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

ANNUAL REPORT '98

SLOVAK UNIVERSITY OF TECHNOLOGY
BRATISLAVA

© Authorised contributions from departments

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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 1998-1999 the Faculty comprises the following departments:

Department of Applied Mechanics
Department of Engineering Pedagogy and Psychology
Department of Forming
Department of Foundry
Department of Humane Sciences
Department of Industrial Ecology
Department of Information Technology and Automation
Department of Languages
Department of Machining and Assembly
Department of Management and Quality Engineering
Department of Materials Engineering
Department of Mathematics
Department of Physical Education and Sports
Department of Physics
Department of Welding
Detached workplaces in Brezno, Dubnica, Partizánske 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, 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 1998 - 1999 studied at the Faculty in various courses 3.289 students.

It is possible to study the following majors within the below mentioned types of accredited courses:

1. Bachelor degree courses (3 years)

Information Technology and Systems
Industrial Management
Industrial Ecology

Industrial Technologies
Social Sciences and Work Safety
Technical Materials
Machine Engineering

2. Master of Science degree courses (5 years)

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

3. PhD degree courses (4 years)

Automation in Industry
Production Quality Engineering
Materials Engineering
Production and Application of non-metal Materials
Machine Technologies
Theory of Technical Subjects Training

4. Complementary Teacher Training (2 years)

Teaching the Technical Subjects

The scientific research of the Faculty of Materials Science and Technology respects the scientific and pedagogic 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 Rusia, IFW Dresden Germany, NIS 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 1999

Milan Turňa, PhD, Professor
Dean of the Faculty

Presidium of the Faculty

Dean: Milan Turňa, PhD, Prof.
Vice-deans: Jozef Sablik, PhD, Assoc. Prof.
Alexander Janáč, PhD, Prof.
Alexander Štrpka, PhD, Assoc. Prof.
Jozef Mudrik, PhD, Assoc. Prof.
Jozef Vaský, PhD, Assoc. Prof.

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Scientific Board

Chairman: Milan Turňa, PhD, Prof.
Vice-chairman: Alexander Janáč, PhD, Prof.
Members:

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Jozef Jelemenský, PhD, Assoc. Prof.
Ján Kalužný, PhD, Assoc. Prof.
Peter Kostka, PhD, Assoc. Prof.
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Oliver Moravčík, Prof.
Marián Murgaš, PhD, Prof.
Karol Polák, PhD, Prof.
Alexander Štrpka, PhD, Assoc. Prof.
Koloman Ulrich, PhD, Assoc. Prof.
Karol Velišek, PhD, Assoc. Prof.
Anton Vrban, PhD, Prof.
Eva Doubková, PhD, Assoc. Prof.
Pavol Glesk, PhD, Prof.
Ivan Hrivňák, PhD, Prof.
Karol Jelemenský, PhD, Assoc. Prof.
Ján Korec, PhD.
Július Kováč, PhD, Prof.
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Jozef Mudrik, PhD, Assoc. Prof.
Peter Polák, PhD, Assoc. Prof.
Jozef Sablik, PhD, Assoc. Prof.
Karol Takáč, PhD, Prof.
Jozef Vaský, PhD, Assoc. Prof.
Július Veselko, PhD, Assoc. Prof.
Karol Zalai, PhD, Prof.
Marcel Žitňanský, PhD, Prof.

Academic Senate

Chairman of Senate: Oliver Moravčík, PhD, Prof.
Chairman of Chamber of Employees: Miroslava Ožvoldová, PhD, Assoc. Prof.
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Eva Doubková, PhD, Assoc. Prof.
Ivan Jurčo, PhD, Asoc. Prof.
Ľubomír Martinec, PhD, Assoc. Prof.
Pavol Molnár, PhD, Assoc. Prof.
Milan Šimkovič, PhD
Miloš Čambal, PhD
Peter Grgač, PhD, Assoc. Prof.
Vasil Kusin, PhD, Prof.
Martin Mišút, PhD, Assoc. Prof.
Anton Pokusa, PhD, Assoc. Prof.

Chairman of Chamber of Students: Martin Valovič
Members:

Magdaléna Dropčová
Daniel Naď
Michal Harnúšek
Rastislav Matiaško
Katarína Laššová
Ján Moravanský

DEPARTMENT OF APPLIED MECHANICS

Head of the Department
Bohumil Taraba, MSc. (Eng.), PhD

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I. STAFF

Professors:	0	Research Fellows:	0
Assoc. Professors:	6	Technical and Admin. Staff:	6
Senior Lecturers:	10	PhD Students:	4
Lectures:	0		

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 mechatronics systems
- Equipment for testing of tribological material properties
- Codes - ANSYS, DYNAST, AutoCAD
- Equipment for noise measurements
- Equipment for strain gauges measurements

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
Technical Documentation	1	1-2	Štefančíková
Hydro-Thermomechanics	3	4-2	Taraba
Mechanisms and Machine Parts	5	2-2	Muráň
Strength of Materials	3	2-2	Jelemenský
Strength of Materials	5	3-3	Jelemenský
Manipulations with Materials	6	2-1	Janský
Manipulations with Materials	4	0-2	Janský
Mechanics of Solids	5	3-2	Stareček
Work Safety	1	0-2	Sabo

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
Basics of Engineering Design	1	2-2	Rusnák
Practice of Basics of Engineering Design	2	0-2	Rusnák
Mechanics of Solids	3	3-3	Mudrik, Stareček, Pekárek, Naď
Hydrothermomechanics	4, 7	2-2	Taraba
Strength of materials	4	2-2	Jelemenský
Thermodynamics	5	2-2	Taraba
Mechanisms and Machine Parts	5	2-2	Muráň
Computer Aided Design	5, 6	2-2	Muráň
Mechanics of Solids	7	2-2	Mudrik
Theory and technology industry heating	9	2-2	Taraba
Safety and Reliability of Constructions	9	2-2	Bílý
Safety of Technical Systems	9	3-2	Koreň
Aspect of Work Safety in Engineering	9	2-2	Sabo
Personal Work Protections	9	2-2	Andrezal
Safety of Systems with High Energies	9	2-2	Skarba
Final Project	9	0-5	Sabo
Undergraduate practice	10	2 weeks	Sabo
Graduate thesis	10	10 weeks	supervisors
Basics of Engineering Design	1	10-10	Rusnák
Practice of Basics of Engineering Design	2	0-10	Rusnák
Strength of materials	4	10-10	Jelemenský
Mechanics of Solids	4	18-10	Pekárek
Hydrothermomechanics	5	14-4	Taraba
Mechanisms and Machine Parts	7	10-8	Muráň
Thermodynamics	7	10-8	Taraba
Computer Aided Design	7	10-9	Muráň
Computer Aided Design	9	9-9	Muráň

IV. RESEARCH TARGETS

- The analysis of dynamical properties of manufacturing machine frames
- Investigation of tribological properties of new friction materials-plasma spraying materials
- Numerical analysis and simulation of technological processes and engineering structures
- Investigation of mechatronical problems of machinery dynamics
- Investigation in field of theoretical and applied mechanics

V. RESEARCH PROJECTS

V.1 Institutional Projects

- Applications of special FEM codes for analysis and simulation of structures and technological processes (No. MtF/855)
- Analysis of tribological properties of advanced materials (No. MtF/853)
- Application of simulation experiments in conditions of mechatronics systems. (No. MtF/856)

- Analysis of dynamical properties of manufacturing machine frames (No.854)

V.2 National Grants (VEGA, KEGA)

- Simulation of Technological Processes Control in Conditions of Mechatronics Systems. VEGA 1/4264/97 - Scientific Grant Agency of Ministry of Education
- Analysis of dynamical properties of manufacturing machine frames. VEGA 1/4264/97 - Scientific Grant Agency of Ministry of Education
- Transmission and dissipation of vibro-acoustic energy in complex mechanical systems. VEGA /4072/97 - Scientific Grant Agency of Ministry of Education

V.3 International Projects

- „Mechanical gearings of a new generation." International grant without financial support. Co-operation with foreign partners: IzhGTU Izhevsk, Russia, BAS Sofia, Bulgaria, TU Warsaw, Poland, IM RAS Moscow, Russia, IMS TU Brno, Czech Republic

VI. CO-OPERATION

VI.1 National Co-operation

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, VUJE Trnava, ELBAK Kremnica.

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

15 Graduate Theses - Field: Reliability of Mechanical Systems and Safety of Work. (Sabo, Mudrik, Nánási, Nad', Labašová)

1 Graduate Thesis - Field: Analysis of residual stress-strain problems of welded structures. (Taraba)

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

- 4th International Conference - „Dynamics of Machine Aggregates '98", 21-23. September 1998, Gabčikovo

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] MUDRIK, J. - LABAŠOVÁ, E. - NAĎ, M. - ABRAMOV, A. I.: The effect of electro-drive parameters on vibration of electromechanical system. In.: *Proceedings of 4th International Conference - Akademická Dubnica '98* Bratislava: SUT, 1998,Vol. 1, pp. 53-60.

[2] MUDRIK, J. - NAĎ, M. - LABAŠOVÁ, E.: Mechatronics in drive dynamics. In.: *Proceedings of 6th International Conference - CO-MAT-TECH '98.* Bratislava: SUT, 1998, Vol. 2, pp. 475-480. (in English)

[3] MUDRIK, J. - ABRAMOV, A. I.- Nad' M.: Damping properties of electro-drive in elastic electro-mechanical systems. In.: *Proceedings of 4th International Conference - Dynamics of Machine Aggregates '98.* Bratislava: SUT, 1998, pp. 86-91.

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[5] MUDRIK, J. - LIPTÁK,N. - NAĎ, M. - LABAŠOVÁ,E.: Mechatronic problems in drive dynamics. In.: *Proceeding of the Research Works of IzhSTU.* Izhevsk: MOPO,1998, Vol. 3, pp. 30-37. (in English)

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[7] ORAVSKÝ, V. - NÁNÁSI, T.: Movement of a particle in a smooth cone. In.: *Proceedings of International Conference - Engineering Mechanics '98.* Svratka: 1998, Vol. 3, pp. 557-562. (in English)

[8] MUDRIK, J. - ABRAMOV, A. I.: Mechatronical problems in drive dynamics. In.: *Proceedings of International Conference - TPG '98.* Izhevsk: IFToMM, 1998, pp. 473-478. (in English)

[9] GRGAČ, P. - BEHÚLOVÁ, M. - MORAVČIK, R.: Solidification of microstructures in rapidly silidified powder of a Cr-Mo-V tool steel. In.: *Proceedings of 10th International Symposium on Metallography - Metallography '98:* Košice: TU, 1998, pp. 301-305. (in English)

[10] LOVÍŠEK, J. - NAĎ, M.: The membrane approximation to the plate with inner obstacle. In.: *Proceedings of VIIth International Conference - Numerical methods in continuum mechanics:* Stará Lesná: 1998, pp. 13-21. (in English)

[11] STAREČEK, F. - PEKÁREK,F.: Analysis of rotational-normal-translation body motion. In.: *Proceedings of 4th International Conference - Akademická Dubnica '98Bratislava: SUT,* 1998, Vol. 1, pp. 83-94.

[12] ORAVSKÝ,V. - NÁNÁSI, T.: Analysis of movement of a particle constrained to move in a smooth cone. In.: *Proceedings of 4th International Conference - Akademická Dubnica '98*. Bratislava: SUT, 1998, Vol. 1, pp. 67-72. (in English)

[13] GOLDFABR,V. I. - KULEMIN, V.J. - MUDRIK, J.: Issledovanie dinamiky rotornoj sistemy specialnogo ispitatel'nogo stenda. In.: *Proceedings of Research Works of FMST SUT*. Bratislava: SUT, 1998, Vol. 6, pp. 169-176. (in Russian)

[14] STAREČEK, F.: Analysis of reciprocal plane body motion. In.: *Proceedings of Research Works of FMST SUT*. Bratislava : SUT, 1998, Vol. 6, pp. 193-200.

[15] JELEMENSKÝ, J. - PODĚBRADSKÝ, J. - ĎURIŠ, R.: The allowable stress of beam in elastic foundation. In.: *Proceedings of Research Works of FMST SUT*. Bratislava: SUT, 1998, Vol. 6, pp. 149-154.

[16] JELEMENSKÝ, J. - RUSNÁK, J. - ĎURIŠ, R. - KOLLÁR, E.: Numerical analysis of stiffness, dynamic properties and welded frame construction-technological design. In.: *Proceedings of Research Works of FMST SUT*. Bratislava: SUT, 1998, Vol. 6, pp. 155-162.

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[21] STAREČEK,F.: Application of given and reciprocal phase-local plane body motion. In.: *Proceedings of 6th International Conference - CO-MAT-TECH '9. Bratislava: SUT*,, 1998, Vol. 2, pp. 491-500.

DEPARTMENT OF ENGINEERING PEDAGOGY AND PSYCHOLOGY

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I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	2	Technical and Admin. Staff:	3
Senior Lecturers:	10	PhD Students:	21
Lecturers:	1		

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	1	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
Communication in Management	8	0-2	Borošová
Psychology in Management	9	0-2	Kováč
Leadership	7	2-2	Kollárik
Industrial Psychology	5	0-2	Schuller

IV. RESEARCH TARGETS

V. RESEARCH PROJECTS

V.1 EDUCATION AND RESEARCH PROJECTS

- University Pedagogy for Teacher-Engineers According to the European Standards. Grant task VEGA, 763 (1/4453/97)
- Lifelong Education of Engineers under the Conditions of Technological, Economic and Social Changes. Grant task VEGA, 743 (95/5195/162)

- System of in Service Education and Training of Teachers in the Slovak Republic. Faculty task, 858

VI. COOPERATION

- Beloruskij Politechnitcheskij 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. THESES

VII.1 Graduate Theses

VII.2 Dissertations (Ph.D.)

[1] Borošová, Z.: Primary Prevention of Drug Abuse and Drug Addiction. (Prof. T. Kollárik)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

- Assoc. Prof. Dr. MSc. Ivan Turek, PhD. – visit at UNIVERSITY OF LISBON, Portugal

VIII.1 Complementary Teacher Training - 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	Budinec, Kostelník
Psychology I	1	2,3-0	Borošová, Bustinová
School Youth Biology	1	1,53-0	Broniš
History of Engineering	1	1,53-0	Chyba
Pedagogy II	2	1,4-0,92	Budinec, Kostelník
Psychology II	2	1,4-0,92	Borošová, Bustinová
Didactics of Special Technical Subjects I	2	1,4-0,92	Vašková,Hrmo,Kundrátová, Tináková,Koláriková
Didactics of Special Technical Subjects II	3	2,3-0	Vašková, Hrmo, Kundrátová, 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,Kundrátová, Tináková,Koláriková
Pedagogical Practice	4	0-3,1	Vašková, Hrmo, Kundrátová, Hambalik,T ináková, Kolárikov

VIII.2 Graduation Exam Subjects

- Pedagogy
- Didactics
- Psychology

In 1998 the Department also delivered the following courses:

Complementary Teacher Training (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.

University Pedagogy Course for the University Teachers - in compliance with the European standards - 204 hrs

Second Qualification Exam for the High School Pedagogy Workers with at least 10-year Experience - 30 hrs and defense of final work

IX. PUBLICATIONS

[1] TUREK, I. :Chapters of Theory of Instruction at Universities. Košice: TU,1998. 253 p.

[2] TUREK, I.: Teacher and Educational Research. Bratislava.Bratislava: Methodic Center of Bratislava, 1998. 120 p.

[3] TUREK, I.: Increasing the Effectivity of Education. Bratislava: Edukácia, 1998. 328 p.

[4] KOSTELNÍK, J. :Directing Autonomous Learning of Secondary and Tertiary Students. Bratislava: SUT, 1998. 58 p.

[5] DRIENSKY, D. : Didactic Technics. Bratislava: SUT, 1998. 66 p.

[6] KOSTELNÍK, J. : Exercises in Didactic Skills. Bratislava: Methodic Center of Bratislava, 1998. 47 p.

[7] BAJTOŠ, J. - HAMBALÍK, A. :Didactic of Laboratory Subjects. (Experimental Teaching Text). Bratislava: SUT, 1998. 44 p.

[8] DRIENSKY, D.- HAMBALÍK, A.- HRMO, R.: Material-Based Teaching Aids: *Experimental Teaching Text*. Bratislava: SUT, 1998. 40 p.

[9] KOLÁRIKOVÁ, H.- KOSTELNÍK, J.- TINÁKOVÁ, K.: Practice in Engineering Pedagogy: *Study Text*. Bratislava: SUT, 1998. 47 p.

[10] KUNDRÁTOVÁ, M.- DRIENSKY, D.- BUDINEC, I.- TUREK, I.- FISCHER, V. Engineering Pedagogy: *Study text*. Bratislava: SUT, 1998. 72 p.

[11] BOROŠOVÁ, Z.- BAJČÍK, V.- BUSTINOVÁ, L.- KOLLÁRIK, T.- ZELINOVÁ,L.: Chapters from Psychology: *Experimental Teaching Text*. Bratislava: SUT, 1998. 79 p.

[12] KOSTELNÍK, J.: Autonomous Learning: *Component of Health Promotion*. Bratislava: National Center for Health Promotion, 1998. 25 p.

[13] KOSTELNÍK, J. : Review of 'Turek, I. (1998): Chapters of Theory of Instruction at Universities. In : *Aula*, 1998, N.6: 3, pp. 23-25.

[14] KOLLÁRIK, T.- BAJČÍK, V. : The Way to Non-Smoking.In : *Health Promotion Bulletin*, 1998, pp. 5-39.

[15] TUREK, I.: On Good School and Good Teacher. In : *Slovenský učite3 (Enclosure to Technológia vzdelávania)*, 1998, N.6: 5, pp. 2-4.

[16] KOSTELNÍK, J.: Review of 'Mužik, J. (1998): Didactics of Adults. In: *Vzdelávanie dospelých*,1998, N. 3: 3, pp. 79-80.

[17] KOSTELNÍK, J. : Review of 'Turek, I. (1998): Increasing the Effectivity of Education. In: *Slovenský učitel' (Enclosure to Technológia vzdelávania)*,1998, N. 6: 8, pp. 15-16.

[18] DRIENSKY, D. : Pedagogical Aspects of Creation and Use of Study Literature.In: *Technológia vzdelávania*,1998, N. 6: 10, pp. 13-15.

[19] DRIENSKY, D.: Preparation of Euro-Engineers-Teachers at STU. In: *Spektrum*, 1998, N.4: 8, p. 9.

[20] BAJČÍK, V., - KOLLÁRIK, T. :Human Resource Development for Management. In: *Manager Aspects of Work Normalization*. Bratislava: SUT, 1998, pp. 87-116.

[21] DRIENSKY, D.: Pedagogical Aspects of Using the Material Teaching Aids. In: *Computers and Multimedia in Training of Engineers*. Bratislava: ZSVTS, 1998, pp. 3-9.

[22] HOREČNÝ, H.- BOHUŠ, R. - KRAJČOVIČ, J. :Increasing the Effectiveness of Educational Process by Suitable Teaching Software Application. In: *Computer and Multimedia in Training of Engineers*. Bratislava: ZSVTS, 1998, pp. 10-15.

[23] HAMBALÍK, A.: Computer Equipment of Secondary Schools. In: *Computer and Multimedia in Training of Engineers*. Bratislava: ZSVTS, 1998, pp. 34-36.

[24] HAMBALÍK, A.: Students and Teachers Views on Textbooks and Professional Literature Used in Computer-Aided Teaching Process. In: *Computer and Multimedia in Training of Engineers*. Bratislava: ZSVTS, 1998, pp. 37-41.

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[29] HAMBALÍK, A.:Hypertext in Engineering Courses. In: *CO-MAT-TECH '98*. Bratislava: SUT,1998, pp. 728-733.

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[33] KUNDRÁTOVÁ, M.: On Humanization of Technical Education at SUT. In: *CO-MAT-TECH '98*. Bratislava: SUT, 1998, pp. 765-770.

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DEPARTMENT OF FORMING

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I. STAFF

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

II. EQUIPMENT

II.1 Teaching and Research Laboratories

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

II.2 Special Measuring Instruments and Systems

- Acoustical emission
- EU40 and TIRATEST tearing machine
- Hardness tester
- Pendulum impact
- Tool - maker's microscope
- Profile projector

III. TEACHING

III.1 Bachelor Study (Bc.)

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
Technology of Forming	6	2-1	Bača, Kotras, Ulík
Theory of Forming	7	3-2	Polák
Volume Forming	9	2-2	Bača
Flat Forming	9	2-2	Kotras
Projection of Manufacturing Processes and Systems in Forming	9	2-1	Polák
Machines and Equipment for Forming	9	1-2	Ulík
Final Project	9	0-4	Selčan
Technical Preparation for Manufacturing	9	2-2	Polák
Machines for Forming	7	2-2	Ulík
Special Methods of Forming	9	2-1	Bača
Modelling of Forming Processes	9	2-1	Žatkovič
Safety of Machines and Production Facilities	11	9-5	Selčan

Name of subject	Semester	H/W L-P	Reader's name
Automation of Forming	11	16-6	Ulík
Flexible Production Lines for Forming Processes	11	9-5	Ulík
Experimental Methods of Forming	10	10-5	Žatkovič
High Parametric Forming	8	2-1	Bača

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. RESEARCH PROJECTS

V.1 Institutional Projects

- Conical shapping thin vals of pipes from material 424401, No. 866
- Forming by explosion application, No. 845
- Fabrication of bimetalic cavity instruments by high parametric forming, No. 811

V.2 National Grants (VEGA, KEGA)

- Kumulative plastical deformation, No. 764, VEGA

VI. CO-OPERATION

VI.1 National Co-operation

- VŠDS, SjF Žilina
- TU, HF Košice
- TU, SjF Košice
- STU, SjF Bratislava

VI.2 International Co-operation

- University of mining, TU Ostrava
- Military academy, Brno
- VUT, SjF Brno

VI.3 Contracts with Industry

- Bendis and Kierulf, v.o.s., Bratislava
- PUNCH Products s.r.o.Trnava

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

[1] Daniš,A.: Optimalization of technological process of propressing profile from alloys AlMgSi 0,5,AlMgSi 0,7 in Alufinal a.s. (Bílik)

[2] Tobiaš,P.: Projecting of komplex mechanizing workstations with hamering press and heating instruments. (Bílik)

[3] Sersen,M.: Shaping by explosion of steel sheets. (Polák)

[4] Ivanovič,R.: Final reduction for conical pipe shapping from material STN 424401. (Kotras)

[5] Matejov,M.: Iron pressing from steel plate. (Polák)

[6] Benkovský,R.: Influence of dull cutting instrument on cutting force and quality of cutting surface during the performation of plate. (Kotras)

[7] Kováč,R.: Technical and economical comparation combined of pressing instrument with single pressing instrument. (Selčan)

[8] Slovák,P.: Hammering of con rod for moped Korado. (Selčan)

[9] Buráková,A.: Investigation of the influence of negative influence of highee heat on workers employed in hammers. (Kapustová)

[10] Vulgan,T.: Fabrication and perspective of shappening of propreasure of PET. (Horváth)

[11] Ulík,O.: Recomendation of swage cavities by computer. (Peterka)

[12] Michalíková,L.: Fabrication of thin wals preasure vessel from alloys aluminium. (Ulík)

[13] Králik,P.: Recomendation of optimal production technology with growing of life vessel and economizing of fabrication. (Bača)

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

[1] Žatkovič,J.: Experimental methods and modeling in forming process.

[2] Ulík,A.: Application of hydrostatic high preasure in proces of forming.

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

- Explosive forming, Seminar, Trnava - Košice, 1998.

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] BAČA,J.-ŽATKOVIČ,J.-BÍLIK,J.-Bača,M.: Application of compiting technics in forming technology. In: *Vercajch 98.* Trenčín: 1998.

[2] KAPUSTOVÁ,M.-DUBROVAYOVÁ,A.: Investigation of loading on hammer worker during hammering process. In: *Vercajch 98.* Trenčín: 1998.

[3] ULÍK,A.: Recomendation of the prepressing method for heated brass. In: *Vercajch 98.* Trenčín: 1998.

[4] BAČA,J.-ŽATKOVIČ,J.-BAČA,M.: Determination of the butting energy for high speed power hammer - recomendation of the experiment. In: *Research works of FMST SUT.* Bratislava: SUT, 1998, Volume 6.

[5] KAPUSTOVÁ,M.-DUBROVAYOVÁ,A.: Growing of the loading of hammer worker during hammerig process of swage forming. In: *Research works of FMST SUT.* Bratislava: SUT, 1998, Volume 6.

[6] POLÁK,K.-KOTRAS,P.-HORVÁTH,J.: Forming by explosion. In: *Explosive forming*: Proccedings of contributions. Košice: 1998.

[7] POLÁK,K.: Ekosociotechnical crisis and quality.In: *3d international research symposium.* Nitra: SPU, 1998.

[8] POLÁK,K.: Industrial technology. In: *Trends of economical development at Slovak republic* 1998. Trenčín: 1998.

[9] KOTRAS,P.: Reduction of the pipes. In: *35.years in investigation, development and industrial production.* Bratislava: SUT, 1998.

[10] BAČA,J.: Fabrication of the swages from halving material by forming proces. In: *Proceedings of contributions of 4d research conference: Akademická Dubnica 98,* Bratislava: SUT, 1998.

[11] BÍLIK,J.: Age prolongation by hardening of the surface layers applying a dynamical smol sphere. In: *Proccedings of contributions of 4d research conference: Akademická Dubnica 98.* Bratislava: SUT, 1998.

[12] KOTRAS,P.: Influence of getting warn od cutting edge at geometric accurace of cutting surface. In: *Proceedings of contributions of 4d research conference: Akademická Dubnica 98.*Bratislava: SUT, 1998.

[13] POLÁK,K.: Alternative technology in forming of metals. In: *Proceedings of contributions of 4d research conference Akademická Dubnica 98.* Bratislava: SUT, 1998.

[14] KAPUSTOVÁ,M.-DUBROVAYOVÁ,A.: Investigation of heating strain for workers in burning workshops. In: *Proceedings of contributions of 4d research conference Akademická Dubnica 98.* Bratislava: SUT, 1998.

[15] ULÍK,A.-ŽITŇANSKÝ,M.: Forming characteristics of maraging steels under hydrostatics pressures. In: *AMME.* Gliwice: 1998 (English)

[16] BÍLIK,J.: Possibilities for application of computing technics in forming proces. In: *Automatization of technological preparation of fabrication, scientific symposium with international participans.* Zvolen: TU, 1998.

[17] POLÁK,K.: Simultanions engeniers. In: *Automatization of technological preparation of fabrication, scientific symposium with international participans.* Zvolen: TU, 1998.

[18] ŽATKOVIČ,J.-BAČA,J.-BAČA,M.: Contribution on preparation of the data fon automatical, regulating processes. In: *Automatization of technological preparation of fabrication, scientific symposium with international participans.* Zvolen: TU, 1998.

[19] BAČA,J.-BÍLIK,J.: Dealing on causes for polygon fabrication during furning reducation. In: *6th international conference: CO-MAT-TECH'98.* Bratislava: SUT, 1998.

[20] KAPUSTOVÁ,M.-DUBROVAYOVÁ,A.: Climatic heat as measure of forgers heat loading at forging of forgings. In: *6th international conference: CO-MAT-TECH'98.* Bratislava: SUT, 1998.

[21] KOTRAS,P.: Critical evaluation of the cutting force in dependence on the dulling of instruments. In: *6th international conference CO-MAT-TECH '98Bratislava: SUT,* 1998.

[22] ULÍK,A.: Forming of brass by heating. In: *6th international conference CO-MAT-TECH'98.* Bratislava: SUT, 1998.

[23] KAPUSTOVÁ,M.-TRUBENOVÁ,J.: Application of the mathematical methods for evaluation of complex weigh down of the workers. In: *6th international conference CO-MAT-TECH'98.Bratislava: SUT,* 1998.

[24] POLÁK,K.: Knock of bodies and its applications. In: *Dynamics of machine aggregates, Proceedings of 4th international conference.* Bratislava: SUT, 1998.

[25] BAČA,J.-BÍLIK,J.: Plastic properties of hard surfacing from powdered metal K40. In: *FORM 98, 4th international conference: Forming technology, tools and machines: Conference proceedings.* Brno: TU, 1998, volume 1.

[26] BAČA,J.-ŽATKOVIČ,J.-BÍLIK,J.-BAČA,M.: Contributionto solution ofobserved parameters measurement mode in forming process. In: *FORM 98, 4th international conference: Forming technology, tools and machines: Conference proceedigs.* Brno: TU, 1998, volume 1.

[27] POLÁK,K.: The logistic in the forming technology. In: *FORM 98, 4th international conference: Forming technology, tools and machines: Conference proceedig.* Brno: TU, 1998, volume 1.

[28] ULÍK,A.: The comparison of formability of metals with different atomic lattice arrangements. In: *FORM 98, 4th international conferenc:, Forming technology, tools and machines: Conference proceedigs.* Brno: TU, 1998, volume 1.

[29] BAČA,M.-BAČA,J.-ŽATKOVIČ,J.: Modification of the capicitance indicator of path. In: *New orientation in fabricating technologies: III. Proceedings of contributions from international conference.* Košice: TU, 1998.

[30] POLÁK,K.: Logistic and industrial engeniers. In: *New orientation in fabricating technologies: III. Proceedings of contributions from international conference.* Košice: TU, 1998.

[31] BAČA,J.: Forming machines and Forming technologies. In: *Progressive technologies elaboration of materials.* Minsk: UNRC, 1998 (Russian)

[32] BAČA,J.-ŽATKOVIČ,J.-BAČA,M.-BENKO,B.: Instrument enables higher resolving power of an optical path road indicator. In: *Civil engeniering 98: Proceedigs of contribution from international conference.* Bratislava: 1998, 2 part.

[33] KAPUSTOVÁ,M.-DUBROVAYOVÁ,A.: The evaluation of influence of physical and noise - loading on forger within the forming of drop forgings. In: *Civil engeniering 98: Proceedigs of contribution from international conference.* Bratislava: 1998, 2 part.

[34] TRUBENOVÁ,J.-KAPUSTOVÁ,M.: Application of mathematical methods within the evaluation of the complex workers load during the shift. In: *Civil engeniering 98: Proceedigs of contribution from international conference.* Bratislava: 1998, 2 part.

[35] TRUBENOVÁ,J.-KAPUSTOVÁ,M.: Recomendation of the mathematical model for complex evaluation of work sur roundings loading. In: *Proceedings: 25th Conference VŠTE.* Prag: 1998.

DEPARTMENT OF FOUNDRY

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I. STAFF

Professors:	1	Research Fellows:	2
Assoc. Professors:	2	Technical and Admin. Staff:	4
Senior Lecturers:	3	PhD Students:	1
Lecturers:	0		

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
- Laboratory of electromagnetic method and magnetohydrodynamics
- Laboratory of manual formation
- Robotised working-place of die casting

II.2 Special Measuring Instruments and Systems

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

III. TEACHING

III.1 Bachelor Study (Bc.)

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
Technology of Casting and Powder Metallurgy	8	2 - 2	Pokusa
Materials and Technologies	2	2 - 3	Makovník
Processes of Heat-Treatment and Sintering	7	2 - 2	Pokusa
Foundry Technology	5	2 - 1	Makovník
Tools and Jigs	7	2 - 2	Makovník
Selected Technologies of Mechanical Engineering	7	3 - 2	Podhorský
Equipment and Tools in Casting and Heat-Treatment	7	2 - 2	Murgaš
Technology of Casting and Welding	7	4 - 2	Pokusa

Name of subject	semester	H/W L-P	Reader's Name
Engineering Technologies and Ecology	7	4 - 2	Murgaš
Non-conventional Metallurgical Processes	8	3 - 2	Murgaš
Technical Preparation of Manufacturing	8	2 - 2	Makovník
Foundry Metals and Alloys	8	3 - 2	Murgaš
Theory of Metallic Powder Material Preparation	9	2 - 2	Pokusa
Technology of Metallic Powder Material Processing	9	3 - 2	Pokusa
Foundry Metals and Alloys and their Preparation	9	2 - 2	Murgaš
Special Production Method in Foundry	9	2 - 2	Makovník
Projecting of Manufacturing Processes and Systems in Foundry	9	2 - 2	Makovník
Automation of Casting Processes	9	2 - 2	Žižka
Theory of Foundry	7,8	2 - 2	Mäsiar
Preparation and Processing of Ceramic and Friction Materials	9	2 - 1	Makovník
Final Project	9	0 - 4	Podhorský
Selective subject: Programming in Foundry	8	1 - 2	Podhorský
Prognosis and Trends of Casting Production Development	8	2 - 1	Pokusová

IV. RESEARCH TARGETS

- Foundry - 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

- Application of polyethylenoxide and some other polymers in foundry; No. 867, Zátura, M.
- Special sintering methods for the metal powder materials; No. 841, Pokusa, A.
- Magnetohydrodynamics and electromagnetic methods for effecting the solidification of the molten metal materials; No. 842, Pokusová, M.
- Software development for ductile iron production by IN-MOLD technology, Podhorský, Š.

V.2 National Grants (VEGA, KEGA)

- Project VEGA - Electromagnetic methods of the influence on the solidification process of metal material's molten metal; No. 1/3098/96; Pokusová, M.

VI. CO-OPERATION

VI.1 NATIONAL CO-OPERATION

VI.2 International Co-operation

VI.3 Contracts with Industry

- OSRAM Slovakia, a.s, Nové Zámky - The development of the heat-resistant cast iron and Al-alloys for the machine's parts for the lamp production.
- Town Brezno - Casting of the sculpture of gen. M. R. Štefánik

VII. THESES

VII.1 Graduate Theses

[1] WSÓL, V.: Technológia elektrolyticko-plazmovej úpravy kovových povrchov - vplyv teploty elektrolytu na účinnosť procesu [Podhorský, Š.]

VII.2 PhD Theses

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

[1] ČAUS A. S. - MURGAŠ Marián: Kinetika fazovych prevraščenij pri kristallizaciji bystrorežuščej stali v magnitnom pole. In: *Fizika metallov i metallovedenije*, 85, 1998, č. 6, s. 127-131.

[2] ČAUS A. S. - MURGAŠ Marián: Kinetics of Phase Transformations in a High-Speed Steel during Solidification in a Magnetic Field. In: *The Physics of Metals and Metallography*, 85, 1998, č. 6, s. 675-677.

[3] MURGAŠ Marián - POKUSOVÁ Marcela - POKUSA Anton: Určenie zloženia liatiny s guľôčkovým grafitom v závislosti od hrúbky stien odliatkov. In: *Slévarenství*, 46, 1998, č. 3-4, s.101-103.

[4] MURGAŠ Marián - ČAUS A.S.: Ispoľzovanije magnitnogo poľa pri elektrošlakovom pereplave stali. In: *Fizika i chimija obrabotky materialov*,1998, č. 2, s. 99-107.

[5] MURGAŠ Marián - POKUSOVÁ Marcela - ČAUS, A.S.: Povyšenije effektivnosti peremešivanija rasplava pri polučenii staľnych zagotovok nepreryvnym litjem. In: *Materialy, Technologii, Instrumenty*, 3, 1998, č. 2, s. 29.

[6] MURGAŠ Marián - POKUSA Anton - GAJDOŠ František - POKUSOVÁ Marcela: Tvorba povrchovej vrstvy na odliatkoch z nástreku formy. In: *Strojárstvo*, 1998, č. 9, s. 22.

[7] MURGAŠ Marián - POKUSA Anton - GAJDOŠ František - POKUSOVÁ Marcela: Tvorba povrchovej vrstvy na odliatkoch z nástreku formy - II. In: *Strojárstvo*, 1998, č. 10, s. 12.

[8] MURGAŠ Marián - POKUSOVÁ Marcela - BERTA Igor: Continuos casting of steel with simultaneous stirring of the melt in mold and in ingot: Plynulé liatie ocele so

súčasným miešaním taveniny v kryštalizátore a v brame. In: *Acta Metallurgica Slovaca*, 4, 1998, č. 2, s. 328-331.

[9] POKUSA Anton - PODHORSKÝ Štefan - VOZÁR Pavol: Effects produced by conductive stirring of continuos cast steel: Efekty vyvolané konduktívnym miešaním plynule liatej ocele. In: *Acta Metallurgica Slovaca*, 4, 1998, č. 2, s. 332-335.

[10] POKUSA Anton - GAJDOŠ František - MURGAŠ Marián: Special coatings on castings produced by mold cavity spraying: Špeciálne povrchové vrstvy na odliatkoch vytvorené z nástreku formy. In : *Acta Metallurgica Slovaca*, 4, 1998, č. 2, s. 229-232.

[11] POKUSOVÁ Marcela: Electromagnetic caster for continuosus cast strip of AlSi8.5Cu1 alloy: Elektromagnetický kryštalizátor na plynulé liatie pásu zo zliatiny AlSi8.5Cu1. In: *Acta Metallurgica Slovaca*, 4, 1998, č. 2, s. 188-192.

[12] MURGAŠ Marián - POKUSA Anton - GAJDOŠ František: Povlakovanie liatinových odliatkov. In: *Ekológia a ekonomika povrchových úprav*. Žilina: DT ZS VTS, 1998, s. 75-79.

[13] PODHORSKÝ Štefan - TÓTH Roman: Úprava povrchu antikoróznych ocelí elektrolyticko-plazmovou technológiou. In: *Ekológia a ekonomika povrchových úprav*. Žilina: DT ZS VTS, 1998, s. 92-94.

[14] MURGAŠ Marián: Možnosti zlievarenskej technológie pri opravách a výrobe poľnohospodárskej techniky. In: *HP'98: Horizonty prosperity Slovenskej republiky*. Nitra: SPU,1998, s.214-218.

[15] KASHIF Mukhtar - MÁSIAR Harold: Malé množstvá polyetylénoxidu ako modifikátory technologických vlastností formovacích zmesí. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.113-118.

[16] MURGAŠ Marián - POKUSA Anton - POKUSOVÁ Marcela - BERTA Igor: Tvorba povrchovej vrstvy na odliatkoch z nástreku formy. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.119-124.

[17] MURGAŠ Marián - POKUSOVÁ Marcela - POKUSA Anton: Výsledky vývoja oteruvzdornej chrómovej liatiny. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.125-130.

[18] PODHORSKÝ Štefan - GÖRÖG Augustín: Technologické zariadenie pre elektrolyticko-plazmovú úpravu kovových povrchov. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.131-136.

[19] POKUSOVÁ Marcela: Teoretické aspekty vyvolania vznosu kovovej taveniny. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.137-142.

[20] TÓTH Roman - PODHORSKÝ Štefan: Koncepcia zdrojovej a riadiacej jednotky a technologického zariadenia pre elektrolyticko-plazmovú úpravu kovových povrchov. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s.143-148.

[21] MURGAŠ Marián: Dizajn a nové technológie. In: *Lokálne tradície - globálna budúcnosť: Local Traditions - Global Future*. Bratislava: VŠVU VRC, 1998, s. 27-28.

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[23] POKUSA Anton - GAJDOŠ František: Povrchové vrstvy na odliatkoch vytvorené z nástreku formy: Surface layers on the castings produced by the mold spraying. In: *Spolupráca '98: Współpraca: Zborník prednášok zo IV. medzinárodnej konferencie slovenských, českých a polských zlievačov.* Žilina: EDIS, 1998, s. 82-86.

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DEPARTMENT OF HUMANE SCIENCES

Head of the Department:
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I. STAFF

Professors:	2	Research Fellows:	0
Assoc. Professors:	3	Technical and Admin. Staff:	1
Senior Lecturers:	5	PhD Students:	0
Lecturers:	1		

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 Technology	2	0-2	Chyba
Entrepreneurial Law	2	0-2	Indrišek
Design	4	2-2	Dubnička
Psychology of Personality	6	1-2	Sawicki
Thesis	6	0-1	Holkovič
General Economic Theory	6	2-1	Mrvová
Industrial Sociology	6	2-1	Csampai
Solving the Work Conflicts	6	2-2	Sawicki
Planning the Personnel and Social Development	6	2-2	Šima

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
History of Technology	1	0-2	Chyba
History of Philosophy	1	0-2	Kusin
Philosophy of Technology	2	0-2	Skalský
Rhetoric	2	0-2	Odlerová
Sociology	3	2-1	Csampai
General Economic Theory	3	2-1	Mrvová
Politology	4	0-2	Končál
International Economic Relations	4	0-2	Mrvová
Humane Ecology	5	0-2	Odlerová

Name of subject	Semester	H/W L-P	Reader's name
History of Technology	5	0-2	Chyba
History of Philosophy	5	0-2	Kusin
Industrial Sociology	6	0-2	Csampai
Rhetoric	6	0-2	Odlerová
Fundamentals of Law for Technics	7	2-1	Indrišek
Fundamentals of Law for managers	7	2-1	Indrišek
Criminal and Family Law	8	0-2	Indrišek
Introduction into Research Work	8	1-1	Skalský
Fundamentals of Law for Managers	7	2-1	Indrišek
Prognostics	8	0-2	Dubnička
Introduction into Law for Engineers	7	2-1	Indrišek
Design	7	2-1	Dubnička
Synergetic	8	0-2	Dubnička
Industrial Sociology	8	0-2	Csampai
Methods of Sociological Research	8	2-2	Csampai
Social Politics	8	3-1	Šíma
Introduction into Research Work	9	0-2	Skalský

IV. RESEARCH TARGETS

- Human Sciences
- Social Sciences
- Philosophy
- Cosmology
- Physics

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Proportion of Social Sciences on formation of MtF STU graduate. Nr. 833, Skalský, V.
- Education process on the university from the aspects of the human law. Nr. 860, Holkovič, Ľ.

V.2 National Grants (VEGA, KEGA)

- Research project VEGA - „Environment education the ROM's community" No: 1/4045/97, MŠ SR, Kusin, V.

V.3 International Projects

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

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Dr. Otto Csampai, CSc. – October - November 1998. High school J.Széchenyi in Györ, Hungary

VIII.2 Foreign Visitors to the Department

- Dr. Eva Barsiné Palmai - Hungary, June 1998
- Prof. Dr. Akos Paulinyi - TH Darmstadt, BRD, June 1998

VIII.3 Organised Conferences, Seminars and Workshops

- 3. Science seminar „Work and a part social education at the forming profil graduate engineer-technical study. 16.6.1998

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

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[2] HOLKOVIČ, Ľ. - CSAMPAI, O.: Look to the university education from the standpoint peoples law. In: *Proceedings from the conference „Exchange experiences from the education languages and the human subjects on the university without philosophy direct"*. Bratislava: SUT, 1998, pp.111-114

[3] CHYBA, J.: Experiences from teaching subject „History of technology". In: *Proceedings from the conference „Exchange experiences from the education languages and the human subjects on the STU"*. Bratislava :1998, pp.131-133

[4] CHYBA, J. - KONČAL, V.: Teaching human branches on the MtF STU in Trnava. In: *Proceedings from the conference „Exchange experiences from the education languages and the human subjects on the SUT"*. Bratislava: 1998, pp.166-168

[5] CHYBA, J.: Daybreak and twilight of the industrial society. In. Proceedings from the conference CO-MAT-TECH 1998, MtF STU Trnava, ISBN 80-227-1112-8

[6] CHYBA, J.: History of technology and its teaching on the STU. In: *Proceedings of the 16. seminar for the teachers history of technology: Society for the history of science and history of technology*. Praha : National technical museum,1998.

[7] CHYBA, J.: Aurel Stodola and his place on the history of Slovak science and culture. In: *Proceedings of the 16.seminar for the teachers history of technology. Society for the history of science and history of technology*. Praha: National technical museum, 1998.

[8] CHYBA, J.: Signification history of technology for the engineer education. In: *Work and a part social education at the forming profile graduate engineer-technical study. Proceedings from the 3.science seminar KHV MtF STU Trnava,* pp.72-77. ISBN 80-227-1104-7

[9] [9] KONČAL, V.: Education in the process of forming social and the individualism in the students. In: Problems of psychology in the education. International science conference. Iževsk, 1998, pp.51-54 (in Russian)

[10] KONČAL, V.: Importance rhetoric for the future engineers communication. In: Work and a part social education at the forming profil graduate engineer-technical study. Proceedings from the 3.science seminar, KHV MtF STU Trnava, 1998, pp.93-97. ISBN 80-227-1104-7

[11] KONČAL, V.: Ethics education - some questions of methodology. In: Proceedings of science works MtF STU Trnava, 1998, pp.323-326. ISBN 80-227-1142-X

[12] KONČAL, V.: Managers quality in the industrialist establishment. In: 4.science conference „Akademická Dubnica '98". Proceedings. Bratislava STU, diel 2, pp.337-338

[13] KONČAL, V.: Intensify effect education on the human branch in the technical universities. In: 6.international science conference CO-MAT-TECH '98, MtF STU Trnava, pp.750-753. ISBN 80-227-1112-8

[14] KUSIN, V.: Social context of the ecology education. In. Psychology-pedagogical problems science systems. The international conference. Izhevsk. 1998 (in Russian)

[15] KUSIN, V.: Education and a social process, axiology and a creativity of personality. In: *Work and a part social education at the forming profile graduate engineer-technical study: Proceedings from the 3.science seminar D of HS FMST SUT Trnava.* 1998, pp.29-33.

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[17] KUSIN, V.: Ecology versus needs. In: *Proceedings of science works of FMST SUT Trnava* 1998. Bratislava: SUT, 1998, pp.327-331.

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[21] KUSIN, V. - POLÁKOVÁ, E.: Ecology and world ethics. Univerzita Konštantina filozofa. Nitra: Pedagogická fakulta ,1998, p.106.

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[25] MRVOVÁ, Ľ.: International economist relations and its influence for forming technical intelligence. In: *Work and a part social education at the forming profil graduate engineer-technical study: Proceedings from the 3.science seminar.* Trnava: 1998, pp.77-81.

[26] ODLEROVÁ, E.: World-ethics-health ethics. In: *II-Stodola memorial*: Proceedings from the conference Bratislava :1998.

[27] ODLEROVÁ, E.: Influence human ecology to the human education. In: *Work and a part social education at the forming profile graduate engineer technical study. Proceedings from the 3.semina.* Trnava: 1998, pp.37-40.

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[29] ODLEROVÁ, E.: Ecology aspects for the technosphere development. In: *Proceedings of science works FMST SUT Trnava* 1998. Bratislava: SUT, 1998, pp.331-334.

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[32] ODLEROVÁ, E.: Human ecology on the industry. In: ; *4.science conference „Akademická Dubnica '98": Proceedings.* Bratislava : STU, 1998, pp. 371-372

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[35] SAWICKI, S.: Drugs dependence. Mimeographed texts. Bratislava: SUT, 1998. 86 p.

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[40] SKALSKÝ, V.: Philosophy and special sciences. In: *Work and a part social education at the forming profil graduate engineer technical study. Proceedings from the 3.seminar, Dof HS FMST SUT.* Trnava :1998, pp. 15-28.

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DEPARTMENT OF INDUSTRIAL ECOLOGY

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I. STAFF

Professors:	3	Research Fellows:	1
Assoc. Professors:	2	Technical and Admin. Staff:	2
Senior Lecturers:	2	PhD Students:	4
Lecturers:	1		

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Teaching laboratory for chemistry

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

III. TEACHING

III.1 Bachelor Study (Bc.)

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

Name of subject	Semester	H/W L-P	Readers name
Introduction into Environmental Studies	1	2-1	Turekova
Chemistry I	3	2-3	Forsthoffer
Ecology of Working Environment	3	3-1	Wittlinger
Physics of Nuclear Reactors	3	2-2	Kováč
Sanitation Technology and Equipment	3	2-2	Polívka
Basics of Biological Systems	3	2-2	Polívka
Chemistry II	4	2-3	Forsthoffer
Industrial Technologies and Environment	4	4-4	Murgaš, Šilhár
Dosimetry and Protection of Radiation	4	2-2	Morávek
Quality Control	4	2-1	Polívka
Monitoring of Emissions	4	2-2	Ďuran

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
General Ecology	6	2-2	Tureková
Dosimetry and Radiation Protection	6	4	Morávek
Technology and Environment	5		Wittlinger, Tureková
Basics of Biological Systems	5	2-2	Maliarová
Ecology	7	1-1	Forsthoffer
Chemical Technologies and Environment	7	6	Šilhár
Engineering and Environment	7	2-1	Murgaš
Environmental Aspects of Quality Management	7	3	Polivka
Industrial Toxicology	7	2-2	Balog
Ecology of Working Environment	7	2-2	Wittlinger
Power Engineering and Environment	7,8	1-2	Wittlinger
Food Technology, Biotechnology and Environment	6	3	Polivka
Structure of Date and Database Systems	8	2-2	Moravčík
Hazard Minimisation in Environment	8	2-2	Hutta
Monitoring of Emissions	8	6	Ďuran
Software for Ecology	7	1-2	Moravčík
Physics of Nuclear Reactors	8	3	Kováč

IV. RESEARCH TARGETS

- Problem of wastes of cutting fluids, cooling emulsion their life cycle prolongation, changes of composition during microbial contamination
- Potential decomposition of grinding, brushing sludge and utilisation of metal parts
- Engineering analysis of industrial fire hazard, dangerous wastes, hazardous substances
- Halons alternatives

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Present situation in manipulation of wastes from special engineering technologies and alternative methods for their liquidation, No. , zodp. riešiteľ
- Influence of design and material of recuperator heat exchanger on intensity of heat transmission, No. .zodp. riešiteľ

V.2 National Grants (VEGA, KEGA)

V.3 International Projects

VI. CO-OPERATION

VI.1 National Co-operation

- Technical University Košice
- Technical University Zvolen
- Fire Research Institute Bratislava
- Ministry of the Environment of Slovak Republic
- Slovak Environment Agency, Centre of Waste Management, Bratislava

- Regional Training Centre for Implementation of the Basel Convention, Bratislava

VI.2 International Co-operation

- VŠB - Technical University of Ostrava, Department of Fire Protection Engineering and Industrial Safety, Czech Republic

VI.3 Contracts with Industry

- VUJE (Nuclear Power Station Research Institute) Trnava: Training the experts in industrial ecology, research development, development of information system

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

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

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] BALOG, K.: Requiremets to alternative of halogen from aspect of firemen efficiency and falling to environment. In: *Industrial toxicology: Scientific conference*. Bratislava: Section of toxicology SSPCh ZSVTS,1998, pp. 14-18.

[2] BALOG, K.: Effect of oxygen concentration for parameters of putting of flame of cellulose's and lignocellulose's materials. In: *Scientific Works of Materials Science and Technology in Trnava, Slovak University of Technology*. Bratislava :SUT, 1998, Vol. 6, pp. 349-354

[3] POLÍVKA, Ľ.- BALOG, K.- PÁSTOR, P.: System of using certification's EMS for filling up state's environmental policy. Report PC 1998 – OZ 60/98,november 1998.

[4] BALOG, K.: Identification of dangerous and safety of production of chemical materials. Up to date questions of work safety. In: *XI Conference with international accommodation* . Bratislava : VVÚBP, 1998

[5] ZAPLETALOVÁ, I.- BALOG, K.: Applications of results of large dimension and laboratory tests of toxicity by fire protection. In: Up to date questions of work safety.In: *XI. Conference with international accommodation* . Bratislava: VVÚBP ,1998.

[6] BALOG, K.: Parameters monitoring of initiation of combustion process of lignocellulose's materials in control atmosphere. In: *International Scientific Conference* . Bratislava: SUT ,1998

[7] BALOG, K.: Utilisation of results from laboratory tests for review fire dangerous of building's materials. In: *Fire protection '98: International Scientific Conference*. Ostrava: VŠB TU and SPBI, 1998, 1. Part, pp.25-33

[8] BALOG, K.: Effect of fire retard to parameters of putting of wood's flame. In: *CO-MA-TECH '98 : 6. International Scientific Conference* .Bratislava :SUT, 1998,part 2, pp.507-513

[9] ZAPLETALOVÁ, I.- BALOG, K.: Prognosis of creation of dominate toxically residues of polymer's materials. In: *CO-MA-TECH '98 : 6. International Scientific Conference* Bratislava :SUT ,1998,part 2, pp.514-521

[10] BALOG, K.: Utilisation of laboratory tests results for appraisal of fire dangerous of building's materials. In: *Fire protection '98: International Scientific Conference*. Ostrava: VŠB TU and SPBI, 1998, 1. Part, pp.25-34

[11] ŠOLTÉS, L. – MENDICHIi, R. – MACHOVÁ, E.- STEINER, B. – ALFOLDI, J. – SASINKOVÁ, V. – BYSTRICKÝ,S - BALOG, K.: Cyclodextrin derivative of hyaluronan. In: *Carbohydrate Polymers* 00 (1999) 000-000

[12] ZAPLETALOVÁ, I.- BALOG, K.: Analyse of dangerous and prevention of industrial accident. In: *Association of fire and safety engineering*.Ostrava: 1998, pp.193

[13] KOVÁČ, J. – HUTTA, M.: Profilation of using cutting fluids by method of liquid chromatography on turned phasies (RPHPLC). In: *Science works in Faculty of Materials Science and Technologies in Trnava, Slovak University of Technology in Bratislava.* Bratislava : SUT, 1998, volume 6., pp. 355 – 362.

[14] KOVÁČ, J.: To suppression manners of crude petroleum contamination from waste waters. In: *CO-MA-TECH '98: 6. International Science Conference*. Bratislava: SUT, 1998, part 2., pp. 522 – 524.

[15] KOVÁČ, J. – TRUBAČ, K.: Technological procedures of cutting fluids arrangement before their liquidation, respectively their next using. In: *CO-MA-TECH '98: 6. International Science Conference.* Bratislava : SUT, 1998, part 2., pp. 525 – 528.

[16] POLÍVKA, Ľ. – BALOG, K. – PÁSTOR, P.: System of utilization of certificated EMS for realization of environmental policy in Slovakia. Special report PČ 1998-OZ 60/98 for MŽP SR, november 1998.

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[19] WITTLINGER V.: Geothermal heat utilization by Kalina cycle. In: *CO-MA-TECH '98: 6. International Science Conference. Bratislava:* SUT, 1998, part 2.

[20] TUREKOVÁ, I.: Destruction of ozone layer. In: *CO-MA-TECH '98: 6. International Science Conference*. Bratislava: SUT, 1998, part 2., pp.559 – 565.

[21] BALOG, K. – TUREKOVÁ, I.: Judge properties of solid wastes from the point of the view fire hazard assessment. In: *CO-MA-TECH '98: 6. International Science Conference*: Bratislava: SUT, 1998, part 2., pp.554 – 558.

[22] SABO, M.: Dependability or safety technical system? In: *Yearbook of scientific works* of *FMST SUT*. Bratislava: SUT, 1998, pp. 186 – 191.

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[24] SABO, M.: Community Demand of Education in Safety Work Area. In: *Bezpečnosť a hygiena práce*, unit 48, No. 6, pp. 11 – 13.

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[27] SABO, M.: The occasions of qualification and quantification risks in an enterprises. In: *Yearbook of paper from science conference "Toxicology of Industry'98"*, CHTF STU, Mojmirovce: 1998, pp.117 – 122.

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[31] KAPUSTOVÁ, M. – DUBROVAYOVÁ, A.: Determination of loading forger for forming of drop formings. In: *Scientific Works*. Review MtF STU Trnava.Bratislava: SUT, 1998, pp. 101 – 106.

[32] KAPUSTOVÁ, M. – DUBROVAYOVÁ, A.: Climatic heat as measure of forgers heat loading at forging of forgings. In: *CO-MA-TECH '98. 6th international scientific conference*. Bratislava: SUT, 1998, part 1, pp.425 – 430.

DEPARTMENT OF INFORMATION TECHNOLOGY AND AUTOMATION

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I. STAFF

Professors:	2	Research Fellows:	0
Assoc. Professors:	5	Technical and Admin. Staff:	4
Senior Lecturers:	9	PhD Students:	15
Lecturers:	7		

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,)
- Automation and Control Laboratory
- Unix Laboratory (16 alpha-numeric terminals)
- 2 PC Laboratories
- Robotics Laboratory
- X-Terminals Laboratory
- Multimedia Laboratory

II.2 Special Measuring Instruments and Systems

- PCL System

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
Theory of Automatic Control	3	3-2	Moravčík
Data Models	3	2-2	Mišút
Information Technology Basics	3	2-2	Schreiber
Software Technologies I,II	3,4	0-3	Tanuška
Software Engineering	4	3-3	Moravčík
Computer Architecture	4	2-2	Pohlmüller
Operation Systems	4	2-2	Velicsányi
Computer Graphics	5	3-3	Tanuška
Database Systems	5	3-3	Mišút
System Programming	5	2-2	Velicsányi
Computer Networks	5	2-2	Baranovič
Automation in Industry	6	3-3	Božek
Information Systems	6	3-3	Mišút

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
Information Technology Basics I,II,III,IV	1,2,3,4	1-2	Schreiber, Michalčonok
Theory of Automatic Control	5,7	2-2	Vrban, Pecko, Pohlmüller
Software Engineering	5	2-2	Moravčík
Computer Graphics	6	2-2	Tanuška
Computer Architecture	6	2-2	Pohlmüller
System Programming I,II	7,8	2-2	Velicsányi, Baranovič
Artificial Intelligence	7	2-3	Schreiber
Graphics Systems I, II	7,8	2-3	Vaský
Means of Automatic Control	8	3-3	Michalčonok
Database Systems	8	3-3	Mišút
Modelling and System Simulation	8	2-2	Važan
CIM	7	3-3	Važan
NC Programming	7	3-3	Božek
Production System Planning	8	3-2	Mišút
Information Systems	9	2-4	Mišút
Computer Networks	9	3-3	Velicsányi
Production Systems Design	9	2-3	Mišút
Production Systems Control	9	3-3	Važan
CAD/CAM	9	3-3	Vaský

IV. RESEARCH TARGETS

- Information and Database Systems
- Client-server Architecture Systems (Design, Tuning, Data Management, Data Security, Applications)
- Control systems
- Artificial Intelligence and expert systems
- Modelling and Simulation of Systems (Discrete-event Simulation, Petri-Nets, Queuing Theory)
- Computer networks
- Computer graphics, graphics and CAD/CAM systems
- Multimedia

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Design Methods of the Software Applications Using Different Data Servers
- Multimedia Support of Teaching
- Design and Implementation of the Mechatronical System Control Algorithms with Using of Computer Graphics Methods.
- Automation of Department Administration
- PROMAN-W: Research Projects Administration
- Implementation and Using of the SW Products CC and MATLAB in the Computer Simulation of the Computing Systems

V.2 National Grants (VEGA, KEGA)

- Design and Implementation of the Mechatronical System Control Algorithms with Using of Computer Graphics Methods – VEGA,

VEGA Proposals:

- Integration of Expert Systems and Database Systems (Mišút)
- Methodological and Technological Problems of Information Systems Design (Moravčík)

V.3 International Projects

- Continuing Education System for Academic Staff in Trnava, TEMPUS JEP 12 290 (Mišút)
- Socrates Programme Proposal
- Ceepus Programme Proposal

VI. CO-OPERATION

VI.1 National Co-operation

- Faculty of Electrotechnics and Computer Science STU Bratislava
- Faculty of Mechanical Engineering STU Bratislava
- Trnava University Trnava
- Faculty of Electrotechnics TU Košice
- Faculty of Pedagogical Sciences UKF Nitra
- Faculty of Mechanical Engineering ŽU Žilina
- Research Institute of Nuclear Power Supply Trnava
- AITEN Ltd. Trnava
- NUPSESO Ltd. Nitra

VI.2 International Co-operatiou

- IFW e. V. Dresden, Germany
- TU Darmstadt, Germany
- University of Lisbon, Portugal
- Politechničeskij universitet Peterburg, Russia
- University of Zelona Gora, Poland
- KAHO Gent, Belgium
- FH Köthen, Germany
- FH Darmstadt, Germany

VI.3 Contracts with Industry

- The proposal of the concept for verification and validation of the project of the integrated information system for emergency centre of atomic power plant Mochovce
  For organisation – Research Institute of Nuclear Power Supply Trnava
- IS development in Microsoft Access according contractor instructions.
  Administration of HP UNIX operating system version 10.20.
  For organisation – AITEN Ltd. Trnava
- The preparation of drawing documentation.
  For organisation - NUPSESO Ltd. Nitra

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

[1] Cák, P.: The proposal and the solution of forms in the system MAGIC with connection to INTRANET. – (Klačo)

[2] Cigánek, R.: The simulation of errors for satellite and navigation system GPS. – (Moravčík)

[3] Čičmiš, D.: The verification of production plan of FMS by using simulator SIMFACTORY II.5. – (Važan)

[4] Foltán, M.: The proposal of IS for firm COMPAAN Ltd. – (Mišút)

[5] Gajdošík, R.: The integration of examination system into IS of Dept. of IT. – (Baranovič)

[6] Hečko, J.: The control of house heating. – (Halama)

[7] Klčovanský, M.: The using of Petri nets in the process of proposal of FMC. – (Fulek)

[8] Klimo, P.: Program system for documentation management. – (Vaský)

[9] Knieža, V.: The proposal of software product "The travel cost". – (Michalčonok)

[10] Krajčovič, T.: The proposal of IS for small firm - upholstery. – (Iringová)

[11] Nagy, P.: IS of Dept.– (Mišút)

[12] Pekarovič, I.: The creating of new control system for robot MSR-84. – (Božek)

[13] Rapant, R.: The combination of rules and procedural knowledge representation in ES. – (Schreiber)

[14] Richnák, M.: The verification of control strategies of FMS by using simulator SIMFACTORY II.5. – (Važan)

[15] Selnekovič, M.: The co-operation of DBS and ES. – (Schreiber)

[16] Ščevík, A.: The analysis and the proposal of part of IS for decision support system. – (Tanuška)

[17] Škrovánek, A.: The analysis of actual situation for the proposal of IS for brewery Horden. – (Moravčík)

[18] Vadovič, P.: IS of Dept.– (Mišút)

[19] Vereš, M.: The possibility of computer utilisation for control of furniture manufacturing. – (Velicsányi)

[20] Vittek R.: The generation of test data for DB application. – (Tanuška)

[21] Záhorák S.: The graphical modul of IS for decision support of methods engineer. – (Klačo)

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- KAHO Gent Belgium: T. Baranovič (13 days), M. Klačo (21 days), M. Mišút (11 days), O. Moravčík (4 days), P. Važan (21 days), L. Velicsányi (21 days)
- University of Lisbon, Portugal: M. Mišút (13 days), O. Moravčík (13 days)
- IFW Dresden, Germany: O. Moravčík (32 days)
- FH Köthen, Germany: M. Mišút (21 days), P. Tanuška (21 days), P. Schreiber (35 days)

VIII.2 Foreign Visitors to the Department

- FH Köthen, Germany (4 persons)
- IFW Dresden, Germany (3 persons)
- KAHO Gent Belgium (2 persons)
- University of Lisbon, Portugal (2 persons)

VIII.3 Organised Conferences, Seminars and Workshops

- Tempus co-ordination meeting, Modra-Harmonia, Slovakia, 24.-27. 10.1998
- Slovak-German PhD students workshop, Moravany, Slovakia, 7.5.-12.5.1998

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] BOŽEK, P. - PEKAROVIČ, I.: New control system of robot MSR-84. In: *Electronics and Power Engineering "98 conference: Proceedings*. Bratislava: HMH, 1998, pp. 58 - 59.

[2] BOŽEK, P.: Simulation of Control Mechanism in Laboratory. In: *XXth International Workshop Advanced Simulation of Systems 1998: Proceedings*. Ostrava: TU,1998, Vol. 1.

[3] BOŽEK, P.: Loading condition simulation of steering mechanism in laboratory. In: *Modelling and Simulation of Systems*. Ostrava: MARQ, 1998, pp. 8 - 12.

[4] BOŽEK, P. - PEKAROVIČ, I.: Exploitation IBM PC and MSR-84 on simulation of industrial robot. In: *XXth International Workshop Advanced Simulation of Systems:* Proceedings. Ostrava: TU, 1998, Vol. 1.

[5] JASENÁK, J. - MIKSA, F.: Basics of welding for tradesmen. Welding Specialists Association, October 1998.

[6] JASENÁK, J. - KOZMA, J. - MIKSA, F.: Welding in Power Engineering. In: *Glukolazy*. Poland: 1998.

[7] JOEHNK, P. - MORAVČÍK, O. - MICHALČONOK, G. - PETRÍK, D.: Modern information systems in administration of the scientific and technical grants on example of the PROMAN-W system. In: *AT&P Journal*, 12, 1998, pp. 54 - 55.

[8] KLAČO, M.: OpenGL - universal programming interface for 2D and 3D. In: *CO-MAT-TECH "98, The 6th International academic conference: Proceedings*. Bratislava: SUT, 1998, vol. 2, pp. 579 - 583.

[9] KLAČO, M.: Methods of creating application for teaching Pro/ENGINEER. In: *CO-MAT-TECH "98: The 6th International academic conference: Proceedings*. Bratislava: SUT, 1998, vol. 2, pp. 584 - 591.

[10] MORAVČÍK, O. - VASKÝ, J. - SCHREIBER, P., - PECKO, E. - VÁŽAN, P.: *Basics of Computer Science: Textbook*. Bratislava: SUT, 1998.

[11] MIKSA, F.: Expert Knowledge in Welding. Welding Specialists Association, May 1998. -

[12] MIKSA, F.: Database of the production facilities and welding standard in Slovak industry. In: *Euro-Welding revue*, 2, 1998, p. 76.

[13] MIKSA, F.: Database of the welding potential. In: *Euro-Welding revue*, 2,1998.

[14] MIŠÚT, M.: Scheduling strategies. In: *Scientific works of the Faculty of Materials Science Slovak University of Technology Bratislava with residence in Trnava.* Bratislava: SUT, 1998, vol. 6, pp. 163 - 168.

[15] MIŠÚT, M. - -SCHREIBER, P.: Mixed methodology for design of ISK system. In: *CO-MAT-TECH "98: The 6th International academic conference: Proceedings.*Bratislava: SUT, 1998, vol. 2, pp. 592 - 597.

[16] SCHREIBER, P. - VÁŽAN, P. - TANUŠKA, P.: Interface design of ISK. In: *CO-MAT-TECH "98: The 6th International academic conference: Proceedings.* Bratislava: SUT, 1998,vol. 2, pp. 598 - 602.

[17] SCHREIBER, P.: Expert and database systems. In: *AT&P Journal*, 12,1998, pp. 51 - 53.

[18] SCHREIBER, P. - TANUŠKA, P: Approach to testing ISK. In: *CO-MAT-TECH "98: The 6th International scientific conferenc: Proceedings.* Bratislava: SUT, 1998, pp.603 - 607.

[19] VASKÝ, J.: Editorial article. In: *AT&P Journal*, 12, 1998, p.1.

[20] VASKÝ, J. - KLAČO, M.: Customisation and application programming interfaces of CAD system. In: *AT&P Journal*, 12, 1998, pp. 38 - 40,57.

[21] VASKÝ, J.: Academic seminar for PhD students. In: *Spectrum*, 4, 1998, p. 7.

[22] VAŽAN, P.: Simulation looks like method for verification PVS system management. In: *CO-MAT-TECH "98: The 6th International scientific conference: Proceedings.* Bratislava: SUT, 1998,vol. 2, pp. 608 - 614.

[23] VELICSÁNYI, L.: Multimedia presentations in WWW. In: *CO-MAT-TECH "98: The 6th International scientific conference: Proceedings.* Bratislava: SUT, 1998, pp. 615 - 616.

[24] VRBAN, A.: Sensitivity of the dynamic systems. In: *Academic Dubnica "98: The 4th Scientific conference with international participation: Proceedings.* Bratislava: SUT, 1998, vol. 1, pp. 125 - 134.

[25] VRBAN, A.: Parameter sensitivity of systems. In: *Dynamics of machine aggregates, Proceedings.*Bratislava: SUT, 1998, pp.181 - 188.

DEPARTMENT OF LANGUAGES

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I. STAFF

Professors:	0	Research Fellows:	0
Assoc. Professors:	0	Technical and Admin. Staff:	1
Senior Lecturers:	7	PhD Students:	0
Lecturers:	0		

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	1,2,3,4	0-2	Mironovová, Rusková
German	1,2,3,4	0-2	Reháková, Tandlmajerová
Russian	1,2,3,4	0-2	Bujnová

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
English	2-4	0-2	Cagaňová, Mironovová, Miština, Rusková
German	2-4	0-2	Reháková, Tandlmajerová
Russian	2-4	0-2	Bujnová

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		0-2	Mironovová
German		0-2	Reháková
Russian		0-2	Bujnová

IV. RESEARCH TARGETS

- Analysis of the current state of teaching LSP at MtF
- ESP syllabus design and course design
- New phenomena in Russian vocabulary implemented in teaching

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Analysis of the Present State of Foreign Languages Teaching at the Faculty and Designing a New Model, No 857.

V.2 National Grants (VEGA, KEGA)

V.3 International Projects

VI. CO-OPERATION

VI.1 National Co-operation

VI.2 International Co-operation

- The British Council in Bratislava
- The Pushkin Institute in Moscow
- The Goethe Institute in Bratislava

VI.3 Contracts with Industry

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Dr. Dagmar Rusková - University of Plymouth, Great Britain, a 3-month methodology course

VIII.2 Foreign Visitors to the Department

VIII.3 Organised Conferences, Seminars and Workshops

- ESP Challenges. 3rd Slovak ESP Conference, 18 - 20 June 1998.

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] CAGÁŇOVÁ, D. - RUSKOVÁ, D.: Needs Analysis - The First Stage in Developing a Syllabus. In: *ESP Spectrum*. Autumn ,1998, No 16,.

[2] BUJNOVÁ, E.: Poleznyj sertifikat. (A useful Certificate). In: *Russkij jazyk v centre Evropy*.

[3] MIRONOVOVÁ, E. - MIŠTINA, J.: Tvorba syláb odbornej angličtiny z hľadiska formovania profilu absolventa. (ESP syllabus design regarding the Faculty graduate profile). In: *Proceedings from 3rd International Seminar*. Bratislava: STU, 1988, pp. 104 - 108.

[4] REHÁKOVÁ, A.: Výsledky vedomostí a zručností v nemeckom jazyku poslucháčov 1. ročníka MtF STU. (Testing the German knowledge and skills of the 1st year students at MtF STU). In: *Collection of MtF STU scientific papers*. Bratislava: STU, 1998, vol.6 , pp. 371 - 374.

[5] REHÁKOVÁ, A.: Problém nadväznosti jazykového vzdelávania. (Continuity in language training). In: *Proceedings from International Conference at SjF STU*. Bratislava: STU, 1998, pp. 78 - 81.

[6] RUSKOVÁ, D.: Skupinová práca na seminároch pri vyučovaní cudzích jazykov s aplikáciou na anglický jazyk. (Group work in teaching foreign languages). In: *Procedings from 60th anniversary of StF STU Conference*. Bratislava: STU, 1998, pp. 111 - 114.

[7] BUJNOVÁ, E.: Komunikácia v ruskom jazyku - súčasný stav a perspektívy. (Communication in Russina language - present state and perspectives). In: *Proceedings from 10th Internation Conference*.Žilina : University of Žilina, 1998, language section, pp. 27 - 29.

[8] MIRONOVOVÁ, E.: Classified Advertisements in ESP Classes. In: *Proceedings from 10th International Conference*. Žilina : University of Žilina, 1998, language section, pp. 39 - 41.

[9] MIŠTINA, J.: The Effective USE of OHP in ESP Classes. In: *Proceedings from 10th International Conference*. Žilina : University of Žilina, 1998, language section, pp. 43 - 45.

[10] TANDLMAJEROVÁ, A.: Die neuen Testverfahren zur Uberprüfung der Kommunikationsfähigkeit und der Fremdsprachenbeherrschung. (Testing communication skills in foereign languages). In: *Proceedings from 10th International Conference*. Žilina : University of Žilina, 1998, language section, pp. 107 - 110.

[11] BUJNOVÁ, E. - MIRONOVOVÁ, E.: Rešpektovanie sociokultúrnych osobitostí v cudzojazyčnom prostredí. (Respecting socio-cultural differences). In: *Academic Dubnica '98: 4th International Conference*. Bratislava: STU, 1998, vol. 2, pp. 305 -308.

[12] REHÁKOVÁ, A.: Výučba cudzích jazykov v aplikácii na počítačovú lingvistiku. (Teaching foreign languages via computer lingvistics). In: *Academic Dubnica '98: 4th International Conference*. Bratislava: STU, 1998, vol. 2, pp. 373 - 376.

[13] TANDLMAJEROVÁ, A.: Výučba cudzieho jazyka s podporou počítača. (Computer - aided teaching foreign languages). In: *Academic Dubnica '98: 4th International Conference*. Bratislava: STU, 1998, vol. 2, pp. 403 - 406.

[14] BUJNOVÁ. E.: Obchodná korešpodencia ako súčasť výučby ruského jazyka na MtF STU. (Business correspondence in teaching Russian at MtF STU). In: *CO-MAT-TECH'98: proceeding, 6th International Conference*.Bratislava: STU, 1998, vol. 2, pp. 706 - 708.

[15] CAGÁŇOVÁ, D. - RUSKOVÁ, D.: Analýza potrieb ako prvý krok inštitucionálneho výskumu zameraného na tvorbu nových učebných plánov. (Needs analysis - the first step in syllabus desing). In: *CO-MAT-TECH'98: proceeding, 6th International Conference.* Bratislava: STU, 1998, vol. 2, pp. 709 - 717.

[16] CAGÁŇOVÁ, D. - MIRONOVOVÁ, E. - MIŠTINA, J.: Výsledky analýzy používania anglického jazyka v praxi absolventa MtF STU. (ESP Needs analysis of MtF STU Graduates). In: *CO-MAT-TECH'98 proceeding, 6th International Conference*. Bratislava: STU, 1998, vol. 2, pp. 718 - 721.

[17] TANDLMAJEROVÁ, A.: Metódy a formy práce s odborný1m cudzojazyčným textom. (Methods and forms of dealing with a foreign language technical text.) In: *CO-MAT-TECH'98: proceeding, 6th International Conference.* Bratislava: STU, 1998, vol. 2, pp. 793 - 796.

DEPARTMENT OF MACHINING AND ASSEMBLY

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I. STAFF

Professors:	1	Research Fellows:	2
Assoc. Professors:	5	Technical and Admin. Staff:	3
Senior Lecturers:	5	PhD Students:	6
Lecturers:	2		

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

- DKM1-3000 DP co-ordinate measurement apparatus fy Zeiss
- Zeiss length gauge l m
- Zeiss universal microscope
- Zeiss universal length gauge
- Hilger Watts autocollimator + mirror polygon
- Zeiss collimator + telescope

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 Equipment	1	3-2	Velišek, Lipa
Practical Metrology	2	0-2	Gorog
Industrial Technology I	3	3-2	Baránek
Industrial Technology II	5	2-2	Baránek
Production Machines	4	3-2	Velišek
Tools and Fixtures	4	3-2	Charbula
Final Work	6	0-2	Janáč
Machinery Metrology	7	2-2	Borovička

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 Technology	6	2-2	Lipa
Metrology	6	2-2	Maduda, Krsek, Borovička
Fundamentals of Assembly	6	2-1	Valentovič
Tools and Fixtures	6	2-1	Javorčík
Cuttings Tools	6	2-1	Javorčík
Machining Theory	7	3-2	Peterka, Békés
Designing of Production Processes and Systems	8	2-3	Baránek
Machines and Equipment for Production	8	2-2	Velišek
Assembly Technology	7	2-1	Valentovič
NC Machine Programming	8	1-2	Peterka
Exercise in Metrology	7	0-4	Maduda
Progressive Machining Methods	9	3-2	Hrubec
Production Planning	7	2-2	Békés
Mechanisation and Automation	7	3-2	Potocký
Final Project	7	0-5	Janáč, Slanina
Finishing Machining Methods	7	2-1	Lipa
Computer Controlled Production	7	2-1	Kuric
Experimental Machining Methods	7	2-1	Lipa
CAD/CAM Systems	7	1-2	Peterka
Design for Manufacture	7	2-1	Hrubec
Design of Production Systems	7	2-4	Valentovič
NC Machining II	7	0-4	Čugár

IV. RESEARCH TARGETS

- Theory of machining parts manufacturing, measurement and assembly,
- CIM, CAD/CAM, CAPP, CAQ, CAA,
- 3D art engraving,
- Manufacturing of dies,
- Ecological aspects of machining.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Machining of metal and ceramics depositions created by fire- splutter plasma and by other techniques, No.804 (Lipa, Z.)

V.2 National Grants (VEGA, KEGA)

- Theory of parts production, VEGA 1/3036/96 MŠ SR, (Janáč, A.)
- Towards Ecologically Friendly Machining, MŠ SR Project - PL959780585 (Peterka)

V.3 International Projects

- Development and Production of Platinum Resistance Thermometer by Directed Crystallisation, USA - Slovak project 93 016 (Borovička, M.)
- Implementation of European standards into education process - Tempus project č.S-JEP12313-97 (Janáč, A.)

- Towards Ecologically Friendly Machining (ECOFRIM) - INCO-COPERNICUS Project - PL95978058 (Peterka)

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

- National Institute of Standard and Technology, Gaithersburg, USA
- Faculty of Mechanical Engineering, Technical University of Vienna, Austria
- Faculty of Mechanical Technology, Technical University of Gliwice, Poland

VI.3 Contracts with Industry

- Vunar a.s. Nové Zámky, GNB-Slovakia s.r.o. Trnava, 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,

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

[1] Dobrovodský, A.: Application of the ArtCAM software in production of medals. [Assoc. Prof. Peterka]

[2] Šilavý, M.: Rationalization of clamping of cutting tools for turner's automats AN 6/40A and 6/40A. [Prof. Janáč]

[3] Karaba, P.: Bank of technological data for cutting tools. [Assoc. Prof. Velíšek]

[4] Kačinec, M.: Fixing of unrotary workpieces. [Assoc. Prof. Velišek]

[5] Knihár, M.: Concise and eloquent abstract from diploma project, its aim and result. [Valentovič]

[6] Dorník, M.: Workshop oriented programming in system DIALOG 11. [Görög]

[7] Žáčik, V.: Boundary statusses of cutting tools. [Prof. Hrubec]

[8] Szarková, D.: Technological ability of construction of semiproducts from the aspect of processing (forgings, maulds, welds). [Prof. Hrubec]

[9] Myjavec, P.: Grinding of alumina coatings. [Assoc. Prof. Lipa]

[10] Kendera, A.: Grinding of hard metal coatings. [Assoc. Prof. Lipa]

[11] Mandrák, M.: Suggestion to Improve Drilling Technology of Headers in SES Tlmače.

[12] [Hladík]

[13] Kohout, M.: The suggestion of new technology of the work up yokes and fingers on the shoulders of the cranes of the cast GS 18 NiMoCr. [Ševčík]

[14] Strapko, R.: Application of PCNB and PCD in the production of parts specified. [Šandora]

[15] Ruľička, I.: Proposal of production technology for part „Batcher" made from AKC material by machine SPL 25 NC. [Plesníková]

[16] Hudcovicová, A.: Optimalization of use of CNC techniques making parts for special industrial gas meters. [Medňanská]

[17] Bruľková, M.: Measurement of shape deviations by coordinate measure machines. [Ivaška]

[18] Severínová, J.: Proposal of operating process for gauge calliper calibration. [Šulíková]

VII.2 Dissertations (Ph.D.)

[1] Nasir Ahmad: Law of positioning and clamping the workpieces for machining [Prof. Békés]

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

- Seminar Tools for progressive machining

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] BÉKÉS, J. - VELÍŠEK, K.: Analytický prístup k navrhovaniu obrábacích strojov (Analytical approach to machine tools proposing). In: *Strojnícky časopis*, 49, 1998, č. 2, s. 141 - 148.

[2] PETERKA, J. - KURIC, I.: Systémy CAD/CAM - významný prvok integrovanej výroby (CAD/CAM Systems-important element of integrated production). In: *InfoWare*, roč. 2, 1998, č.8, s. 24 - 27.

[3] BÉKÉS, J. – JANÁČ, A.: New approach to machining processes – laws of part production – design of machine–tools and tools. In: *Gépgyártástechnológia*, 1998, č.(septemb.), s. 29 – 33.

[4] Pálka, V. - LIPA, Z. - CHARBULA, J. - GÖRÖG, A.: Kvalita povrchu korundovaných povlakov brúsených karborundovými brúsnymi kotúčmi (Surface quality of alumina coatings grinded by carborundum grinding wheels). In : *Kvalita a spoμahlivos» strojov: Quality and reliability of machines: 3. Medzinárodné vedecké sympózium*. Nitra: SPU, 1998, s. 145 – 148.

[5] BÉKÉS, J. - VELÍŠEK, K.: Počítačová technika v konštruovaní a výrobe náradia (Computer technique in design and production of tools). In: *Náradie '98: Konferencia: Zborník prednášok*. Trenčín:TRK SOPK, 1998, s. 30 - 32.

[6] VELÍŠEK, K. - DOBROVODSKÝ, L.: Navrhovanie stavebnicového upínača (Proposing of modular fixture). In: *Náradie '98: Konferencia: Zborník prednášok*. Trenčín:TRK SOPK, 1998, s. 67 - 70.

[7] VELÍŠEK, K. - KOŠŤÁL, P.: Štruktúra jednoúčelových obrábacích strojov (Structure of dedicated machines). In: *Náradie '98: Konferencia: Zborník prednášok.* Trenčín:TRK SOPK, 1998, s. 64-66.

[8] PÁLKA, V. - LIPA, Z. - ŠANDORA, J.- PROSTINÁK, Š.: Rezné vlastnosti nástrojov z RO s povlakom TiN a TiAlN (Cutting characteristics of HSS tools coated by TiN and TiAlN). In: *Náradie '98: Konferencia: Zborník prednášok.* Trenčín:TRK SOPK, 1998, s. 61 - 63.

[9] HRUBEC, J. -VELÍŠEK, K.: Integrita povrchov súčiastok špeciálnej techniky z vysokopevných ocelí po procesoch obrábania - jej vplyv na ich spoμahlivos» (Surface integrity of military products parts manufactured of high-rigid steels after machining processes-its influence on reliability). In: *Smery vývoja techniky pozemného vojska.* In: Liptovský Mikuláš: FL VA, 1998, s. 125 - 130.

[10] BÉKÉS, J.: Jednota strojárskych technologických procesov (Unity of metalworking technological processes). In: *Vedecké práce Materiálovotechnologickej fakulty STU v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 11 - 16.

[11] GÖRÖG, A.: Systematická chyba metódy pri meraní v polárnych súradniciach (Systematic error in polar coordinates measurement). In: *Vedecké práce MTF STU v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 17 - 22.

[12] HRUBEC, J. - VELÍŠEK, K. - JANÁČ , A. - LIPA, Z.: Obrobiteľnosť ocelí a zliatin, jej vplyv na integritu povrchov súčiastok po operáciách obrábania - technologická dedičnosť (Cuttingability of steels and alloys, its influence to parts surface integrity after machining operations – technological heredity). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 23 - 30.

[13] JANÁČ, A. - KURIC, I.: Metodológia tvorby technologického postupu pre CAPP systém využívajúci skupinovú technológiu (Methodology of process planning creation for CAPP – the systém utilized group technology). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 31 - 36.

[14] JANÁČ, A. - OSANNA, P. H. - PROSTREDNIK, D.: Qualitätsmanagement zur Steigerung der Qualität der universitären Ausbildung (Quality management for increasing of University Educational Quality). In: *Vedecké práce Materiálovotechnologickej fakulty STU v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 37 - 42.

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[16] MADUDA, M.: Posúdenie merania odchýlky valcovitosti v technickej praxi (Evaluation of cylindricity deviation measurement in technical practice). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 49 - 54.

[17] PETERKA, J. - DEBNÁR, R.: Nový prístup k vytváraniu výrobnej dispozície (New approach to origin of production disposal). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave.* Bratislava: STU, 1998, zväzok 6., s. 55 - 60.

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[19] VALENTOVIČ, E. - PETERKA, J.: Paralelné štruktúry výrobných strojov, geometria a statika paralelných štruktúr výrobných strojov (Parallel structures of production machines, geometry and statics of parallel structures of production machines). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 67 - 72.

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[22] PODHORSKÝ, Š. - GÖRÖG, A.: Technologické zariadenie pre elektrolyticko-plazmovú úpravu kovových povrchov (Technological equipment for electrolytic-plasma treatment of metal surfaces). In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 131 – 136.

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[29] BÉKÉS, J. - ŠUGÁR, P.: Podobnosť súčiastok - analýzy symbolických modelov (Similarity of parts- analyses of symbolic models). In: *Automatizácia technologickej prípravy výroby: Odborný seminár s medzinárodnou účas»ou*. Zvolen: TU, 1998, s. 7 - 10.

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DEPARTMENT OF MANAGEMENT AND QUALITY ENGINEERING

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I. STAFF

Professors:	1	Research Fellows:	2
Assoc. Professors:	8	Technical and Admin. Staff:	3
Senior Lecturers:	18	PhD Students:	15
Lectures:			

II. EQUIPMENT

II.1 Teaching and Research Laboratory

- Personal Computer 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	1	3-2	Šěepka
Statistical Methods	1	2-2	Kučerová
Enterprise Management	1	2-2	Čambál
Accounting	1	2-3	Mulíková
Marketing	2	2-2	Jedlička
Information System	2	2-3	Ončák
Operational Research	2	2-3	Štrpka
Industrial Technologies	2	3-2	Velíšek
Production Management	2	2-2	Čambal
Personnel and Social Programme	3	3-1	Holková
Computer Aided Management	3	1-3	Šrubařová
Logistics	3	2-2	Červeňan
Economical Analysis	3	3-3	Doubková
Investment Development	3	3-3	Sablik
Ergonomic	4	2-2	Sablik
Information Systems Automation	4	2-4	Dobrotka
Engineering Metrology	4	2-2	Maduda
Value Analysis	4	2-2	Molnár
Machines and Equipment Maintenance	4	2-2	Burcl
Final Project	4	2-1	
Plant Information System	4		
Taxation			

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
Management of Enterprise Development	7	3-2	Molnár
Accounting	7	2-1	Mulíková
Information Systems Automation	7	2-3	Dobrotka
Operational Research	7	3-3	Štrpka
Marketing	7	3-1	Brezník
Production Management	8	3-3	Čambál
Management and Banking	8	3-2	Červeňan
Taxation	8	2-2	Mulíková
Enterprise Economy	6	3-2	Ścepka
Accounting in Enterprise Activities	9	0-3	Horváthová
Economical Analysis	9	2-2	Doubková
Finances and Banking	9	2-2	Nováková
Quality Management	9	3-2	Linczényi
Enterprise Management	6	3-2	Cambál
Operational Research	7	3-3	Štrpka
Management of Enterprise Development	7	3-2	Molnár
Quality Management	7	3-2	Linczényi
Tools and Techniques of Quality Management	7	2-2	Šalgovicová
Logistics in Quality Assurance	8	2-2	Brezník
Marketing in Quality Management	8	3-2	Jedlička
Production Management	8	3-3	Čambál
Statistical Methods of Quality Inspection	8	2-3	Kučerová
Personal Management	8	2-2	Holková
Information Systems	7	2-2	Oncák
Computer Operating	8	0-2	Šrubarová
Taxation	8	2-1	Mulíková
Certification of Products, Quality Control System and Personnel	9	1-1	Linczényi
Statistical Methods of Quality Inspection	9	2-3	Kučerová
Computer Aided Quality Control	9	2-2	Dobrotka
Logistics	9	2-2	Červeňan
Final Project	9	0-5	

IV. RESEARCH TARGETS

- Progressive forms of managers education
- Quality control in industrial enterprises
- Quality control in service enterprises
- Value management application
- Advanced information technologies implementation
- Environmental Management

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Education of managers in the conditions of economy transformation (846)
- Economics problems of industrial plants ecologysation in market economy (847)

V.2 National Grants (VEGA, KEGA)

- Quality assurance of public services with the focus on energy and gas area (VEGA - 1/2260/95)
- Application of value engineering in creation of conversion programmes for industrial plants (VEGA - 1/3238/96)

V.3 International Projects

- System of Quality managers education (TEMPUS - JEP - 09155-95)

VI. CO-OPERATION

VI.1 National Co-operation

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

VI.3 Contracts with Industry

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses (Number of the Thesis - 318)

Fields in which the Thesis are elaborated:

- Field of quality control systems
- Costs analysis
- Value analysis application
- Company organisational models
- Enterprises marketing management
- Operational research application
- Controlling application

VII.2 Dissertations (Ph.D.)

[1] Kapoun, Ľ.: Contribution to theory and prax development of organisation model designing for quality management in middle sized enterprises (Molnár,P.)

[2] Holková, A.: Human factor in quality management (Molnár,P.)

[3] Horňák, F.: Contribution to exercising of TQM methods integrated system in design stages of production (Molnár,P.)

VII.3 Habilitations (Assoc. Prof.)

VII.4 OTHER ACTIVITIES

VII.5 Visits of Staff Members to Foreign Institutions

- University New Castle Unter Lyme, U.K
- WU Wien - Wirtschaftsuniversität Wien, Austria

- Erasmus University Rotterdam, Holland

VII.6 Foreign Visitors to the Department

VII.7 Organised Conferences, Seminars and Workshops

- Specialised course in the field of work rationalisation
- Seminars in the field of project management

VIII. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] JEDLIČKA Milan : *Marketingová stratégia podniku*. In: Trnava: Magna, 1998. 371 s.

[2] SABLIK Jozef : *Organizačné a ekonomické aspekty budovania environmentálnych systémov riadenia*. Žilina : MASM, 1998. 84 s.

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[7] NOVÁKOVÁ Renáta: Využitie teórie portfólia pri finančnom investovaní podniku. In: *Financovanie '98: Lesy - drevo*. In : Zvolen, TU 1998, s. 149 - 152.

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[11] MOLNÁR Pavol: Reengineering tretí v reťazci ISO 9000 - TQM ? In: *Multidimenzionálne aspekty kvality: II. vedecká konferencia s medzinárodnou účasťou*. Banská Bystrica: EF UMB, 1998, s. 107 - 110.

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[14] SKUBÁKOVÁ Katarína: Kvalita v stavebníctve. In: *Výkonnosť transformovaných ekonomík a investičné procesy*. Bratislava: Ekonomická univerzita, 1998, s. 133 - 135.

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[27] ŠTRPKA Alexander: Optimalizácia úloh v podnikovom manažmente metódou funkcionálnych rovníc. In: *Nové trendy v systémoch riadenia podnikov: 1. vedecká konferencia s medzinárodnou účasťou*. Košice: TU, 1998, s. 54 - 60.

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[39] NOVÁKOVÁ Renata - SKUBÁKOVÁ Katarína: Tvorba indikátorov kvality pri výrobkovej portfóliovej analýze. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 291 - 294.

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[47] BURCL Rudolf: Automatizácia technickej prípravy výroby (systém CAD/CAM). In: *Akademická Dubnica '98:Zborník prednášok zo 4. vedeckej konferencie s medzinárodnou účasťou.* Bratislava: STU, 1998, diel 2., s. 309 - 314.

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[62] JEDLIČKA Milan - PAULOVÁ Iveta: Segmentácia trhu a jeje význam při zvyšovaní kvality výskumu a analýzy trhu. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava : STU, 1998, časť 2 , s. 141 - 144.

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[88] ŠALGOVIČOVÁ Jarmila: Bedeutung von Mediumsauswahl für Marketingskommunikationsqualität. In: *Čalúnické dni - kvalita v čalúnictve '98*. Zvolen, TU, 1998, s. 65 -69.

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
Materials Science	2	3-3	Martinec, Šimkovič, Grgač, Hazlinger
Methods of Material Structure and Properties Research	6	2-2	Čaplovič
Vacuum Technology	8	3-2	Žitňanský
Technology Materials	5	3-2	Šimkovič
Experimental Methods of Material Research I	8	1-2	Čaplovič
Structure and Properties of Plastics	8	2-2	Martinec
Corrosion, Tribology and Surface Preparation	8	2-2	Opravil
Technology of Heat Treatment and Surface Preparation	7	2-2	Grgač
Processes of Heat Treatment and Sintering	7	2-2	Grgač
Theory of Phase Transformation	7	2-1	Hrivňáková
Physical Chemistry	7	2-2	Pinkavová
Vacuum Technology	8	3-2	Žitňanský
Plasma and Vacuum Metallurgy	7	1-1	Žitňanský
Basics of Stereology Metallography	8	2-2	Martinkovič
Composite Materials	9	2-2	Šebo
Experimental Methods of Material Research II	9	1-3	Čaplovič
Physical Metallurgy	4	3-2	Hrivňáková
Degradation Processes and Time Life Prediction	9	2-2	Puškár
Mechanical Testing of Materials	7	2-2	Kadlec
Utility Properties and Choice of Materials	8	3-2	Hrivňák
Final Project	9	0-5	Žitňanský,Hazlinger
Plastics	8	0-2	Horváth
Metallography	9	2-1	Čaplovič
Theory of Technology Processes	7	3-2	
Fractography	9	2-1	Bošanský
Radiation Degradation of Materials	9	2-1	Hrivňák
Vacuum Technology in Heat Treatment	9	1-2	Žitňanský
Theory and Technology of Industrial Heating	9	2-2	Taraba
Advanced Methods of Heat Treatment	9	3-2	Hazlinger
Choice of Materials and Advanced Material Technologies	9	2-1	Hrivňák
Projecting of Production Processes and Systems in Heat Treatment	9	2-2	Onderčanin
Theory and Technology of Plastics Treatment	9	3-2	Horváth
Metrology and Testing of Plastics	9	2-2	Grom
Bonding of Plastics	9	2-1	Martinec
Production Plastics Tools	9	3-2	Horváth
Tools II	9	2-1	Bútora

IV. RESEARCH TARGETS

- Vacuum metallurgy, metal rafination, crystallisation of metals, materials science
- Tool materials of ledeburitic type
- Powder metallurgy
- Diffusion chroming
- Structure of Polymers
- Weldability of Steels

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Preparation of Composites with Higher Creep and Heat Resistance, No 838, (Žitňanský, M.)
- Primary and Secondary Structure of Rapidly Solidified Powders. No 831, (Grgač, P.)
- Weldability of Particle Reinforced Homopolymers. No 807, (Martinec, Ľ.)
- Study of Degradation Processing in Nd-Fe-B based Magnets. No 865 (Hrivňáková,D.)

V.2 National Grants (VEGA, KEGA)

- Research of Weldability of High Strength Steels. VEGA 95/5195/387 (Hrivňák, I.)
- Research of the Metal Materials for Exquinite Anentments Human Joints. VEGA 1/4451/97, (Žitňanský, M.)
- Optimalization of Structure and Properties of Uniaxial Ferromagnetics by Technology Parameters. VEGA 1/41189/97, (Hrivňáková, D.)
- Study and Modelling of Nonequilibrium Micrometallurgy Processes. VEGA 1/4263/97, (Grgač, P.)
- Technological and Structure Characteristics of Particle Reinforced Polymer Matrix Composites. VEGA 1/5236/98 (Martinec,Ľ.)

V.3 International Projects

- CEEPUS Project PL 13/98 (Žitňanský, M.)
- EUREKA No 133 - PULZWELDTRUCK (Hrivňák, I.)

VI. CO-OPERATION

VI.1 National Co-operation

- AVANTEK Nové Mesto nad Váhom. Laser marking on bearing steel

VI.2 International Co-operation

- SVUM Praha Czech Republic. Study and development of tool materials on the base of Fe-C-Cr-V system prepared by rapid solidification of atomised melt
- University Miskolc Hungary. Weldind and Weldability
- Technical University Wien Austria. EUREKA No 133
- Technical University Wien Austria. Laser Welding of thin Steels

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
- Drôtovňa Hlohovec ltd. - microanalysis of materials, heat treatment expertise
- Best ltd. Beluša - development of magnets
- Skloplast ltd. Trnava - expertise of surface layer
- SAV-UMMS (Academy of Science) Bratislava - isostatic presswork
- VSŽ Košice ltd. - laser welding of sheet metal development
- Hydrostav ltd. Bratislava - material and welding expertise of container
- PFS ltd. Brezová - expertise of heat treatment of springs

- VUES ltd. Brno Czech republic - study of structure of recent magnets

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

[1] Čička ,R.: Anisotropy of physical properties of the eutectic composite prepared from meld. (Trnovcová, V.- SAV Bratislava)

[2] Gunič, F.: Submerged pulsed arc welding . (Hrivňák, I.)

[3] Kusý, M.: Quantification of structure parameters and identification of phase composition of the rapid solidified powder Ch12M4 steel. (Moravčik, R .)

[4] Mampouya Joachim Herve : Structure and mechanical properties of intermetalics based Ni_3Al . (Lapin, J. - UMMS – SAV Bratislava)

[5] Minárik M.: Degradation of Ni base superalloy by high temperature exposition. (Sukovský, M.- VÚ-PS, a.s. Považská Bystrica)

[6] Müller,R. : Sulphide glasses optical spectroscopy .(Ožvoldová, M.- KF – MtF Trnava)

[7] Oboňa – Vincenc Jaroslav: Influence of Al_2O_3 (ZrO_2) components to selected mechanical properties of ceramics. (Kozík, T.- KF – MtF Trnava)

[8] Pastorek , J.: Optimalization of injection tool by computer simulation. (Horváth, J.)

[9] Podolan, P.: Manufacturing and properties evaluation of highfilled polymers composite. (Kišš, M.- VUSAPL - Nitra)

[10] Varga, R.: Manufacturing properties evaluation of the foil types of polyethylene . (Grom,J. - VUSAPL - Nitra)

[11] Verböciová , A.: Heat treatment optimalization of die cartridge made of 19 552 steel. (Vozár, I.-MM, a.s. Martin)

[12] Žúbor, P.: Study of M-A constituent decomposition high-strength steel welds. (Hrivňák,I.)

[13] Bachratý ,B.: Diffusions steels and heat treatment of instruments type to ledeburite. (Grgač, P..)

[14] Fillová ,K.: Mechanical increase and corrosion properties low alloy thin sheet deep ductile of oxinitriding. (Sádecký, L.- VU-PS, a.s. Považská Bystrica)

[15] Juriga, P.: The heat treatment technology innovation for the journal of a shaft of the back wheel Skoda – Felicia car. (Hazlinger, M..)

[16] Kováč .R.: Analyses of cover cracks on heat treated cast iron disk (Čech, V.-TOPOS, a.s. Tovarníky)

[17] Kováčik, A.: Pneuwire low tempering and its influence to quality. (Plašek, B.- Drôtovňa, a.s. Hlohovec)

[18] Loj ,P.: Influence of the parameters to layer creation at high frequency induction surface tempering. (Hazlinger, M.)

[19] Sýkora, P.: Influence of heat treatment to mechanical properties of Pt-Rh alloy. (Hazlinger, M.)

[20] Šusta, M.: Study of surface materials of stainless steels on the laser marking applications. (Grgač, P.)

[21] Vidlička, P.: Analyse of the rapid solidification influence on structure and selected characteristics of the rapid solidified powder of NiCrSiB type . (Trnková,L.)

VII.2 Dissertations (Ph.D.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Silesian Technical University Gliwice Poland - professor one month
- Technical University Lodz Poland - professor one week
- Technical University Miskolc Hungary - professor one week
- BMW company Dingolting by Munchen Germany - students and associate professors one day
- Technical University Wien Austria - PhD. student three months
- Danish Centre for Applied Mathematics and Mechanics Technical University Denmark - PhD. student two weeks

VIII.2 Foreign Visitors to the Department

VIII.3 Organised Conferences, Seminars and Workshops

- Departments of Material Science Czech and Slovak Republics Conference
- Optimalization of Plastics Parts Technology - seminar
- Simulation Software Systems in Engineering - seminar
- Copper, Aluminium, Titanium, Nickel, their Alloys and Welding - seminar
- Material Science and Technology PhD. Students Seminars - seminar and workshop

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] HRIVŇÁK Ivan: Theory of Alloy Steels Weldability. In: *Zenica* (Bosna Hercegovina): Dom štampe, 1998.231 s. (in Serbo-Croatish)

[2] HRIVŇÁKOVÁ Dáša: *Physical Metallurgy and Limiting States of Materials.* In: Bratislava: STU, 1998. 100 s.

[3] HORVÁTH Jozef: *Precision Moulding Parts.* Bratislava: STU, 1998. 55 s.

[4] MARTINKOVIČ Maroš: *Basics of Stereology Metallography.*Bratislava: STU, 1998. 2 s.

[5] HRIVŇÁK Ivan: Physical Metallurgy of Pulsed Current Sumerged Arc Welding of Steels.In: *ISIJ International*, 38, 1998, No. 10, s. 1100 - 1106. (in English)

[6] ŽITŇANSKÝ Marcel - ZRNÍK J. - MARTINKOVIČ Maroš: Developing processes of property improvement of nickel base superalloys. In: *Journal of Materials Processing Technology*, Vol. 78, 1998, pp. 204 - 209. (in English)

[7] HRIVŇÁK Ivan: Napjaink nagyszilárdságú acéljainak hegeszthetosége. In: *Hegesztés-technika*, 9, 1998, č. 2, s. 13 - 17. (in Hungarian)

[8] HRIVŇÁK Ivan: Weldability of recent hogh strength steels. In: *Welding and Surfacing Review*, 12, 1998, s. 95 - 112. (in English)

[9] HRIVŇÁK Ivan : Study of M-A Constitment Decomposition in High-Strength Steels Welds. In: *Kovové materiály*, roč. 36, 1998, č. 6, s. 1 - 14.

[10] ČAPLOVIČ Ľubomír : Investigation of phase transformation in maraging steels by thermomagnetometric method. In : *Journal of Electrical Engineering. Elektrotechnický časopis*, 48, 1998, č. 9(s, s. 136 - 139. (in English)

[11] Čaplovičová Mária - HRIVŇÁKOVÁ Dáša : Observation of magnetic domains of $Nd_2Fe_{14}B$ in tem. In : *Journal of Electrical Engineering. Elektrotechnický časopis*, 48, 1998, č. 9/s, s. 119 - 122. (in English)

[12] HAZLINGER Marián : Shear Tools Damage and Lifetime Shortage Analysis. In : *Materiálové inžinierstvo*, 5, 1998, č. 11, s. 33 - 39.

[13] HRIVŇÁK Ivan - Élesztös Pavel - Sklenár František - Böhm Ľudovít: Repair of spherical Containers for Liquified Hydrocyrbon Gases Part I. In: *Zváranie - Svařování*, roč. 47, 1998, č.7, s. 155 - 159.

[14] HRIVŇÁK Ivan - Élesztös Pavel - Sklenár František - Böhm Ľudovít: Repair of spherical Containers for Liquified Hydrocyrbon Gases Part II. In: *Zváranie - Svařování*, roč. 47, 1998, č. 9, s. 203 - 206.

[15] Malinovská Eva - Pavelka Viliam - Frakaš Tomáš - HRIVŇÁK Ivan : One Bead Pulsed Current Submerged Arc Welding of structural Steels. In: *Zváranie - Svařování*, roč. 47, 1998, č.10, s. 231 - 234.

[16] HRIVŇÁK Ivan : Welding of Aluminium and its Alloys. In : *Eurowelding revue*, roč. 2, 1998, č. 1, s. 2 - 11.

[17] POLÁK Karol - KOTRAS Peter - HORVÁTH Jozef : Explosion Forming. In: *Explozívne tvárnenie: Zborník prác*. Košice: TU, 1998, s. 15 - 20.

[18] HORVÁTH Jozef : Plastics in Agriculture and connected Branches. In: *HP'98: Horizonty prosperity Slovenskej republiky*. Nitra: SPU, 1998, s. 201 - 205.

[19] MARTINEC Ľubomír - PINKAVOVÁ Ľubica : Composite of PP-PE for Tube Fabrication and its Weldability. In: *Materiál v inžinierskej praxi '98: 4. vedeckotechnická konferencia*. Košice: TU, 1998, s. 42 - 47.

[20] HRIVŇÁK Ivan : Philosophy of Life-Time of Boiler Sysytems. In: *Materiál v inžinierskej praxi '98: 4. vedeckotechnická konferencia*. Košice: TU, 1998, s. 77 - 83.

[21] HRIVŇÁKOVÁ Dáša - HRNČIAR Viliam - DEMIAN Svetozár : Development of High-performance permanent Magnets and Their Application in Practice. In: *Materiál v inžinierskej praxi '98: 4. vedeckotechnická konferencia*. Košice: TU, 1998, s. 241 - 251.

[22] TRNKOVÁ Lýdia - GRGAČ Peter : Influence of the Atomisation on the Microstructure of the NiCrSiB alloy. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 87 - 92.

[23] TARABA Bohumil - HAZLINGER Marián : The analytical-numerical Method for Heat Treatment . In: *Vedecké práce Materiálovo-technologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 201 - 206.

[24] MARÔNEK Milan - MARTINKOVIČ Maroš : The possibilities of Fining Joint Interface Area fabricated by Explosion Welding. In: *Vedecké práce Materiálovotechnologickej fakulty Slovenskej technickej univerzity v Bratislave so sídlom v Trnave*. Bratislava: STU, 1998, zväzok 6., s. 107 - 112.

[25] HRIVŇÁK Ivan : Kopper, Aluminium, Titanium and Nickel and their Alloys and Welding. In: *Zváranie Cu, Al, Ti, Ni a ich zliatin*. Trnava: MtF STU, 1998, s.2- 48.

[26] GRGAČ Peter - PALKOVIČ P.: Laser Marking of Metal Surface using Q-Switched Nd:YAG Laser. In: *17. dny tepelného zpracování s mezinárodní účastí : 17th National Conference on Heat Treatment with International participation*. In: Brno : Asociace pro tepelné zpracování kovu, 1998, s. 275 - 281.

[27] MARTINEC Ľubomír - KIŠŠ Mikuláš : Weldability of Plastics-Barits Composites. In: *Akademická Dubnica '98: Zborník prednášok zo 4. vedeckej konferencie s medzinárodnou účasťou*. Bratislava: STU, 1998, diel 2., s.237 - 242.

[28] ULÍK Anton - ŽITŇANSKÝ Marcel : Forming characteristics of maraging steels under hydrostatics pressures. In: *AMME*. Gliwice: STU, 1998, s. 555 - 558. (in English)

[29] HORVÁTH Jozef :Trends in Develompments of Steels for Injection Mold. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava: STU, 1998, časť 1, s. 60 - 63.

[30] HRIVŇÁK Ivan : Physical metallurgy of plused current submerged ARC welding of steels. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava: STU, 1998, časť 1, s. 64 - 70. (in English)

[31] HRIVŇÁKOVÁ Dáša - HRNČIAR Viliam - ČERNIČKOVÁ Ivona - DEMIAN Svetozár : Corrosion Behaviour of NdFeB based Magnets. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava: STU, 1998, časť 1, s. 71 - 75.

[32] STANČEK Ladislav - ČAPLOVIČ Ľubomír - BATYŠEV Alexander I. - BATYŠEV Konstantin A. : Influence of External Pressure on Morphology of Eutectic Silicon in Glass-like Casting. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava: STU, 1998, časť 1, s. 186 - 191.

[33] TRNKOVÁ Lýdia - ČAPLOVIČ Ľubomír - GRGAČ Peter - ILLEKOVÁ Emília : Quasiequilibrium Solidifikation of the NiCrSiB alloy. In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava: STU, 1998, časť 1, s. 204 - 208.

[34] ÉLESZTÖS Pavel - BENČA štefan - HRIVŇÁK Ivan - SKLENÁR František - BÖHM Ľudovít : Strenght aspects of Repair of spherical Containers for Liquified Hydrocyrbon Gases . In: *CO-MAT-TECH '98: 6. medzinárodná vedecká konferencia*. Bratislava : STU, 1998, časť 2 , s. 447 - 451.

[35] HRIVŇÁK Ivan : New materials and technologies. In: *Communications on the edge of the millenniums: 10th International Scientific Conference*. Žilina: ŽU, 1998, s. 45 - 48. (in English)

[36] HRIVŇÁK Ivan : Sulphide stress corrosion cracking of storage tanks. In: *Korózia v energetike '98: Corrosion in Power Industry '98*. Košice: TU, 1998, s. 7-13.

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[38] ZRNÍK J. - HORŇÁK P. - ŽITŇANSKÝ Marcel : Cyclic creep deformation characteristic of nickel base superalloy influenced by cycling frequency. In: *Metallography'98: Proceedings of the 10th international Symposium on Meatllography: 10. medzinárodné metalografické sympózium*. Košice: TU, 1998, s. 256 - 259. (in English)

[39] GRGAČ Peter - BEHÚLOVÁ Mária - MORAVČÍK Roman : Solidification microstructures in rapidly solidified powder of A Cr-Mo-V tool steel. In: *Metallography'98: Proceedings of the 10th international Symposium on Meatllography: 10. medzinárodné metalografické sympózium*. Košice: TU, 1998, s. 301 - 305. (in English)

[40] HRIVŇÁKOVÁ Dáša - HRNČIAR Viliam - ČAPLOVIČOVÁ Mária - DOMÁNKOVÁ Mária: Dislocations in hard magnetic materials. In: *Metallography'98: Proceedings of the 10th international Symposium on Meatllography: 10. medzinárodné metalografické sympózium*. Košice: TU, 1998, s. 360 - 364. (in English)

[41] HRIVŇÁK Ivan : Pulsed current submerged arc welding. In: *MicroCAD'98: International Computer Science Conference: C: Anyagtudomány és technológia: Section C: Materials Science and Technologies*. Miškolc: Egyetemváros, 1998, s. 3 - 10. (in English)

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[47] HRIVŇÁK Ivan : Mathematics in Material Science. In: *Zborník: 25. konferencia VŠTEP*. Praha: JČMF, 1998, s. 233 - 238.

[48] ČAPLOVIČ Ľubomír : Martensitic and reversed martensitic transformation study in maraging steel. In: *Nemecko-slovenský vedecký seminár pre doktorandov: Deutsch-slowakisches Doktorandenseminar*. Bratislava: STU, 1998, s. 19 - 22. (in English)

DEPARTMENT OF MATHEMATICS

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I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	3	Technical and Admin. Staff:	0
Senior Lecturers:	15	PhD Students:	5
Lecturers:	0		

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- 2 special teaching rooms

II.2 Special Measuring Instruments and Systems

- 13 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	3-2	Ďurikovič
Mathematics II	2	3-2	Ďurikovič

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
Fundamentals of Computer Graphics	2	3-2	Zámožík
Mathematical Statistics	5	3-2	Halabrín
Applied Mathematics	5	2-2	Halabrín
Mathematics I	1	5-4	Červeňanský, Dillingerová
Mathematics II	2	3-4	Červeňanský, Dillingerová
Mathematics III	3	3-3	Híc, Zalabai
Applied Mathematics III	5	2-2	Urbaníková
Applied Mathematics I	5	2-2	Híc
Insurance and Financial Mathematics	6	2-1	Urbaníková

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 - special types of graphs
- Geometric interpolation of massifs
- Image processing - algorithms
- Fuzzy sets and systems

V. RESEARCH PROJECTS

- Functional analysis and quantitative theory of ordinary differential equations
- Geometric and related structures used in computer techniques

VI. COOPERATION

VII. THESES

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

VII.2 Dissertations (Ph.D.)

[1] Bare classification of real functions (Kostyrko, Ph.D., Assoc. Prof.)

[2] Dense allocation of objects (Božek, Ph.D., Assoc. Prof.)

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

- Jaroslava Trubenová, Edita Vranková

VIII.2 Invited Lectures from Aboard

- Prof. František Bubeník, Czech Technical University in Prague,Thákurova 7, 166 29 Praha 6
- Prof. Roman Bek, Czech Technical University in Prague Konviktská 20, 110 00 Praha 1
- Prof.. Jaroslav Černý,CSc., KM FSv , Czech Technical University in Prague Thákurova 7, 166 29 Praha 6
- Jiří Dočkal, ÚM FS Technical Univerzity in Brno, Technická 2, 616 69 Brno
- Prof. Zděnek Jankovský, FS Technical Univerzity in Brno, KM FEL ČVUT Technická 2, 166 27 Praha 6

- Prof. Milada Kočandrlová, KM FSv , Czech Technical University in Prague,Thákurova 7, 166 29 Praha 6
- Prof. Anežka Wohlmuthová, KM FSv ČVUT, Czech Technical University in Prague,
- Prof. Čeněk Zlatník, Csc. KTM FSI ČVUT, Czech Technical University in Prague, Karlovo Nám. 13, 121 35 ,

IX. PUBLICATIONS

[1] HALABRÍN, M. - ČERVEŇANSKÝ, J.: Mathematics I, II, III - textbooks for distance education. Second Editions

DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS

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I. STAFF

Professors:	1	Research Fellows:	0
Assoc. Professors:	0	Technical and Admin. Staff:	7
Senior Lecturers:	10	PhD Students:	1
Lecturers:	0		

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-ergometer

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, Merica, Rafaj, Morvay, Lukačovičová, Zaťovičová
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 evaluation of somatometry and physical fitness of students by the system of EUROFIT. No. 861. (Glesk, P.)
- The evaluation of the level and the changes of physical fitness in selected sports. No. 862. (Merica, M.)

V.2 National Grants (VEGA, KEGA)

- VEGA 1/5232/98 The dynamics of the physical and motor growth of the youth (Glesk)
- VEGA 2/4074/98 The biomechanical evaluation of chosen motor activities of the athlets (Gálik, Glesk, Hlavatý R., Merica)

V.3 International Projects

VI. CO-OPERATION

VI.1 National Co-operation

VI.2 International Co-operation

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

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:
  - 14.5.1998 - "The adapted Physical Education and the training of physically handicapped athletes"
  - 11.6.1998 – "The growth of performance and success in competitive games"
  - 9.9.1998 – "Rationalising elements in teaching and training of swimming"

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

[1] ČERCHLANOVÁ, J.-GLESK, P.: Vytrvalosť v sile, jeden z pilierov kondičnej prípravy 15-18 ročných tenistiek. . The endurance in power as the basis of 15-18 years old tennis player training. In: *Zborník „Racionalizačné prvky vo výučbe a športovej príprave v plávaní* . Trnava: STU, 1998.

[2] GÁLIK, K.-GLESK, P.: Objektívna analýza výkonu mladého hráča tenisu po zápase. In: *Zborník „Zvyšovanie výkonnosti a úspešnosti v športových hrách"*. Trnava: STU ,1998, s. 8-12.

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[4] GLESK, P.: 100 rokov atletiky na Slovensku. Atletika na Slovensku v rokoch 1973-1996. 100 years of athletics in Slovakia. The athletics in Slovakia 1973-1996. In: *Slovenská atletika*, 1998, 1, pp. 4-5.

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[7] GLESK, P.: Jubilanti - apríl. The jubilee april 1998.In: *Slovenská atletika* , 1998, 3, p. 8.

[8] GLESK, P.: Jubilanti - jún 1998. The jubilee june 1998.In: *Slovenská atletika*, 1998, 5,p. 21.

[9] GLESK, P.: Jubilanti - október '98. The jubilee october 1998. In: *Slovenská atletika*, 1998, IV. 10, p. 9.

[10] GLESK, P.-LACZO, E.: Možnosti využívania niektorých poznatkov z ME v atletike v Budapešti. The use of some notions from the European athletic championships. In: *Slovenská atletika*, 1998, IV, 10, pp. 1-2.

[11] GLESK, P.: Jubilanti november, december. The jubilee november, december 1998. In: *Slovenská atletika*, 1998, 11-12, p. 8.

[12] GLESK, P.: Predolympijská príprava v Austrálii. The training before the Olympic games in Sydney. In: *Slovenská atletika*, 1998,pp. 11-12.

[13] GLESK, P.: Efektívnosť vysokohorskej prípravy je stále aktuálna. The effectivity of the altitude training is still up to date. In: *Slovenská atletika*, 1998, 11-12, p. 1.

[14] GLESK, P.: Možnosti regulácie zaťaženia v rekreačnom športe. In: *Zborník I. ročník vědecké konference: Optimální působení tělesné záťaže.. 10.-11 září 1997. The possibilities of training load regulation in recreational sport.; The optimal effect of training load.* Hradec Králové : Vysoká škola pedagogická, 1998, pp. 27-30.

[15] GLESK, P.: Využívanie elektrokardiografie v diagnostikovaní trénovanosti futbalistov. In: *Zborník „Zvyšovanie výkonnosti a úspešnosti v športových hrách". The use of the electrocardiography in training diagnostics of football players. In: The growth of performance and success in competitive games.* Trnava : SUT ,1998, pp. 13-18.

[16] GLESK, P.: Chôdzou k zdravému spôsobu života. In: *Zborník „ Zdravotná telesná výchova a príprava telesne postihnutých športovcov": Walk as the basis of healthy way of life: The adapted Physical Education and the training of physically handicapped athlets.* Trnava: SUT, 1998, pp. 3-6.

[17] GLESK, P.-MERICA, M.: Súčasný stav rozšírenia plávania na školách Slovenska. In: *Zborník 6. medzinárodnej vedeckej konferencie CO-MAT-TECH '98: The state of the swimming spread at schools.: Proceedings from CO-MAT-TECH'98.* Bratislava: SUT, 1998, pp. 622-626.

[18] GLESK, P.: Biomechanické základy na jednoradových kolieskových korčuliach. In: *Zborník 6. medzinárodnej vedeckej konferencie CO-MAT-TECH '98: The biomechanical background of the in-line skating: Proceedings from CO-MAT-TECH'98.*Bratislava: SUT, 1998, pp. 617-619.

[19] KOUDELKA, M.-ŽÁK,R.-GLESK,P.: Hnacie brzdiace sily plávaní a možnosti ich merania. The propulsive and resistive forces and their measurement In: *Zborník 6. medzinárodnej vedeckej konferencie CO-MAT-TECH '98: Proceedings from CO-MAT-TECH'98.*Bratislava: SUT, 1998, pp. 648-653.

[20] GLESK, P.: Hodnotenie metodiky sumárnych výsledkov motorických testov na príklade Eurofitu. The evaluation of the methods of motor tests according to the Eurofit In: *Zborník Vedeckých prác k 60. výročiu Stavebnej fakulty STU v Bratislave: Scientific works of SUT.* Bratislava: SUT, 1998, pp. 133-136.

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[22] GLESK, P.: Bolesti v oblasti chrbtice a opatrenia proti nim. The pain in spine and protection against it. In: *Vedecké práce MtF STU Trnava: Scientific works of FMST.* Bratislava: SUT, 1998,vol. 6, pp. 375-379.

[23] KOUDELKA, M.-ŽÁK, R.-GLESK, P.: Biomechanika v plaveckom športe. The biomechanics of swimming In: *Zborník z konferencie „Inženýrská mechanika '98".* Svratka: 1998, pp. 357-362.

[24] KOUDELKA, M.-ŽÁK, R. - GLESK, P.: Pohybová analýza končatín pri rôznych plaveckých spôsoboch. The limb motion analysis in swimming strokes. In: Rationalizing elements in teaching and training of swimming In: *Zborník zo seminára „Racionalizačné prvky vo výučbe a športovej príprave v plávaní".* Trnava :SUT, 1998, pp. 47-58.

[25] GLESK, P.-MERICA, M.: Inovácia obsahu výučby telesnej výchovy na MtF STU v Trnave. Zborník referátov. The inovation of the content of physical education teaching at SUT in Trnava. Bratislava: FF UK KTV, 1998, 5 s. (v tlači).

[26] GLESK, P.: Pragmatické problémy športovej humanistiky. Pragmatic problems of sport humanistics In: *Zborník - Vedecké a edukatívne problémy športovej humanistiky: Referát na vedeckej konferencii (25.9.1998): The scientific and educative problems of sport humanistics.* Bratislava: FTVŠ UK,1998, 5 s. (v tlači).

[27] GLESK, P.: Prienik korčulovania na jednoradových kolieskových korčuliach do sústavy športov. The in-line skating in the system of sports. In: *Netradičné športové hry a pohybové aktivity v programoch telesnej a športovej výchovy. Zborník referátov: The non-traditional competitive games in physical education.* Bratislava: SUT, 1998, pp. 15-19.

[28] GLESK, P.: Biomechanické základy na jednoradových kolieskových korčuliach. The biomechanical basis of the in-line skating In: *CO-MAT-TECH '98. 6. Medzinárodná vedecká konferencia: Proceedings from CO-MAT-TECH'98.* Bratislava: SUT, 1998, pp. 622-626.

[29] HLAVATÝ, R.: Športový výkon a jeho vzťah k dĺžke záberu u najlepších svetových plavcov a plavkýň v kraulových disciplínach. The relationship between the stroke length and the performance in swimming freestyle In: *Zborník „Racionalizačné prvky vo výučbe a športovej príprave v plávaní: Rationalizing elements in teaching and training of swimming.* Trnava: SUT , 1998, pp. 41-46.

[30] HLAVATÝ, R.: Závislosť športového výkonu od dĺžky záberu u najlepších svetových a slovenských plavkýň vo vybraných disciplínach. The effect of sroke length on sport performance in swimming In: *Zborník CO-MAT-TECH'98. 6.medzinárodná vedecká konferencia:Proceedings from CO-MAT-TECH'98.* Bratislava: SUT, 1998..

[31] HLAVATÝ, R.: Vzťah športového výkonu a dĺžky záberu u 13-14 ročných slovenských plavcov a u najlepších svetových plavcov vo vybraných disciplínach. The relationship between the stroke length and the performance in 13 – 14 years old swimmers .In: *VI. roč. vedeckého seminára s medzinárodnou účasťou. Teoretické a didaktické problémy plávania a plaveckých športov: Proceedings from theoretical and didactic problems of swimming and aquatic sports.* Bratislava: 8-9.6.1998, pp. 93-97.

[32] LUKAČOVIČOVÁ, E.-MORVAY, A.: Tréningová jednotka v tenise vozíčkárov v pretekovom období. The competitive period training unit for the wheelchair tennis players In: *Zborník „Zvyšovanie výkonnosti a úspešnosti v športových hrách.. In: The growth of performance and success in competitive games.* Trnava: SUT, 1998, pp. 52-55.

[33] LUKAČOVIČOVÁ, E.: Svetový pohár vozíčkárov - Barcelona. The world cup of the wheelchair tennis players In: *Zborník 6. medzinárodnej vedeckej konferencie CO-MAT-TECH '98: Proceedings from CO-MAT-TECH'98.* Bratislava: SUT, 1998.

[34] LUKAČOVIČOVÁ, E.-MORVAY, A.: Osobitosti tenisu vozíčkárov. Some specifics in wheelchair tennis players In: *Tenisový tréner.* Bratislava: Slovenský tenisový zväz, 1998.

[35] LUKAČOVIČOVÁ, E.-MORVAY, A.: Nácvik a zdokonaľovanie úderov v tenise vozíčkárov. The learning and the improving slams of wheelchair tennis players In: *Zborník „Zdravotná telesná výchova a príprava telesne postihnutých športovcov: The adapted Physical Education and the training of physically handicapped athlets.* Trnava: SUT , 1998, pp. 7-12.

[36] MERICA, M.: Ako je to s plávaním u detí a s ich zdravím. How it is with children swimming and their health. In: *Rationalizing elements in teaching and training of swimming: Zborník „Racionalizačné prvky vo výučbe a športovej príprave v plávaní"* Trnava: SUT, 1998.

[37] RÁFAJ, D.: Rokovali o zdraví. They talk about health. In: *Trnavské noviny* ,č. 21, 25.5.-31.5., 1998, p. 5.

DEPARTMENT OF PHYSICS

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I. STAFF

Professors:	1	Research Fellows:	1
Assoc. Professors:	3	Technical and Admin. Staff:	5
Senior Lecturers:	11	PhD Students:	1
Lecturers:	2		

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory of Physics I-II; teaching of the mechanics, thermodynamics, and electromagnetism
- Laboratory of Physics III; teaching of the quantum mechanics and the nuclear physics
- Laboratories of Electrotechnics; teaching of the elementary electrotechnics
- Laboratory of Interferometry techniques, applications of interferometry to elastic and elastic - plastic properties investigations
- Laboratory of electron beam; processing specific system and unique techniques enabling the welding of large samples by the electron beam in the high vacuum
- Laboratory of advanced materials; effects 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%
- Electron beam welding apparatus FL 7.5 (high vacuum 10-5 Pa, power required 7.5 kW)

III. TEACHING

The objective of the physics branch of study is to educate engineers who should be competent to solve problems concerning the wide spectrum of the industry and also extending to the field information technology, ecology, etc. The study involves the necessary theoretical introduction into subjects that provide general education for an engineer, which is followed by specialised courses. The topics of lectures, laboratory and seminar exercises have been selected so that a student could in the practical way. Thus, he obtains also a basic for creative work in engineers' practice.

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
Physics I	2	4-2	Kozík

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
Physics I	2	3-3	Garaj, Benco, Kalužná, Labaš
Physics II	3	4-2	Kalužný, Garaj
Physics III	4	2-3	Ožvoldová, Kalužný
Electrotechnics	4	3-2	Kosorin
Introduction to Engineering Physics	1	1-2	Ožvoldová
Solid State Physics	6	2-2	Minárik

IV. RESEARCH TARGETS

In 1998 the Department of Physics has continued research activities through grants. The projects of the Department are in continuation of our previous work, focused on the investigation of the relations between preparation conditions, microstructure and physical properties of ceramics (based on ZrO_2, YBaCuO, basalt and kaolin), ceramic composites, superionic fluoride composites and glasses (system As-S, As-Ge-S, As-Ga - S, etc.) are the main topics in research area. The aim of this research area is to contribute to the fundamental understanding of materials. This is realised by the investigation of materials structure, modelling and simulations, and finally by the development of characterisation methods with the main topics improved quantification and in situ materials manipulations.

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

- Constructing of the holographic apparatus for the investigation of selected materials properties. No 803, (Garaj, J.)
- Relationship of the technology to the mechanical and optical properties of the non-metal materials. No 876, (Labaš, V.)

V.2 National Grants (VEGA, KEGA)

- Relationship of physical and mechanical properties of ceramic materials and superconducting systems to their process technologies. VEGA, No. 1/4338/97, (Kalužný, J.)
- Mass, charge and energy transport in superionic conductors. VEGA, No. 2/4184/97, (Labaš, V.)

V.3 International Projects

- DECHEM - Distance Education Course for Higher Education Management. PHARE, DE 97/ 154, (Kalužný, J.)

- EQATU - Education Quality Assessment at Technical University. TEMPUS 115-96, (Kalužný, J.)
- TASUM - Training and Advanced Study of University Management (Kalužný, J.)

VI. CO-OPERATION

VI.1 National Co-operation

- The impact of the technological texture, the defect microstructure and the mixed effect on the physical properties of the technical important solid electrolytes. Grant VEGA No. 95/5305/588 in co-operation with 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 the Department of Applied Mechanics. Institutional project No. 855.
- Investigation of the luminescence properties of zircon ceramics and glasses in co-operation with the Department of Solid State Physics, Comenius University in Bratislava.
- Faculty of Mechanical Engineering ŽU Žilina
- Faculty of Mechanical Engineering STU Bratislava
- Faculty of Chemical Engineering STU Bratislava

VI.2 International Co-operation

- The preparation of the experimental materials (glass, ceramics) in co-operation with the Laboratory of inorganic materials Prague.

VI.3 Contracts with Industry

VII. THESES AND DISSERTATIONS

Supervisors are written in brackets. All theses and dissertations without notice are written in Slovak language.

VII.1 Graduate Theses

- R. Čička: Anisotropy of physical properties of eutectic composites prepared from melt.
- J. Vincenc-Oboña: The influence of doped ingredients on chosen mechanical properties of basalt ceramics.
- R. Müller : The optical spectroscopy of sulfide glasses.

VII.2 Dissertations (PhD)

[1] Labaš, V.: Residual stresses and fracture toughness of eutectic fluoride composites. Bratislava, 1998, 110 p.

[2] Minárik, S.: Two-dimensional structure creation in the powder systems under conditions of acoustical vibrations. Bratislava, 1998, 100 p.

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITIES

VIII.1 Visits of Staff Members to Foreign Institutions

- Materials Research Corp. New York
- Instituto Politechnico Nacional. Mexico City.
- Universidad Nacional Autonoma D Mexico. Mexico City

VIII.2 Foreign Visitors to the Department

- RNDr. J. Grygar, Ph.D., Czech Academy of Sciences, Prague
- Doc. RNDr. M. Rojko, Ph.D. and RNDr. F. Lustig, Ph.D., Faculty Mathematics and Physics of the Charles University, Prague
- M. Vaščák, Materials Research Corporation, New York
- P. Sijanta, Thunderspray Co.Ltd. , Ljubljana

VIII.3 Organised Conferences, Seminars and Workshops

- Co-operation in organising the regional Physics Olympiad
- Seminars:
  - Aplication possibilities of the programme Maple (doc. RNDr. S. Bartoň, CSc.)
  - Manufacturing technology optimisation of the basalt ceramics (Ing. R. Riedlmajer)
  - The presentation of the school experiments supported by the computers (RNDr. J. Grygar, Ph.D., doc. RNDr. M. Rojko, Ph.D., RNDr. F. Lustig, Ph.D.)
  - Cosmos around us - III. (prof. RNDr. J. Krempaský, CSc., Mgr. K. Petrik)

IX. PUBLICATIONS

All publications without notice are written in Slovak language.

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[4] TRNOVCOVÁ V., FEDOROV P. P., LABAŠ V., STAROSTIN M. YU.: Microstructure and physical properties of superionic eutectic composites prepared from melt. In: *Solid State Ionic - Science and Technology, World Scientific*. Singapore: 1998, p. 325-334, (in English).

[5] TRNOVCOVÁ V., BUCHINSKAYA I. I., FEDOROV P. P., MAXIMOV B. P.: Fast ionic conductivity of $PB_{0.67}$ $Cd_{0.33}$ F_2:MF (M=Li, Na) and PbF_2:ScF_3 solid solutions, and of PbF_2+ScF_3 eutectic composite, ibidem, p. 343-347, (in English).

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[7] TRNOVCOVÁ V., FEDOROV P. P., BYSTROVA A. A., ŠRÁMKOVÁ T., SOBOLEV B. P.: Physical properties of monoclinic BaR2 F8 (R=rare earth element) single crystals. In: *Solid State Ionic*, 106, 1998, p. 301-307, (in English).

[8] ŠTUBŇA I., TRNOVCOVÁ V.: The effect of texture on thermal expansion of extruded ceramics. In: *Ceramics*, 42, 1998, p. 21-24, (in English).

[9] LABAŠ V., MINÁRIK S., TRNOVCOVÁ V.: Correlation between microstructure and fracture properties of the eutectic composites. In :*Engineering Mechanic,s* 5, 1998, p. 399-404, (in English).

[10] TRNOVCOVÁ V., LABAŠ V., STAROSTIN M. YU., ČIČKA R.: Microstructure and physical properties of directionally solidified alumina-zirconia eutectic composites. In: *Ionic*, 4, 1998, No 3/4, (in English).

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[12] TRNOVCOVÁ V., FEDOROV P. P., ŠRÁMKOVÁ T., BUCHINSKAYA I. I.: Mixed cationic effect in multicomponent fluorite-structured fluorides. In: 6-th Int. Symp. In: *Systems with Fast Ionic Transport - extended abstracts* (W. Bogusz, P. Krok, Eds), IP WUT, Warszawa, 1998, p. IV-10-P, (in English).

[13] TRNOVCOVÁ V., BUCHYNSKAYA I. I., FEDOROV P. P., ŠMATKO V., HANIC F.: Fast ionic conductivity and dielectric response of superionic PbF_2:MF2 (M=Mg, Ba, Cd) and PbF2:ScF3 single crystals and eutectic composites, *ibidem*, p. VI-4-P, (in English).

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[16] ČIČKA R., TRNOVCOVÁ V., LABAŠ V., STAROSTIN M. YU.: Mechanical and electrical properties of alumina-zirconia eutectic composites. In: *COMATTECH 98*. Bratislava: STU, 1998, p. 35-40.

[17] TRNOVCOVÁ V., FEDOROV P.P., BUCHINSKAYA I.I.: Fast ionic conductivity of b-PbF_2 - based superionic conductors, *ibidem*, p. 209-214, (in English).

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[20] TRNOVCOVÁ V., FEDOROV P. P., LABAŠ V., STAROSTIN M. YU.: Microstructure and physical properties of superionic eutectic composites prepared from melt. In: *6-th Asian Conference on Solid State Ionics - Abstracts*: (S. Chandra et al, Eds.) NPL/BHU, Suraj Kund, 1998, p. I-22, (in English).

[21] TRNOVCOVÁ V., BUCHINSKAYA I. I., FEDOROV P. P., MAXIMOV B. P.: Fast ionic conductivity of $Pb_{0.67}Cd_{0.33}F_2$: MF (M=Li, Na) and PbF_2:SCF_3 solid solutions, and of PbF_2+SCF_3 eutectic composite, *ibidem*, p. C - 46, (in English).

[22] TRNOVCOVÁ V., FEDOROV P. P., BUCHINSKAYA I. I., ŠRÁMKOVÁ T.: Mixed cationic effects in multicomponent fluorite-structured fluorides, *ibidem*, p. C - 47, (in English).

[23] MELICHERČÍKOVÁ E., KRAJČOVIČ J.: Holographic interferometry and measurement of Young Modulus. In: *Scientific works of MtF - STU*. Bratislava: STU, 1998, No.6, p. 241-246.

[24] OŽVOLDOVÁ M., KVETAN K., FILANOVÁ J.: Pendulum methods in physical practice. In: *Scientific works of MtF - STU*. Bratislava: STU, 1998, No.6, p. 241-246.

[25] RIEDLMAJER R., KALUŽNÝ J., MARIANI E., KOZÍK T., KUBLIHA M.: The influence of technology on the basalt electric and dielectric properties. In: *4-th conf. Akademická Dubnica 98*. Bratislava: STU, No. 2, p. 269-274.

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[35] KUBLIHA M., KVETAN K., OŽVOLDOVÁ M.: Measurements of elastic young's module by the connected reverse pendulums. In: *Experiments and measurements in engineering physics education: Proceedings*. Brno: TU, 1998, p. 151, (in English).

[36] LABAŠ V., MINÁRIK S.: Programme maple in physical experiment. In: *Experiments and measurements in engineering physics education: Proceedings*. Brno:TU, 1998, p. 86-89, (in English).

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[39] RIEDLMAJER R.: Electrical methods used for optimization basalt ceramics processing technology. In: *German-Slovak doktorand symp*. Bratislava: STU, 1998, p. 63-66.

[40] LABAŠ V., TRNOVCOVÁ V., FEDOROV P. P., MINÁRIK S.: Fluoride eutectic composites preparation, microstructure, fast ionic conduction and calculation of thermal residual stresses. In: *Ceramic - Silikáty*, (in English).

[41] LABAŠ V., TRNOVCOVÁ V., MINÁRIK S.: Three-dimensional calculation of the residual stresses of the eutectic composites. In: book *MICROSIM II* - Simulation and Design of Microsystems and Microstructures, (eds. R.A. Adey, Ph. Renaud), Computational Mechanics Publications, Southampton - UK, Boston USA, 1998, p. 3-12, (in English).

[42] TRNOVCOVÁ V., FEDOROV P.P., BÁRTA Č, LABAŠ V., MELESHINA V.A., SOBOLEV B.P.: Microstructure and physical properties of superionic eutectic composites of the LiF-RF_3 (R=rare earth) system. In: *5-th International Symposium on System with Fast Ionic Transport, Institute of Physics*. Warszaw: University of Technology, 1998, p. VI. 3-0, (in English).

[43] LABAŠ V., MINÁRIK S.,TRNOVCOVÁ V.: Correlation between microstructure and fracture properties of the eutectic composites. In: *Abstract Booklet of 2nd International Colloquium on Materials Structure and Micromechanics of Fracture*. Brno:: 1998, p. 67, (in English).

[44] RIEDLMAJER R., KUBLIHA M., KALUŽNÝ J., LEŽAL D.: Electrical methods for optimization of ceramics technology. In: *Technology, Law and Insurance*, 1998, No.3, p. 203-208, (in English).

[45] ČERVEŇAN Š., HOLOŠOVÁ H., DEKÝŠOVÁ J.: Investigation of the efficiency motivation factors. In: *Scientific works of MtF - STU*. Bratislava: STU, 1998, No.6, p. 257-262.

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DEPARTMENT OF WELDING

Head of the Department
Pavel Blaškovitš, DrSc.Prof.

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I. STAFF

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

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

- Krautkrämer USK 7D Ultrasonic testing equipment
- Welding current detector for resistant welding

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
Basic machine technology	1	1-2	Monček, Púčik
Welding Technology	5	2-2	Hudák, Marônek
Theory of Welding	8	3-2	Ryban
Welding and Casting Technology	7	4-2	Hudák
Special Welding Methods	9	3-2	Turňa
Weldment Design and Production	9	2-2	Jasenák
Projecting of Manufacturing Processes and Systems in Welding	11	16-6	Monček
Control and Computer Technology in Welding	9	2-1	Marônek
Final Project	9	0-4	Marônek
Welding Machines and Equipments	9	2-2	Kozma
Assembly of Welded Units	9	2-2	Kozma
Quality Control of Welded Joints I	7	2-1	Hudák
Computer Technology in Welding	7	1-2	Hudák
Management in Welding	7	2-1	Marônek
Tribology, Surface Engineering	7	2-1	Blaškovič
Automation of Welding Processes	9	2-2	Jajcay
Technical Preparation of Production	9	2-1	Kozma

Name of subject	Semester	H/W C-P	Reader's name
Non-destructive Weld Joint Testing	9	2-1	Hudák
Tools and Fixtures	9	10-8	Monček
Theory of Technological Processes	7	3-2	Ryban
Quality Control of Welded Joints II	8	1-2	Hudák
Metalography and Fractography of Welded Joints	8	2-3	Bernasovský, Bošanský

IV. RESEARCH TARGETS

- Explosive welding
- Ultrasonic testing
- Weldability of steels
- Welding of plastic materials

V. EDUCATION AND RESEARCH PROJECTS

V.1 Institutional Projects

V.2 National Grants (VEGA, KEGA)

- Diffusion welding and similar processes. VEGA 1/4452/97

V.3 International Projects

- COST 516 TRIBOLOGY SUBPACKAGE: CAST - ABR - SK1:
  - Development and application of new hardfacing composite materials for hydroabrasive and erosive conditions. 1/1996 - 6/2000
- COST 516 TRIBOLOGY SUBPACKAGE: CAST - COEA - SK2:
  - Tribological behaviour of the surfacing layers with affecting of energetic fields for metallurgical tools. 1/1996 - 6/2000. Coordinator: Pavel Blaškovitš, DrSc.Prof.

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.
- STROJAL - Žiar n/H.
- MFF-UK, Department of Solid State Physies , Bratislava
- AE - Jaslovské Bohunice
- VÚJE - Trnava
- SKLOPLAST - Trnava
- VÚZ - Bratislava

VI.2 International Co-operation

- Materials Research Corp., New York

- Faculty of Mechanical Engineering, Ljubljana
- Welding Institute, Ljubljana

VI.3 Contracts with Industry

- SLOVALCO,a.s Žiar n/H. Al - STEEL BIMETAL LIFETIME

VII. THESES AND DISSERTATIONS

VII.1 Graduate Theses

AREAS:

- Computer simulation of welding
- Special welding methods
- Ultrasonic testing of welds
- New adhesives used for joining metals
- Solving of practical problems in industry
- 30 graduation thesses.

VII.2 Dissertations (Ph.D.)

VII.3 Habilitations (Assoc. Prof.)

VIII. OTHER ACTIVITES

VIII.1 Visits of Staff Members to Foreign Institutions

- Materials Research Corp., New York
- The Chinese Mechanical Eng. Soc.Beijing. China International Exhibition Centre, Beijing. The 5 - th Internat. Welding Fair
- Universidad Nacional Autonoma D Mexico, Mexico City
- Instituto Politecnico Nacional Mexico City
- Faculty of Mechanical Engineering, TU Brno
- Faculty of Mechanical Engineering, ČVUT Praha

VIII.2 Foreign Visitors to the Department

- Atomic Energy. Control Board. Ottawa, Canada
- Hanwha Corp. Korea
- Materials Research Corp. New York
- 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
- CDC Corp. Hanoi
- Krško Nuclear Power Plant KRŠKO, Slovenia
- University of Ljubljana, Faculty of Mechanical Eng. Ljubljana
- National Institute for Advanced Interdisciplinary Research, University of Tsukuba,Japan
- E.O.Paton Electric Welding Institute, Kiev

VIII.3 Organised Conferences, Seminars and Workshops

- All forms of basic welding classes
- Postgraduate class for European welding engineers according EWE
- Member of Slovak Welding Society Board
- Certification board directorship
- Welding Normalization Committee Member
- Member of IIW
- Workshop "Nonferrous metals and their welding"
- Exposition at International Engineering Fair in Nitra

IX. PUBLICATIONS

[1] TURŇA, M. - MARÔNEK, M. - KOVAČÓCY, P.: Explosion Welding and Similar Processes . In: *Euro-Welding Revue*, 2, 1998, č. 5, s. 193 - 198 (in English).

[2] TURŇA, M. - KOVAČÓCY, P. - MARÔNEK, M. - VASCAK, M.: Diffusion Welding and Its Applications. In: *International Welding Conference*. Calcuta, India: 1998 (in English).

[3] GRINBERG, N.A. - BLAŠKOVITŠ, P. - SUCHÁNEK, J.: New Hardfacing Materials for Abrasive and Erosive Conditions. In: *COST 516 Tribology Symposium*. Espoo - Finland: 1998 (in English).

[4] BLAŠKOVITŠ, P.: Creating of Surface Layers by Overlaying. In: *Nové technológie a materiály používané pri opravách špeciálnej techniky: III. Technický seminár*. Trenčín: Ministerstvo obrany, 1998.

[5] MARÔNEK, M. - MARTINKOVIČ, M.: The way of interference area determination of joints fabricated by explosion welding. In: *Vedecké práce MtF STU*. Bratislava: STU, 1998, zväzok 6, s. 107 - 112.

[6] KOVAČÓCY, P. - JANÍKOVÁ, D.: Laser Beam Welding of Dissimilar Steels for Power Equipments. In: *Euro-Welding Revue*, 2, 1998, č. 1, s. 23 - 26.

[7] TURŇA, M. - KOVAČÓCY, P. - TRUBENOVÁ, J. - VAŠČÁK, M.: Physical and Metallurgical Aspects of Diffusion Welding of Dissimilar Materials. In: *Akademická Dubnica 98: 4. medzinárodná vedecká konferencia*. Bratislava: STU, 1998.

[8] TURŇA, M. - KOVAČÓCY, P. - OŽVOLDOVÁ, M. - VAŠČÁK, M.: Special Technologies of Fabrication of Bimetallic Targets. In: *Akademická Dubnica 98. 4. medzinárodná vedecká konferencia*. Bratislava: STU, 1998.

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[12] HUDÁK, J. – LEKAVÝ, R. – TURŇA, M.: Diffusion joining of structural carbon steel and tool high speed steel. In.: *CO MAT TECH 98*. Bratislava: STU,1998, s.382

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[16] TURŇA, M. - RYBAN, D. - OŽVOLDOVÁ, M. - MIRONOVOVÁ, E.: Education in the Field of Welding at the Slovak University of Technology in Bratislava. In: *Euro-welding revue*, 2,1998,č.5,s.199 - 203.

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[18] TURŇA, M. - KOVAČÓCY, P. - OŽVOLDOVÁ, M. - VAŠČÁK, M.: Special production methods of bimetallic targets. In: *Explozívne tvárnenie: Zborník prác*. Košice: TU, 1998, s. 27 - 32.

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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		List of Faculty Departments		Liste der Fakultätslehrstühle
No.	**Slovak Name of Department**	**Abbrevation**	**English Name of Department**	**German Name of Department**
1	Katedra aplikovanej informatiky a automatizácie	KAIA	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 fyziky	KF	Department of Physics	Lehrstuhl für Physik
4	Katedra humanitných vied	KHV	Department of Humane Sciences	Lehrstuhl für Humanwissenschaften
5	Katedra inžinierskej pedagogiky a psychológie	KIPP	Department of Engineering Pedagogy and Psychology	Lehrstuhl für Ingenieurpädagogik und Psychologie
6	Katedra manažmentu a kvality	KMaK	Department of Management and Quality Engineering	Lehrstuhl für Management und Qualitätsicherung
7	Katedra matematiky	KM	Department of Mathematics	Lehrstuhl für Mathematik
8	Katedra materiálového inžiniestva	KMI	Department of Materials Engineering	Lehrstuhl für Werkstofftechnik
9	Katedra obrábania a montáže	KOM	Department of Machining and Assembly	Lehrstuhl für spanende Fertigung und Montage
10	Katedra odbornej jazykovej prípravy	KOJP	Department of Languages	Lehrstuhl für Fremdsprachen
11	Katedra priemyselnej ekológie	KPE	Department of Industrial Ecology	Lehrstuhl für industrielle Ökologie
12	Katedra telesnej výchovy a športu	KTVŠ	Department of Physical Education and Sports	Lehrstuhl für Körperkultur und Sport
13	Katedra tvárnenia	KT	Department of Forming	Lehrstuhl für Umformen
14	Katedra zlievárenstva	KZl	Department of Foundry	Lehrstuhl für Gießen
15	Katedra zvárania	KZv	Department of Welding	Lehrstuhl für Schweißen
16	Detašované pracovisko (Brezno, Dubnica, Komárno, Partizánske)	DP	Detached workplace in ...	Außenarbeitsstelle in ...

APPENDIX B LIST OF ACCREDITED STUDY PROGRAMMES

No.	Name of Study Programme	Abbreviation	English Name of Study Programme	German Name of Study Programme
	Bakalárske štúdium (Bc.)		**Bachelor Study (B.S.)**	**Bachelor-Studium**
1	Aplikovaná informatika a informačné systémy	BAIIS	Information Technology and Systems	Angewandte Informatik und Informationssysteme
2	Podnikové hospodárstvo (do r. 1998)	BPH	Industrial Management (until 1998 only)	Betriebswirtschaft (nur bis 1998)
3	Priemyselná ekológia	BPE	Industrial Ecology	Industrielle Ökologie
4	Priemyselné technológie	BPT	Industrial Technologies	Industrietechnologien
5	Priemyselný manažment	BPM	Industrial Management	Betriebswirtschaft
6	Sociálne vedy a bezpečnosť pri práci (do r. 1999)	BSVBP	Social Sciences and Work Safety (until 1999 only)	Sozialwissenschaften und Arbeitssicherheit
7	Technické materiály	BTM	Technical Materials	Technische Werkschtoffe
8	Všeobecné strojárstvo (do r. 1998)	BVS	Machine Engineering (until 1998 only)	Maschinenbau
	Inžinierske štúdium (Ing.)		**Master Study (M.S.)**	**Ingenieurstudium (Dipl.-Ing.)**
1	Aplikovaná informatika a automatizácia v priemysle	AIAP	Information Technology and Automation in Industry	Angewandte Informatik und Industrieautomatisierung
2	Inžinierstvo kvality produkcie	IKP	Production Quality Engineering	Qualitätsicherung
3	Inžinierstvo životného prostredia	EI	Environmental Engineering	Umwelttechnik
4	Manažment priemyselných podnikov	MPP	Management of Industrial Plants	Betriebswirtschaft
5	Materiálové inžinierstvo	MI	Materials Engineering	Werkstofftechnik
6	Technologické zariadenia a systémy	TZS	Technological Devices and Systems	Technologische Anlagen und Systeme
7	Technológie strojárskej výroby	TSV	Machine Production Technology	Technologie der Maschinenbauproduktion
	Doktorandské štúdium (PhD.)		**Ph.D. Study**	**Doktorandenstudium (Dr.)**
1	Automatizácia a riadenie, Špec. riadenie procesov	DAR	Automation and Management, Spec.: control engineering	Automatisierung und Steuerung Spez.: Steuerungstechnik
2	Inžinierstvo kvality produkcie	DIKP	Production Quality Engineering	Qualitätsicherung
3	Materiálové inžinierstvo a medzné stavy materiálov	DMI	Material Technology and Limiting Conditions of Materials	Werkstofftechnik und Grenzzustände der Werkstoffe
4	Podnikový manažment	DPM	Business Management	Betriebswirtschaft
5	Strojárske technológie a materiály	DSTM	Mechanical Engineering Technology and Materials	Maschinenbautechnologien und Werkstoffe
6	Teória vyučovania predmetov všeobecno-vzdelávacej a odbornej povahy, Špec. teória vyučovania technických odborných predmetov	DTVP	Theory of Teaching General and Vocational Subjects, Spec.: theory of teaching technical vocational subject	Teorie des Unterrichts der Algemein-ausbildungs-Fächer, Spez.: Teorie des Unterrichts der technischen Fächer
	Doplňujúce pedagogické štúdium		**Complementary Teacher Training**	**Pädagogische Ergänzungsstudium**
1	Učiteľstvo technických odborných predmetov	PUTOP	Teaching Technical Subjects	Lehrer für technische Fächer

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