

DEPARTMENT OF MANUFACTURING SYSTEMS

Head of Department:

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I. STAFF

Professors

Edita Hekelová, PhD., Prof.

Professor in: Production quality and technological systems safety.

Research topics: Total quality management, Human factor in quality systems, Improving quality of higher education institutions

Aleš Krsek, PhD., Prof.

Professor in: Manufacturing systems with industrial robots and manipulators.

Research topics: Geometric products specification (GPS), Automation of machinery production

Štefan Valčuha, PhD., Prof.

Professor in: Construction of manufacturing machines

Research topics: Technologies in machinery production- application of thin layers at cutting tools, Automation of engineering activities

Jozef Zongor, PhD., Prof.

Professor in: Mechanical engineering technologies

Research topics: Technologies in machinery production, Expert systems for the choice of machining technology, Space research

Associate Professors:

Vojtech Geleta, PhD., Assoc. Prof..

Associate Professor in: Mechanical engineering technologies

Research topics: Ultra-precision machining, Water jet machining, Design for manufacture

Igor Ščepka, PhD., Assoc. Prof.

Associate Professor in: Industrial economics

Research Topics: Strategic management, Improving quality of higher education

Marian Tolnay, PhD., Assoc. Prof.

Associate Professor in: Mechanical engineering technologies

Research topics: Strengthening surface layers of machine components, Industrial robots and manipulators

Senior lecturers: 8

Research workers: 3

PhD. students: 8

Technical staff: 4

II. EQUIPMENT

II.1 Teaching and Research Laboratories

- Laboratory for Automated Manufacturing Systems
- CNC Equipment and Robotics Laboratory
- Metal-Cutting Laboratory
- Measurement Laboratory
- Computer Laboratory

III. TEACHING

III.1 Undergraduate Study

Name of subject	semester	hours per week		reader's name
		lectures	seminars	
Technology II	5	2	1	V. Geleta, J. Zongor
Foundations of Management	5	2	2	I. Ščepka
Production Control and Logistic	5	2	2	I. Součková
Design of Technological Processes	5	2	2	A. Pavlov
Economics of Enterprise	6	3	3	I. Ščepka
Quality Management	6	2	1	E. Hekeľová
Foundations of Design and Programming of Manufacturing Production	6	2	2	M. Králik
Operation of Manufacturing Systems	6	2	2	M. Tolnay

III.2 Graduate Study

Name of subject	semester	hours per week		reader's name
		lectures	seminars	
Technology of Machining And Assembly	5	3	2	J. Zongor, V. Geleta
Essentials of Management And Marketing	6	3	2	E. Hekeľová, I. Ščepka, I. Součková
Essentials of Economics	4	2	1	M. Šestáková, K. Maletzová

Metrology and Quality Control In Machinery Industry	7, 9	2 – 2	A. Krsek
Industrial Robots, Automation of Transport And Warehousing	7	3 – 2	M. Tolnay
Programming I	7	0 – 4	V. Jerz
Technology of Machining II	7	2 – 2	J. Zongor
Automation of Engineering Activities (CAD Systems)	7	2 – 2	Š. Valčuha
Human Resources Management and Communication Techniques	9	2 – 2	E. Hekelová
Financial Management	7, 9	2 – 2	M. Šestáková, K. Maletzová
Design and Operation of Automated Manufacturing Systems	8, 9	2 – 1	M. Králik
Production Planning and Control	9, 7	2 – 1	I. Součková, J. Benda
Discrete Systems Simulation	9	2 – 2	V. Jerz
Programming II	9	0 – 4	V. Jerz
Theory of Machining	9	2 – 2	A. Pavlov
Industrial Robots Effectors	9	2 – 2	M. Tolnay
Economics of an Enterprise	7	2 – 2	I. Ščepka
Technology of Automated Production	8	2 – 2	J. Zongor
Automation of Manufacturing Processes	8, 10	2 – 2	A. Krsek
Database Systems	8	0 – 4	E. Havlíčková
Design for Manufacture	8	2 – 2	V. Geleta
Innovation Process Management	8	2 – 2	J. Chal
Industrial Robots Programming	8	1 – 2	A. Červeňan
Transport and Manipulation Equipment	7	2 – 1	M. Tolnay
Automation of Production Process Planning	10	3 – 2	A. Pavlov
Unconventional Technologies	10	3 – 1	V. Geleta, J. Zongor
Applied Database Systems	10	0 – 4	E. Havlíčková
Optimization of Technology Process Parameters	10	2 – 2	A. Pavlov
Logistics	7	2 – 2	I. Součková
Total Quality Management	7	2 – 2	E. Hekelová
Accounting	7	2 – 2	
Economic Analysis of an Enterprise	8	2 – 2	K. Maletzová
Information Systems	8	2 – 2	E. Havlíčková, L. Dedík
Management of Investment Process	8	2 – 2	I. Suchán
Economic Law	8	1 – 1	Š. Gyorgy

Operation Analysis	9	3 – 3	V. Jerz
Strategic Management	9	2 – 2	I. Ščepka
Software Systems I	7	0 – 2	E. Havlíčková
Software Systems II	9	0 – 2	E. Havlíčková
Business Games	10	0 – 3	I. Ščepka
Project Management	10	3 – 2	R. Kotes

IV. RESEARCH TOPICS

Production Technologies and Manufacturing Systems

- NC and CNC Programming of Machine Tools
- Automation of Production Process Planning
- Programming of Industrial Robots and Manipulators
- Technology and Theory of Machining
- Design and Working of Flexible Manufacturing Systems
- Tools, Mechanism and Systems of Cutting Machines for Ultrasonic Hardening of Machined Surfaces of Bearing Castings
- Evaluation of Geometric Surfaces Parameters
- Research of Diamond Films in Technological Applications
- Metrology in Mechanical Engineering

Management of Machinery Enterprises

- New Approaches in Production Control and Logistics an Possibilities of their Application
- Total Quality Management and Role Human Factor Theory of Innovation
- Management of Innovation, Problems of Innovation Activity in Slovakia
- Organization Culture and Teamwork
- Improving Quality of Higher Education
- Financial Management in Manufacturing Companies

V. RESEARCH PROJECTS

- 6th Framework ManVis. Manufacturing Visions. Integrating Diverse Perspectives Info Pan – European Foresight, project under EU 6th Framework Program (A. Pavlov)
- 5th Framework MANTYS, Thematic Network on Manufacturing Technologies – MANTYS, project under EU 5th Framework Program (Š. Valčuha)
- An Innovative Methodology for Assessing and Training Interpersonal – Transferable Skills of Career Starters: Development and Testing, project Leonardo da Vinci (E. Hekelová)
- Development of the new high temperature short time vertebrate blood pasteurization equipment for the tsetse flies diet, IAEA, project International Atomic Energy Agency –12722 (I. Morávek)
- Coordinate Measuring, Grant VEGA 1/1087/04 (A. Krsek)
- Research Facilities New Super Hard Films on Base Boride Titanium on Cutting Tools, VEGA 1138 (Š. Valčuha)

- Information System about Conditions of Machining with WJM and Laser for Request of Integrity Surface, VEGA 1088 (J. Zongor)
- Selected Problems of Production Structures Simulation and Optimization, VTP KE 1200 (M. Tolnay)
- Research and Realization of Virtual Factory in European Research and Manufacturing Area, VTP 1014 (Š. Valčuha)
- Development of Methodology and Compiling Pedagogical Documentation for Bachelor Education in the Field of Manufacturing Systems Automation, grant KEGA 1120 (M. Tolnay)
- Application of Modern Simulations Programs in Subjects of New Study Programs "Production Technologies", KEGA 2411 (M. Tolnay)
- Project of E – learning and Design Virtual Environment in the Field Virtual Enterprises Building on Base Intelligent Manufacturing Systems, KEGA 0103 (M. Tolnay)
- New Methods of Education for Flexible Manufacturing Systems, grant KEGA 2041 (M. Tolnay)
- Intelligent Robotic Systems in the Scientific and Pedagogical Process at the Middle European Universities, project CEEPUS SK – 133 (M. Tolnay)

VI. COOPERATION

VI.1 Cooperation in Slovakia

- Institute for Standardization, Metrology and Testing SR
- Konštrukta - Industry, Inc., Trenčín
- MTF Faculty STU Trnava
- Slovak Academy of Sciences
- Slovak Institute of Metrology
- Slovak Institute of Technical Standardization
- TU Košice, Faculty of Economics
- TU Košice, Faculty of Mechanical Engineering
- TU Zvolen, Faculty of Wood Sciences and Technology
- VOJUS, Inc., Považská Bystrica
- VUNAR, Inc. Nové Zámky
- VW Slovakia, Inc., Bratislava
- ZTS LR – NaJUS, Inc. Dubnica nad Váhom
- ZTS VVÚ Košice, Inc.

VI.2. International Cooperation

- Department of Management, University of Southern Mississippi, USA
- Faculty of Technical Sciences, University of Novi Sad, Serbia and Montenegro
- Forschungsinstitut für Europafragen, Wirtschaftsuniversität, Vienna, Austria
- IMQ - Institut Méditerranéen de la Qualité, Toulon, France
- Institut für Fertigungstechnik, Austauschbau und Messtechnik, TU Vienna, Austria
- Institut für Wirtschaftsforschung, Halle, Germany
- Krakow University of Technology, Mechanical Engineering Faculty, Production Engineering Institute, Poland
- Oradea University, Romania

- OvG Universität Magdeburg, Germany, Institute for Ergonomics, Manufacturing Systems and Automation, Germany
- TechSET, Vienna, Austria
- University of Rouse, Department of Machine Engineering, Bulgaria

VI.3 International Scientific Programs

- 6th Framework ManVis. Manufacturing Visions. Integrating Diverse Perspectives Info Pan – European Foresight, project under EU 6th Framework Program) (A. Pavlov)
- 5th Framework MANTYS. Thematic Network on Manufacturing Technologies – MANTYS, project under EU 5th Framework Program (Š. Valčuha)
- An Innovative Methodology for Assessing and Training Interpersonal – Transferable Skills of Career Starters: Development and Testing, project Leonardo da Vinci (E. Hekelová)
- Development of the new high temperature short time vertebrate blood pasteurization equipment for the tsetse flies diet. IAEA, project International Atomic Energy Agency – 12722 (I. Morávek)

VI.4. Contracts

- HZ No. 51/2004 Manufacture of Anchorage Boards for Robot IRB 2400 (M. Bachratý)
- HZ No. 52/2004 Manufacture of Bearings for Gangboard in the Railway Station Štúrovo (M. Bachratý)

VI.5 Memberships in Domestic Organizations and Societies

- E. Hekelová - Member of the Technological standard creating commission No. 72 Environmental Management
- E. Hekelová - Member of the joint branch commission in the branch 39-76-9 Production quality engineering
- E. Hekelová - Member of an Accreditation Commission, Slovak Republic - working group
- E. Hekelová - Chairperson of the control commission of the Slovak Association of Mechanical Engineers
- E. Hekelová - Member of an Expert commission for developing the content of the study branch Industrial engineering and production quality
- E. Hekelová - Member of the Scientific Board of the Faculty of Mechanical Engineering, STU Bratislava
- E. Hekelová - Member of the Scientific Board of the College of Management, Trenčín, Slovak Republic
- E. Hekelová - Member of the Scientific Board of the science journal Management of industrial Enterprises
- A. Krsek - Member of the joint branch commission 23-07-9 Machinery Technologies and Materials
- A. Krsek - Member of Technical normalization commission N. 77 – GPS
- A. Krsek - Member of testing commission of the SKSI– appointed by the Minister for Environmental issues Slovak Republic
- A. Krsek - Member of the Scientific Council of the Faculty of Mechanical Engineering, STU Bratislava
- A. Krsek - Member of TNK No. 77 Geometric Specifications of Products, Slovak Institute of Technical Normalization, Bratislava

- M. Tolnay – Member of the joint branch commission 23-07-9 Machinery technologies and materials
- M. Tolnay - Member of the joint branch commission 23-45-9 Safety of technical systems and work
- M. Tolnay - Slovak Association of Mechanical Engineers – a president
- M. Tolnay - Member of the Council of the Slovak Association of Scientific-technological Societies
- M. Tolnay - Member of an Accreditation Commission, Slovak Republic - working group
- J. Zongor - Member of the Technological standard creating commission No. 29 Safety of Machines and Ergonomic. Slovak Institute of Technical Normalization, Bratislava

VI.6 Memberships in International Organizations and Societies

- M. Tolnay – member of the International Informatization Academy (UNESCO)
- Š. Valčuha – representative of SR in CECIMO (Brussels)

VI.7 Foreign Visitors to the Department

- P. Herbert Osanna - (Austria, TU Vienna), Consultation about Measurement and Quality Control in Production (4 times 1 day)
- M. Groza - University of Oradea, Romania, may 2004
- Robert Batllori Badia - student University de Girona – Spain, praxis under program IAESTE (2 months)
- Adrian Olaru - Faculty of Engineering and Management of the Technological Systems, Polytechnic of Bucharest, stay under program CEEPUS SK-0133 (1 month)
- Serban Olaru - Faculty of Engineering and Management of the Technological Systems, institute: Machine and Manufacturing Systems, Polytechnic of Bucharest, stay under program CEEPUS SK – 0133 (2 months)
- Ioana Carmen Ivan - Faculty of Engineering and Management of the Technological Systems, institute: Machine and Manufacturing Systems, Polytechnic of Bucharest, stay under program CEEPUS SK – 0133 (2 months)
- Lukasz Czerwicz - Krakow University of Technology, Mechanical Engineering Faculty, Production Engineering Institute, stay under program CEEPUS SK – 0133 (1 month)
- Krzysztof Danhofer - Krakow University of Technology, Mechanical Engineering Faculty, Production Engineering Institute, stay under program CEEPUS SK – 0133 (1 month)
- Adam Slota - Krakow University of Technology, Mechanical Engineering Faculty, Production Engineering Institute, stay under program CEEPUS SK – 0133 (1 month)
- Miroslav Penchev - University of Rouse, Department of Machine Engineering, stay under program CEEPUS SK-0133 (1 month)
- Vladimir Vonev - University of Rouse, Department of Machine Engineering, stay under program CEEPUS SK-0133 (1 month)
- Venelin Dicov - University of Rouse, Department of Machine Engineering, stay under program CEEPUS SK-0133 (1 month)
- Lidia Ts. Ilieva-Mitutsova - Bulgarian Academy of Sciences, Institute of Mechanics and Biomechanics, Department of Biomechanics and Mechatronic systems, stay under program CEEPUS SK – 0133
- Vukelić Djordje - Faculty of Technical Sciences, University of Novi Sad, Serbia and Montenegro, stay under program CEEPUS SK – 0133 (2 weeks)

- Matin Ivan - Faculty of Technical Sciences, University of Novi Sad, Serbia and Montenegro, stay under program CEEPUS SK – 0133 (2 weeks)
- P. Herbert Osanna - (Austria, TU Vienna), Information about project under EU 6th Framework Program NANOMEDISURF (1 day)

VI.8 Visits of Staff Members and Postgraduate Students to Foreign Institutions

- Š. Valčuha - France (Nantes), regular meeting of project solver MANTYS under EU 5th Framework Program (5 days)
- V. Geleta - Poland (Lodz), 1st meeting of project solver from Central and East Europe ManVis under EU 6th Framework Program (4 days)
- A. Krsek - Austria (Vienna), consultations about measuring „free form surfaces on the CMM“ (1 day)
- Š. Valčuha - Krakow University of Technology, Mechanical Engineering Faculty, Production Engineering Institute, stay under program CEEPUS SK – 0133 (1 month)
- A. Krsek - Germany (Audi Ingolstadt), consultation about quality assurance in the automobile industry (2 days)
- M. Králik - Germany (Audi Ingolstadt), consultation about quality assurance in the automobile industry (2 days)
- E. Hekelová - (Faculty of Psychology, Padova), participation on 1st workshop, meeting of project partners and coordinators LEONARDO DA VINCI, UK 03/B/F/PP-162-014 (3 days)
- A. Krsek - Vienna University of Technology, Austria (Vienna), précising table of co - operation contents in year 2004 (1 day)
- M. Tolnay - Romania (Oradea), active participation on the international conference IMT ORADEA – 2004 (4 days)
- Š. Valčuha - Romania (Oradea), active participation on the international conference IMT ORADEA – 2004 (4 days)
- A. Pavlov - Romania (Oradea), active participation on the international conference IMT ORADEA – 2004 (4 days)
- M. Králik - Romania (Oradea), active participation on the international conference IMT ORADEA – 2004 (4 days)
- A. Krsek - Vienna University of Technology, Austria (Vienna), consultation about determination of performance specs on the CMM (1 day)
- A. Pavlov - Bulgaria (University of Rouse), stay under program CEEPUS SK-0133 (1 month)
- I. Morávek - Austria (Seibersdorf), participation on inspection day of international projects IAEA - International Atomic Energy Agency –12722 ((1 day)
- Š. Valčuha - France (Paris), Belgium (Brussels), workshop under EU 6th Framework Program: „New integrated technical and business relationship in manufacturing through Virtual Factory after EU 25“ (4 days)
- M. Tolnay - Belgium (Brussels), visit on the international fair “Industrial Equipment – New industrial technologies” (3 days)
- E. Hekelová - Bosnia a Hercegovina, active participation on the 8th international conference „Trends in the development of machinery and associated technology“ (6 days)
- A. Pavlov - Bulgaria (Varna), active participation on the 4th international congress „Mechanical technologies MT 2004 (7 days)
- Š. Valčuha - Germany (Stuttgart), regular scheduled network meeting of solvers the project 5th framework MANTYS (5 days)

- A. Krsek - Austria (Vienna), acceptance of materials from workshop „Measurement and Quality Control in Production“and discussion (1 day)
- A. Pavlov – The Netherlands (Twente University Enschede), workshop of members from 22 states after finishing 1st phase of project ManVis under EU 6th Framework Program (5 days)
- I. Morávek - Austria, meeting of solvers the international project IAEA - International Atomic Energy Agency –12722 (1 day)
- A. Krsek - Austria (Vienna), consultation about calibration CMM (1 day)
- L. Hrubá - Slovenia (Portoroz), active participation on the conference “Thin Films + Surface Engineering” – poster section (5 days)

VII. THESES

VII.2 Graduate Theses (Diploma works)

(Supervisor's name in the brackets)

Study branch: Manufacturing Systems with Industrial Robots and Manipulators

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|--|----------------|
| [1] Adámová, A.: <i>Tests of cutting environments – design of the testing equipment to determine the influence of cutting environments on telescopic cover wiper</i> | (M. Bachratý) |
| [2] Baránková, J.: <i>Technology design for manufacturing</i> | (M. Škvrnda) |
| [3] Bobák, J.: <i>Basic principles of surface creating under ultra-precision turning</i> | (V. Geleta) |
| [4] Gavorníková, B.: <i>Program system to calculate and optimize technological parameters</i> | (A. Pavlov) |
| [5] Greguš-Kollár, M.: <i>Design of a technological solution for turning flanged components</i> | (J. Sarka) |
| [6] Hrubec, M.: <i>Cutting conditions to meet maximum productivity and surface quality requirements</i> | (J. Strelecký) |
| [7] Kašiarová, B.: <i>Study of starting points of modulated liquid beams</i> | (V. Geleta) |
| [8] Koreňová, Z.: <i>Interrelation between input factors and output quality of dividing materials by high – pressure liquid beam</i> | (V. Geleta) |
| [9] Kováčik, L.: <i>Design of a methodology to monitor robotized machining</i> | (M. Tolnay) |
| [10] Kubiš, M.: <i>Analysis of nanotechnologies development and their importance for industry</i> | (V. Geleta) |
| [11] Lifka, M.: <i>Design of manufacturing systems layout</i> | (M. Králik) |
| [12] Pánik, J.: <i>Information data - base for the NC cutting machine choice</i> | (J. Zongor) |
| [13] Šefara, A.: <i>Processing blood for breeding tse - tse fly</i> | (I. Morávek) |
| [14] Simcsik, M.: <i>Monitoring technological process</i> | (J. Zongor) |
| [15] Šišlák, J.: <i>Project of a modeled virtual factory based on a link between Department of manufacturing systems and manufacturing enterprises</i> | (Š. Valčuha) |
| [16] Skalák, B.: <i>Using computer simulation to verify selected models of FESTO DIDACTIC system layout</i> | (V. Jerz) |
| [17] Smolová, K.: <i>Liquidation of paste-like waste in breeding med flies</i> | (I. Morávek) |

- [18] Šubín, T.: *Lifting equipment for car assembly line* (A. Červeňan)
 [19] Svorada, J.: *Creating postprocessor for the selected type of CNC machine* (M. Králik)
 [20] Vincze, M.: *Design of a data - base system to support the choice of a cutting environment* (M. Bachratý)
 [21] Viszkocs, Cs.: *Ways to adjust the cutting part of a tool to improve surface roughness* (J. Zongor)
 [22] Zdražil, B.: *Condition of a surface machined as a function of the process of elastic-plastic deformation* (J. Zongor)

Study branch: Management of Machinery Enterprises

- [1] Agrikolyanskiy, A.: *Design of a supplying strategy in the company Motordetal (Russian Federation)* (I. Ščepka)
 [2] Astalošová, I.: *Increasing sales under renting building equipment with an emphasize on quality of services provided and protecting from the abuse of it by the user in the company OTS Bratislava* (M. Šestáková)
 [3] Bača, J.: *Benchmarking in machinery enterprises* (J. Strelecký)
 [4] Bajcsi, L.: *Improving efficiency of the size of staff in shipping locking devices* (I. Janiga)
 [5] Besztró, J.: *Design of an improvement of inventory control in the company "SLK Stroje a mechanizmy"* (V. Jerz)
 [6] Biacovský, B.: *Design of a strategy of a logistical information system to support material flows economy* (V. Jerz)
 [7] Birčáková, J.: *Selected aspects of foreign direct investment in Slovakia* (M. Šestáková)
 [8] Bublavá, L.: *Analysis of a financial situation of selected enterprises* (M. Šestáková)
 [9] Cino, M.: *Design of a warehousing system in a selected firm* (M. Klúčik)
 [10] Dekýšová, J.: *Analysis and optimization of selected logistical activities in the company SLOVALCO* (I. Součková)
 [11] Fabula, P.: *The role of DŽKV division in economic indicators of the Railways of the Slovak Republic and Railway Company* (E. Valentovičová)
 [12] Fedák, M.: *Design of a small enterprise development with the use of EU funds* (I. Ščepka)
 [13] Foltín, M.: *Inventory optimization in the company HYDRONIKA DEE* (V. Jerz)
 [14] Fuker, M.: *Analysis of the system SAP R/3 and its use in practice* (I. Součková)
 [15] Gyurcsovics, T.: *Design of a marketing strategy of the company Slovenské lodenice Komárno* (E. Hekelová)
 [16] Halamová, M.: *Innovation policy in the SR* (J. Strelecký)
 [17] Halász, J.: *Design of a marketing strategy in the company Montostroj* (I. Ščepka)
 [18] Horňáková, A.: *Design of a business strategy in the company "Automatizácia montážnych technológií"* (I. Ščepka)
 [19] Húšek, J.: *Development of a marketing strategy in the production cooperative "TexPrint, Gajary"* (I. Součková)
 [20] Jakabovič, M.: *Price calculations in a machinery company "AG-STROJ, Liptovský Mikuláš"* (P. Urban)

- [21] Kratka, T.: *Design, development and implementation of a logistical information system* (M. Králik)
- [22] Križanová, M.: *Applying MS Access for monitoring and evaluating the influence of idle times on economic parameters of a firm* (A. Pavlov)
- [23] Lukáčiková, Z.: *Possibilities of raising funds at the capital market* (M. Šestáková)
- [24] Mažári, M.: *Mutual funds in the SR and their importance* (M. Šestáková)
- [25] Mišurák, P.: *Time management* (A. Pavlov)
- [26] Mutala, T.: *Technology transfer from universities into practice* (J. Strelecký)
- [27] Mydlo, M.: *Warehousing system with an intelligent out-of-storehouse* (A. Červeňan)
- [28] Palečka, P.: *Design of criteria to evaluate economic efficiency of investment in the company Way Industry, Krupina* (M. Šestáková)
- [29] Sadloň, M.: *Implementing quality system according to ISO 9001:2000 standards in the company GALLY* (J. Záhorcová)
- [30] Sušková, L.: *Innovation trends in machinery enterprises* (J. Strelecký)
- [31] Szabóová, A.: *Analysis of measuring business activities and processes in a manufacturing firm* (E. Hekelová)
- [32] Šipulová, Z.: *Impact of the SR accession to EU on the organization and sales management in the company OTS* (Ľ. Miťková)
- [33] Takáčová, M.: *Design of a process of improving basic operating processes in the firm ProCS* (L. Major)

VII.3 Bachelor works

Study branch: Mechanical production and management

(Supervisor's name in the brackets)

- [1] Baláž, J.: *Transformation of small and medium-sized enterprises into a virtual factory* (D. Somora)
- [2] Bašňák, V.: *Designing technology of machining* (A. Pavlov)
- [3] Benda, P.: *The share of machinery production in Slovakian foreign trade* (V. Jerz)
- [4] Brandisová, L.: *Social contracts, agreements, rights and responsibilities under the 6th Framework Program Projects* (A. Pavlov)
- [5] Brath, Ľ.: *Planning and implementation of a marketing audit in a manufacturing company* (E. Hekelová)
- [6] Brody, M.: *Systems of automated manufacturing systems design* (M. Králik)
- [7] Dedíková, K.: *Applying replacement models to increase efficiency of manufacturing systems operations* (V. Jerz)
- [8] Ďurdíková, A.: *Current situation and development of the capital market in Slovakia* (K. Maletzová)
- [9] Edmár, E.: *Diagnostics of a technological condition and operating characteristics of equipment for automated manufacturing systems* (M. Tolnay)
- [10] Gajdoš, P.: *Design of required changes in a firm due to harmonization of our standards with EU standards* (E. Hekelová)

- [11] Gregorík, E.: *Implementing the LEGO LAB ROBOTIC in teaching the course "Industrial Robots, automation of transport and warehousing"* (M. Tolnay)
- [12] Hanesová, A.: *Analysis of principles and regulations used in maintenance of automated manufacturing systems equipment* (M. Tolnay)
- [13] Hlásnik, P.: *Applying inventories models to increase efficiency of manufacturing systems operation* (V. Jerz)
- [14] Janík, T.: *Design of a transport box to transport medfly's ovum* (M. Kozánek)
- [15] Janotík, M.: *Design of a pricing strategy for the company REBOCAR Slovakia* (I. Ščepka)
- [16] Kaliský, M.: *Possibilities of monitoring and evaluating the impact of idle times in manufacturing systems* (E. Havlíčková)
- [17] Kardoš, R.: *Conditions of improving competitiveness of mechanical engineering products at the domestic and foreign market* (E. Hekelová)
- [18] Koch, M.: *Conditions of introducing new types of production in ZVS HOLDING* (J. Vlnka)
- [19] Koruk, V.: *Analysis of production control system in a machinery enterprise* (I. Součková)
- [20] Kosibová, P.: *Removing technical barriers to trade by means of European TQM model implementation* (E. Hekelová)
- [21] Kováč, B.: *Design of a sorting all for MPVS FESTO-DIDACTIC* (A. Červeňan)
- [22] Kováč, V.: *Analysis of the small and medium sized enterprises sector in Slovakia* (K. Maletzová)
- [23] Kuča, J.: *Project of e- learning in the field of virtual works* (E. Hekelová)
- [24] Labuda, T.: *Design of boxes for breeding tse - tse flies* (I. Morávek)
- [25] Loy, R.: *Design of production control rationalization in the company TATRAVAGÓNKA* (I. Ščepka)
- [26] Luknár, M.: *Numerical control of manufacturing machines* (A. Krsek)
- [27] Majer, P.: *Approaches and methods to optimize material flow in manufacturing systems* (V. Jerz)
- [28] Matúš, M.: *Design of an improvement of the production control system in the company MILKING* (I. Součková)
- [29] Muchová, Z.: *Analysis of financing alternatives for enterprise development* (K. Maletzová)
- [30] Nagyváthyová, M.: *Technological production engineering* (A. Krsek)
- [31] Nižňanský, V.: *Analysis of possibilities to use cutting environments for machining* (M. Bachratý)
- [32] Olšavský, V.: *Automatic NC machines programming* (M. Králik)
- [33] Pajtášová, E.: *Design of a concept of a fire – putting – out robot* (J. Vlnka)
- [34] Paľko, T.: *Design of an input – output location for automated warehousing system* (A. Červeňan)
- [35] Patinková, M.: *Design of a production rationalization in the company STAVBA STROJOV, Vrbovce* (I. Ščepka)
- [36] Petriková, B.: *Removing technical barriers to trade by means of implementing international standards ISO series 9000:2000* (E. Hekelová)
- [37] Piťko, M.: *The influence of cutting environment on the configuration*

- machine – tool – work piece* (M. Bachratý)
- [38] Šaušová, B.: *Production control system and its analysis in a selected enterprise* (I. Součková)
- [39] Schmotzer, O.: *New trends, methods of development and technological applications of layers on cutting tools* (Ľ. Hrubá)
- [40] Šimovič, P.: *Quality of manufacturing machines and equipment and methods of its evaluating* (E. Havlíčková)
- [41] Smeja, M.: *Development of a data-base of industrial robots and manipulators output heads according to classification characteristics* (M. Tolnay)
- [42] Štajer, M.: *Application of a mathematical model to design technological process* (A. Pavlov)
- [43] Vašiová, V.: *Implementing marketing approaches in a firm* (E. Hekelová)

VIII. OTHER ACTIVITIES

- Bachratý, M.: Member of the State exam commission at the Faculty of Mechanical Engineering STU
- Geleta, V.: Member of the state exam commission, Faculty of Mechanical Engineering and Faculty of Architecture STU Bratislava, Slovak Republic
- Hekelová, E., Krsek, A., Zongor, J., Tolnay, M.: Members and chairpersons for PhD. dissertations commissions
- Hekelová, E.: Chairman of Commission of Quality Management System of Education at the Faculty of Mechanical Engineering STU Bratislava
- Hekelová, E.: Chairperson/member of the states exam commission at the Faculty of Mechanical Engineering STU Bratislava, Materials and Technology Faculty STU Trnava, College of Management Trenčín, DF TU
- Hekelová, E.: Member of Academic Senate of Faculty of Mechanical Engineering STU Bratislava
- Hekelová, E.: Member of the Commission for the System of the Quality of Education appointed by the STU rector
- Hekelová, E.: Member of the Council of guarantees of the Engineering study at the Faculty of Mechanical Engineering, STU
- Hekelová, E.: Member of International Programme Committee IMEKO 2004, Germany
- Hekelová, E.: Member of International Programme Committee TOOLS 2004
- Jerz, V.: Member of the State exam commission at the Faculty of Mechanical Engineering STU
- Králik, M.: Member of the State exam commission at the Faculty of Mechanical Engineering STU and Materials and Technology Faculty STU Trnava
- Krsek, A.: Chairperson/member of the states exam commission at the Faculty of Mechanical Engineering STU Bratislava, Materials and Technology Faculty STU Trnava
- Krsek, A.: Member of International Programme Committee of the 8th International Symposium IMEKO “Measurement and Quality Control Production”, Erlangen, Germany 2004
- Krsek, A.: Member of International Programme Committee TOOLS 2004
- Pavlov, A.: Member of the State exam commission at the Faculty of Mechanical Engineering STU, Bratislava
- Ščepka, I.: Member/chairman of the State exam commission at the Faculty of Mechanical Engineering and Faculty of Materials - technology of STU, Slovak republic

- Tolnay, M.: Member of International Programme Committee Automatization/Robotics in theory and practice 2004
- Tolnay, M.: Member of International Programme Committee Nové smery vo výrobných technológiách 2004
- Tolnay, M.: Member of International Programme Committee TOOLS 2004
- Tolnay, M.: Member of the State exam commission at the Faculty of Mechanical Engineering STU, chairman of the State exam commission at TU Košice and on the Faculty of Mechanical Engineering ŽU Žilina
- Tolnay, M.: Technical quadrant of individual sections Mechanical Engineering 2004
- Valčuha, Š.: Chairman of the National Organizing Committee TOOLS 2004
- Valčuha, Š.: Member of the State exam commission at the Faculty of Mechanical Engineering STU, Bratislava
- Zongor, J.: Member of International Programme Committee TOOLS 2004
- Zongor, J.: Member of the Commission for PhD. Dissertations VUT Brno, Faculty of Mechanical Engineering, Czech Republic
- Zongor, J.: Member/chairman of the State exam Commission at the Faculty of Mechanical Engineering STU, Bratislava

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- [2] Bachratý, M.: *Tests of cutting environment to determine the influence on telescopic cover wiper*. In: Proceedings of the conference CO-MAT-TECH 2004, Trnava, ISBN 80-227-2117-4, October 2004, pp. 41- 45.
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- [14] Hekelová, E., Ščepka, I.: *Importance of soft quality improvement methods in the field of measurement*. In.: Proceedings of the conference TOOLS 2004, ISBN 80-227-2043-7, Kočovce, 2004
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- [16] Hekelová, E.: *Needs Identification of Interpersonal Skills for Graduates, Prepared for Manufacturing Engineering: Comparison Study in the Framework of 6 European Countries*. In: Manufacturing Engineering, ISSN 1335 – 7972, Vol. III, No. 3/2004, p. 5 (in Slovak)
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