovič
Final Project	9	0-5	Janáč
Finishing Machining Methods	9	2-2	Lipa
Computer Controlled Production	9	2-1	Peterka
Experimental Machining Methods	9	2-1	Lipa
CAD/CAM Systems	9	1-2	Peterka
Machines, tools and materials for free shape machining	9	2-2	Valentovič
CA technologies	9	2-2	Peterka
Modell Studio	9	2-2	Peterka
Progressive Methods of Machinery Product Assembly	9	2-2	Valentovič
Software for Production of Artistic Surfaces	9	0-2	Peterka
Unconventional Machining Technologies	9	2-1	Štefánek
Font Design	9	1-2	Peterka
Prediploma praxis	10		
Diploma project	10		

IV. RESEARCH TARGETS

- Theory of machined parts manufacturing, creatics measurement and assembly,
- CIM, CAD/CAM, CAPP, CAQ, CAA,
- 3D art engraving,
- Manufacturing of dies,
- Quality of measurements.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Micromachinability and machinability by finishing methods of machining. 1/8267/01 (Lipa, Z.)
- Research of application of the progressive ecological cooling cutting medium in machining APVT-20-003302
- Mathematical methods in production metrology 1/0303/03 (Janáč, A.)
- New production methods, new methods of verification and assembly of complex shaped and precise surface parts 1/0302/03 (Peterka, J.)

V.2 National Grants (VEGA, KEGA)**V.3 International Projects**

- CEEPUS PL-0127-03/04 Computer-Aided Systems for Manufacture and Measurement of Machine Elements (Janáč, A.)
- CEEPUS RO-137-03/04 The implementation of European Credit Transfer System into the Short Time Higher Education (Janáč, A.)

VI. CO-OPERATION**VI.1 National Co-operation**

- Faculty of Mechanical Engineering, Slovak University of Technology, Bratislava
- Slovak Academy of Science

VI.2 International Co-operation

- TU Ostrava, Czechia
- Faculty of Mechanical Engineering, Technical University of Vienna, Austria
- Faculty of Mechatronics and Machinery Design, Kielce, Poland
- ČVUT Praha, Czechia
- VUT Brno, Czechia
- TU Novi Sad, Yugoslavia
- TU Kruševac, Yugoslavia
- Johannes Kepler Universität Linz

VI.3 Contracts with Industry

- VUNAR a.s. Nové Zámky
- MAGNA SLOVTECA s.r.o. Nové Mesto nad Váhom
- Jacobs Suchard Figaro a.s. Bratislava
- SKLOPLAST a.s. Trnava
- SACHS Slovensko s.r.o. Trnava
- TZK a.s. Trnava
- TOMA Trnava
- TRENS Trenčín
- IDC Holding Trnava
- TESS-Servis s.r.o. Piešťany
- Atómové elektrárne Jaslovské Bohunice
- SONY Trnava

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (71) in 2004 available at:
<http://olib.cvt.stuba.sk>.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- TU Vienna (Austria)
- WUT Warsaw (Poland)
- ČVUT Praha (Czechia)
- VUT Brno (Czechia)
- TU Kharbin (China)
- VŠB Ostrava (Czechia)
- TU Kielce (Poland)
- TU Zagreb (Croatia)
- IOS Krakov (Poland).

VIII.2 Foreign Visitors to the Department

- Prof. P. H. Osanna (TU Vienna), Ass. Prof. N. M. Durakbasa (TU Vienna), Prof. K. Kocman (VUT Brno), Prof. Dr. – Ing. Marcel S. Popa (TU Cluj), Prof. Ing. S. Adamczak, DrSc. (Universita Kielce)

VIII.3 Organised Conferences, Seminars and Workshops

- Seminar Tools for progressive machining
- Summer School on Metrology (project CEEPUS PL-O1)

IX. PUBLICATIONS

JANÁČ Alexander – BÁTORA Bohumil – BARÁNEK Ivan – LIPA Zdenko. *Machining technology*. Bratislava: STU, 2004. 288 s. ISBN 80-227-2031-3

PETERKA Jozef. Derivation of the Arithmetical Mean Deviation of the Surface Roughness with Copy Milling (Part one – roughness on a plane surface). In *Manufacturing Engineering. Výrobné inžinierstvo*, 2004, 3, č. 1, s. 15 – 17. ISSN 1335-7972

KAPUSTOVÁ Mária – JANÁČ Alexander – TRUBENOVÁ Jaroslava. Importance of Evaluation of Human Body total loading in order to analyse the comfort at Forging press workplace. In *Manufacturing Engineering. Výrobné inžinierstvo*, 2004, 3, č. 1, s. 25 – 29. ISSN 1335-7972

GÖRÖG Augustín. Error on roundness deviation measurement of the surface formed by internal part of anuloid. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 35 – 39. ISSN 1336-1589

GÖRÖGOVÁ Ingrid – GÖRÖG Augustín. Determination of circularity profiles technological heredity by production of roller bearings. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 41 - 46. ISSN 1336-1589

JANÁČ Alexander – OSANNA, H. P. – DURAKBASA, M. N. – AFJEHI-SADAT, A. – ŠTEFÁNEK Michal. Accreditation of metrology education and certification of metrology personnel. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 51 – 59. ISSN 1336-1589

LIPA Zdenko – JANÁČ Alexander – TOMANÍČEK Stanislav – TOMANÍČKOVÁ Dagmar. Hyperdiagrams of cutting tool wear. Part 2. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 81 - 84. ISSN 1336-1589

LIPA Zdenko – MORAVČÍKOVÁ Jana. Classification of parameters superfinishing process. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 85 - 90. ISSN 1336-1589

MADUDA Miroslav. Method to determine of value, correction and uncertainty of indirect measurements of quantities. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 91 - 98. ISSN 1336-1589

MADUDA Miroslav. Selection of suitable measuring bases for measurement of shape and position deviation. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 99 - 104. ISSN 1336-1589

BOROVÍČKA Milan – JANÁČ Alexander – BOROVÍČKA Peter. Quality and effectiveness of quality. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 29 - 33. ISSN 1336-1589

BOROVÍČKA Milan – JANÁČ Alexander – BOROVÍČKA Peter. Measurement, probability and statistics. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 35 - 42. ISSN 1336-1589

BOROVÍČKA Milan – JANÁČ Alexander – LIPA Zdenko. Creation and manage production process. In *Vedecké práce MtF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 43 - 50. ISSN 1336-1589

LIPA Zdenko – GÖRÖG Agustin – GÖRÖGOVÁ Ingrid. Contribution to verification of reduction formulas by honing and superfinishing. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 115 - 120. ISSN 1336-1589

LIPA Zdenko – JANÁČ Alexander – BÓNIŠOVÁ Monika – DIBALOVÁ Monika. Contribution to physical essence of microchips creation. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 121 - 125. ISSN 1336-1589

Peterka, J. Derivation of the Arithmetical Mean Deviation of the Profile by Copy Milling – Part Two – Roughness on the Oblique surface. In *Manufacturing Engineering. Výrobné inžinierstvo*, 2004, 3, č. 2 s. 30-31. ISSN 1335 – 7972.

POKORNÝ Peter – VALENTOVIČ Ernest. What are the hybrid structures? In *Strojárstvo-Strojirenství*, 2004, 8, č. 2, s. 52.

PETERKA Jozef. From proposal through prototype to serial production. In *Strojárstvo-Strojirenství*, 2004, 8, č. 2, s. 7.

CHARBULOVÁ Marcela. Optimal grinding parameters. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 167-170. ISBN 80-227-2076-3

JANČOVIČ Rastislav – PETERKA Jozef. Tool life of the cutting tools. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 197-200. ISBN 80-227-2076-3

LIPA Zdenko – JANÁČ Alexander – DIBALOVÁ Monika – BÓNIŠOVÁ Monika. Specifics of microchips creation. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 313- 316. ISBN 80-227-2076-3

MADUDA Miroslav. Examples of determination of measurement correction and uncertainty from technical practice. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 345-350. ISBN 80-227-2076-3

MADUDA Miroslav. Angles measurement of inner and outer surface. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 351-356. ISBN 80-227-2076-3

MOROVIČ Ladislav – PETERKA Jozef. Rapid tooling. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 379-382. ISBN 80-227-2076-3

TOMANIČKOVÁ Dagmar. Surface quality from aspect of microgeometry. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 575-578. ISBN 80-227-2076-3

GÖRÖG, A. – MORAVČÍKOVÁ, J. – JANÁČ, A. Software for prepare of NC programs for the lathe. In *Annals of DAAAM for 2004 & Proceedings*. Viena: DAAAM International, 2004, s. 137 – 138. ISBN 3-9011509-42-9

JANÁČ, A. – KAPUSTOVÁ, M. – TRUBENOVÁ, J. Characterization of mathematical model for comfort at work determination in engineering operations. In *Annals of DAAAM for 2004 & Proceedings*. Viena: DAAAM International, 2004, s. 181 - 182. ISBN 3-9011509-42-9

JANÁČ, A. – PETERKA, J. – MOROVIČ, L. Introspection into the rapid tooling. In *Annals of DAAAM for 2004 & Proceedings*. Vienna: DAAAM International, 2004, s. 183-184. ISBN 3-9011509-42-9

LIPA, Z. – JANÁČ, A. – ŠTEFÁNEK, M. Direct calculation of arithmetical average deviation from a mean line by turning. In *Annals of DAAAM for 2004 & Proceedings*. Vienna: DAAAM International, 2004, s. 257-258. ISBN 3-9011509-42-9

MOROVIČ Ladislav. Rapid Technologies. In *Automation and CA Systems in Technology Planning and Manufacturings*. Poznaň: University of Technology, 2004, 177-183. ISBN 83-904877-8-0

PETERKA Jozef – MOROVIČ Ladislav. Application of Rapid tooling in the design of gears production. In *Automation and CA Systems in Technology Planning and Manufacturings*. Poznaň: University of Technology, 2004, 256-259. ISBN 83-904877-8-0

PETERKA Jozef. Development trends of free form surfaces production. In *Automation and CA Systems in Technology Planning and Manufacturings*. Poznaň: University of Technology, 2004, 260-263. ISBN 83-904877-8-0

AFJEHI-SADAT – JANÁČ Alexander – M. N. DURAKBASA – OSANNA, Peter Herbert – KRSEK Aleš – D.X.D. SAMARAWICKRAMA – K. J. STOUT. Application of modern production metrology for quality control and quality assurance in bio-engineering. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 11-22. ISBN 80-227-2117-4

BOROVÍČKA Milan – JANÁČ Alexander – BOROVÍČKA Peter. Quality and its Parameters. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 110-114. ISBN 80-227-2117-4

CHARBULOVÁ Marcela – MARTYŠČÁKOVÁ Katarína. Reasons of Creation of form Deviations at Grinding Process. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 412-415. ISBN 80-227-2117-4

LIPA Zdenko – JANÁČ Alexander – ŠTEFÁNEK Michal – TOMANÍČKOVÁ Dagmar. Contribution To Research Of Micromachining And Microcutting Processes. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 796-800. ISBN 80-227-2117-4

BÓNIŠOVÁ Monika. Project of micromachining by superfinishing testing. In *IV. elektronjiaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IZGTU, 2004, s. 64 – 67. ISBN 5-7526-0185-1

LIPA Zdenko – JANÁČ Alexander – JANÁČ Ivan – BÓNIŠOVÁ Monika. Micromachining and microcutting. In *Kvalita a spoľahlivosť strojov. Quality and reliability of machines*. Nitra: SPU, 2004, s. 203-205. ISBN 80-8069-369-2

VALENTOVIČ Ernest – JANÁČ Alexander – VÁCLAV Štefan. Humanization of Assembly. In *International Congress MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 185-188. ISBN 80-903421-4-0

PETERKA Jozef – JANČOVIČ Rastislav. Coatings on the cutting tools. In *International Congress MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 207-211. ISBN 80-903421-4-0

VALENTOVIČ Ernest – PETERKA Jozef – POKORNÝ Peter. The Machining of the most complicated Shapes. In *International Congress MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 225-228. ISBN 80-903421-4-0

POKORNÝ Peter – PETERKA Jozef. Arithmetical Mean Deviation by Copy Milling. In *International Congress MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 251-254. ISBN 80-903421-4-0

LIPA, Z. – CHARBULA, J. – CHARBULOVÁ, M. – HARUŠTIK, P. Selection of tool for finishing machining processes. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 127 - 130. ISBN 80-227-2043-7

LIPA, Z. – CHARBULOVÁ, M. – TOMANIČKOVÁ, D. – TOMANIČEK, S. Contribution to classification of machining from aspect of tool. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 131-133. ISBN 80-227-2043-7

LIPA Zdenko – JANÁČ Alexander – TOMANIČKOVÁ Dagmar. Specifics of grinding, honing, lapping and superfinishing machines classification. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 317-320. ISBN 80-8073-136-5

PETERKA Jozef – JANČOVIČ Rastislav. Coatings on the cutting tools. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 115-120. ISBN 80-8073-136-5

BÓNIŠOVÁ, M. – LIPA, Z. The new trends in superfinishing. In *Zborník medzinárodnej konferencie JUPITER NU-ROBOTI-FTS Beograd (Juhoslávia), apríl 2004*, s. 3.30 – 3.32.

DIBALOVA, M. – LIPA, Z. Specifics of grinding process. In *Zborník medzinárodnej konferencie JUPITER NU-ROBOTI-FTS Beograd (Juhoslavia), apríl 2004*, s. 3.33 – 3.36.

LIPA, Z. – JANÁČ, A. – JANÁČ, I. – DIBALOVÁ, M. Contribution to theory of microchip creation by low-speed and high-speed bulk microcutting. In *Zborník medzinárodnej vedeckej konferencie "Funkčné povrchy"*, Trenčín: 2004, s. 127 – 129.

BOROVÍČKA, M. – URZIKOVÁ, J. – JANÁČ, A. Define and Measure of Quality. In *ISIST '2004, Xian China August 18 – 22*, 3 pa.

BOROVÍČKA, M. – BOROVÍČKA, P. Law of Change Electric Resistance Pt. Inf.: *ISIST '2004, Xian, China, August 18-22*, 6 pa.

JANÁČ, A. – MORAVČÍKOVÁ, J. The Radius Measure of the spherical surface. ISMQ 2004. Measurement and Quality Control in Production. Erlangen, Germany.

БОНИШОВА, М. The methodics of micromachinability by superfinishing. In *Радиоэлектроника, электротехника и энергетика. 10 – международная научно – техническая конференция студентов и аспирантов.*, Москва 2004, Тезисы докладов ТОМ 3, номер страны 186–187.

DIBALOVÁ, M. The machinability by grinding. In *Радиоэлектроника, электротехника и энергетика. 10 – международная научно – техническая конференция студентов и аспирантов.*, Москва 2004, Тезисы докладов ТОМ 3, номер страны 184–185.

GÖRÖGOVÁ Ingrid – GÖRÖG Augustín. Methods of circular profiles comparisons. In *Strojárska technológia 2004*. Žilina: ŽU, 2004, s. 10 – 15. ISBN 80-8070-300-0

GÖRÖG Augustín. Creation of systematic deviation of position by measuring of circularity deviation. In *Strojárska technológia 2004*. Žilina: ŽU, 2004, s. 142 - 146. ISBN 80-8070-300-0

LIPA Zdenko – GÖRÖG Augustín – GÖRÖGOVÁ Ingrid. Contribution to theory of material removal by honing and superfinishing. In *Strojárska technológia 2004*. Žilina: ŽU, 2004, s. 191 - 197. ISBN 80-8070-300-0

LIPA Zdenko – MORAVČÍKOVÁ Jana. Specifics of microcutting processes with extra observing on superfinishing. In *Transfer 2004 : Využívanie nových poznatkov v strojárskjej praxi*. Trenčín: GC-TECH, 2004, s. 271 - 274. ISBN 80-8075-030-0

PETERKA, J. New approach of calculation of the Arithmetical Mean Deviation of the Profile of machine surface by copy milling. In *Strojárska technológia. 2004, IX, č. 2, s. 28 – 32* ISSN 1211-4162

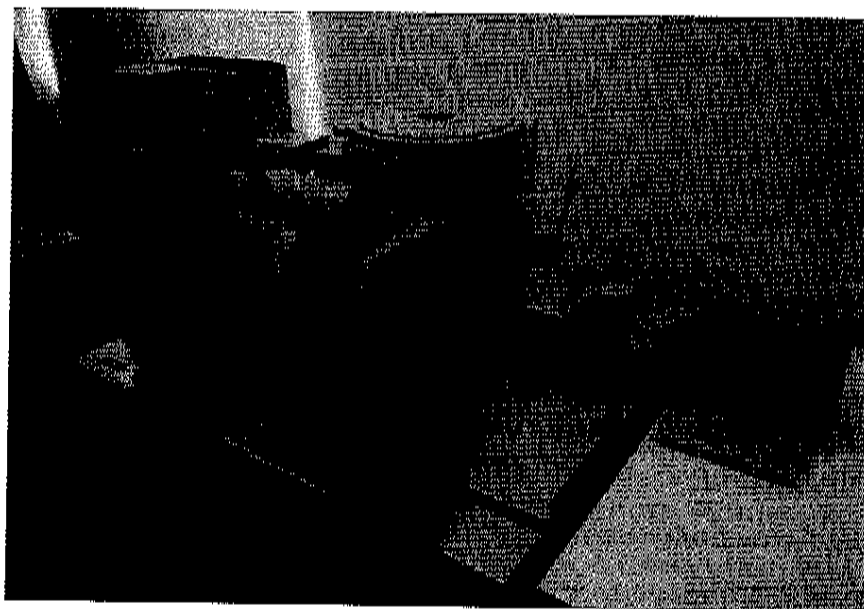
DEPARTMENT OF MATERIALS ENGINEERING

Head of the Department:
Peter Grgač, PhD, Prof.

Tel.: ++421-33-5521 119
Fax: ++421-33-5521 119
E-mail: kmi@mtf.stuba.sk

I. STAFF

Professors:	5	Research Fellows:	2
Assoc. Professors:	4	Technical and Admin. Staff:	6
Senior Lecturers:	9	PhD Students:	5
Lecturers:	0		



Metallographic microscope

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- X-ray Diffraction Laboratory
- Electron Microscopy Laboratory
- Light Microscopy Laboratory
- Laboratory of Physical Measurement
- Mechanical Testing Laboratory
- Heat Treatment Laboratory
- Laboratory of Hard Magnetic Materials
- Laboratory of Vacuum and Plasma Metallurgy
- Laboratory of Isostatic Pressing

II.2 Special Measuring Instruments and Systems

- Transmission Electron Microscopes JEOL 200 CX, TESLA BS 500
- Scanning Electron Microscopes TESLA BS 300, TESLA BS 343
- X-ray Diffractometers DRON 3M, HZG 4, MIKROMETA 2, Philips PW1710
- Light Microscopes NEOPHOT
- Induction Magnetometer
- Image Analyser MINI BVS
- FPZ 100/1 Direct Stress Testing Machine
- EDZ 40 dyn Direct Stress Lasting Machine
- Hardness Testers ZWICK 3212, RB 1, HPO 250, HPO 3000
- Pendulum Impact Testing Machines PS 30
- Isostatic Press QICH 16
- Vacuum furnaces KOOP, Degussa
- Plasma furnace

III. TEACHING

III.1 Bachelor study (Bc.)

H/W: Hours per Week *L-P:* Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Material Science I	2	3-3	Grgač, Martinkovič
Materials Science II	3	3-3	Šimkovič
Heat Treatment Technology	5	1-2	Grgač
Mechanical Testing and Defectoscopy of Materials	5	2-2	Martinkovič

Name of subject	Semester	H/W L-P	Reader's name
Experimental Methods in Research of Material Structure and Properties	5	2-2	Čaplovič
Semestral Project	5	0-2	Martinkovič
Heat Treatment of Materials	6	1-2	Grgač
Bachelor Thesis	6	0-5	Martinkovič
Corrosion and Surface Treatment	6	2-2	Březina

III.2 Graduate study (Ing.)

H/W: Hours per Week *L-P:* Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Advanced Materials and Technology	1	2-2	Grgač
Vacuum Technology in Mechanical Engineering	1	1-2	Žitňanský
Utility Properties and Choice of Materials	1	3-2	Grgač
Physical Metallurgy and Threshold States of Materials	1	2-2	Dománková
Theory of Phase Transformation	2	2-2	Dománková
Experimental Methods in Material Research I	2	2-2	Čaplovič
Metallography	3	2-1	Čaplovič
Composite Materials	3	2-2	Šebo
Experimental Methods of Material Research II	3	2-2	Čaplovič
Degradation Processes and Time Life Prediction	3	2-2	Hazlinger
Final Project	3	0-5	Ožvold
Fractography	3	2-1	Bošanský
Vacuum Technology in Heat Treatment	3	1-2	Žitňanský
Advanced Methods of Heat Treatment	3	2-2	Hazlinger
Materials of Nuclear Power Plant Facilities	3	1-1	Kupča
Projecting of Heat Treatment Production Processes and Systems	3	2-2	Onderčanin

IV. RESEARCH TARGETS

- Vacuum metallurgy, metal refining, crystallisation of metals, materials science
- Tool steels and nickel alloys
- Biocompatible materials
- Powder metallurgy
- Corrosion resistant steels
- Weldability of steels
- Hard magnetic materials
- Boronizing of steels

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Research and development of preparation of Ti alloy for implants. VEGA 1/1081/04, (Žitňanský, M.). Conception of scientific research is based on gradual building of high-tech centre with the use of significant computer technology support in network: Design of individual implant 3D. Implant model preparation by using Rapid Prototyping-model analysis by orthopaedic surgeon. Implant creating by using Rapid Technologies. Investment casting of microcasts. Special modification of microstructure with firm characteristics prediction. Implant testing by certified centre. Creating of integrated bio-layer on implants. Implantation by original methods and original instruments that represents novelty in the Slovak republic
- Development of methods of human anatomic skeleton implants preparation. APVT-20-050702, (Žitňanský, M.) Research and development of a model total hip replacement (THR) and spinal fixator with the goal to construct at prevalence measure so working process utilising contemporary research knowledge of top Slovak specialists in materials research and orthopaedic surgery
- New wear resistant materials of eutectic type. VEGA 1/0305/03, (Grgač, P.). The complex oriented project is aimed at the study of rapid solidification of undercooled melts of novel highalloyed alloys of eutectic type in the discrete microvolumes. The influence of consequences of rapid nonequilibrium solidification on the structure development and phase composition of compacts from rapidly solidified powder in the process of hot isostatic pressing will be analysed in details using the physical methods of material study. The connection between experimental results and numerical simulations of rapid cooling and solidification of alloys with intermediate phases of solidification origin in microvolumens will be studied
- Study of the kinetic of grain boundary phases precipitation in unstabilized austenitic stainless steels with low content of interstitials. VEGA 1/9105/02, (Dománková, M.). This project deals with the study of the influence of the decreasing of interstitial elements on the typical material properties of the unstabilized austenitic stainless steels, which are connected with corrosion resistance. The proposal project deals with the study of the interrelation among grain boundaries, precipitation of phases and segregation of impurities with the goal to predict the corrosion properties of these analysed materials during the application in the operation.

V.3 International Projects

- CEEPUS Project PL 0013-03/04 (Žitňanský, M.)

- CEEPUS Project PL 0013-04/05 (Žitňanský, M.)

VI. CO-OPERATION

VI.1 National Co-operation

- AVANTEK Nové Mesto nad Váhom. Laser marking.
- FÚ SAV Bratislava (Academy of Science). Thermal analysis.
- ÚMMS SAV (Academy of Science) Bratislava. Isostatic pressing.
- VÚZ Bratislava. Weldability of steels.
- ZŤS MATEC Dubnica n./Váhom. Advanced cutting.
- Atomic Power Plant Research Institute VUJE a.s. Trnava. Atomic energy materials.
- IMR SAS Košice. Grant project.
- FNE SUT Bratislava. Grant project.
- VUSAPL Nitra. Grant project.
- Orthopaedic Clinic FN LF UK Bratislava. Grant project.

VI.2 International Co-operation

- Institute of Solid State and Research Materials IFW Dresden Germany. TEM microscopy.
- Military Academy Brno Czech Republic. Nitriding of steels.
- Silesian Technical University in Gliwice Poland. Grant project.
- National Academy of Science Minsk Belarussia. Grant project.
- Research Institute of K.E.Ciolkovski Moskva Russia. Grant project.

VI.3 Contracts with Industry

- SACHS ltd. Trnava – microanalysis of materials
- Slovnaft ltd. Bratislava – material expertise, welding expert opinion
- SLOVALCO ltd. Žiar n. Hronom- microanalysis of materials
- SE a.s., Atomic power plant Mochovce – material analyse
- VSŽ Košice ltd. – laser welding of sheet metal development
- PFS ltd. Brezová – expertise of heat treatment of springs
- NChZ Nováky – material expertise
- Elektrokarbon Topoľčany – material expertise
- TRENS Trenčín – material expertise
- PUNCH Trnava – material expertise

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis in 2004 (112) available at:
<http://olib.cvt.stuba.sk>.

VII.2 Disertations (PhD.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Orthopaedic Centrum prof. Draenert, Munchen Germany, Altnau Swiss – professor two times three days
- IFW Dresden, Deutschland –senior lecturer seven weeks
- IFW Dresden, Deutschland –senior lecturer six months
- Univerzidad de Sevilla, Spain – PhD student three months
- Institute of Metals and Technology Lubljana, Slovenija – associate professor a year
- Bekaert Technology Centre Gent, Belgium – PhD student a year

VIII.2 Foreign Visitors to the Department

- Wetzig Klaus, prof. Dr., IFW Dresden Germany – two times two days
- 10 MSc students, Sillesian Technical University, Gliwice, Poland – a week
- Bonek Mirek, Dr., Sillesian Technical University, Gliwice, Poland – a week
- Jurči Peter, Dr., Ecosond Prague, Czech Republic – three times three days
- Križan Daniel, Dr., Rijks Universitiet Gent, Belgium – five days
- Koruk Ali Ihsan, Dr., Industry Research Centre OCAS N.V. Zelzate, Belgium – five days
- Hohenbichler Gerald, VOEST-ALPINE Industrieenlagenbau GmbH Linz, Austria – two days

IX. PUBLICATIONS

HRIVŇÁK Ivan – JESENSKÝ Michal – GONZÁLES Sandra López – ŽÚBOR Peter.
Metallography of duplex stainless steel weldments. In *Kovové materiály*, 2004, 42, č. 2, s. 104 – 120. ISSN 0023-432X

- HRIVŇÁK Ivan. Metallography of austenitic and dual phase stainless steels. In *Acta Metallurgica Slovaca*, 2004, 10, s. 91 – 102. ISSN
- DOMÁNKOVÁ, M. – MAGULA, V. Study of grain boundary structure on precipitation in 316 austenitic stainless steel. In *Acta Metallurgica Slovaca*, 2004, 10, s. 234 – 238. ISSN
- HRIVŇÁK Ivan. Laser beam welding of tailored blanks. In *Materiálové inžinierstvo*, 2004, 11, č. 2, s. 11 – 16. ISSN 1335-0803
- MARTINKOVIČ Maroš. Ni-base superalloys: fibre reinforced superalloy. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- MARTINKOVIČ Maroš. Ni-base superalloys: thermal exposure of fibre reinforced superalloy. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- HUDÁKOVÁ Mária. The influence austenitization temperature on grain size of Weldox700 steel. In *Materials Science and Technology* [online]. 4/2004 [cit. 2004-12-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- LAŠČEK Milan – HAZLINGER Marián. The heat treatment of the high speed steel (STN 41 9811) influenced by numerical simulation. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 109 – 114. ISSN 1336-1589
- HRIVŇÁK Ivan – LENČEŠ Jaroslav – KUKAN Tibor – BITTER Aurel. Corrosion cracking of lad dryer weldments. In *Zváranie-Svařování*, 2004, 53, č. 6-7, s. 162-166. ISSN 0044-5525
- KOLEŇÁK Roman – ŽUBOR Peter. Solderability of ceramics materials by active solders. In *Zvárač*, 2004, roč. 1, č. 2, nestr. ISSN 1336-5045
- DOMÁNKOVÁ, M. – KUNÍKOVÁ, T. – MAGULA, V. – HRIVŇÁKOVÁ, D. Influence of chemical composition and prolong thermal aging on the sensitisation characteristic of AlSi 316 austenitic stainless steels. In *Advanced metallic materials and their joining*. Bratislava: VÚZ-PI, 2004.
- BALÁŽ Martin – PŔSOVÁ Stanislava – GRGAČ Peter. Thermal stability of morphology of primary and eutectic carbide phases in rapidly solidified powder particles of tool alloy. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 13-16. ISBN 80-227-2076-3
- LIPTÁK Milan – GRGAČ Peter. Electromagnetic levitation and its exploitation preparation of highly undercooled melts of Cr-Mo-V tool steel. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 317-320. ISBN 80-227-2076-3
- TURŇA Milan – OŽVOLD Milan. Surface engineering and processes. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 599-604. ISBN 80-227-2076-3

DOMÁNKOVÁ Mária – MAREK Peter. Study of intergranular corrosion in austenitic stainless steel Aisi 316. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 220-229. ISBN 80-227-2117-4

HRIVŇÁK Ivan. Choice Of Steel And Weld Repair Of Creep Exposed Power Plant Components. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 398-402. ISBN 80-227-2117-4

JESENSKÝ Michal. Metallography der Schweissnähte am zweiphasigen Rostfreien Stahl STN 17 381. Metallography of Duplex-Phase Stainless Steel Welds STN 17 381. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 505-512. ISBN 80-227-2117-4

PINKE Peter – ŽITŇANSKÝ Marcel – ČAPLOVIČ Ľubomír – RÉGER Mihály. The influence of heat treatment parameters on the microstructure of the Ti6Al4v titanium alloy. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1042-1046. ISBN 80-227-2117-4

ŠTIBRANÁ Katarína – ČAPLOVIČ Ľubomír – OŽVOLD Milan – SENDERÁK Rudolf. Growth of b-FeSi₂ films on silian substrates. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1323-1327. ISBN 80-227-2117-4

MARTINKOVIČ, M. Student's application of basics of stereology metallography knowledge in graduate thesis. In *Development of Materials Science in Research and Education*. Praha: Mar-dorf, 2004, s. 34-35. ISBN 80-7345-032-1

TRNKOVÁ Lýdia. Some features of the structure formation in thermally sprayed layer from. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 341 – 344. ISBN 80-8073-136-5

SEDLICKÁ Viktória – GRGAC Peter. Contact diffusion boronizing of the modern tool steels ledeburitic type. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 327-330. ISBN 80-8073-136-5

CHRIAŠTELOVÁ Janka. Properties of lead free solders. In *SEMDOK 2004*. Žilina: ŽU, 2004, s. 71 – 76. ISBN 80-8070-178-4

PŔSOVÁ Stanislava – BALÁŽ Martin – GRGAC Peter. Thermal induced transformations of solidification microstructures in hypereutectic Fe based alloys RSP powder particles. In *SEMDOK 2004*. Žilina: ŽU, 2004, s. 151 – 156. ISBN 80-8070-178-4

LIPTÁK Milan – BEHÚLOVÁ Mária – GRGAC Peter. Influence of undercooling of melt on microstructure of Fe-C-Cr-V type alloy. In *SEMDOK 2004*. Žilina: ŽU, 2004, s. 163 – 168. ISBN 80-8070-178-4

DOMÁNKOVÁ Mária – KUNÍKOVÁ Terézia – MAGULA Vladimír – HRIVŇÁKOVÁ Dáša. Influence of chemical composition and prolong thermal aging on the sensitisation characteristic of AISi 316 austenitic stainless steels. In *Advanced metallic materials and their joining. Progressívne kovové materiály a ich spájanie*. Bratislava: VUZ-PI SR, 2004. nestr.

SEDLICKÁ Viktória – GRGAČ Peter. Borozing og high alloyed tool steels. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 383 –388. ISBN 80-239-3561-5

HUDÁKOVÁ Mária – ČAPLOVIČ Lubomír – DOMÁNKOVÁ Mária. Microstructure identification of AlMgMnSi1 alloy welding joints. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 339-344. ISBN 80-239-3561-5

MARTINKOVIČ Maroš. Modification of superalloy single crystal cast microstructure by heat treatment. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 97 – 102. ISBN 80-239-3561-5

ČAPLOVIČ Lubomír. Monitoring of heat treatment processes quality by diffraction methods. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 85 – 90. ISBN 80-239-3561-5

GRGAČ Peter. Modern tool steels with high wear – resistance. In *Mezinárodní konference 20. dny tepelného zpracování. 20th International Conference of Heat Treatment*. Praha: Asociace pro tepelné zpracování kovů, 2004, s. 69 – 74. ISBN 80-239-3561-5

OŽVOLD Milan. Wear resistant nanometric multilayers. In *1.mezinárodní odborný seminář Progressivní a netradiční technologie povrchových úprav*. Praha: ČspPÚ, 2004, s. 30 – 32. ISBN 80-239-3764-2

MAŇKA Luboš – KOLEŇÁK Roman – ŽÚBOR Peter. Soldering of Ge with Cu and AlSi5 research. In *1.mezinárodní odborný seminář Progressivní a netradiční technologie povrchových úprav*. Praha: ČspPÚ, 2004, s. 97 – 99. ISBN 80-239-3764-2

KUNÍKOVÁ Terézia – DOMÁNKOVÁ Mária – TULEJA Stanislav – WENDROCK Horst – ARNOLD Birgit – WETZIG Klaus – HRIVŇÁKOVÁ Dáša. Intergranular corrosion and sensitisation development in AISI 316LN austenitic stainless steel grade. In *Korózia v energetike 2004*. Košice: TU, 2004, s. 50 – 56. ISBN 80-8073-130-6

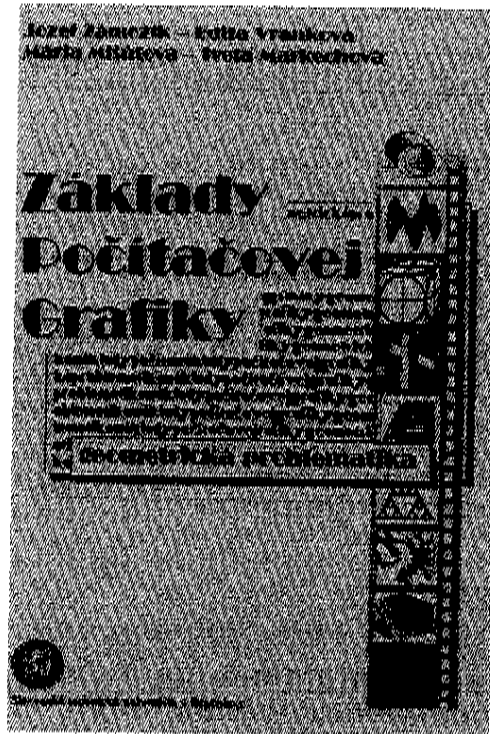
KUNÍKOVÁ Terézia – DOMÁNKOVÁ Mária – HRIVŇÁKOVÁ Dáša. Experience in West-Europe projects participation on Department of materials science Skúsenosti s účasťou na projektoch so západoeurópskymi partnermi na katedre materiálového inžinierstva SUT FMST in Trnava. In *Materiálové inžinierstvo na vysokých školách po vstupe do EÚ*. Košice: TU, 2004, s. 7 – 10.

DEPARTMENT OF MATHEMATICS

Head of the Department: Jaroslav Červeňanský, PhD, Assoc. Prof.
 Tel.: ++421-33-5511 417
 Fax: ++421-33-5511 758
 E-mail: km@mtf.stuba.sk

I. STAFF

Professors:	0	Research Fellows:	0
Assoc. Professors:	3	Technical and Admin. Staff:	0
Senior Lecturers:	15	PhD Students:	7
Lecturers:	0		



Cover of the textbook „The basics of Computer Graphics“

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- 1 special teaching rooms

II.2 Special Measuring Instruments and Systems

- 20 computers

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Mathematics I	1	3-3	Šišolák
Computer Geometry	1	2-2	Mišútová
Mathematics II	2	3-3	Červeňanský
Linear Algebra	3	2-2	Halabrin

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Mathematical Statistics	1	2-2	Halabrin
Theory of Planning and Experiment	2	2-2	Halabrin
Insurance and Financial Mathematics	2	2-2	Urbaníková
Discrete Mathematics	1	2-2	Červeňanský
Codes, Algorithms and Automata	2	2-2	Hlc
Fuzzy Systems	1	2-2	Halabrin
Probability and Statistics	1	2-2	Palumbiny

IV. RESEARCH TARGETS

- Properties of solutions of ordinary differential equations
- Metrics and topological properties of real functions
- Computer graphics – geometry problems
- Fractal and chaos
- Graph theory – algebraical and topological graph Theory
- Geometric interpolation of massifs

- Image processing – algorithms
- Fuzzy sets and systems
- Rationalization of teaching in sphere of contents, methods and forms

V. EDUCATION AND RESEARCH PROJECTS

- Functional analysis and quantitative theory of ordinary differential equations
- Rationalization of teaching mathematical courses
- On existence of oscillatory solutions of n – th order linear differential equations
- Environment friendly filler materials and technologies for metal, non metal and metal combination solid state joining
- Analysis of the dynamics of singularly perturbed differential equations near non hyperbolic critical manifold

VI. COOPERATION

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

- Distance Education Courses
- 2 Courses in Mathematics
- Mathematics for Engineers
- Seminar: Teaching of Mathematics in Bachelors' Courses
- Pre-studies Courses of Mathematics
- Computational Geometry and Related Problems
- International Conference: Mathematics in Technical Education

VIII.1 Members of Department in Aboard

VIII.2 Invited Lectures from Aboard

- Prof. František Bubeník, Czech Technical University in Prague
- Prof. Roman Bek, Czech Technical University in Prague
- Prof. Jaroslav Černý, CSc., KM FSv , Czech Technical University in Prague
- Jiří Dočkal, ÚM FS Technical Univerzity in Brno
- Prof. Zděnek Jankovský, FS Technical Univerzity in Brno
- Prof. Milada Kočandřlová, KM FSv , Czech Technical University in Prague
- Prof. Anežka Wohlmuthová, KM FSv ČVUT, Czech Technical University in Prague,
- Prof. Čeněk Zlatník, Csc. KTM FSI ČVUT, Czech Technical University in Prague

IX. PUBLICATIONS

HALABRÍN Marián – TÓTHOVÁ Mária – URBANÍKOVÁ Marta — VRÁBEL Robert – TRUBENOVÁ Jaroslava. *Linear Algebra*. Bratislava: STU, 2004. 168 s. ISBN 80-227-2126-3

VRÁBEL Róbert. Singularly perturbed anharmonic quartic potential oscillator problem. In *Math. Phys.*, 2004, roč. 55, s. 720 – 724. ISSN 0044-2275

ABAS Marcel – ŠIŠOLÁK František. *On existence of monotonous solutions of differential equation* In Acta Fac. Paed. Univ. Tyrnaviensis, Ser. C, 2004, no.8 pp. Xx – xx.

PALUMBÍNY Oleg. On mathematical induction, In *Acta Math. FPV UKF Nitra*, Zväzok 7 (2004) pp. 111 – 115.

MIŠÚTOVÁ Mária. Creative Teaching in engineering education. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <http://mtf.stuba.sk/casopis/obsah.html> ISSN 1335-9053

MIŠÚTOVÁ Mária. The new E-learning material verification. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <http://mtf.stuba.sk/casopis/obsah.html> ISSN 1335-9053

URBANÍKOVÁ Marta. Alternative risk transfer. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 179 – 182. ISSN 1336-1589

ČERVENĀNSKÝ Jaroslav. A note of summability of finite series. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 63 – 66. ISSN 1336-1589

KOTIANOVÁ Janette. The using of distance study materials in the learning of mathematics at the FMST STU. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 261-263. ISBN 80-227-2076-3

HALABRÍN Marián. On Decomposition Fuzzy Polyeder onto Simplexes. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 306-308. ISBN 80-227-2117-4

ČERVENĀNSKÝ Jaroslav. On functions preserving convergence of infinite series. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 53 – 56. ISBN 80-227-2076-3

BOŽEK Pavol – MOLDA Peter – TÓTHOVÁ Mária. Mathematical analyses of motoring cable synchronization. In *Proceedings the 6th International Scientific-Technical Conference PROCESS CONTROL 2004*. Pardubice: Univerzita Pardubice, 2004, s. R273/1-6. ISBN 80-7194-662-1

ABAS Marcel. *Cayley maps on surfaces with boundary*. In Czech-Slovak Conference GRAPHS 2004 – Abstracts. Vyšné Ružbachy, 2004.

PALUMBÍNÝ Oleg. *On existence of Kneser solutions of complete nonhomogeneous fourth order. LDEs*, Zb. 3. medzinár. Ved. Konf. APLIMAT 2004, pp. 767 – 770.

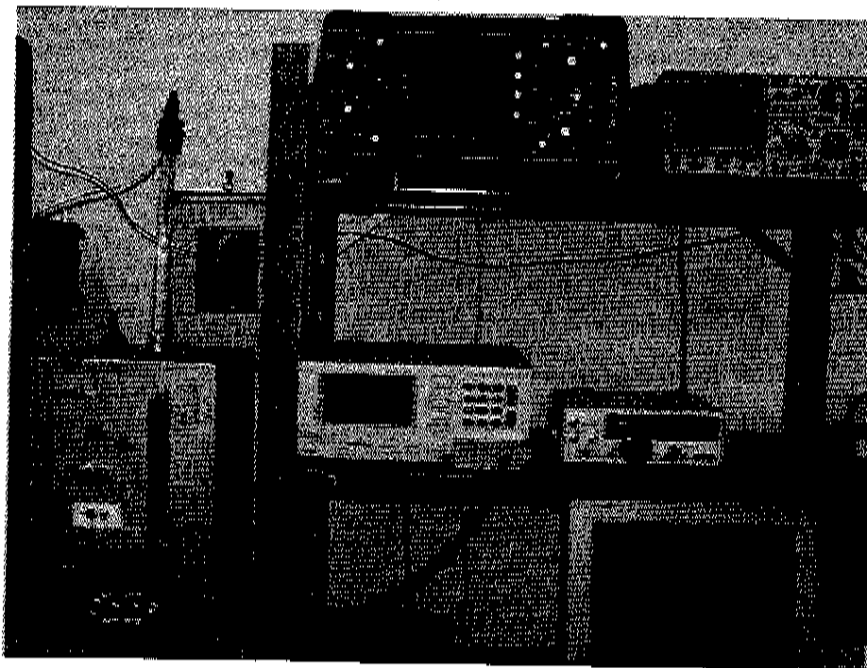
DEPARTMENT OF NON-METALLIC MATERIALS

Head of the Department:
Vladimír Labaš, PhD, Assoc. Prof.

Tel.: ++421-33-5511243
Fax: ++421-33-5511758
E-mail: knm@mtf.stuba

I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	2	Technical and Admin. Staff:	3
Senior Lecturers:	6	PhD Students:	3
Lecturers:	0		



Laboratory of power electronics and electronic devices

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Technical experiment I, teaching of the mechanics, thermodynamics and electromagnetism,
- Laboratory of Technical experiment II, teaching of the quantum mechanics and the nuclear physics,
- Laboratory of advanced materials, effect of the process technology on microstructure, conductivity, dielectric response, mechanical, dilatation properties and optical properties of ceramics, glasses, nano-composites and superionic fluoride eutectic composites may be investigated.

II.2 Special Measuring Instruments and Systems

- Impedance spectroscopy in the temperature range 20-600°C,
- Modular spectroscopy in the frequency range 1 – 106 Hz, up to 300 °C,
- Flow Sorb, fy. Micrometrics, determination of the surface of the powder systems, accuracy 0,5 – 3 %,
- Arbitrary function generator SFG – 830.
- Optical photo spectroscope with local microanalyzer (the power for the spectra excitation is the pulse laser)

III. TEACHING

III.1 Bachelor study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Basic Physics	1	0-2	All DNM
Technical Physics I	2	2-2	Labaš
Technical Physics II	3	2-2	Minárik
Introduction to Technical Experiment	3	0-2	Labaš
Non-metallic Materials	6	2-2	Kozík
Statistic Physics	6	2-1	Kalužný
Final Project	5	0-5	All DNM

III.2 Graduate study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Physical Chemistry	7	2-1	Sorentinyova
Machinery of Plastic Technology	8	2-2	Horváth
Structure and Properties of Plastics	7	2-2	Sorentinyova
Plastics Treatment	8	2-2	Horváth
Physics of Materials	7	2-2	Ožvold
Theory and Technology of Plastics Treatment	9	3-2	Jahnátek
Metrology and Testing of Plastics	9	2-2	Grom
Tools for Plastics Production	9	3-2	Horváth
Production, Manipulating and Automation Technique	9	2-1	Horváth
Final Project	9	0-5	Hováth
Physical Methods of Non-metallic study	9	2-1	Kubliha
Ceramics Materials	9	2-2	Kozik
Semiconductor Materials and Technologies	9	2-1	Labaš
Basis of Semiconductor Physics	8	2-1	Labaš
Projection Products from Plastic.	9	2-1	Náplava
Enviromental physics.	7	2-1	Kalužny

IV. RESEARCH TARGETS

- investigation of relationship between preparatory conditions, microstructure and physical properties of ceramics (based on ZrO_2 , $YbaCuO$ and basalt), ceramic composites and glasses (systems $TeO_2 - ZnO$, $TeO_2 - ZnO - ZnCl_2$, $TeO_2 - PbCl_2$ etc.), rubber and ferrite - plastic composites,
- investigation of materials structure, modelling and simulations.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Investigation of influence of processing technologies on physical properties of materials with disordered structure. No 794 (Kalužný J.)
- Optimalization of preparation technology of progressive materials by numerical modelling. No 1/1080/047 (Minárik S.)
- Achievement of the requirements of occupative structure of region by increasing of the directness of abstract of the subject of physics on secondary schools. No. 3/2346/04 (Kalužný J.)

V.3 International Projects

VI. CO-OPERATION

VI.1 National Co-operation

- Institute of Physics of the Slovak Academy of Sciences
- Model and numerical simulation of technology, structure and properties of advanced materials, in co-operation with Department of Applied Mechanics
- Faculty of Mechanical Engineering, ŽU Žilina
- Faculty of Mechanical Engineering, STU Bratislava
- Faculty of Chemical Engineering, STU Bratislava
- Faculty of Industrial Technologies, University of Trenčín
- VÚSAPL Nitra
- VIPO Partizánske
- FHHN Heilbronn, Germany

VI.2 International Co-operation

- The preparation of the experimental materials (glass, ceramics) in cooperation with Laboratory of Inorganic Materials, common working place of Institute of Inorganic Chemistry, Academy of Sciences and Institute of Chemical Technology, Prague, Czech Republic,
- Centre d'Etude des Matériaux Avances, University of Rennes, France.

VI.3 Contracts with Industry

- Research Institute of Plastic Materials in Nitra.
- CHEMAX Slovakia
- Volkswagen a.s., Slovakia

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis in 2004 (18) available at:
<http://olib.cvt.stuba.sk>.

VII.2 Dissertations (PhD)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Laboratory of Inorganic Materials, common working-place of Institute of Inorganic Chemistry, Academy of Sciences and Institute of Chemical Technology, Prague, Czech Republic.

VIII.2 Foreign Visitors to the Department

- Prof. Gerhard Gruhler, FH Heilbronn, Germany
- Prof. Georg Clauss, FH Heilbronn, Germany

VIII.3 Organised Conferences, Seminars and Workshops

- Seminars:

Ján Janega: Determination of the continuity among the thermoplastic welding joints malleabling steps and abovemolecular structure.

Marián Kubliha: Investigation of the changing in the internal ordering of glasses for the IR spectra transition by means of electrical methods.

Viera Kaššáková: The preparing of the pedagogical staff on the high school restructuring.

IX. PUBLICATIONS

KASŠÁKOVÁ Viera – KOZÍK Tomáš. Secondary school education and its relation to students successfulness and interest in study at technical universities In KOZÍK, Tomáš a kol. *Technické vzdelávanie v informačnej spoločnosti*. Nitra: UKF, 2004, s. 130 – 152. ISBN 80-8050-745-7

KALUŽNÝ Ján – LEŽAL, D. – MARIANI, E. – ZAVADIL, J. Transport properties of Ge-Se-Te glasses. In *Chalcogenide Letters* [online]. 3/2004 [cit. 2004-05-13]. Dostupné na internete: <<http://www.chalcogen.infiim.ro.html>>

NÁPLAVA Antonín – HORVÁTH Jozef – LABAŠ Vladimír – JAHNÁTEK Lubomír. The automotive industry has the most potential of increase in the Slovak republic after its integration into EU. In *Plasty a kaučuk*, 2004, č. 3-4, s. 10 – 13.

JAHNÁTEK Lubomír – GUZMICKÝ Juraj – NÁPLAVA Antonín. The light – weight sewerage pipes. In *Plasty a kaučuk*, 2004, č. 5-6, s. 9 – 14.

BOŠÁK Ondrej – KUBLIHA Marián – KOŠTIAL Pavel – LABAŠ Vladimír – MINÁRIK Stanislav – ČIČKA Roman. Determination of optimal time of vulcanise of rubber using electric

methods. In *Materials Science and Technology* [online], 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

ČIČKA Roman – TRNOVCOVÁ Viera – STAROSTIN M.Yu. – LABAŠ Vladimír – MINÁRIK Stanislav – KUBLIHA Marián – BOŠÁK Ondrej. Directional solidification in system $\text{Al}_2\text{O}_3\text{-(Y}_2\text{O}_3\text{)ZrO}_2$. In *Materials Science and Technology* [online], 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

LABAŠOVÁ Eva – LABAŠ Vladimír. Modification of resonance method for determination of dynamic Young's modulus. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 75 – 80. ISSN 1336-1589

BOŠÁK Ondrej – KALUŽNÝ Ján – PREŤO Jozef – VACVAL Jozef – ČIČKA Roman. The influence of the contacts to the electric properties measurements of the rubber. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 37-40. ISBN 80-227-2076-3

ČIČKA Roman – TRNOVCOVÁ Viera – BOŠÁK Ondrej. Analyse of impedance data using method of equivalent circuit. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 57-60. ISBN 80-227-2076-3

JURDÍKOVÁ Jana – LABAŠ Vladimír – KUBLIHA Marián. Theoretical principles of thermally stimulated depolarization current technique method. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 229-234. ISBN 80-227-2076-3

KALUŽNÝ Ján – LEŽAL Dimitrij – PEDLÍKOVÁ Jitka – MARIANI Emil. Electrical properties of glasses $\text{TeO}_2\text{-PbCl}_2\text{-PbF}_2$. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 235-238. ISBN 80-227-2076-3

KUBLIHA Marián. Structural defects of glasses based on Sb_2O_3 . In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 295-298. ISBN 80-227-2076-3

BOŠÁK Ondrej – KOŠTIAL Pavel – ČIČKA Roman. Influence of vulcanising time on electrical and mechanical properties of rubber blends. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 115-121. ISBN 80-227-2117-4

ČIČKA Roman – TRNOVCOVÁ Viera – STAROSTIN Michail – BOŠÁK Ondrej. Analyse of impedance spectra of eutectic composites $\text{Al}_2\text{O}_3\text{-(Y}_2\text{O}_3\text{)ZrO}_2$ using equivalent circuit method. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 201-207. ISBN 80-227-2117-4

JURDÍKOVÁ Jana – LABAŠ Vladimír – KUBLIHA Marian – LEŽAL Dimitrij. Determination Of Crystalline Phase In Glasses By Means Of Electrical Properties Measurements. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 528-533. ISBN 80-227-2117-4

KALUŽNÝ Ján – LEŽAL Dimitrij – MARIANI Emil – PEDLÍKOVÁ Jitka – LABAŠ Vladimír. Transport Properties Of As/Ge – Se-Te Glasses. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 553-560. ISBN 80-227-2117-4

KAŠŠÁKOVÁ Viera. Faculty competition in specific subjects as an interest motivation in technical study branches. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 577-582. ISBN 80-227-2117-4

LEŽAL Dimitrij – ZAVADIL Jiří – PROCHÁZKOVÁ Olga – KALUŽNÝ Ján – MARIANI Emil – KUBLIHA Marián – PEDLÍKOVÁ Jitka. Preparation And Characterisation Of Special Glasses. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 783-795. ISBN 80-227-2117-4

MÁČAJ Ján – JAHNÁTEK Ľubomír – NÁPLAVA Antonín – KIÁCZOVÁ Ida. Evaluation and choice of calcium carbonate into PVC mixtures for three layer pipes. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 820-825. ISBN 80-227-2117-4

MICHLO Jaroslav – JAHNÁTEK Ľubomír – NÁPLAVA Antonín – MOKOŠ Anton. Influence of the Different Addition of Debris on Selected Physical – Mechanical Parameters of Boards Made From Expanded Polystyrene. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 896-903. ISBN 80-227-2117-4

NÁPLAVA Antonín – HORVÁTH Jozef – JAHNÁTEK Ľubomír – KIŠŠ Mikuláš – JURÍK Eudovít. Compounding – The Sophisticated Polymer Processing For Solve Of High Criteria Industrially Applications. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 977-984. ISBN 80-227-2117-4

SOŘENTÍNYOVÁ Zuzana – KOZÍK Tomáš. Electrical conductivity of plastic-ferrite foils. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1265-1268. ISBN 80-227-2117-4

VEČERA Milan – JAHNÁTEK Ľubomír – NÁPLAVA Antonín – ŠPANKO Peter. Expanded polymers. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1474-1482. ISBN 80-227-2117-4

ZAJAC Marián – JAHŇÁTEK Ľubomír – NÁPLAVA Antonín – BALAJKA Marek. Application of polyethylene foils with prolonged service life. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1521-1526. ISBN 80-227-2117-4

HORVÁTH Jozef – TRUSKA Michal. Support of simulation software CADMOULD by conception of injection tools. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 180 – 182. ISBN 80-227-2043-7

ŠUBA Oldřich – HORVÁTH Jozef. Stress analysis of Injection-moulded Parts reinforced with Short Fibres in Rounded-corner Areas. In *Nové smery vo výrobných technológiach 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 576-579. ISBN 80-8073-136-5

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Principles of the education quality assurance system at the Slovak University of Technology in Bratislava. In *Technické univerzity: integrácia s evropskými a мировými systémami obrazovania*. Iževsk : MORF, 2004, s. 189-202. ISBN 5-7526-0186-X

KALUŽNÝ Ján – MORAVČÍK Oliver – MUDRIK Jozef – SABLÍK Jozef. Quality of university education in the field of engineering. In *Technické univerzity: integrácia s evropejskimi a mirovymi sistemami obrazovanija*. Iževsk: MORF, 2004, s. 202-211. ISBN 5-7526-0186-X

KAŠŠÁKOVÁ Viera. Successfulness of the technical university undergraduates in relation to the secondary school results. In *Pedagogická konferencia VII. Aktuálne otázky výchovy a vzdelávania v období vstupovania do EÚ*. Nitra: UKF, 2004, s. 376-379. ISBN 80-8050-657-

KAŠŠÁKOVÁ Viera – LABAŠ Vladimír. Correlation between the type of secondary school and successfulness of study at technical university. In *Výskumné a edukačné aktivity na katedrách fyziky technických univerzít na Slovensku*. Bratislava: STU, 2004, s. 92 – 97. ISBN 80-227-2112-3

KALUŽNÝ Ján – MARIANI, E. – LEŽAL, D. – ZAVADIL, J. Transport properties of sulfide selenide and telluride glasses. In *7th ESG Conference on Glass Science and Technology*. Athens : GGF, 2004. nestr.

HORVÁTH Jozef – TRUSKA Michal. Analysis of the cold joints in the moulding pieces with non-constant depth of walls in CADMOULD software. In *Vstřikování plastů*. Praha: Plast Form Service, 2004. poster

DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS

Head of the Department:
Marián Merica, PhD., Assoc. Prof.

Tel.: ++421-33-5521168
Fax: ++421-33-5521168
E-mail: ktvs@mtf.stuba.sk

I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	1	Technical and Admin. Staff:	7
Senior Lecturers:	11	Ph.D. Students:	6
Lecturers:	0		



Swimming hall

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Gymnasium
- Fitness Centre
- Swimming Pool
- Track and Fields
- Tennis Courts
- Stadium (Baseball, Softball)

II.2 Special Measuring Instruments and Systems

- Dynamometers
- Bicycle-ergo meter

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Physical Education and Sports	1-6	2-1	Adamec, Blaškovič, Glesk

III.2 Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Physical Education and Sports	1-8	2-1	Adamcová, Gálik, Hlavatý L+R, Merica, Rafaj, Morvay, Novotná, Lukačovičová, Csáderová
Olympism	1	2-1	Glesk, Merica

IV. RESEARCH TARGETS

- Physical Culture and Fitness of People

V. EDUCATION AND RESEARCH PROJECTS**V.1 Institutional Projects**

- The determination of biomechanics and technique of swimming by the swimmers' anthropometrical parameters. (Hlavatý, R.)

V.2 National Grants (VEGA, KEGA)

- VEGA 1/9100/02797 – “The causality of the changes of sports performance and sports preparation content” – 2002-2004

V.3 International Projects**VI. CO-OPERATION****VI.1 National Co-operation****VI.2 International Co-operation****VI.3 Contracts with Industry****VII. THESIS AND DISSERTATIONS****VII.1 Graduate Thesis****VII.2 Dissertations (Ph.D.)****VII.3 Habilitations (Assoc. Prof.)****VIII. OTHER ACTIVITIES****VIII.1 Visits of Staff Members to Foreign Institutions****VIII.2 Foreign Visitors to the Department****VIII.3 Organised Conferences, Seminars and Workshops**

- Winter training camp for students
- Summer training camp for students

- Seminars:
25.6. 2004 – „ Supporting national grants VEGA”
15.11. 2004 – „ Development of the endurance abilities”

IX. PUBLICATIONS

GLESK Pavol – KURHAJEC Peter. *How to extinguish and rescue*. Bratislava: SFM, 2004. 170 s. ISBN 80-969263-0-6

GÁLIK Karol. Percentual tennis – result of the technical and tactical preparation for the match. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 29-33. ISSN 1336-1589

GLESK Pavol. The game and creativity in school physical education. In *Zborník vedeckých prác katedry hier FTVŠ UK*. Bratislava: UK, 2004, s. 5- 9. ISBN 80-88901-97-9

GLESK Pavol. Economic aspects of sport. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 95 – 98. ISBN 80-227-2076-3

GLESK Pavol – NOVOTNÁ Soňa. Marketing aspects of sport. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 99-102. ISBN 80-227-2076-3

HLAVATÝ Rastislav – HLA VATÝ Ladislav. Comparison of the relationship of body length parametres and length of the stroke cycle of swimmers SUT Trnava. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 129 – 132. ISBN 80-227-2076-3

MERICA Marián. Psycho-hygiene, stress, active health of university pedagogue. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 363-366. ISBN 80-227-2076-3

GÁLIK Karol. A footworks as an assumption for realization of right tennis stroke. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 59-63. ISBN 83-88469-87-8

GLESK Pavol. The plan of the training load and the regeneration of top level swimmers. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 65 – 68. ISBN 83-88469-87-8

HLAVATÝ Rastislav – HLA VATÝ Ladislav. The effect of anthropometrical parameters on temporal characteristics of front-crawl stroke cycle. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 83-86. ISBN 83-88469-87-8

LUKAČOVIČOVÁ Elena. Sports – tennis training of 5 to 6 years old children. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 95-96. ISBN 83-88469-87-8

MERICA Marián. Changes of strength abilities of baseball players during the build-up period. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 97-100. ISBN 83-88469-87-8

NOVOTNÁ Soňa. Basic acces marketing in sport. In *Directions of development of scientific research in sports training*. Czestochowa: TU, 2004, s. 113-115. ISBN 83-88469-87-8

NOVOTNÁ Soňa – MERICA Marián. Nutrition of softball female players in sport preparation. In *Optimální působení tělesné zátěže a výživy*. Hradec Králové: Gaudeamus, 2004, nestr. (CD). ISBN 80-7041-666-1

GLESK Pavol. The education levels of physical education and sport experts in EÚ. In *Optimální působení tělesné zátěže a výživy*. Hradec Králové: Gaudeamus, 2004, nestr. (CD). ISBN 80-7041-666-1

GLESK Pavol. The foreign study wil be easier in EÚ. In *Optimální působení tělesné zátěže a výživy*. Hradec Králové: Gaudeamus, 2004, nestr. (CD). ISBN 80-7041-666-1

MERICA Marián – NOVOTNÁ Soňa. Content of preparation period with stress upon strenght ability of undergraduate baseball players from TJ STU Trnava. In *Optimální působení tělesné zátěže a výživy*. Hradec Králové: Gaudeamus, 2004, nestr. (CD). ISBN 80-7041-666-1

MERICA Marián – NOVOTNÁ Soňa. The effect of a semestral swimming on the change of swimming performance of female Pedagogical faculty students. In *Sport a kvalita života*. Brno: Masarykova univerzita, 2004. CD. ISBN 80-210-3541-2

GLESK Pavol. The methods of development general strength abilities. In *Optimalizácia zataženia v telesnej a športovej výchove*. Bratislava: STU, 2004, s. 60 – 64. ISBN 80-227-2042-9

HLAVATÝ Rastislav. The relationship of the antropometrical characteristics and the length of front-crawl stroke cycle of SUT Trnava swimmers. In *Optimalizácia zataženia v telesnej a športovej výchove*. Bratislava: STU, 2004, s. 80 – 83. ISBN 80-227-2042-9

GLESK Pavol. The main characteristics of the connecting to EU in sport. In *Pohyb a zdravie. Physical activities and human health*. Trenčín: TUAD, 2004. CD. ISBN 80-8075-014-9

HLAVATÝ Rastislav – HLA V ATÝ Ladislav. The relationship of the antropometrical characteristics and the length of front-crawl stroke cycle of SUT Trnava female swimmers. In *Pohyb a zdravie. Physical activities and human health*. Trenčín: TUAD, 2004. CD. ISBN 80-8075-014-9

LUKAČOVIČOVÁ Elena – MŎRVAY Alfréd. Nutrition in tennis sport preparation. In *Pohyb a zdravie. Physical activities and human health*. Trenčín: TUAD, 2004. CD. ISBN 80-8075-014-9

MERICA Marián – NOVOTNÁ Soňa. The relation of baseball players and softball female players and their health. In *Pohyb a zdravie. Physical activities and human health*. Trenčín: TUAD, 2004. CD. ISBN 80-8075-014-9

NOVOTNÁ Soňa. Condition of physical development and the level of physical capability of female students of bachelor studing at M&F STU in Trnava. In *Pohyb a zdravie. Physical activities and human health*. Trenčín: TUAD, 2004. CD. ISBN 80-8075-014-9

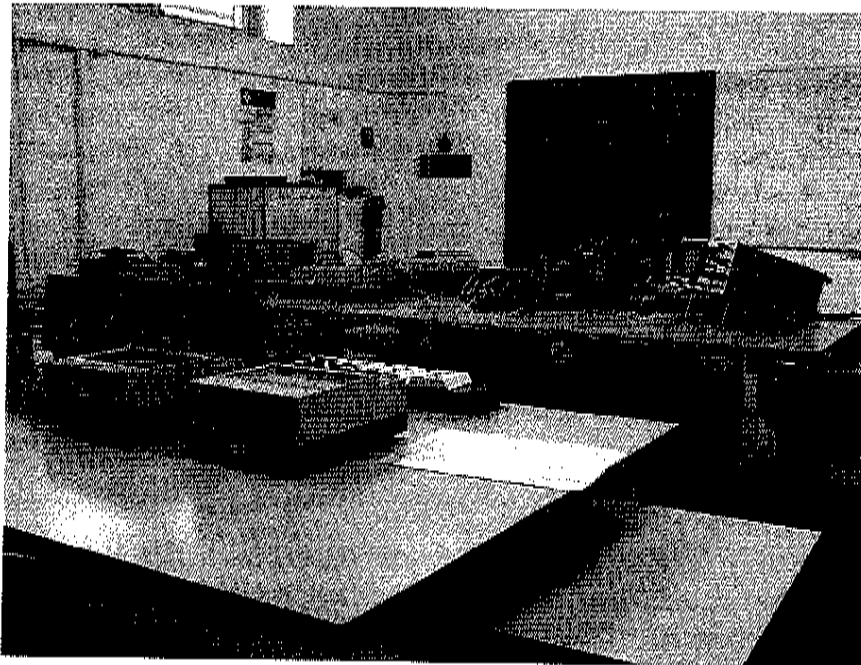
DEPARTMENT OF PHYSICS

Head of the Department:
Róbert Riedlmajer, MSc.(Eng.), PhD

Tel.: ++421-33-5511243
Fax: ++421-33-5511243
E-mail: kf@mtf.stuba.sk

I. STAFF

Professors:	0	Research Fellows:	1
Assoc. Professors:	1	Technical and Admin. Staff:	3
Senior Lecturers:	10	PhD Students:	5
Lecturers:	0		



Apparatus for measuring of the time dependence of ACDC electrical conductivity and the temperature dependence of the complex electrical modulus

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Physics I-II; teaching of the mechanics, thermodynamics, electromagnetism, optics and atomic physics;
- Laboratories of Electrical engineering; teaching of the elementary Electrical engineering;
- Laboratory of Interferometry techniques, applications of interferometry to elastic and elastic – plastic properties investigations.

II.2 Special Measuring Instruments and Systems

- Unimer 07, revisions and measurement of electrical properties of instruments;
- He – Ne laser dedicated to holography.

III. TEACHING

The objective of teaching physics and electrical engineering is to train engineers who should be competent to solve problems concerning a wide range of industry including materials engineering, industrial technologies, management and ecology, information technology, etc. The study involves a necessary theoretical introduction into subjects that provides general engineering education followed by special courses. The topics of lectures, laboratory and seminar exercises were chosen to provide students with useful knowledge from the field of physics and electrical engineering. At the same time students obtain fundamentals for creative work in engineering practice. The Physics Department is committed to providing a supportive environment in which students can achieve their full potential, and faculty and staff can make their maximum contribution while enjoying the rewards of professional development.

Our goals are to help students:

- Appreciate the role of science in society and the historical development of physics in the ongoing quest to discover the structure of the universe;
- Gain an understanding of the basic principles and the experimental basis of the various fields of physics, electrical engineering and the logical relationships of the various fields;
- Develop competence in constructing and using laboratory instruments and to draw valid conclusions from experimental data

III.1 Bachelor Study (Bc.)*H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
Introduction to University Physics	1	0-2	Ožvoldová, Krajčovič
Physics I	2	2-2	Ožvoldová
Physics II	3	2-2	Kvetan, Krajčovič
Laboratory Exercises in Physics	3	0-2	Hološová
Electrical engineering	4	3-3	Jančuška
Electrical engineering	4	2-2	Riedlmajer

III.2 Graduate Study (Ing.)*H/W: Hours per Week**L-P: Lectures-Practices*

Name of subject	Semester	H/W L-P	Reader's name
Applied Physics	7	2-2	Jančuška

IV. RESEARCH TARGETS

In 2004, Department of Physics has continued research activities in accordance with planned institutional projects national grant projects VEGA. The projects have followed up with our previous research programs. They were focused on investigation of relations between preparatory conditions, microstructure and physical properties of ceramics (based on zirconia and basalt), composites prepared by directional solidification (oxide and fluoride systems), fluoride, oxide and chalcogenide special glasses, and fluoride or oxide superionics. The aim of this research area is to contribute to the fundamental understanding of materials and to optimize their composition and properties for important technological applications. The emphasis was laid on the investigation of the materials structure, defects, electrical and dielectric properties, mechanical properties, optical properties and Raman scattering. Modeling and simulation of the microstructure, defect structure, transport properties, relaxation processes and electron spectra or lasing mechanisms were developed.

The next research activity is the study of cataclysmic variable stars and related objects. We are mainly interested in the accretion process of matter and accretion disc structure. The recent topic presented in the last conference is the study of flickering variability as one typical feature of accretion of matter in

general. This short time light variations should manifest the turbulent viscosity in the disc, therefore the physical mechanism of angular momentum transport.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Multimedia courses preparation of the professional qualifications and work safety of the electrical engineers in accordance with decree 718/2002 Collection of Laws. (Riedlmajer, R.)
- Microstructure and physical properties of oxides, halides and chalcogenides for optonics and superionics. (Trnovcová, V.)

V.2 National Grants (VEGA, KEGA)

- Relation between the preparation technology and properties of heavy metal oxide, halide and chalcogenide based materials for fiber optics, laser and sensor techniques, and alternative energy sources. VEGA No. 1/9097/02, (Ožvoldová, M.)
- Interactive Multimedia Project as schooling Physics for Technical Universities of Slovak Republic. KEGA No. 3/108003. (Ožvoldová, M.)
- Structure of transfer region in cataclysmic binaries and related objects. VEGA 2/1008/21

V.3 International Projects

- Study materials for education of Physics of the high school. This is an experimental program in course delivery using the World Wide Web.
- The aims of the project „Teaching basic course of Physics for bachelor study in the form of distance

VI. CO-OPERATION

VI.1 National Co-operation

- Institute of Physics of the Slovak Academy of Sciences.
- Department of Solid State Physics, Faculty of Math. Physics & Informatics, Comenius University Bratislava.
- Faculty of Mechanical Engineering ŽU Žilina
- Faculty of Mechanical Engineering STU Bratislava
- Faculty of Chemical and Food Technology STU Bratislava
- Faculty of Electrical Engineering and Information Technology, STU Bratislava
- Astronomical Institute of Slovak Academy of Sciences

- Faculty of Natural Sciences of Matej Bel University
- Military Academy in Liptovský Mikuláš
- Faculty of Natural Sciences, University of Pavol Jozef Šafárik, Košice
- Faculty of Education, University of Trnava
- Department of Physics of Constantine the Philosopher University in Nitra

VI.2 International Co-operation

- Laboratory of Inorganic Materials, common working-place of Institute of Inorganic Chemistry, of Sciences of Czech. Rep. and Institute of Chemical Technology, Prague, Czech Republic
- Institute of Crystallography, Russian Academy of Sciences, Moscow, Russia
- Institute of Physics, Faculty of Electrical Engineering and Computer Science, Brno University of Technology
- Institute of Radiotechnics and Electronics, Ac. of Sciences, of Czech. Rep. Prague
- Institute of General Physics, Russian Ac. of Sciences, Moscow, Russia
- Pennsylvania State University, USA
- Institut d'Astrophysique de Paris

VI.3 Contracts with Industry

- Slovak Power, Jaslovské Bohunice Nuclear Power Plant
- Chemolak a.s., Smolenice
- Createch, Piešťany
- VUJE, Trnava
- SACHS, Trnava
- IZOMAT a.s., Nová Baňa
- MATEC, Dubnica n/Váhom
- SONY Slovakia Ltd.

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

VII.2 Dissertations (PhD)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- MZLU Brno, Czech Republic
- National Institute of Chemistry Slovenija
- Institut d'Astrophysique de Paris
- Observatoire Astronomique Strasbourg
- Institute of Physics, Academy of Sciences of Czech Republic

VIII.2 Foreign Visitors to the Department

- PhD., Assoc. Prof. Stanislav Bartoň – MZLU Brno, Czech Republic
- RNDr. Zdenek Hakl – MZLU Brno, Czech Republic

VIII.3 Organised Conferences, Seminars and Workshops

- **Seminars:**
 Ján Bartl - Speckle interferometry
 Andrej Dobrotka - Dwarf Novae in Globular Clusters

IX. PUBLICATIONS

OŽVOLDOVÁ Miroslava – ČERVENĚ Ivan. *Introduction into Engineering Physics*. Bratislava: STU, 2004. 206 s. ISBN 80-227-2114-X

HRIC, L. – GÁLIS, R. – DOBROTKA, A. An active quarter of the century in research of cataclysmic variables. In *Baltic Astronomy*, 2004, vol. 13, s. 87 – 92. ISSN 1392-0049

HRIC, L. – GÁLIS, R. – DOBROTKA, A. – ŠIMON, V. et al. New clues on the model of YY her after two seasons. In *Revista mexicana de astronomia y astrofísica*, 2004, vol. 20, s. 222.

DOBROTKA, A. – HRIC, L. – PETRÍK, K. The new view on the long-term flickering in T CrB. In *Revista mexicana de astronomia y astrofísica*, 2004, vol. 20, s. 235.

DOBROTKA, A. – RETTER, A. – HRIC, L. – NOVAK, R. – SHEMMER, O. – LIPKIN, Y. V 1493 AQL an extremely distant nova? In *Revista mexicana de astronomia y astrofísica*, 2004, vol. 20, s. 236.

TRNOVCOVÁ, V. – ŠKUBLA, A. – KADLEČÍKOVÁ, M. – GREGUŠ, J. – OŽVOLDOVÁ, M. – ZAVADIL, J. – LEŽAL, D. Absorption, photoluminescence and raman spectra of sulfide and tellurite/halide glasses. In *Materiálové inžinierstvo*, 2004, 11, č. 1, s. 21 – 28. ISSN 1335-0803

DOBROTKA Andrej – RIEDLMAJER Róbert – RETTER Alon – HRIC Ladislav – NOVÁK Rudolf. V 1493 aquilae – an extremely distant nova. In *Materials Science and Technology* [online]. 2/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

KRAJČOVIČ Jozef – RIEDLMAJER Róbert. Analysis of knowledge level of secondary school students from physics with respect of the MtF STU requests. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

BOŠÁK Ondrej – KUBLIHA Marian – KOŠTIAL Pavel – LABAŠ Vladimír – MINÁRIK Stanislav – ČIČKA Roman. Determination of optimal time of vulkanise of rubber using electric methods. In *Materials Science and Technology* [online]. 2/2004 Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN: 1335-9053

ČIČKA Roman – TRNOVCOVÁ Viera – STAROSTIN M.Yu. – LABAŠ Vladimír – MINÁRIK Stanislav – KUBLIHA Marián – BOŠÁK Ondrej. Directional Solidification in system $Al_2O_3 - (Y_2O_3) ZrO_2$. In *Materials Science and Technology* [online]. 2/2004 [Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN: 1335-9053

KVETAN Karol – RIEDLMAJER Róbert. Ionization radiance sources in environment and radiation load of population. In *Vedecké práce MtF STU v Bratislave so súdlom v Trnave, 2004*, č. 17, s. 103 - 107. ISSN 1336-1589

BOŠÁK Ondrej – KALUŽNÝ Ján – PREŤO Jozef – VACVAL Jozef – ČIČKA Roman. The influence of the contacts to the electric properties measurements of the rubber. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, I.diel, s. 37-40. ISBN 80-227-2076-3

ČIČKA Roman – TRNOVCOVÁ Viera – BOŠÁK Ondrej. Analyse of impedance data using method of equivalent circuit. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, I.diel, s. 57-60. ISBN 80-227-2076-3

FILANOVÁ Jana. Proposal of compensating means for power factor improvement. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 91-94. ISBN 80-227-2076-3

HOLOŠOVÁ Helena. Differentiated teaching in physics at the universities of technology. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 143-146. ISBN 80-227-2076-3

JANČUŠKA Igor – VRAGAŠ Stanislav. High cut-off frequency estimation of the amplifier band by the square wave testing. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 201-204. ISBN 80-227-2076-3

KRAJČOVIČ Jozef – JANČUŠKA Igor. The determination of the extremal small turn angles of the plane by using of the electronic speckle interferometry. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 277-280. ISBN 80-227-2076-3

KVETAN Karol. Registration of ionizing radiation by thin planparallel detectors. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 309-312. ISBN 80-227-2076-3

OŽVOLDOVÁ Miroslava – PEDLÍKOVÁ Jitka – TRNOVCOVÁ Viera – GREGUŠ Ján. The impact of technology of telluride glasses doped with Pr^{3+} on the shortwavelength absorption edge. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 419-422. ISBN 80-227-2076-3

RIEDLMAJER Róbert. Influence of higher harmonic currents on electrical equipment. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 485-488. ISBN 80-227-2076-3

TRNOVCOVÁ Viera – FEDOROV Pavel P. – ŠKUBLA Andrej – KOCH A. E. Structure and electrical properties of the low-temperature phase of barium metaborate single crystals. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 583-586. ISBN 80-227-2076-3

OŽVOLDOVÁ Miroslava – KVETAN Karol – ŠTUBŇA Igor – KRAJČOVIČ Jozef – JANČUŠKA Igor – DILLINGER Juraj – HALUSKOVÁ Soňa – LAURINC Viliam – HOLÁ Oľga – FEDORKO Pavol – BALLO Peter – ČERVENĚ Ivan. Multimedia Electronic Textbook of Physics on SUT in Bratislava and its utilization. In *BELCOM '04: E-learning v České a Slovenské republice. Stav a perspektivy*. Praha: ČVUT, 2004, s. 70 – 75. ISBN 80-01-02923-9

OŽVOLDOVÁ Miroslava. Physics – On-line Tool of Quality Improving of Education on Engineering Universities with Utilization of Multimedia. In *BELCOM '04: E-learning v České a Slovenské republice. Stav a perspektivy*. Praha: ČVUT, 2004, s. 95-100. ISBN 80-01-02923-9

KRAJČOVIČ Jozef – JANČUŠKA Igor. Position determination of the intensity minima and maxima of the ccd camera image record By means of histogram. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 655-659. ISBN 80-227-2117-4

BOŠÁK Ondrej – KOŠTIAL Pavel – ČIČKA Roman. Influence of vulcanising time on electrical and mechanical properties of rubber blends. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 115-121. ISBN 80-227-2117-4

ČIČKA Roman – TRNOVCOVÁ Viera – STAROSTIN Michail – BOŠÁK Ondrej. Analyse of impedance spectra of eutectic composites $\text{Al}_2\text{O}_3 - (\text{Y}_2\text{O}_3)_x\text{ZrO}_2$ using equivalent circuit method. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 201-207. ISBN 80-227-2117-4

RIEDLMAJER Róbert. Analysis of Harmonics Generated by Power Electronics Conversion Equipment. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1160-1164. ISBN 80-227-2117-4

ŠKUBLA Andrej – TRNOVCOVÁ Viera – FEDOROV Pavel P., – KOCH A. E. Electrical Properties Of BaB_2O_4 Crystals. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1307-1315. ISBN 80-227-2117-4

TRNOVCOVÁ Viera – ŠKUBLA Andrej – HANIC František. Ionic Conductivity And Phase Transitions in LiIO_3 Crystals. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1401-1408. ISBN 80-227-2117-4

OŽVOLDOVÁ Miroslava – ČERVENĚ Ivan – BUDINSKÝ Ján. Introduction to the University Physics – Application of ICT in technical education. In *eLearning ve vysokoškolském vzdělávání 2004*. Zlín: UTB, 2004, s. 102 – 108. ISBN 80-7318-190-8

RIEDLMAJER Róbert. Physical properties of basalt ceramics with chosen additions. In *Výskumné a edukačné aktivity na katedrách fyziky technických univerzít na Slovensku*. Bratislava: STU, 2004, s. 26-31. ISBN 80-227-2112-3

BALLO, P. – OŽVOLDOVÁ, M. – HALUSKOVÁ, S. Experience with Application of the first electronic Textbook of Physics in Slovakia. In *E-learn 2004*. Žilina: EDIS, 2004, s. 109 – 114. ISBN 80-8070-190-3

ČIČKA, R. – TRNOVCOVÁ, V. – STAROSTIN, M. Y. Microstructure and electrical properties of near-eutectic alumina-zirconia composites. In *7th ISSFIT – International Symposium on Systems with Fast Ionic Transport*. Slovenia 2004, s. 49.

OŽVOLDOVÁ, M. – TRNOVCOVÁ, V. – ŠKUBLA, A. – GREGUŠ, J. – KADLEČÍKOVÁ, M. – PEDLÍKOVÁ, J. – LEŽAL, D. – ZAVADIL, J. Relationship of the Structure and Optical Properties of TeO₂. PbCl₂ Glasses to their Preparation Techniques. In *Glass and Optical materials division*. Cape Canaveral, 2004.

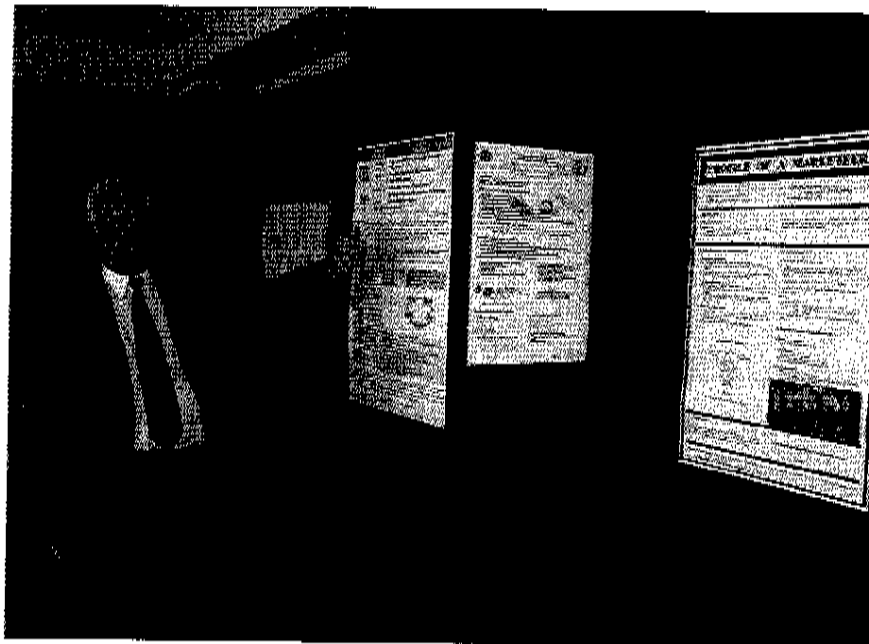
DEPARTMENT OF QUALITY ENGINEERING

Head of the Department
Alexander Linczényi, PhD, Prof.

Tel.: ++42-33-5511 263
Fax: ++42-33-5514 479
E-mail: kik@mtf.stuba.sk

I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	2	Technical and Admin. Staff:	2
Senior Lecturers:	3	PhD Students:	0
Lectures:	0		



The conference poster section

II. EQUIPMENT**II.1 Teaching and Research Laboratory**

- Teaching Laboratory for Quality Management

II.2 Special Measuring Instruments and Systems**III. TEACHING****III.1 Bachelor Study (Bc.)**

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Enterprise Economy	5	3-2	Burci
Statistical Methods	5	2-2	Kučerová
Enterprise Management	5	3-2	Čambál
Accounting	5	2-2	Horváthová
Engineering Metrology /Practice/	5	0-3	Maduda
Semestral Project	5	0-2	
Industrial Sociology	6	0-2	Holkovič
Human Ecology	6	0-3	Odlerová
Marketing in Quality Management	6	3-2	Šalgovičová
Quality Management	6	3-2	Linczenyi
Statistical Methods of Quality Inspection	6	2-3	Kučerová
Personal Management	6	2-2	Holková
Final Project	6	0-6	
Industrial Psychology	6	0-2	Schuller

III.2 Graduate study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Operational Research	7	3-3	Štrúlar
Production Management	7	3-3	Rybanský
Tools and Techniques of Quality Management	7	3-3	Paulová
Logistics in Quality Assurance	7	2-3	Milkva
Engineering Metrology /Practice/	7	2-3	Maduda
Information Systems	7	2-1	Ončák
Introduce of Managers Low	7	2-1	Pauličková
Marketing in Quality Management	8	3-2	Šalgovičová
Statistical Methods of Quality Inspection	8	2-3	Kučerová
Quality Management	8	3-2	Linczenyi

Name of subject	Semester	H/W L-P	Reader's name
Semestral Project	8	0-5	
Computer Operating	8	0-3	Šribařpvi
Introduction of scientific work	8	3-2	Hoľkovič
Certification of Products, Quality Control Systems	9	2-1	Šalgovičová
Computer Aided Quality Control	9	2-2	Mľkva
Quality Economic	9	2-2	Nováková
Reliability Assurance	9	2-2	Bľly
Intellectual and Industrial Property	9	2-2	Ševčľk
Project Management	9	1-1	Ončák
Final Project	9	0-5	
Personal Management	9	2-1	Hoľková
Quality Management Cases Studies	9	0-3	Nováková

IV. RESEARCH TARGETS

- Quality control in industrial enterprises
- Quality control in service enterprises
- Quality Control in public organisation
- Quality of Communications with Customers
- Monitoring of Customers' Satisfaction in Quality Management and Marketing

V. EDUCATION AND RESEARCH PROJECTS

V.2. National Grants (VEGA, KEGA)

- Monitoring of Customers' Satisfaction in Quality Management and Marketing /VEGA 1/ 0103/03
- Distance Education of Quality Managers /KEGA 3/1216/02

V.3. International Projects

- IDEP – Open Society Foundation N. G/276/02/61300 Distance Education of Quality Managers and Workers of Quality Management Organs

VI. CO – OPERATION

VI.1. National Co-operation

- Technical University Košice
- Technical University Zvolen
- Faculty of Engineering Bratislava

- Faculty of Engineering Žilina

VI.2. International Co-operation

- Agricultural University of Poznań Chair of Economic and Wood Industry Management, Poznań, Poland
- University of Zagreb Faculty of Forestry, Department for production Organization in Wood Industry
- University of West Hungary Faculty of Forestry, Department of Forest Policy and Economy

VI.3. Contracts with Industry

- Contract with ŠGÚ DŠ Bratislava, Mlynská dolina č. 1 “ Transformation of SMQ according to ISO 9000:2000”
- DAKVO, a.s. Žilina, Framborská 58 “ Document Preparation for certificate of SMQ”

VII. THESIS AND DISSERTATIONS

VII.1. Graduate Thesis

The list of Bachelor Degree Thesis in 2004 (54) available at:
<http://olib.cvt.stuba.sk>.

VII.2. Dissertations Ph.D)

VII.3. Habilitations (Assoc.Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

VIII.2 Foreign Visitors to the Department

VIII.3 Organised Conferences, Seminars and Workshops

- International Conference „New Trends in Quality Management“

IX. PUBLICATIONS

LINCZÉNYI Alexander – ŠALGOVIČOVÁ Jarmila – ZGODAVOVÁ Kristína – NOVÁKOVÁ Renata – KUČEROVÁ Marta. *Education of Quality managers and Quality Departments Workers*. Bratislava: STU, 2004. 416 s. ISBN 80-227-2024-0

LINCZÉNYI Alexander – PAULOVÁ Iveta – NOVÁKOVÁ Renata – ŠALGOVIČOVÁ Jarmila – KUČEROVÁ Marta – MĚKVA Miroslava. *Project of distance Education in Quality Management. Projekt KEGA 3/0216/02*. Bratislava: STU, 2004. 392 s. ISBN 80-227-2130-1

PODSKLAN Adrián – ŠALGOVIČOVÁ Jarmila – HYRŠLOVÁ Jaroslava. *Marketing strategie of TQM oriented company*. Trnava: Tripsoft, 2004. 215 s. ISBN 80-968734-5-8

ŠALGOVIČOVÁ Jarmila. *Standardization, conformity assessment, product certification and accreditation*. Bratislava: STU, 2004. 144 s. ISBN 80-227-2144-1

MĚKVA Miroslava – KVOCERA Daniel. Preparation of the Slovak Republic for Projects Realization using financial subsidy within EU. In *Intercathedra*, 2004, č. 20, s. 87 – 89. ISSN 1640-3622

LINCZÉNYI Alexander. New approaches to the cost-oriented quality management. In *Intercathedra*, 2004, č. 20, s. 101 -103. ISSN 1640-3622

LINCZÉNYI Alexander. Quality control and functions of organization in conditions of the crisis management. In *Intercathedra*, 2004, č. 20, s. 104 - 106. ISSN 1640-3622

NOVÁKOVÁ Renata. Economic forms of motivation – remuneration of the company top management. In *Intercathedra*, 2004, č. 20, s. 124 - 126. ISSN 1640-3622

NOVÁKOVÁ Renata. Influence of purchasing on the company economy. In *Intercathedra*, 2004, č. 20, s. 127 - 129. ISSN 1640-3622

PAULOVÁ Iveta. Application of both tools and methods for a successful implementation of projects subsidized by EU. In *Intercathedra*, 2004, č. 20, s. 136 - 138. ISSN 1640-3622

ŠALGOVIČOVÁ Jarmila. Dimensions of customer's requirements for project management. In *Intercathedra*, 2004, č. 20, s. 144 – 146. ISSN 1640-3622

NOVÁKOVÁ Renata. Purchasing and the company economy. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

ŠALGOVIČOVÁ Jarmila. Monitoring and measurement of customer satisfaction as a process of quality management system. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

ŠALGOVIČOVÁ Jarmila – BÍLÝ Matej. Outsourced processes in quality management system. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

NOVÁKOVÁ Renata. Elements of the quality management system in the companies with MLM. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 113 - 118. ISSN 1336-1589

PAULOVÁ Iveta. Integration of management systems through deming cycle approach. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 119 - 124. ISSN 1336-1589

ŠALGOVIČOVÁ Jarmila. Main principles of conformity assessment in Europe. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 16, s. 145 - 149. ISSN 1336-1589

MĚLKA Miroslava – KVOČERA Daniel. Outsourcing logistických činností. Outsourcing of the logistics activities. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 127 - 130. ISSN 1336-1589

NOVÁKOVÁ Renata. Selected methods of the competitiveness evaluation. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 131 - 136. ISSN 1336-1589

PAULOVÁ Iveta – LAŠŠÁK Vladimír. Methods and procedures of mission and vision formulation and communication in enterprises. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 137 - 141. ISSN 1336-1589

VÁŇOVÁ Jaromíra – KUČEROVÁ Marta. Work performance evaluation – personal management tool. In *Vedecké práce MTF STU v Bratislave so sídlom v Trnave*, 2004, č. 17, s. 183 - 186. ISSN 1336-1589

ŠALGOVIČOVÁ Jarmila. Current trends in contemporary use of market surveillance in Slovak republic. In *Jakost pro život*, 2004, č. 1-2, s. 52-54. ISSN 1213-0958

LINCZÉNYI Alexander. Monitoring of Processes Effectivity. In *Jakost pro život*, 2004, č. 1-2, s. 59-62. ISSN 1213-0958

NOVÁKOVÁ Renata. Public Administration – Area for Quality Management Principles. In *Jakost pro život*, 2004, č. 1-2, s. 62-65. ISSN 1213-0958

ŠALGOVIČOVÁ Jarmila – BÍLÝ Matej. Requirements for documentation according STN EN ISO 9001:2001. In *Kvalita*, 2004, roč. 12, č. 3, s. 13 – 15. ISSN

PAULOVÁ Iveta – MĚLKA Miroslava. Knowledge and use of principles of TQM and EFQM excellence model in small and medium size enterprises in Slovak Republic. In *Kvalita*, 2004, roč. 12, č. 3, s. 16 – 19. ISSN

NOVÁKOVÁ Renata. Utilization of Multicriterion Valuation as Analytical basis in Valuation of Enterprises. In *Dialógy o ekonomiky a riadení*, 2004, roč. 6, č. 20, s. 78 – 81. ISSN 1335-4582

ŠALGOVIČOVÁ Jarmila. Realization of marketing communication in companies performing according to TQM. In *Kvalita*, 2004, 12, č. 1, s. 34 – 38.

ŠALGOVIČOVÁ Jarmila – BÍLÝ Matej. Outsourced processes in quality management system. In *Kvalita*, 2004, 12, č. 2, s. 19 - 21.

NOVÁKOVÁ Renata. Customer Profitability at Quality System Management. In *Produktivita*, 2004, roč. 5, č. 3, s. 4-5. ISSN 1335-8961

KUČEROVÁ Marta. Importance of measuring and monitoring in the systems of quality management. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 299-303. ISBN 80-227-2076-3

MĚLKA Miroslava. Using IT within the quality management systems. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 375-378. ISBN 80-227-2076-3

NOVÁKOVÁ Renata. Economic ratios as the forms of economic motivation of the top management firms. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 399-402. ISBN 80-227-2076-3

PAULOVÁ Iveta. Measuring of customer's satisfaction – improving factor of SMQ. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 427-430. ISBN 80-227-2076-3

ŠALGOVIČOVÁ Jarmila. Duties and obligations of a state and organisations related to a quality standard contributing to customer satisfaction. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 533-536. ISBN 80-227-2076-3

ŠALGOVIČOVÁ Jarmila. Current trends in contemporary use of market surveillance in slovak republic. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1286-1289. ISBN 80-227-2117-4

LINCZÉNYI Alexander. Measurement of processes. In *Current questions and development tendencies in woodworking industry*. Skopje: Faculty of Forestry, 2004, s. 79-85. ISBN 9989-132-07-0

NOVÁKOVÁ Renata. Elements of the quality management system in the companies with multi-level marketing. In *Current questions and development tendencies in woodworking industry*. Skopje: Faculty of Forestry, 2004, s. 123-129. ISBN 9989-132-07-0

LAŠŠÁK Vladimír – PAULOVÁ Iveta. Efficiency measuring methods of quality. In *E-Management 2004*. Banská Bystrica: UMB, 2004. nestr. ISBN 80-8083-031-2

KUČEROVÁ Marta – VÁŇOVÁ Jaromíra. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 205 - 208. ISBN 80-960189-0-7

MĚLKA Miroslava. Utilization IT within the quality management systems in small and medium size enterprises. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 274 – 277. ISBN 80-960189-0-7

- PAULOVÁ Iveta. Auditing feasibility of quality management system in the small and medium organization. In *Moderné prístupy k manažmentu podniku*. Bratislava: GC-TECH, 2004, s. 299 – 302. ISBN 80-960189-0-7
- KUČEROVÁ Marta – MLKVA Miroslava. Quality management system – a presumption for competitiveness on foreign markets. In *Obchod, jakost a finance v podnikoch – determinanty konkurencieschopnosti III*. Praha: ČZU, 2004, s. 74 – 78. ISBN 80-213-1162-2
- PAULOVÁ Iveta. Feasibility of quality management system as a part of firm competitiveness improvement. In *Obchod, jakost a finance v podnikoch – determinanty konkurencieschopnosti III*. Praha: ČZU, 2004, s. 97 - 101. ISBN 80-213-1162-2
- ŠALGOVIČOVÁ Jarmila. Partnership with the suppliers and outsourced processes in quality management system. In *Obchod, jakost a finance v podnikoch – determinanty konkurencieschopnosti III*. Praha: ČZU, 2004, s. 126 - 130. ISBN 80-213-1162-2
- ŠALGOVIČOVÁ Jarmila. Monitoring and measurement of customer satisfaction as a process of quality management system. In *RaDMI 2004: Research and development in mechanical Industry*. Kraljevo: Faculty of Mechanical Engineering, 2004, s. 543 – 545. ISBN 86-83803-17-1
- ŠALGOVIČOVÁ Jarmila. Conformity assessment as an evidence of product quality for customer satisfaction and its legislative framework. In *RaDMI 2004: Research and development in mechanical Industry*. Kraljevo: Faculty of Mechanical Engineering, 2004, s. 546 – 548. ISBN 86-83803-17-1
- MLKVA Miroslava. Signification of communication in quality management system. In *RaDMI 2004: Research and development in mechanical Industry*. Kraljevo: Faculty of Mechanical Engineering, 2004, s. 497 - 500. ISBN 86-83803-17-1
- PAULOVÁ Iveta. Application of integrated management system. In *RaDMI 2004: Research and development in mechanical Industry*. Kraljevo: Faculty of Mechanical Engineering, 2004, s. 504 - 507. ISBN 86-83803-17-1
- NOVÁKOVÁ Renata. Prediction of Needs as Important Part of Purchase Strategic Management. In *7. medzinárodná konferencia Trendy v systémoch riadenia podnikov*. Košice: TU, 2004. CD. ISBN 80-8073-202-7
- NOVÁKOVÁ Renata. Influence of Credit Risk on Firm Prosperity. In *Ekonomika a manažment podnikov. Economics and management of enterprises*. Zvolen: TU, 2004, s. 89 – 92. ISBN 80-228-1386-9
- LINCZÉNYI Alexander. Draft of Indicators for Monitoring Returns on Quality. In *Ekonomika a manažment podnikov. Economics and management of enterprises*. Zvolen: TU, 2004, s. 275 – 279. ISBN 80-228-1386-9
- PAULOVÁ Iveta – KUČEROVÁ Marta. Measuring of students satisfaction with separate subjects on the department of Quality Engineering M+T STU Trnava. In *Kvalita pedagogiky kvality*. Trenčín: TnU AD, 2004, s. 96 – 101.

PAULOVÁ Iveta. Application of quality management as a way of employes motivation to the process improvement in the organisation. In *Manažment ľudského potenciálu v podniku*. Zvolen: TU, 2004, s. 248 - 251. ISBN 80-228-1330-3

LINCZÉNYI Alexander – NOVÁKOVÁ Renata. Intellectual Property Rights in European Union Conditions. In *Marketing a obchod 2004 – rok európskej integrácie*. Zvolen: Ústav pre výchovu a vzdelávanie pracovníkov lesného a vodného hospodárstva 2004, s. 151 – 155. ISBN 80-89100-20-1

ŠALGOVIČOVÁ Jarmila. Marketing communication in companies operated according to TQM. In *Obchodné podnikanie a marketing v novom európskom hospodárskom priestore*. Bratislava: EU, 2004, s. 335 – 339. ISBN 80-225-1904-9

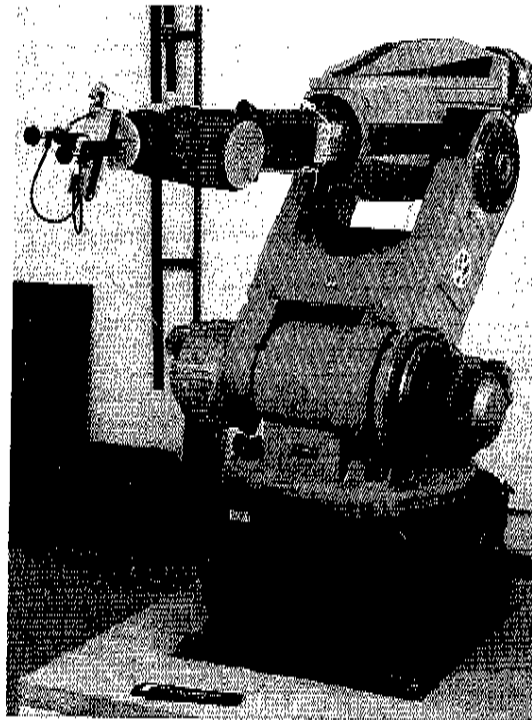
DEPARTMENT OF TECHNOLOGICAL DEVICES AND SYSTEMS

Head of the Department:
Karol Velíšek, PhD, Assoc. Prof.

Tel.: ++421-33-55 21 164
Fax: ++421-33-55 21 164
E-mail: ktzs@mtf.stuba.sk
E-mail: velisek@mtf.stuba.sk

I. STAFF

Professors:	0	Research Fellows:	2
Assoc. Professors:	1	Technical and Admin. Staff:	2
Senior Lecturers:	5	PhD Students:	1
Lecturers:	0		



Robot-manipulator

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- CAD Laboratory
- Laboratory of Robotics
- Laboratory of Pneumatics

II.2 Special Measuring Instruments and Systems

- Modular education system for simulation and analysis of controlling of production systems
- 3D modelling software – Mechanical Desktop 5

III. TEACHING

III.1 Bachelor Study (Bc.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Machinery Technologies and Equipment	1	3-2	Lipa, Velišek, Bača, Balog

III.2 Technological Devices and Systems Graduate Study (Ing.)

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
NC Machine Programming	5	0-2	Košťál
Semestrál projekt	5	0-2	
Mechanisation and automation	5	2-2	Košťál
Cuttings Tools	5	2-2	Pecháček
NC Machine Programming	7	1-2	Košťál
Machine tools	7	2-2	Velišek
Assembly machines and equipment	7	2-2	Pecháček
Industrial robots and manipulators	8	2-2	Velišek
Design for Manufacture	8	2-2	Pecháček
Fixture and machine tools technological equipment	8	2-2	Baránek
Theory of automata	8	2-2	Košťál
Theory of systems	8	2-2	Vrbán
Reliability of production machines and systems	8	2-2	Vrbán
Machines and equipment for special technologies	8	2-2	Košťál
Production systems I.	9	2-2	Velišek
Designing of Production Processes and Systems	9	2-2	Baránek
Final Project	9	0-5	
Operation of production systems	9	2-2	Baránek
Prediploma praxis	10		

Name of subject	Semester	H/W L-P	Reader's name
Diploma project	10		
Forming tools	7	2-2	Uřík
Forming machines	7	2-2	Uřík
Welding and foundry machines	7	3-3	Murgaš
Machine and tools for plastics processing	8	2-2	Horváth
Production systems II	9	2-2	Uřík
Technological devices mechanics	9	2-2	Mudrik

IV. RESEARCH TARGETS

- Clamping of nonrotary workpieces
- Thematic Network on Manufacturing Technologies
- New Conception of Integrated Multifunction Manufacturing System

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- VEGA No.706 – Prismatic workpieces clamping by modular system fixtures

V.3 International Projects

- CEEPUS A-104 2003/2004 Intelligent Manufacturing and Automation (Velišek,K.)
- Bilateral Project MtF STU and TAVR Austria – Antrag WWFF ARGE zur Weiterentwicklung eines modularen Produktionssystems fuer die Facharbeiter-und Fachkraefteausbildung und fuer Postunivesitaere Lehrgaenge fuer die Technik Akademie Vienna Region. Phase 1. (Velišek,K.)

VI. CO-OPERATION

VI.1 National Co-operation

- Faculty of Mechanical Engineering, Slovak University of Technology, Bratislava
- Faculty of Special Technique, University of Trenčín, Trenčín

- Faculty of Mechanical Engineering, University of Technology, University of Košice
- Faculty of Mechanical Engineering, University of Technology of Žilina, Žilina

VI.2 International Co-operation

- Faculty of Mechanical Engineering, University of Technology, Vienna, Austria
- Faculty of Mechanical Technology, Silesian University of Technology, Gliwice, Poland
- University of Technology and Economics, Budapest, Hungary
- Department of Manufacturing Engineering, Technical university of Cluj-Napoca, Romania
- Department of Robotics and Manufacturing System Automation, University of Zagreb, Croatia
- Institute of Production Engineering, University of Maribor, Slovenia
- Faculty of Mechanical Engineering, University of Technology, Brno, Czech Republik
- Department of Production Engineering, Faculty of Engineering, University of Rijeka, Rijeka, Croatia
- Institute of Mechanical Technology, Poznan University of Technology, Poznan, Poland
- KOMAG, Gliwice
- Department of Materials Handling and Logistik, University Miskolc
- Institute of Production Machines, Systems and Robotics, Faculty of Mechanical Engineering, University of Technology, Brno
- Production Engineering Institute, Cracow University of Technology, Crakow

VI.3 Contracts with Industry

- VUNAR, Nové Zámky
- SKLOPLAST, Trnava
- ŽOS, Trnava
- TOMA, Trnava
- TRENS, Trenčín
- ZTS, Dubnica nad Váhom
- VOJUS, Považská Bystrica
- SMC, Bratislava
- FESTO Didactic, Germany

- FESTO Slovakia, Bratislava
- EKOM, Piešťany
- INTEGRA, Piešťany
- ELSYS, Piešťany
- SONY Slovakia, Trnava

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (48) in 2004 available at:
<http://olib.cvt.stuba.sk>.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- TU Vienna, 5x
- TU Budapest, 3x
- TU Cluj – Napoca, 6x
- TU Brasov 6x
- TU Poznań 2x
- TU Cracow 3x

VIII.2 Foreign Visitors to the Department

- Prof. Mikac, TU Rijeka
- MSc. Perinic, TU Rijeka
- Assoc. Prof. Alpek, Budapest
- Prof. Zdenek Kolíbal, VUT Brno
- Prof. Katalinič, TU Viedeň

VIII.3 Organised Conferences, Seminars and Workshops

IX. PUBLICATIONS

- VELÍŠEK Karol – KATALINIČ Branko. *Production Systems I*. Bratislava: STU, 2004. 208 s. ISBN 80-227-2009-7
- VELÍŠEK Karol – KOSTÁL Peter. Intelligent fixtures used in production. In *Academic Journal of Manufacturing Engineering*, 2004, vol. 2, No. 1, pp. 31 – 33.
- KOŠTÁL Peter – VELÍŠEK Karol. Dedicated machine structure determination. In *Academic Journal of Manufacturing Engineering*, 2004, vol. 2, No. 2, pp. 21 – 24. ISSN 1583-7904
- VELÍŠEK Karol – KOŠTÁL Peter. Modular fixture design. In *Academic Journal of Manufacturing Engineering*, 2004, vol. 2, No. 3, pp. 6 - 9. ISSN 1583-7904
- VELÍŠEK Karol – PASTIEROVIČ Miloš. Intelligent fixtures – ingredients production process. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- VELÍŠEK Karol – ALPEK Ferenz. Intelligente Vorrichtungen in der robotisierten Fertigung. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- VELÍŠEK Karol – PECHÁČEK František. Ultrasound grinding – progressive procedure cutting operation hardmachined materials. In *Materials Science and Technology* [online]. 3/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053
- PASTIEROVIČ Miloš. Implementation intelligent fixture to production process. In *Akademická Dubnica 2004*. Bratislava : STU, 2004, II.diel, s. 423-426. ISBN 80-227-2076-3
- PECHÁČEK František – CIUTRILA Gheorghe. Ultrasound influence to cutting forces in the grinding of hardmachined materials. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 431-434. ISBN 80-227-2076-3
- JAVOROVÁ Angela. Modular fixtures analysis. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 215-218. ISBN 80-227-2076-3
- CHARBULOVÁ Marcela. Optimal grinding parameters. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, I.diel, s. 167-170. ISBN 80-227-2076-3
- KOŠTÁL, P. – VELÍŠEK, K. Multifunctional production device. In *Annals of DAAAM for 2004 & Proceedings*. Viena: DAAAM International, 2004, s. 225-226. ISBN 3-9011509-42-9
- JAVOROVÁ, A. – KATALINIČ, B. Flexible assembly workstation. In *Annals of DAAAM for 2004 & Proceedings*. Viena : DAAAM International, 2004, s. 191-192. ISBN 3-9011509-42-9
- MATÚŠOVÁ Miriam – HRUŠKOVÁ Erika. Methods of fixture design. In *Automation and CA Systems in Technology Planning and Manufacturing*. Poznaň: University of Technology, 2004, 155-158. ISBN 83-904877-8-0

ALPEK Ferenc – PASTIEROVIČ Miloš. Increasing the intelligence of fixturee in the robotized production. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 23-30. ISBN 80-227-2117-4

HRUŠKOVÁ Erika – MATÚŠOVÁ Miriam. The conditions of multispindle head design. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 408-411. ISBN 80-227-2117-4

CHARBULOVÁ Marcela – MARTYŠČÁKOVÁ Katarina. Reasons of Creation of form Deviations at Grinding Process. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 412-415. ISBN 80-227-2117-4

PECHACEK Frantisek – GYENGE Csaba – BERCE Petru – CIUTRILĂ Gheorghe. Main technological aspects, regarding the realization of optimal parameters at ultrasonic, grinding process. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 1027-1032. ISBN 80-227-2117-4

PASTIEROVIČ Miloš. New trends of fixtures. In *IV.elektronnjaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 79-82. ISBN 5-7526-0185-1

HRUŠKOVÁ, Erika. The base conditions of multispindle head design. In *IV.elektronnjaa zaočnaja konferencija „Molodež, studenčestvo, nauka XXI.veka“*. Iževsk: IŽGTU, 2004, s. 68 - 72. ISBN 5-7526-0185-1

LIPA, Z. – CHARBULA, J. – CHARBULOVÁ, M. – HARUŠTIAK, P. Selection of tool for finishing machining processes. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 127 - 130. ISBN 80-227-2043-7

LIPA, Z. – CHARBULOVÁ, M. – TOMANÍČKOVÁ, D. – TOMANÍČEK, S. Contribution to classification of machining from aspect of tool. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 131-133. ISBN 80-227-2043-7

VELÍŠEK Karol – KOŠŤÁL Peter. CAD library of modular fixture parts. In *KOMTECH 2004. Protection of Mechanical Systems in the Mining Industry Against the impact of high Energy*. Ustroň: ZINT, 2004, s. 195 – 199. ISBN83-920972-4-6

KOŠŤÁL Peter – VELÍŠEK Karol. Flexible assembly systems. In *KOMTECH 2004. Protection of Mechanical Systems in the Mining Industry Against the impact of high Energy*. Ustroň: ZINT, 2004, s. 201 - 206. ISBN83-920972-4-6

KOŠŤÁL Peter – JAVOROVÁ Angela. Flexible Assembly Workstations. In *International Congres MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 119 – 123. ISBN 80-903421-4-0

VELÍŠEK Karol – KOŠŤÁL Peter. Using of flexible clamping fixtures. In *International Congres MATAR PRAHA 2004: Machine Tools, Automation and Robotics in Mechanical Engineering*. Praha: ČVUT, 2004, s. 125-128. ISBN 80-903421-4-0

VELÍŠEK Karol – PASTIEROVIČ, M. Development trends in fixtures building. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 34-37. ISBN 80-227-2043-7

KOŠŤÁL, P. – HRUŠKOVÁ, E. Criterias for MSOH construction. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 61-64. ISBN 80-227-2043-7

KOŠŤÁL, P. – JAVOROVÁ, A. Flexible assembly. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 65-69. ISBN 80-227-2043-7

VELÍŠEK, K. – PECHÁČEK, F. – CIUTRILA, G. Power ultrasonic used for finishing methods of machining. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 97-100. ISBN 80-227-2043-7

KOŠŤÁL Peter – VELÍŠEK Karol. Multifunction Manipulate-Production-Assembly Device Project on Department of Technological Devices and Systems. In *Setkání ústavů a kateder oboru Výrobní stroje a robotika*. Ostrava: VŠB TU, 2004, nestr.(CD). ISBN 80-248-0645-2

DEPARTMENT OF WELDING

Head of the Department
Pavel Blaškovič, DrSc., Prof. EWE

Tel.: ++421-33- 5521 195
Fax: ++421-33- 5521 060
E-mail: kzy@mtf.stuba.sk

I. STAFF

Professors:	3	Research Fellows:	3
Assoc. Professors:	1	Technical and Admin. Staff:	3
Senior Lecturers:	6	PhD Students:	10
Lecturers:	0		



Welding aggregates

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Welding school for gas welding, welding with covered electrode and GMAW
- Resistant welding laboratory
- Plasma welding laboratory

II.2 Special Measuring Instruments and Systems

- Welding current detector for resistant welding
- Friction and Wear Tester TE97A
- Memory Oscilloscope M621

III. TEACHING

III.1 Bachelor Study

III.2 Graduate Study

H/W: Hours per Week

L-P: Lectures-Practices

Name of subject	Semester	H/W L-P	Reader's name
Welding Technology	5	2-2	Marónek
Theory of Welding	7	3-2	Magula, Bošanský
Special Welding Methods	9	3-2	Turňa
Weldment Design and Production	9	2-2	Ulrich
Projecting of Manufacturing Processes and Systems in Welding	9	2-1	Monček
Control and Computer Technology in Welding	9	2-1	Marónek
Final Project	9	0-5	Monček
Welding Machines and Equipments	8	2-2	Gatíal
Assembly of Welded Units	9	2-2	Gatíal
Tribology, Surface Engineering	7	2-1	Blaškovitš
Technical Preparation of Production	9	2-1	Polák
Non-destructive Weld Joint Testing	9	2-1	Polák
Adhesive Bonding	7	2-1	Marónek
Construction and design	9	3-2	Ulrich
Industrial technologies and production equipments	8	2-1	Kovačócy
Welding Certification	8	2-1	Polák
Repairs and renovation	8	2-1	Blaškovitš
Design for welding manufacturing	9	2-2	Ulrich
Brazing/Soldering of metallic and non-metallic materials	9	2-1	Koleňák
Applied engineering and production	9	3-2	Blaškovitš
Joining of materials	8	2-1	Marónek, Koleňák
Joining in automotive industry	9	2-2	Marónek, Koleňák
Technologies and equipments for joining and cutting of materials	9	2-2	Turňa

IV. RESEARCH TARGETS

- Soldering and brazing
- Explosive welding
- Weldability of steels
- Welding of plastic materials
- Surfacing and Tribology
- Adhesive bonding

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Determination of defects acceptance in fused welding joints
- Environmentally suitable filler materials for joining metallic and non-metallic materials
- Harmonization of education process in welding specialization – creation of a new studying specialization in the second level of university study

V.3 International Projects

- European Virtual Tribology Institute (VTI) – GROW – 2000-7.2

VI. COOPERATION

VI.1 National Co-operation

- SES -Tlmače
- SL - Komárno
- MATEC Dubnica n/V.
- Faculty of Mechanical Engineering, University of Transport and Communication in Žilina
- Faculty of Mechanical Engineering ; Slovak University of Technology, Bratislava
- Thermosolar - Žiar n/ H.
- SLOVALCO a. s. - Žiar n/H.
- MFF-UK, Department of Solid State Physics , Bratislava
- AĚ - Jaslovské Bohunice
- VÚJE – Trnava

- SKLOPLAST - Trnava
- VÚZ - Bratislava
- US Steel, Košice
- VUSTAP, Považská Bystrica
- IBOK, s. r. o., Bratislava

VI.2 International Co-operation

- Materials Research Corp., New York
- Faculty of Mechanical Engineering, Ljubljana
- Welding Institute, Ljubljana
- VITO, Belgium + VTI members

VI.3 Contracts with Industry

- SES Tlmače
- SPP, a.s.

VII. THESIS AND DISSERTATIONS

VII.1 Graduate Thesis

The list of Bachelor Degree Thesis (50) in 2004 available at:
<http://olib.cvt.stuba.sk>.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Faculty of Mechanical Engineering, TU Brno
- Faculty of Mechanical Engineering, ČVUT Praha
- Technical university Esslingen
- International Institut of Welding (IIW)

VIII.2 Foreign Visitors to the Department

- Faculty of Mechanical Eng. Technical University of Ostrava
- Faculty of Mechanical Eng. Technical University of Brno
- THUNDERSPRAY Co. Ltd. Ljubljana
- Institute for Solid State and Materials Research Dresden
- Krško Nuclear Power Plant KRŠKO, Slovenia

- University of Ljubljana, Faculty of Mechanical Eng. Ljubljana
- Hochschule Anhalt- Koethen, Germany

VIII.3 Organised Conferences, Seminars and Workshops

- All forms of basic welding classes
- Postgraduate class for European welding engineers according EWE
- Workshop "Welding in Energetic Industry"
- Exposition at International Engineering Fair in Nitra

IX. PUBLICATIONS

PAULÍČEK Roman – TURŇA Milan. Soldering of the coating with aluminium by CMT method. In *Acta Mechanica Slovaca*, 2004, No. 3-B, s. 159 – 164. ISSN 1335-2393

KVASNA Ľuboš – REMEŇOVÁ Petra – TURŇA Milan. Welding of steels and non-ferrous metals by phase and Nd:YAG-laser. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 261- 266. ISSN 1335-2393

MARÔNEK Milan – NOVÁK Igor. Development and study of new hot-melts nanoparticles filled adhesives. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 285 – 285-290. ISSN 1335-2393

REMEŇOVÁ Petra – KVASNA Ľuboš – TURŇA Milan. Laser welding, cutting and heat treatment of materials. In *Acta Mechanica Slovaca*, 2004, 8, č. 2-B, s. 387 -392. ISSN 1335-2393

KVASNA Ľuboš – REMEŇOVÁ Petra – TURŇA Milan – HÁRTL Johann – ZÄH Michael. Angepasste Prozessgase für das Schweißen mit Hochleistungsdiodenlasern. In *Materials Science and Technology* [online]. 1/2004 [cit. 2004-08-09]. Dostupné na internete: <<http://mtf.stuba.sk/casopis/obsah.html>> ISSN 1335-9053

BLAŠKOVITŠ Pavel – BALLA Jozef. Exploitation of tribodiagnostic in industry. In *Strojárstvo-Strojirenství*, 2004, roč. 8, č. 11, s. 60.

KOLEŇÁK Roman – ŽÚBOR Peter. Solderability of ceramics materials by active solders. In *Zvárač*, 2004, roč. 1, č. 2, nestr. ISSN 1336-5045

KOLEŇÁK Roman. Welding of metals. In *Urob si sám*, 2004, roč. 7, č. 12, s. 1-16. ISSN 1335-4604

RUŽA Viliam – KOLEŇÁK Roman. Vacuum brazing of ferrous and non-ferrous metals. In *Advanced metallic materials and their joining*. Bratislava : VÚZ-PI, 2004.

- SUKUBOVÁ Ingrid – KASALA Marián. Preparation of surface layer resistant to adhesive wearing. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 525-528. ISBN 80-227-2076-3
- TURŇA Milan – KOLEŇÁK Roman – HODÚLOVÁ Erika. Lead-free soldering of Al₂O₃ ceramis. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 591-594. ISBN 80-227-2076-3
- TURŇA Milan – KOVÁČIK Ľuboš – HODÚLOVÁ Erika. Weld-brazing of zinc-coated sheets. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 595-598. ISBN 80-227-2076-3
- TURŇA Milan – OŽVOLD Milan. Surface engineering and processes. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 599-604. ISBN 80-227-2076-3
- TURŇOVÁ Zuzana – HODÚLOVÁ Erika. The safety of soldering technology. In *Akademická Dubnica 2004*. Bratislava: STU, 2004, II.diel, s. 609-612. ISBN 80-227-2076-3
- HODÚLOVÁ Erika – TURŇA Milan. New Aspects Of Lead-Free Soldering. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 360-363. ISBN 80-227-2117-4
- KVASNA Ľuboš – REMEŇOVÁ Petra. Der einfluss des gases beim laserstrahlschweissen. Gas influence by laser beam welding. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 742-746. ISBN 80-227-2117-4
- LAZAR Roman – Milan MARÔNEK – Mária DOMÁNKOVÁ – Ľuboš KVASNA – Peter KOTRAS. Influence Of Nitrooxidation Layer On Mechanical Properties Of Welding Joints. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava: STU, 2004, s. 766-772. ISBN 80-227-2117-4
- NOVÁK Igor – MARÔNEK Milan. Investigation Of Electro-Conductive composites filled with carbon black. In *12th international scientific conference CO-MAT-TECH 2004*. Bratislava : STU, 2004, s. 985-993. ISBN 80-227-2117-4
- HODÚLOVÁ Erika – TURŇA Milan – POMYKAL Zdeněk. Controlled atmosphere brazing (CAB) od aluminium heat exchangers. In *11th International Welding Conference. XI. Nemzetközi és IV. GTE-MHtE-DVS Hegesztési Konferencia*. Budapest: Politechnic, 2004. CD.
- HODÚLOVÁ Erika – KOLEŇÁK Roman – TURŇA Milan. Interaction of TIN-based solder with the surface of soldered material. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X
- KOLEŇÁK Roman – HODÚLOVÁ Erika – TURŇA Milan. The effect of parameters on the process of soldering by use of lead-free solders. In *Metal 2004*. Ostrava : Tanger, 2004. CD. ISBN 80-85988-95-X
- KOVÁČIK Ľuboš – TURŇA Milan – ŠILHAVÝ Tomáš – ŽÚBOR Peter – TRSTANOVÁ Tereza. Study of joints fabricated by brazing by use of GMAB and laser beam processes. In *Metal 2004*. Ostrava: Tanger, 2004. CD. ISBN 80-85988-95-X

- KVASNA Luboš – KOVAČÓCY Pavol – TURŇA Milan – REMEŇOVÁ Petra. The effect of focussing on weld geometry of Cr-Ni stainless steels in laser beam welding. In *Metal 2004*. Ostrava : Tanger, 2004. CD. ISBN 80-85988-95-X
- REMEŇOVÁ Petra – TURŇA Milan – KVASNA Luboš. Non-ferrous metal welding by laser beam. In *Metal 2004*. Ostrava : Tanger, 2004. CD. ISBN 80-85988-95-X
- KOVAČÓCY Pavel – TURŇA Milan – ŠILHAVÝ Tomáš. Special technologies of tools production and their surfaces. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 13 – 16. ISBN 80-227-2043-7
- KVASNA Luboš – REMEŇOVÁ Petra – TURŇA Milan. Cutting of steels with modern lasers. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 20 - 23. ISBN 80-227-2043-7
- REMEŇOVÁ Petra – KVASNA Luboš – TURŇA Milan. Processing of non-ferrous metals by a phase laser. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 89-91. ISBN 80-227-2043-7
- TURŇA Milan – HODÚLOVÁ Erika – SUKUBOVÁ Ingrid. Targets for deposits in microelectronics. In *Náradie 2004. Tools 2004*. Bratislava: STU, 2004, s. 92-96. ISBN 80-227-2043-7
- REMEŇOVÁ Petra – KVASNA Luboš – TURŇA Milan. Welding of non-ferrous metals by phase laser. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 209-212. ISBN 80-8073-136-5
- KVASNA Luboš – REMEŇOVÁ Petra – TURŇA Milan. Welding of Cr-Ni stainless steel 17 246 by phase laser. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 197-200. ISBN 80-8073-136-5
- HODÚLOVÁ Erika – SUKUBOVÁ Ingrid. Flip Chip Technology for Soldering and Assembly of Semiconductor Chips in Microelectronics. In *Nové smery vo výrobných technológiách 2004. New ways in manufacturing technologies 2004*. Košice: TU, 2004, s. 193-196. ISBN 80-8073-136-5
- REMEŇOVÁ, P. – KVASNA, L. Gas influence on weld geometry of different laser type. In *Radioelektronika, elektrotechnika, energetika. 10. meždunarodnaja naučno-techničeskaja konferencia studentov i aspirantov*. Moskva: MEI, 2004, Tom 2., s. 40-41. ISBN 5-87789-019-0
- TURŇA, M. – MAŇKA, E. – MAGAŠ, M. – PATVAROŠOVÁ, R. Special methods of making surfaces in the solid state. In *1. mezinárodní odborný seminář Progresivní a netradiční technologie povrchových úprav*. Praha: ČspPÚ, 2004, s. 26 – 29. ISBN 80-239-3764-2
- MAŇKA Luboš – KOLEŇÁK Roman – ŽÚBOR Peter. Research of the soldering Ge with Cu and AlSi5. In *1. mezinárodní odborný seminář Progresivní a netradiční technologie povrchových úprav*. Praha: ČspPÚ, 2004, s. 97 - 99. ISBN 80-239-3764-2

MAGAŠ Martin – KOLEŇÁK Roman. Blow Hole defects in lead free soldering at microelectronics. In *1. mezinárodní odborný seminář Progresivní a netradiční technologie povrchových úprav*. Praha: ČspPÚ, 2004, s. 100 - 102. ISBN 80-239-3764-2

BLAŠKOVITŠ Pavel – BOŠANSKÝ Ján – SUKUBOVÁ Ingrid – KASALA Marián. Tribodiagnosics of screw joints. In *DIS 2004 : Teória a aplikácia metód technickej diagnostiky*. Košice: TU, 2004, s. 17 – 27. ISBN 80-232-0237-5

MARÔNEK Milan – ŠINTÁL Tomáš. Monitoring of welding parameters of ESSETI Uni Macro power source in real time. In *Zváranie 2004. Kvalita, efektívnosť a progresívnosť výroby zvarkov*. Nitra: UVTIP, 2004, s. 124 – 131. ISBN 80-89088-34-1

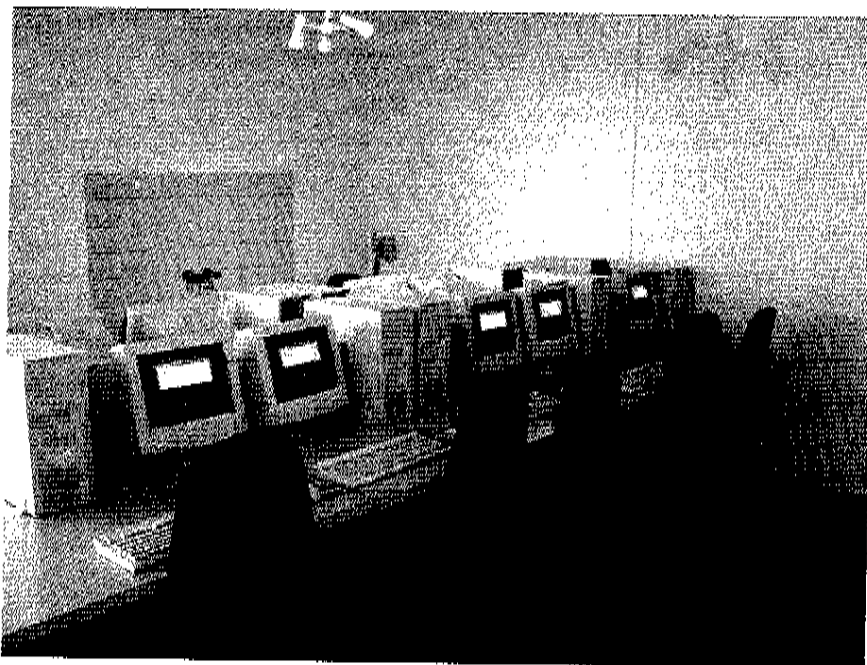
RUŽA Viliam – KOLEŇÁK Roman – PAVLOVIČ Ladislav. Welding of titanium vessels in chemical industry. In *Zváranie 2004. Kvalita, efektívnosť a progresívnosť výroby zvarkov*. Nitra: UVTIP, 2004, s. 132 - 137. ISBN 80-89088-34-1

BLAŠKOVITŠ Pavel – SUKUBOVÁ Ingrid – KAŠALA Marián. Wear resistance composite materials against abrasive wear. In *Zváranie 2004. Kvalita, efektívnosť a progresívnosť výroby zvarkov*. Nitra: UVTIP, 2004, s. 138 - 143. ISBN 80-89088-34-1

COMPUTATIONAL TECHNOLOGY CENTRE

Head of the Department:
Milan Hančín, MSc. (Eng.)

Tel.: ++421-33-55 11 975
E-mail: milan@mtf.stuba.sk



The computer room

The activity of the CTC:

- administration and economic activities connected with information systems and technology for dean's office and departments.
- implementation and operation of automated information systems of the Faculty in the following fields:
 - work and wages - for personnel department, work economy and wages and salaries accountancy departments

- accountancy and budget - for finance accountancy department
- property - for the department of estate
- materials and technology purchase and service - for stock economy
- students - for Registrar's office
- service of the classrooms with personal computers and their performance
- system operation of computational systems
- administration of INTRANET
- service and administration of SANET
- maintenance of installed means of computational technology
- consultancy in the field of software and hardware, and purchase of computational technology for departments and divisions

CENTRAL LIBRARY – STUDY AND INFORMATION CENTRE

Head of the Department:
Kvetoslava Rešetová, MSc.

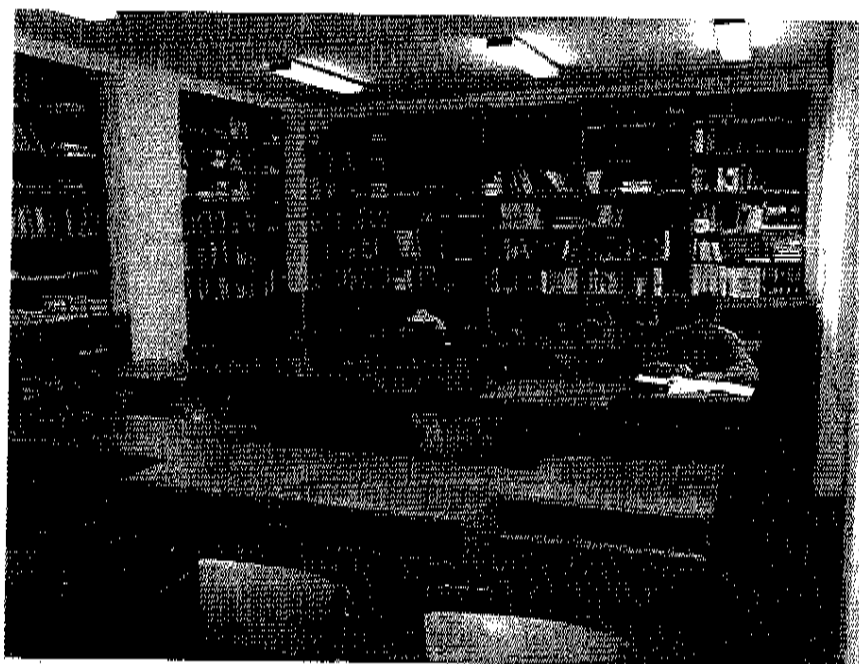
Tel./Fax: ++421-33-55 21 079
E-mail: resetova@mtf.stuba.sk

The academic library is an independent workplace of the Faculty. It contains nearly 70,000. library units and provides library-information service to more than 3,100. users.

The virtual library, on-line catalogues and multimedia workplace are being built up. The library is a part of scientific and research base of the Faculty.

The academic library edited:

- Journal - Research papers of FMST
- Journal - Materials Science and Technology
- Proceeding of the international scientific conference CO-MAT-TECH.



Study room

APPENDIX A LIST OF FACULTY DEPARTMENTS

Slovenská technická univerzita		STU	Slovak University of Technology	Slowakische Technische Universität
Materiálovotechnologická fakulta		MtF	Faculty of Materials Science and Technology	Fakultät für Materialwissenschaft und Technologie
Zoznam katedier				
No.	Slovak Name of Department	Abbreviation	English Name of Department	German Name of Department
1	Katedra aplikovanej informatiky a automatizácie	KALA	Department of Applied Informatics and Automation	Lehrstuhl für angewandte Informatik und Automatisierung
2	Katedra aplikovanej mechaniky	KAM	Department of Applied Mechanics	Lehrstuhl für angewandte Mechanik
3	Katedra environmentálneho a bezpečnostného inžinierstva	KBBI	Department of Environmental and Safety Engineering	Lehrstuhl für Umwelt und Sicherheitsingenieurwesen
4	Katedra fyziky	KF	Department of Physics	Lehrstuhl für Physik
5	Katedra humanitných vied	KHV	Department of Humane Sciences	Lehrstuhl für Humanwissenschaften
6	Katedra inžinierstva kvality	KIK	Department of Engineering Quality	Lehrstuhl für Qualitätssicherung
7	Katedra inžinierskej pedagogiky a psychológie	KIPP	Department of Engineering Pedagogy and Psychology	Lehrstuhl für Ingenieurpädagogik and Psychologie
8	Katedra matematiky	KM	Department of Mathematics	Lehrstuhl für Mathematik
9	Katedra materiálového inžinierstva	KMI	Department of Materials Engineering	Lehrstuhl für Werkstofftechnik
10	Katedra nekovových materiálov	KNM	Department of Non-Metallic Materials	Lehrstuhl für Nichtmetallmaterialien
11	Katedra obrábania a montáže	KOM	Department of Machining and Assembly	Lehrstuhl für spanende Fertigung and Montage
12	Katedra odbornej jazykovej prípravy	KOJP	Department of Languages	Lehrstuhl für Fremdsprachen
13	Katedra priemyselného inžinierstva a manažmentu	KPIM	Department of Industrial Engineering and Management	Lehrstuhl für Industrieingenieurwesen und Management
14	Katedra technologických zariadení a systémov	KTZŠ	Department of Technological Devices	Lehrstuhl für technologische Anlagen und Systeme
15	Katedra telesnej výchovy a športu	KTVS	Department of Physical Education and Sports	Lehrstuhl für Körperkultur und Sport
16	Katedra tvárnenia	KT	Department of Forming	Lehrstuhl für Umformen
17	Katedra zlievarenstva	KZI	Department of Foundry	Lehrstuhl für Gießen
18	Katedra zvarovania	KZv	Department of Welding	Lehrstuhl für Schweißen
19	Detasované pracovisko (Brezno, Dubnica, Komárno, Nitra)	DP	Detached workplace in ...	Außenarbeitsstelle in ...

APPENDIX B LIST OF ACCREDITED STUDY PROGRAMMES

No.	Name of Study Programme	Abreviation	English Name of Study Programme	German Name of Study Programme
	Bakalárske štúdiium (Bc.)		Bachelor Study (B.S.)	Bachelor-Studium
1	Technológia strojnáskej výroby	BTSV	Machine Production Technology	Technologie der Maschinenbauproduktion
2	Technologické zariadenia a systémy	BTSZ	Technological Devices and Systems	Technologische Anlagen und Systeme
3	Materiálové inžinierstvo	BMI	Materials Engineering	Werkstofftechnik
4	Inžinierstvo životného prostredia	BIŽP	Environmental Engineering	Umwelttechnik
5	Aplikovaná informatika a automatizácia v priemysle	BAIAP	Information Technology and Automation in Industry	Angewandte Informatik und Industrieautomatisierung
6	Priemyselné inžinierstvo a manažment	BPIM	Industrial Engineering and Management	Industrielle Ingenieurwesen und Management
7	Inžinierstvo kvality produkcie	BKIP	Quality Engineering	Qualitätssicherung
8	Zabezpečovacia technika	BZT	Safety of Technology Systems and Processes	Sicherheitstechnik
	Inžinierske štúdiium (Ing.)		Master Study (M.S.)	Ingenieurstudium (Dipl.-Ing.)
1	Technológia strojnáskej výroby	TSV	Machine Production Technology	Technologie der Maschinenbauproduktion
2	Technologické zariadenia a systémy	TZS	Technological Devices and Systems	Technologische Anlagen und Systeme
3	Materiálové inžinierstvo	MI	Materials Engineering	Werkstofftechnik
4	Inžinierstvo životného prostredia	IŽP	Environmental Engineering	Umwelttechnik
5	Aplikovaná informatika a automatizácia v priemysle	AIAP	Information Technology and Automation in Industry	Angewandte Informatik und Industrieautomatisierung
6	Priemyselné inžinierstvo a manažment	PIIM	Industrial Engineering and Management	Industrielle Ingenieurwesen und Management
7	Inžinierstvo kvality produkcie	IKP	Quality Engineering	Qualitätssicherung
	Doktorandské štúdiium (PhD.)		Ph.D. Study	Doktorandenstudium (Dr.)
1	Automatizácia a riadenie, proces, riadenie procesov	DAR	Automation and Control	Automatisierung und Steuerung
2	Inžinierstvo kvality produkcie	DKIP	Quality Engineering	Qualitätssicherung
3	Materiálové inžinierstvo a medzné slavy materiálov	DMI	Material Engineering	Werkstofftechnik
4	Podnikový manažment	DPM	Plant Management	Betriebswirtschaft
5	Strojárske technológie a materiály	DSTM	Machine Technologies and Materials	Maschinenbautechnologien und Werkstoffe
6	Teória vyučovania predmetov všeobecno-vzdelávacej a odb. povahy	DTVP	Theory of Technical Subjects Training	Theorie des Unterrichts der technischen Fächer,
	Doplnujúce pedagogické štúdiium		Complementary Teacher Training	Pädagogische Ergänzungsstudium
1	Učiteľstvo technických odborných predmetov	PO/TOF	Teaching the Technical Subjects	Lehrer für technische Fächer

©ANNUAL REPORT 2004
FACULTY OF MATERIALS SCIENCE AND TECHNOLOGY
SLOVAK UNIVERSITY OF TECHNOLOGY BRATISLAVA
Authorised contributions from departments
2005