

## INFORMATION FOR ACCOMODATION

For all information related to accommodation and reservation, please contact:

D.T.T.U. Kinissi Tour Operator, MK-1000 Skopje, Republic of Macedonia  
Tel. +389 2 312 4441 , tel/fax. +389 2 312 5350; 3128 127

**E-mail : kinissi@on.net.mk**

### ACCOMODATION:

#### Conference Venue: **Hotel Bellevue** (A Category)

One bedroom	39 Euro per person	(full board, per day)
Double bedroom	30 Euro per person	(full board, p/day, p/pax)

Additional Accommodation:

#### *Hotel Metropol Annex:*

One bedroom	32 Euro per person	(full board, per day)
Double bedroom	25 Euro per person	(full board, p/day, p/pax)

#### *Private rooms:*

Bed per day in room without own TWC	6,5 Euro per person, per day
Bed per day in room with own TWC	10 Euro per person, per day
Apartment per day, 2 – max 3 persons (one person in room – not available)	50 Euro per day

### SOCIAL PROGRAM:

Sight seeing, Ohrid and area– September 18, 2004:

Options:

1. All day Ohrid excursion by BUS.
2. All day excursion by ship – Ohrid Lake.
3. All day excursion by BUS to Thessaloniki, Greece.
4. All day excursion by BUS to Tirana, Albania.

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**Conference participants will receive Book of Abstracts and Proceeding of full papers on CD**

Registration fee for non-authors:	50 Euro
Conference Proceedings (paper copy)	30 Euro

**Presentation equipment:** Video beam (strongly recommended – PowerPoint presentations), overhead and slide projector.

**Presentation time:** 10 minutes



UNIVERSITY  
“Ss. CIRIL & METODIUS”  
FACULTY OF MECHANICAL ENGINEERING  
SKOPJE, REPUBLIC OF MACEDONIA

*SCIENTIFIC CONFERENCE WITH  
INTERNATIONAL PARTICIPATION*

# MANUFACTURING AND MANAGEMENT IN 21<sup>ST</sup> CENTURY

## - PROGRAM -

*(tentative)*

PRODUCTION AND INDUSTRIAL  
ENGINEERING ASSOCIATION

Ohrid, September 16-17, 2004  
Republic of Macedonia

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Scientific Conference with International Participation

## MANUFACTURING AND MANAGEMENT IN 21ST CENTURY

Ohrid, September 16-17, 2004

### AIM OF THE CONFERENCE

In order to be competitive in 21st century, companies must face new challenges. The way products are manufactured has evolved dramatically in recent decades and manufacturing technology and management will continue to change at an increasing rate. As we move deeper into 21st century, manufacturers must focus their efforts on meeting critical challenges to ensure their future competitiveness and long-term success.

This scientific conference will look for challenges in *manufacturing processes and equipment; modeling and simulation; information systems and integration*. Regardless of the systems and technologies used in manufacturing, it is absolutely essential to have people involved in the every step on the road to the success. There for the management of the companies in 21<sup>st</sup> century is another focus of the conference.

### TOPICS:

- *New Materials, Processes and Technologies*
- *Contemporary Concepts of Tools, Machines and Systems*
- *Robotics and Flexible Automation*
- *Modeling and Simulation*
- *Computer Aided Technologies*
- *Quality Systems*
- *Environment Protection Systems*
- *New Product Management*
- *Focusing on Customers and Employees*
- *Metrics in Processes and Systems*
- *Improvement of Processes and Systems*
- *Strategy and Vision*
- *Virtual Reality*
- *Artificial Intelligence*
- *Education for Production and Management in 21st century*
- *21st century factories*
- *Restructuring of Companies*
- *Transition and Competitiveness*

## PROGRAM

*September 15, 2004*

**10,00 to 22,00 Registration – Hotel Bellevue, Ohrid**

*September 16, 2004*

**08,00 to 10,00 Registration – Hotel Bellevue, Ohrid**

**10,00 Opening ceremony**

*Welcome speeches:*

- Production and industrial engineering association, Skopje, Macedonia
- Government of the Republic of Macedonia
- Faculty of Mechanical Engineering, University "Ss. Cyril and Methodius", Skopje, Macedonia
- Technical Faculty, University "St. Kliment Ohridski", Bitola, Macedonia

**10,20 – 11,00 Plenary session**

**Vladimir Dukovski:** 21<sup>ST</sup> CENTURY CHALLENGES IN MANUFACTURING AND MANAGEMENT (MK)  
Faculty of Mechanical Engineering, University “Ss. Cyril and Methodius”, Skopje, Macedonia

**Delco Jovanoski, Robert Minovski:** THE THEORY IN THE PRACTICE: SOME OF OUR PROJECTS FOR RESTRUCTURING / RATIONALIZATION IN THE MANUFACTURING SYSTEMS  
Faculty of Mechanical Engineering, University “Ss. Cyril and Methodius”, Skopje, Macedonia

**11,00 Cocktail**

## Section M1: Manufacturing Processes and Technologies (Metalworking Industry)

**11,30 – 13,30**

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|-------|---|
| M1-01 | <b>Zoran Pandilov, Vladimir Dukovski:</b><br>STIFFNESS OF NUMERICAL CONTROL MACHINE TOOL FEED DRIVES<br>Faculty of Mechanical Engineering, University “Ss. Cyril and Methodius”, Skopje, Macedonia  |
| M1-02 | <b>Gligorce Vrtanoski, Vladimir Dukovski:</b><br>DEVELOPMENT OF MACHINE TOOL’S POLYMER CONCRETE STRUCTURES (MK)<br>Faculty of Mechanical Engineering, University of “Ss. Cyril and Methodius”, Skopje, Macedonia  |
| M1-03 | <b>Jan Balamucki, Piotr Cichosz, Mikolaj Kuzinowski:</b><br>COMPUTER SYSTEM FOR VISUAL ASSESMENT OF CUTTING TOOLS WEAR AND OTHER TECHNOLOGICAL SURFACES (MK)<br>Institute of Mechanical Engineering and Automation, Wroclaw University of Technology, Wroclaw, Poland |
| M1-04 | <b>Stojance Nusev, Ljuben Dudeski, Gligorce Vrtanovski:</b><br>IDENTIFICATION OF STRESS-DEFORMATION STATE OF THE MECHANICAL CRANK PRESS STRUCTURE (MK)<br>Technical Faculty, University “St. Kliment Ohridski”, Bitola, Macedonia                                     |
| M1-05 | <b>Georgi Ivanov, Dimcho Donkov, Desislav Totev:</b><br>CNC LONGITUDINAL-SECTION ROD TURNING AUTOMATIC MACHINE WITH A MAGAZINE FEEDER FOR TWO-SIDED MACHINING OF A WORKPIECE<br>Technical University – Gabrovo, Gabrovo, Bulgaria                                     |
| M1-06 | <b>Georgi Ivanov, Dimcho Donkov, Desislav Totev:</b><br>COUNTER SPINDLE FOR MACHINING THE REVERSE SIDE OF A WORKPIECE AS PART OF A CNC ROD TURNING AUTOMATIC MACHINE<br>Technical University – Gabrovo, Gabrovo, Bulgaria   |
| M1-07 | <b>B. Samakoski, A. Markoski, Z. Skoloski, A. Buckovski, A. Milosevski, A. Sekuloski:</b><br>ROBOTICS AND VISION RECOGNITION FOR INTRODUCTION TO FLEXIBLE AUTOMATION (MK)<br>MIKROSAM, Prilep, Macedonia  |
| M1-08 | <b>Vasil Georgiev, I. Chetrokov, S.Salapatava:</b><br>INTELLIGENT LATHE TURNING COMPUTER CONTROL SYSTEM MODEL<br>Technical University-Sofia, Plovdiv Branch, Bulgaria   |

- M1-09 **Dan-Lucian Lihtețchi, Liviu Daniel Budaciu, Ioan Lihtețchi, Daniela Strat:**  
MOBILE ROBOTS USING MICROCONTROLLER  
Technical University “Gh. Asachi” Iași, Control and Computer Engineering Faculty, Iași, Romania
- M1-10 **I. Karabegović, M. Jurković, V. Doleček, D. Hodžić:**  
APPLICATION OF INDUSTRY ROBOTS AT THE FLEXIBLE CONSTRUCTION SYSTEMS  
University of Bihać, Faculty of Technical Engineering - Bihać, Bosnia and Hercegovina
- M1-11 **Miglena Dantschewa, Regine Bolter, Gdio Kempster, Karl-Heinz Weidmann, Andreas Künz:**  
DEVELOPMENTS IN THE AREA OF THE VIRTUAL REALITY AT THE USER CENTERED TECHNOLOGIES RESEARCH INSTITUTE  
Technologies Research Institute, Vorarlberg University of Applied Science, Dornbirn, Austria
- M1-12 **Miglena Dantschewa, Pascale Roux, Guido Kempster, Marin Marinov:**  
INVESTIGATION OF WEIGHT-THRESHOLD FROM VIRTUALLY HAPTICAL PERCEPTIONS  
Vorarlberg University of Applied Sciences, Dornbirn, Austria

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### 13,30 – 16,00 Lunch

### 16,00 – 17,30

- M1-13 **Sofija Sidorenko, Vladimir Dukovski:**  
KNOWLEDGE BASED SOFTWARE FOR VIRTUAL NC MANUFACTURING  
Faculty of Mechanical Engineering, University of “Ss. Cyril and Methodius”, Skopje, Macedonia
- M1-14 **Alan Topčić, Ramiz Šelo, Džemo Tufekčić, Muhamed Mehmedović:**  
SIMULATION OF WORK OF THE VIRTUAL FLEXIBLE MANUFACTURING CELL  
Faculty of Mechanical Engineering, University of Tuzla, Tuzla, Bosnia and Herzegovina
- M1-15 **Adelina Han:**  
A PROPOSED DESIGN FOR AN OPTIMISED LASER SYSTEM  
"Politehnica" University of Timisoara, Faculty of Mechanical Engineering, Romania
- M1-16 **Miroslav Radovanovic:**  
COMPARISON OF LASER AND PLASMA CUTTING  
Faculty of Mechanical Engineering, Nis, Serbia and Montenegro

- M1-17 **Miroslav Radovanovic:**  
PRECISION CUTTING BY ABRASIVE WATERJET  
Faculty of Mechanical Engineering, Nis, Serbia and Montenegro
- M1-18 **Predrag Janković, Miroslav Radovanović, Nebojša Vićovac:**  
ESSENTIAL COMPONENTS OF ABRASIVE WATER JET CUTTING MACHINES  
Faculty of Mechanical Engineering, Nis, Serbia and Montenegro
- M1-19 **Piotr Cichosz, Maciej Kowalski, Mikolaj Kuzinovski:**  
MATHEMATICAL MODELING OF DETERMINED SURFACE TOPOGRAPHY (MK)  
Institute of Mechanical Engineering and Automation, Wrocław University of Technology, Wrocław, Poland
- M1-20 **Piotr Cichosz, Maciej Kowalski, Mikolaj Kuzinovski:**  
MATHEMATICAL MODELING OF RANDOM SURFACE TOPOGRAPHY (MK)  
Institute of Mechanical Engineering and Automation, Wrocław University of Technology, Wrocław, Poland
- M1-21 **Mikolaj Kuzinovski, Vladimir Pavlovski, Piotr Cichosz, Henryk Zebrowski:**  
SURFACE ENGINEERING IN THE PROCESSES OF MACHINING WITH MATERIAL REMOVAL (MK)  
Faculty of Mechanical Engineering, Skopje, Macedonia

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### 17,30 – 17,45 Coffee break

### 17,45 – 19,30

- M1-22 **Neven Trajcevski, Mikolaj Kuzinovski, Velimir Filiposki, Piotr Cichosz:**  
COMPUTER-AIDED MEASUREMENT OF THE TEMPERATURE IN THE CUTTING PROCESS BY MACHINING WITH TURNING  
Army of Republic of Macedonia, Skopje, Macedonia
- M1-23 **Dinu Gubencu:**  
THE ACTIVE CONTROL SIMULATION OF CYLINDRICAL GRINDING PROCESS  
"Politehnica" University of Timisoara, Faculty of Mechanical Engineering, Romania
- M1-24 **Vasil Georgiev, Svetlin Lilov:**  
APPLICABILITY OF ADAPTIVE CONTROL THROUGH FEEDING REGULATION IN DEEP HOLE DRILLING  
Technical University Plovdiv, Plovdiv, Bulgaria
- M1-25 **Georgi Ivanov, Asen Naidenov, Josif Mitev:**  
RELIEVING OF STEP DRILLS ON AN IZM05 AUTOMATIC MACHINE  
Technical University – Gabrovo, Gabrovo, Bulgaria

- M1-26 **Georgi Ivanov, Asen Naydenov, Josif Mitev:**  
RELIEVING AND SHARPENING OF COMBINATION DRILLS ON AN IZM 05 AUTOMATIC MACHINE  
Technical University – Gabrovo, Gabrovo, Bulgaria
- M1-27 **Ljiljana Petrovic, Živoslav Adamović:**  
EXPERT SYSTEMS FOR MAINTENANCE OF TECHNIC SYSTEMS  
Technical faculty Mihajlo Pupin, Zrenjanin, Serbia and Montenegro
- M1-28 **Stojance Nusev, Ljuben Dudeski, Gligorce Vrtanovski:**  
EXPERIMENTAL ANALYSIS OF THE INFLUENCE OF SUPPORTING DEVICES ON STATICAL CHARACTERISTICS OF MECHANICAL CRANK PRESS (MK)  
Technical Faculty, University St. Kliment Ohridski, Bitola, Macedonia
- M1-29 **Dimcho Donkov, Geogi Ivanov, Desislav Totev:**  
METHODOLOGY FOR ADAPTIVE DESIGN OF TOOL COMPLEXES  
Technical University – Gabrovo, Gabrovo, Bulgaria
- M1-30 **G. Todorov, Galina Nikolcheva:**  
ANALYSIS APPROACH OF MODULAR BASED REASSEMBLING FIXTURES  
Technical University of Sofia, Bulgaria
- M1-31 **Slobodan Mitrovic, Bogdan Nedic:**  
VIRTUAL SIMULATION OF A GUIDING SYSTEM FOR ECCENTRICALLY LOADED SLIDE WAYS  
Faculty of Mechanical Engineering, University of Kragujevac, Serbia & Montenegro

**20,30** *Welcome dinner*

**September 17, 2004**

**09,00 – 10,45**

- M1-32 **Dinu Gubencu, Adelina Han:**  
COMPARISON BETWEEN THE SYSTEMATIC ERRORS OBTAINED FOR CONTACT AND NO CONTACT PNEUMATIC ACTIVE CONTROL OF CYLINDRICAL SURFACES  
"Politehnica" University of Timisoara, Faculty of Mechanical Engineering, Romania
- M1-33 **Vladislav Blagojević, Čedomir Milosavljević, Miodrag Stojiljković:**  
ADVANTAGES OF DIGITAL POSITION CONTROL WITH SLIDING MODE OF THE DOUBLE ACTING PNEUMATIC CYLINDER  
Faculty of Mechanical Engineering of Nis, Nis, Serbia and Montenegro

- M1-34 **Cioara Romeo, Marascu-Klein Vladimir, Pisarciuc Cristian:**  
COMPUTATION OF COUPLINGS WITH CONIC FRICTION SURFACES, USED ON MECHANICAL PRESSES  
Transilvania University of Brasov, Romania
- M1-35 **Gheorghe Catalin:**  
ROMANIAN MACHINE TOOLS PRODUCTION AND CONSUMPTION ANALYSIS  
Transilvania University of Brasov, Brasov, Romania
- M1-36 **Valentina Gecevska, Mikolaj Kuzinovski, Vladimir Dukovski, Dusan Cakmakov:**  
GENETIC ALGORITHMS FOR DESIGN OF MANUFACTURING PROCESSES  
Faculty of Mechanical Engineering, University “St. Cyril and Methodius”, Skopje, Republic of Macedonia
- M1-37 **Dejan Tanikic, Miodrag Manic:**  
PREDICTING CUTTING FORCES IN METAL CUTTING PROCESS USING THE ARTIFICIAL NEURAL NETWORKS  
Technical Faculty – Bor, University of Belgrade, Bor, Serbia and Montenegro
- M1-38 **Valery Svinin:**  
NEW WAYS OF REALIZATION OF VARIABLE SPEED CUTTING FOR SUPPRESSION OF REGENERATIVE CHATTER VIBRATIONS IN MILLING  
Chita State University, Chita, Russia
- M1-39 **Jan Balamucki, Piotr Cichosz, Pawel Karolczak:**  
MACHNABILITY OF ALUMINIUM COMPOSIT MATERIAL REINFORCED WITH Al<sub>2</sub>O<sub>3</sub> FIBRE  
Institute of Mechanical Engineering and Automation, Wroclaw University of Technology, Wroclaw, Poland
- M1-40 **Sabahudin Ekinovic, Muhamed Mehmedovic:**  
INFLUENCE OF MACHINING CONDITIONS ON THE CHIP FORMATION PROCESS AND THE WHITE LAYER APPEARANCE IN HIGH SPEED MILLING OF HARDENED STEEL  
University of Zenica, Faculty of Mechanical Engineering, Zenica, Bosnia and Herzegovina
- M1-41 **Vladimir Pavlovski, Valentina Gecevska:**  
IMPROVEMENT OF TOOL LIFE FOR CUTTING TOOLS IN CARDBOARD PRODUCTION PROCESS  
University “St. Cyril and Methodius”, Faculty of Mechanical Engineering, Skopje, Republic of Macedonia

**10,45 – 11,00 Coffee break**

**11,00 – 13,00**

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- M1-42 **Andrijana Bocevska, Stojance Nusev:**  
DETERMINATION OF MATHEMATICAL MODEL FOR  
DEPENDENCE OF TOOL LIFE FROM CUTTING DATA (MK)  
Technical Faculty, University “St. Kliment Ohridski”, Bitola, Macedonia
- M1-43 **Angel Lengerov, R. Racev, P. Serafimova:**  
INVESTIGATION OF THE ELASTIC DEFORMATION ERRORS IN  
TURNING OPERATIONS (MK)  
Technical University Sofija, Branch Plovdiv, Plovdiv, Bulgaria
- M1-44 **Angel Lengerov, R. Rachev, P. Naumovski:**  
DURABILITY OF THE CUTTING TOOL AT VIBRATION CUTTING  
Technical University - Sofia, Plovdiv Branch, Bulgaria
- M1-45 **Peter Krajnik, Janez Kopac:**  
EFFICIENCY OF FAST PROCESS CHARACTERISATION IN  
GRINDING  
Faculty of Mechanical Engineering, University of Ljubljana, Slovenia
- M1-46 **Genadii Takov, Slavcho Donchev, Alexandar Makedonski:**  
OPTIMIZATION OF TECHNOLOGICAL FACTORS IN THE CASE OF  
OUTER FLAT GRINDING OF ALLOY STEELS  
University of Mining and Geology “St. Ivan Rilski”, Sofia, Bulgaria
- M1-47 **Rayna Vucheva, Lubomir Rashev, Mariana Trifonova:**  
NEW OPPORTUNITIES FOR PROCESSING INVESTIGATION AND  
DESIGN OF CONE-ROLL MILLS  
University of Mining and Geology, Sofia, Bulgaria
- M1-48 **Rayna Vucheva, Ognian Kiuchukov:**  
INVESTIGATION OF THE FRICTION RELATIONS  
AT THE PROCESS OF GRINDING BY ROLLS  
University of Mining and Geology, Sofia, Bulgaria
- M1-49 **Rayna Vucheva, Mariana Trifonova:**  
INVESTIGATION OF THE MOTION OF MATERIAL TO BE MILLED  
ON THE DISCS BY MEANS OF MATHEMATICAL MODELS  
University of Mining and Geology, Sofia, Bulgaria
- M1-50 **Todor Kuzmanov, Hristo Metev:**  
LIFE-TIME OF GEAR MACHINING TOOLS WITH “Ni-P” COATING  
APPLIED BY “PVD” METHOD  
Technical University Gabrovo, Gabrovo, Bulgaria
- M1-51 **Galina Nikolcheva:**  
MINIMAL DISTANCE METHOD FOR PROFILING OF END MILLS,  
FOR MACHINING OF HELICAL SURFACES  
Technical University - Sofia, Sofia, Bulgaria

- M1-52 **Pisarciuc Cristian, Sarbu Flavius:**  
POLYCRYSTALLINE DIAMOND TOOLS IN MACHINING  
COMPOSITES MATERIALS  
Transilvania University of Brasov, Brasov, Romania
- M1-53 **Vesna Mandić, Milentije Stefanović:**  
FORGING PREFORM DESIGN USING A FINITE ELEMENT  
SIMULATION  
Faculty of Mechanical Engineering, Kragujevac, Serbia and  
Montenegro
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**13,00 – 15,00 Lunch****15,00 – 16,40**

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- M1-54 **Igor Lazarev, Ljuben Dudeski, Atanas Kocov:**  
DETERMINATION OF STRESS-STRAIN CONDITION FOR WIRE  
DRAWING DIE BY USING FEA  
Faculty of Mechanical Engineering, University of Ss. Cyril and Methodius,  
Skopje, Macedonia
- M1-55 **Plavka Skakun, Leposava Šidjanin, Miroslav Plančak, Dragiša Vilotić:**  
A CONTRIBUTION TO THE INVESTIGATION OF COLD RADIAL  
EXTRUSION OF GEAR-LIKE ELEMENTS  
University of Novi Sad, Faculty of Technical Sciences, Institute for  
production engineering, Novi Sad, Serbia and Montenegro
- M1-56 **Srdan Mladenović, Predrag Janković:**  
PARAMETRIC DESIGN OF COMPLEX SHEET METAL FORMING  
TOOLS  
Faculty of Mechanical Engineering, Nis, Serbia and Montenegro
- M1-57 **Jasmina Caloska, Jovan Lazarev:**  
MODELING OF AL-PROFILES EXTRUSION PROCESS BY USING  
CFD TECHNOLOGY (MK)  
Faculty of Mechanical Engineering, University of “Ss. Cyril and  
Methodius”, Skopje, Macedonia
- M1-58 **Mirko Sokovic, Peter Panjan, Robert Kirn:**  
DUPLEX TREATMENT – TECHNOLOGY FOR IMPROVEMENT OF  
DIES CASTING TOOLS  
Faculty of Mechanical Engineering, University of Ljubljana, Slovenia
- M1-59 **Mladimir Milutinović, Miroslav Plančak, Vilotić Dragiša, Vesna  
Mandić, Milentije Stefanović:**  
COLD INDENTING OF CONE- LIKE PUNCH  
Faculty of Technical sciences, Novi Sad, Serbia and Montenegro

- M1-60 **Atanas Kocov, Jovan Lazarev, Ljuben Dudeski, Dijana Spaseska**  
EXPERIMENTAL DETERMINATION OF THE MECHANICAL PROPERTIES OF COMPOSITE MATERIAL USED FOR METALFORMING TOOL DESIGN  
Faculty of Mechanical Engineering, University of Ss. Cyril and Methodius, Skopje, Macedonia
- M1-61 **Cioara Romeo, Marascu-Klein Vladimir, Pisarciuc Cristian:**  
FAMILY OF COMPACT DEVICES FOR PRECISION CUTTING. NEW CONSTRUCTIONS  
Transilvania University of Brasov, Brasov, Romania
- M1-62 **Svetlana.A.Risteska , Jovan K.Mickovski**  
EXPERIMENTAL ESTIMATION OF PLASTICITY'S RESOURCE AND STRESS STATE AlMgSi0.5 ALLOY BY COMPRESSION FOR DIFFERENTS TEMPERATURE AND STRAIN RATE  
Faculty of Technology and Metallurgy, University "Ss. Cyril and Methodius", Skopje, Macedonia
- M1-63 **Sarbu Flavius, Pisarciuc Cristian:**  
THE MACHINING OF MODERN CUTTING TOOLS MATERIALS, ECD & ECDM, AN ECONOMICAL SOLUTION  
Transilvania University of Brasov, Brasov, Romania

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**16,40 – 17,00 Coffee break**

**17,00 – 18,45**

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- M1-64 **Alin Nioață, Dan Dobrotă:**  
THE PRINCIPLE ON WHICH THE DIMENSIONAL WORKING IS BASED THROUGH COMPLEX ELECTRICAL EROSION  
University "Constantin Brâncuși", Tirgu-Jiu, Romania
- M1-65 **Alin Nioață, Dan Dobrotă:**  
THE PARAMETERS AND FACTORS OF THE PROCESS OF WORKING THROUGH COMPLEX EROSION AND THEIR INFLUENCE UPON THE PROCESSING  
University "Constantin Brâncuși", Tirgu – Jiu, Romania
- M1-66 **Milan Nikolić, Dušan Jovanić:**  
MULTICRITERIA APPROACH TO THE SELECTION OF THE ARC WELDING METHOD  
University of Novi Sad, Technical Faculty "Mihajlo Pupin", Zrenjanin, Serbia and Montenegro

- M1-67 **Ivan Samardžić, Slavko Sebastjanović, Božo Despotović, Ljupčo Eftimov:**  
BUTT WELDING OF PIPES IN STEAM BOILER MANUFACTURING USING CNC TIG WELDING MACHINE  
University in Osijek, Mechanical Engineering Faculty, Slavonski Brod, Croatia
- M1-68 **Zvonimir Kolumbić, Ivan Samardžić, Štefanija Klarić:**  
COMPARISON OF MAIN WELDING PARAMETERS STABILITY – AUTOMATIC AND SEMIAUTOMATIC MAG WELDING  
University in Osijek, Mechanical Engineering Faculty, Sl. Brod, Croatia
- M1-69 **Alan Topčić, Džemo Tufekčić, Ramiz Šelo:**  
INFLUENCE OF PROCESS PARAMETERS ON ROUGHNESS AND TEXTURE OF FLAT FILL IN SURFACES OF PARTS PRODUCED BY SELECTIVE LASER SINTERING PROCESS  
University of Tuzla, Faculty of Mechanical Engineering Tuzla, Bosnia and Herzegovina
- M1-70 **Dobre Runčev, Lutz Dorn, Shiva Shrestha:**  
WELDING AND SURFACING WITH LASER OF AMORPHOUS MATERIALS (MK)  
Faculty of Mechanical Engineering, University of Ss. Cyril and Methodius, Skopje, Macedonia
- M1-71 **Gjorgi Adziev, Aleksandar Sedmak:**  
STRESS-STRAIN ANALYSIS OF THE FRACTURE BEHAVIOR OF HAZ CRACKED WELDED SPECIMENS (MK)  
Faculty of Mechanical Engineering, University Ss. Cyril and Methodius, Skopje, Macedonia
- M1-72 **Călin Denes:**  
UNCONVENTIONAL TECHNOLOGY EMPLOYED IN THE PROCESSING OF MINIATURAL REVOLUTION SURFACES "Lucian Blaga" University, Sibiu, Romania
- M1-73 **Călin Denes:**  
THE IMPROVEMENT IN THE HOLES' PRECISION PERFORMED USING THE WIRE ELECTRICAL DISCHARGE MACHINING "Lucian Blaga" University, Sibiu, Romania
- M1-74 **Nadezhda Salabasheva, Gardi Gardev, Nikolas Radev, Ivan Yanchev:**  
INVESTIGATION OF THE CUTTING CONDITIONS IN DOUBLE WHEEL PLANE LAPPING  
University of Food Technology, Plovdiv, Bulgaria
- M1-75 **Dr. Gašper Gantar , Prof. Dr. Karl Kuzman:**  
PLANNING OF SHEET METAL FORMING PROCESSES BY THE USE OF NUMERICAL SIMULATIONS  
Faculty of Mechanical Engineering, Univerzity of Ljubljana, Slovenia

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**18,45 End of session – Closing remarks**

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## Section M2: Manufacturing Processes and Technologies (Other Industries)

11,30 – 13,30

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- M2-01 **Radomir Radiša, Ivan Obradović, Boško Bojović, Petar Beličev:**  
APPLICATION OF NUMERICAL METHODS IN VITAL LOADED  
STRUCTURE DESIGN  
LOLA System – Lola Institute, Belgrade, Serbia and Montenegro
- M2-02 **Ioan Lihtețchi, Daniela Strat, Dan-Lucian Lihtețchi:**  
DESCRIPTIVE GEOMETRY IN COMPUTER 3D MODELLING  
“Transilvania” University of Brasov, Descriptive Geometry and Computer  
Graphics Dept., Brașov, Romania
- M2-03 **Duško Letić, Eleonora Desnica:**  
STRESS AND STRAIN CALCULATION BY APPLYING A METHOD  
OF FINITE ELEMENTS ANALYSIS  
Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia and Montenegro
- M2-04 **Liviu Palaghian, Sorin Ciortan, Mioara Bucsa:**  
ARTIFICIAL NEURAL NETWORKS TOOL FOR FATIGUE DAMAGE  
MODELLING  
"Dunarea de Jos" University, Galati, Romania
- M2-05 **Paul E. Labossiere, Kenneth E. Perry:**  
CALIBRATED FINITE ELEMENT MODELING FOR NiTi MEDICAL  
DEVICE MANUFACTURABILITY AND RELIABILITY  
Department of Mechanical Engineering, University of Washington, Seattle,  
Washington, USA
- M2-06 **Atanas Kocov, Mark Tuttle, Paul Labossiere, Patrick Gates:**  
EXPERIMENTAL DETERMINATION OF BENDING FLEXURAL  
RIGIDITIES FOR TRAILSKATES  
Department of Mechanical Engineering, University of Washington, Seattle,  
Washington
- M2-07 **Viara Pozhidaeva:**  
MODEL SPECTRUM OF THE VIBRATIONS OF RUBBER-BELT  
CONVEYORS IN OPEN PIT MINING  
University of Mining and Geology “St. Ivan Rilski”, Sofia, Bulgaria
- M2-08 **Eleonora Desnica, Duško Letić:**  
GRAPHIC COMMUNICATIONS AND NETWORK SUPPORT IN  
MACHINE MECHANISMS DESIGN  
Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia and Montenegro
- M2-09 **Ivan Balashev:**  
STUDYING THE DYNAMIC LOADS ON THE LIFTING MECHANISM  
ELEMENTS OF A ROPE ELECTRIC HOIST IN HOISTING OF  
CARGO  
Technical University - Gabrovo, Gabrovo, Bulgaria

- M2-10 **Ivan Lenuzzi:**  
RISK MODELLING WHEN MANUFACTURING OF NEW TYPE OF  
GAS TURBINE ON THE STOCK BASIS  
Alstom Croatia Ltd., Karlovac, Croatia
- M2-11 **Emil Assenov, Rayna Vucheva:**  
A STUDY OF KINEMATICAL AND DYNAMIC PARAMETERS  
OF CENTRIFUGAL ROLL MILL  
Technical University - Sofia, Sofia, Bulgaria
- M2-12 **Eugeniusz Rusinski:**  
COMPUTER AIDED DESIGN VALES OF BASIC MACHINES FOR  
OPEN CAST MINING  
Institute Of Machines Design And Operation, Wroclaw University of  
Technology, Wroclaw, Poland
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13,30 – 16,00 Lunch

16,00 – 17,30

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- M2-13 **Vlodzimir A. Lubnauer:**  
DYNAMICS OF THE PLATFORM OF THE BUCKET CAR  
Department of General Mechanics, Technical University of Lodz, Lodz,  
Poland
- M2-14 **E. Assenov, M. Yancheva, L. Lazov:**  
A METHOD OF DRIVING CRITERIA AND EQUATIONS OF  
CRITERIA IN THE WORKING PROCESS OF THE CENTRIFUGAL  
IMPACT VIBRATING MILL  
Technical University - Sofia, Sofia, Bulgaria
- M2-15 **Bogdan Stoyanov, Yordan Beyazov, Vlayko Peychev:**  
RING JET REFLECTION FLUID SENSORS FOR OPERATION IN  
EXTREME CONDITIONS  
Institute of Metal Science, Bulgarian Academy of Sciences, Sofia, Bulgaria
- M2-16 **Sergey Kirov:**  
THE INFLUENCE OF PLASMA-ARC THERMAL TREATMENT ON  
THE STRUCTURE FORMATION OF GREY CAST IRONS  
The Technical University of Varna, Varna, Bulgaria
- M2-17 **Werner Ștefănescu, Adrian Pugna, Gabriela Proștean:**  
CONSIDERATIONS REGARDING MANUFACTURING OF  
SINTERING BASALT PARTS  
Technical University “Politehnica” Timișoara, Romania



- M2-18 **Dan Dobrotă, Alin Nioață:**  
THE INFLUENCE OF GEOMETRY UPON WEARING THE  
TOOLS DURING THE RUBBER WASTES MINCING  
University “Constantin Brâncuși”, Tîrgu-Jiu, Romania
- M2-19 **Dan Dobrotă, Alin Nioață:**  
THE MATHEMATICAL MODELLING OF THE MINCING  
PROCESS OF THE RUBBER WASTES  
University “Constantin Brâncuși”, Tîrgu-Jiu, Romania
- M2-20 **Plamen Dinkov:**  
INVESTIGATION OF THE ADHESION TENSILE STRENGTH OF  
THERMAL SPRAYED COATINGS WITH APPLICATION IN THE  
CHEMICAL PLANT ENGINEERING  
Institute of Metal Science, Welding Department, Sofia, Bulgaria
- M2-21 **Ivan Mitev:**  
KINETICS OF DIFFUSION PROCESSES IN CARBONIZING IRON-  
COPPER POWDER-METALLURGIC MATERIALS  
Technical University – Gabrovo, Gabrovo, Bulgaria
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**17,30 – 17,45 Coffee break**

**17,45 – 19,30**

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- M2-22 **Sebastian Baloš, Dragan Rajnović, Marko Knežević, Lepasava Šidanin, Pavel Kovač:**  
DEFORMATION OF GRAPHITE NODULES UNDER DIFFERENT  
LOADS  
Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia  
and Montenegro
- M2-23 **V. Toshkov, A. Zyumbilev:**  
INFLUENCE OF THERMAL AND THERMO-CHEMICAL  
TREATMENTS ON THE STRUCTURE OF STEEL  
4Cr12Ni8Mn8MoVNb  
Technical university of Sofia, Sofia, Bulgaria
- M2-24 **Aleksandar Makedonski, Pavel Manolev, Boris Makedonski, Detchco Matev:**  
INTEGRATED STUDY OF THE TRIBOLOGICAL  
CHARACTERISTICS OF THE FERROMAGNETIC MATERIALS  
Technical University – Sofia, Sofia, Bulgaria
- M2-25 **Lyubomir Stanev, Georgi Komitov:**  
EFFECT OF REPAIR-RESTORE TECHNOLOGY “XADO” ON  
PROPERTY OF WORK SURFACE IN WEAR OUT PROCESS  
Technical University-Sofia, branch Plovdiv, Plovdiv, BULGARIA

- M2-26 **Nikolai Kutcharov , Hristo Streshkov, Dimiter Stankov:**  
ELECTRO-CHEMICAL METHOD FOR LINKING ALUMINUM  
ALLOYS BARRELS IN “ARSENAL” JSK  
“Arsenal” JSK, Kazanlak, Bulgaria
- M2-27 **Dimko Dimeski, Dijana Spaseska, Zore Angelevski:**  
COMPOSITE MATERIALS FOR PERSONAL BALLISTIC  
PROTECTION (MK)  
“Eurokompozit” Prilep, Macedonia
- M2-28 **Danijel Šogorović:**  
AN ANALYSIS OF PRODUCTION OF COMPOSITE PARTS BY  
FILAMENT WINDING WITH SYSTEM'S THEORY  
Faculty of Mechanical Engineering and Computing, Mostar, Bosnia and  
Herzegovina
- M2-29 **Milena N. Koleva, Grigor A.Boijadjiyski:**  
NON-ASBESTOS FRICTION COMPOSITE MATERIAL BASED ON  
UP/SB AND UP/SBR POLYMER SYSTEMS  
Technical University of Gabrovo, Gabrovo, Bulgaria
- M2-30 **Boris Jankovski, Ljuben Dudeski:**  
NEW MATERIAL AN TECHNOLOGY FOR FIRE DISTINGUISHER  
VEDA, Skopje, Macedonia
- M2-31 **Vineta Srebrenkoska, Gordana Bogoeva-Gaceva, Dime Dimeski:**  
FEATURES OF PULTRUDED MATERIALS WITH DIFFERENT  
TYPES OF POLIMER MATRECES (MK)  
Eurokompozit 11 Oktomvri, Prilep, Makedonija
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**20,30 Welcome dinner**

**September 17, 2004**

**9,00 – 10,45**

- M2-32 **Dijana Spaseska, Jadranka Blazevska-Gilev:**  
TECHNOLOGY TRANSFER FOR POLYMER WASTE RECYCLING  
(MK) Faculty of Technology and Metallurgy, University "Ss. Cyril and  
Methodius", Skopje, Macedonia
- M2-33 **Rozeta Evtimova , Rositsa Madjarova, Denitsa Georgieva, Hans-  
Dieter Hunger, Gerhard Behrendt:**  
POLYMER WOOD COMPOSITES BASED ON RECYCLING  
PRODUCTS FROM CONDENSATION POLYMERS  
University of Chemical Technology and Metallurgy, Sofia, Bulgaria
- M2-34 **Jasmina Caloska, Valentino Stojkovski, Dimitri Kozinakov:**  
INFLUENCE OF PERCENTAGE OF RECYCLED MATERIAL INTO  
THE BASIC MATERIAL TO THE MECHANICAL  
CHARACTERISTICS OF PE100 PIPES (MK)  
Faculty of Mechanical Engineering, University of Ss. Cyril and Methodius,  
Skopje, Macedonia
- M2-35 **Donka Bodurova, Milcho Angelov:**  
INTENSIFICATION THE PROCESS OF WATER PURIFICATION BY  
HYDRODYNAMIC CAVITATION  
University of Food Technologies, Plovdiv, Bulgaria
- M2-36 **Salah – Eldien Omer, Minka Čehić:**  
RATIONALIZATION USING OF WOODEN MASS TO APPLICATION  
IN CIVIL ENGINEERING  
University of Bihać, Technical faculty Bihać, Bihać, Bosnia and  
Herzegovina
- M2-37 **Maya Paskaleva:**  
ONE CONTEMPORARY PERSPECTIVE OF COUNTRY OF ORIGIN  
INFLUENCE ON MULTI-NATIONAL PRODUCTS IN FURNITURE  
INDUSTRY,  
Rousse University "Angel Kanchev", Rousse, Bulgaria
- M2-38 **Vitomir Stojanovski, Sotir Panovski, Andrijana Bocevska:**  
PRODUCTION OF SILCA AND PROTECTION OF THE  
ENVIRONMENT IN "SEPARACIJA" – OSLOMEJ FACTORY (MK)  
Technical Faculty, University "St. Kliment Ohridski", Bitola, Macedonia
- M2-39 **Isak Karabegović, Darko Ujević, Stana Kovačević, Bajro Bolić:**  
FLEXIBLE TRANSPORT MEANS AT THE CLOTHING INDUSTRY,  
University of Bihać, Technical faculty Bihać, Bosnia and Hertzegovina

- M2-40 **T. Nikolov, M. Slavovski , P. Mitev, V. Nenov, N. Stojanov:**  
IMPROVING THE EQUIPMENT AND TECHNOLOGY FOR THE  
PRESSING PROCESS IN WINE-MAKING (MK)  
University of Food Technologies, Plovdiv, Bulgaria
- M2-41 **Georgi Komitov, Lyubomir Stanev, Stoicho Stoev:**  
VARIATION OF TECHNICAL CONDITION TO HIGH-PRECISION  
UNITS IN EXPLOITATION PROCESS  
Technical University-Sofia, branch Plovdiv, Plovdiv, BULGARIA

**10,45 – 11,00 Coffee break**

**11,00 – 13,00**

- M2-42 **Nikolaj Hinov:**  
MATHCAD SIMULATION OF A 3-PHASE FULLY CONTROLLED  
BRIDGE RECTIFIER WITH AN RL LOAD  
Technical University of Sofia, Faculty of Electronic Engineering and  
Technology, Sofia, Bulgaria
- M2-43 **Nikolaj Hinov, Dimitar Vakovsky:**  
MATHCAD SIMULATION OF A SINGLE-PHASE FULLY  
CONTROLLED BRIDGE RECTIFIER WITH AN RL LOAD  
Technical University of Sofia, Faculty of Electronic Engineering and  
Technology, Sofia, Bulgaria
- M2-44 **Svetlana A.Risteska , Jovan K. Mickovski:**  
EFFECT OF STRAIN RATE AND TEMPERATURE ON THE  
DEFORMATION BEHAVIOR OF AlMg5 ALLOY IN UNIAXIAL  
COMPRESSION (MK)  
Faculty of Technology and Metallurgy, University "Ss. Cyril and  
Methodius", Skopje, Macedonia
- M2-45 **Dimitri Kozinakov, Zoran Bogatinoski:**  
ALUMINIUM STRUCTURES DEVELOPMENT OF NEW PRODUCTS  
AND OPORTUNITIES FOR THEIR APPLICATION IN REPUBLIC OF  
MACEDONIA (MK)  
Faculty of Mechanical Engineering, University Ss. Cyril and Methodius,  
Skopje, Macedonia
- M2-46 **L.A. Dobrzański, Z. Brytan, M. Rosso, M. Actis Grande:**  
STRUCTURE AND MECHANICAL PROPERTIES OF SINTERED  
DUPLEX STEELS  
Silesian University of Technology, Gliwice, Poland
- M2-47 **Leszek A. Dobrzański, Jacek Trzaska:**  
MODELLING RELATIONSHIP BETWEEN THE STEEL CHEMICAL  
COMPOSITION AND THE TEMPERATURE OF THE PEARLITIC  
TRANSFORMATION START  
Silesian University of Technology, Gliwice, Poland

- M2-48 **Leszek A. Dobrzański, Małgorzata Drak:**  
APPLICATION PROPERTIES OF POLYMER MATRIX HARD  
MAGNETIC COMPOSITE MATERIALS REINFORCED WITH ND-FE-  
B NANOCRYSTALLINE PARTICLES WITH METAL ADDITION  
Silesian University of Technology, Gliwice, Poland
- M2-49 **Iosif Szeidert, Gabriela Prostean, Ioan Filip, Cristian Vasar:**  
CONSIDERATIONS REGARDING THE USAGE OF WIND ENERGY  
CONVERSION SYSTEMS  
“Politehnica” University - Timisoara, Timisoara, ROMANIA
- M2-50 **Mincho Minchev, Ekaterina Koleva, Ivan Kiryakov, Zahari Velchev:**  
A STUDY ON SOLAR RADIATION INTENSITY IN THE CITY OF  
PLOVDIV  
University of Food Technologies, Plovdiv, Bulgaria
- M2-51 **Janko Jancevski:**  
EDUCATION SOFTWARE FOR MECHANICAL SYSTEMS WITH  
DIRECT STRUCTURED MODIFICATION (MK)  
Faculty of Mechanical Engineering, University Ss. Cyril and Methodius,  
Skopje, Macedonia
- M2-52 **Dimitar Lozanov Donchev, Jordanka Stamenkova Angelova:**  
ECONOMIC ANALYSIS OF RENEWABLES IN ENERGY SUPPLY IN  
THE GLOBAL ENERGY RESERVES  
Technical University – Sofia, Sofia, Bulgaria
- M2-53 **S. Kartunov:**  
SIMULATING TECHNOLOGICAL PROCESSES FOR THE  
PRODUCTION OF MICRO COMPONENTS  
Department of Mechanical Appliances, University of Technics, Gabrovo,  
Bulgaria
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**13,00 – 15,00 Lunch**

**15,00 – 16,00**

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- M2-54 **Martin Bosak, Milan Majernik, Miroslav Badida, Ervin Lumnitzer:**  
RECYCLING-MANAGEMENT FOR TO DECLINE AUTO-WRECK IN  
SLOVAK REPUBLIC  
Technical University of Kosice, Kosice, Slovak Republic
- M2-55 **Milan Majernik, Miroslav Badida, Martin Bosak, Ervin Lumnitzer,  
Jozef Mihok:**  
USAGE OF MATHEMATICAL-STATISTICAL METHODS IN  
COMBUSTION PROCESSES MODELING AND SIMULATION  
Technical University of Kosice, Kosice, Slovak Republic
- M2-56 **Rainer Langenstraßen, Stanislav Fulev, Gerhard Behrendt:**  
ANALIZING THE REACTION OF PRE-ESTERIFICATION OF PET  
(MK) Technische Fachhochschule Wildau, Germany

- M2-57 **Venelina Popova, Panteley Denev, Ventsislav Nenov, Abdel Karim  
Omar:**  
EFFECT OF THE COMPOSITION OF RECONSTITUTED TOBACCO  
SHEET ON ITS PHYSICAL AND TECHNOLOGICAL PROPERTIES  
University of Food Technologies, Plovdiv, Bulgaria
- M2-58 **Zoran Bogatinovski, Dimitri Kozinakov:**  
NUMERICAL MODELING OF BEAM - COLUMN CONNECTIONS AT  
MULTI-STOREY COMPOSITE STRUCTURES USING DRAIN-2DX  
Faculty of Mechanical Engineering, University “Ss. Cyril and Methodius“,  
Skopje, Macedonia
- M2-59 **Ivan Barzov, Stefan Parashkevov:**  
DETERMINATION OF THE NESESERI NUMBER OF WELDED  
SEAMS OF STATOR BATCHETS OF CONICAL ELECTRICAL  
MOTORS  
Technical University - Gabrovo, Gabrovo, Bulgaria

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**16,00 End of session – Closing remarks**

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## Section M0: Industrial Engineering and Management

11,30 – 13,30

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- M0-01 **Todor Krlev:**  
MARKETING, MANAGEMENT AND ENTREPRENEURSHIP –  
BUSINESS, AS WELL AS UNIVERSAL APPROACHES (MK)  
Department for Industrial Engineering and Management, Faculty of  
Mechanical Engineering, University Ss. Cyril and Methodius, Skopje,  
Macedonia
- M0-02 **Panayiotis H. Ketikidis:**  
INTEGRATING SUPPLY CHAIN MANAGEMENT  
City Liberal Studies, Affiliated Institution of the University of Sheffield,  
Thessaloniki, Greece
- M0-03 **S. C. Lenny Koh, Panayiotis H. Ketikidis, B. Dong:**  
INTEGRATING SUPPLY CHAIN MANAGEMENT AND ENTERPRISE  
RESOURCE PLANNING: A CASE OF A PAPER MANUFACTURING  
COMPANY IN CHINA  
University of Sheffield, Management School, Sheffield, United Kingdom
- M0-04 **Ivan Dimitrov:**  
CLASSIFICATION OF LOGISTICS SYSTEMS  
University "Prof. Dr. As. Zlatarov" – Bourgas, Bulgaria
- M0-05 **Fani Uzunova:**  
RELATIONSHIPS BETWEEN KLIENTS AND BUSINESS  
ORGANIZATIONS IN THE CONTEXT OF SUSTAINABLY  
RESPONSIBLE BEHAVIOR  
Technical University – Varna, Varna, Bulgaria
- M0-06 **Iskra Dukovska-Popovska, Jens Ove Riis:**  
RESPONDING TO STRATEGIC CHALLENGES: MANUFACTURING  
VISION DEVELOPMENT  
Center for Industrial Production, Aalborg University, Aalborg, Denmark
- M0-07 **Arnoldina Pabedinskaitė:**  
COMPETITIVE STRATEGY FOR A PROCESSED MATERIALS  
ENTERPRISE  
Vilnius Gediminas Technical University, Vilnius, Lithuania
- M0-08 **Elizabeth Schindler and Rayna Galabova:**  
BENCHMARKING – ANALYSIS AND COMPARISON OF  
COMPETITIVE ADVANTAGES
- M0-09 **Borce Nasteski, Cvetko Smileski:**  
STRATEGY AND POLICY FOR GROWTH AND DEVELOPMENT OF  
ORGANIZATION (MK)  
Faculty of Pedagogy, University “St. Kliment Ohridski”, Bitola,  
Macedonia

- M0-10 **Vaska Dimitrova:**  
GENERALIZING AAKER & KELLER’S MODEL BY CONSUMER  
PERCEPTIONS OF BRAND EXTENSIONS  
University of Chemical Technology and Metallurgy, Department of  
Economics and Industrial Management Sofia, Bulgaria
- M0-11 **Vaska Dimitrova:**  
INDEPENDENT EMPIRICAL SUPPORT FOR PORTER’S GENERIC  
MARKETING STRATEGIES  
University of Chemical Technology and Metallurgy, Department of  
Economics and Industrial Management Sofia, Bulgaria
- M0-12 **Gjorgi Filipov, Vladimir Dukovski:**  
PATENT PORTFOLIO MANAGEMENT AS A POWERFULL  
INSTRUMENT FOR TECHNOLOGY TREND DETERMINATION  
BERIN Ltd., Skopje, Macedonia
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13,30 – 16,00 Lunch

16,00 – 17,30

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- M0-13 **Georgy Tzvetkov:**  
TECHNOLOGY AND PRODUCTION MANAGEMENT – TWO  
CONECTED AND INTERRELATED SUBSYSTEMS OF THE  
BUSINESS MANAGEMENT  
Technical University – Sofia, Sofia, Bulgaria
- M0-14 **G. Tzvetkov, J. Petrova, N. Angelov:**  
THE INFLUENCE OF CHANGES IN A TECHNOLOGICAL  
SYSTEM UPON THE PRODUCTION MANAGEMENT  
Faculty of Management in Technical University of Sofia, Sofia, Bulgaria
- M0-15 **Georgi Tzvetkov, Lubka Tchankova:**  
ASPECTS OF RISK MANAGEMENT IN ENTERPRISE  
PRODUCTION MANAGEMENT  
Faculty of Management, Technical University of Sofia, Sofia, Bulgaria
- M0-16 **Mladen Velev:**  
DEFINING PRODUCT COMPETITIVENESS  
Technical University - Sofia, Faculty of Management, Sofia, Bulgaria
- M0-17 **Miroslav Car, Dimitar Petrovečki:**  
CREATIVITY, INVENCY, INNOVATION AND ENTREPRENEUER  
BUT WORK STUDY AND ERGONOMICS IN ORK RESEARCH AND  
APPLICATION  
Faculty of Mechanical Engineering and Naval Architecture, Zagreb,  
Croatia

M0-18 **Kiril Georgiev:**  
TOWARDS AN OPEN SOURCE PRODUCT DEVELOPMENT  
Technical University – Varna, Varna, Bulgaria

M0-19 **Diana Antonova:**  
COMPANY STRATEGIES FOR SUCCESSFUL  
NEW PRODUCT DEVELOPMENT  
University of Rousse “Angel Kanchev”, Faculty of Business and  
Management, Rousse, Bulgaria

M0-20 **Aleksandar Karaev, Stelios Kehaghias, Lenny Koh:**  
THE USE OF CLUSTER APPROACH IN IMPROVING THE  
COMPETITIVENESS OF MANUFACTURING SME’S  
GTZ Project Private Sector Promotion, Skopje, Macedonia

M0-21 **Pisarciuc Cristian, Sarbu Flavius:**  
SMALL ENTERPRISES IN THE NET ECONOMY  
Transilvania University of Brasov, Brasov, Romania

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**17,30 – 17,45 Coffee break**

**17,45 – 19,30**

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M0-22 **Vasyl G. Gerasimchuk:**  
ECONOMIC POLICY OF STATE: MECHANISM OF MANAGEMENT  
National technical university of Ukraine “Kyiv polytechnic institute”  
Faculty of management and marketing, Kyiv, Ukraine

M0-23 **Loretta Parashkevova:**  
THE RELATIONSHIPS MARKETING OF SMALL ANF MEDIUM  
SIZED ENTERPRISES AND THE NET ECONOMY  
Varna Free University, Varna, Bulgaria

M0-24 **Bedri Ademi:**  
FAMILY BUSINESS MANAGEMENT (MK)  
University of SEE, Tetovo, Macedonia

M0-25 **Patryk Babiarz, Maciej Piotrowski, Bartosz Pomianek, Malgorzata  
Wawrzynkiewicz, Robert Freund:**  
PREREQUISITES FOR SUCCESSFUL INTRODUCTION OF MASS  
CUSTOMIZATION STRATEGY IN CENTRAL EUROPE  
University of Information Technology and Management, Rzeszow, Poland

M0-26 **Zoran Anisic, Ilija Cosic, Bojan Lalic:**  
MASS CUSTOMIZATION AND THE PROCESS OF PRODUCTION  
SYSTEMS DESIGNING – CASE STUDY  
University of Novi Sad, Faculty of Technical Sciences, Department of  
Industrial Engineering and Management, Novi Sad, Serbia & Montenegro

M0-27 **Donka Ivanova:**  
GROWTH, EMPLOYMENT AND INCOME  
Technical University - Varna, Varna, Bulgaria

M0-28 **Nikolai Anguelov:**  
STRUCTURAL MODEL FOR KNOWLEDGE TRANSFORMATION  
UNDER MARKET ECONOMY CONDITIONS  
Technical University of Sofia, Sofia, Bulgaria

M0-29 **Mladen Tonev:**  
PECULIARITIES OF LABOUR MARKET IN BULGARIA REFERRING  
TO THE STRUCTURE OF THE PARTICIPANTS AND THE STREAMS  
OF MOVEMENT OF THE LABOUR RESOURCES  
Varna Free University “Chernorizets Hrabur”, Varna, Bulgaria

M0-30 **Zivko Avramov, Marko Caric, Biljana Rodic:**  
ENTROPY AND STABILITY OF PRODUCTION SYSTEMS  
Faculty of technical sciences, Institute of Industrial Systems Engineering,  
Novi Sad, Serbia and Montenegro

M0-31 **Ivan Dakov, T. Lefterova, C. Nedeva:**  
VIRTUAL CELLULAR MANUFACTURING SYSTEMS: A FACILITY  
LOCATION METHOD  
Technical University – Sofia, Sofia, Bulgaria

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**20,30** *Welcome diner*

**September 17, 2004**

**9,00 – 10,45**

M0-32 **Robert Minovski, Delco Jovanoski, Gabriela Kostovska, Geir  
Lundgard-Soug:**  
PROCESS RESTRUCTURING – LAYOUT DESIGN THROUGH  
RATIONALIZATION OF THE MATERIAL FLOW  
Faculty of Mechanical Engineering, University Ss. Cyril and Methodius,  
Skopje, Macedonia

M0-33 **Hristo Krachunov:**  
ASPECTS AND TRENDS IN ELABORATION OF INVESTMENT  
PROJECTS FOR TECHNOLOGICAL RESTRUCTURING OF  
PRODUCTION ENTERPRISES  
Technical University Varna, Varna, Bulgaria

- M0-34 **Miljko Kokić:**  
THE STRUCTURE AND THE PRODUCTION CYCLE DURATION AS  
A CONDITION FOR THE AUTOMATIZATION INTRODUCTION  
Zastava Vehicles Group, Kragujevac, Serbia and Montenegro
- M0-35 **Ognyan Andreev:**  
A NEW CLASSIFICATION OF THE METHODS FOR  
MANUFACTURING DEPARTMENTS' WORK COORDINATION  
Technical University – Sofia, Sofia, Bulgaria
- M0-36 **Maya Kaligorova:**  
THE MATERIALS ECONOMY – CHALLENGES AND NEW  
REQUIREMENTS  
Technical University of Sofia, Department of Industrial engineering and  
management, Sofia, Bulgaria
- M0-37 **Maya Kaligorova:**  
THE WAYS FOR BUILDING AN INTEGRATED MANAGEMENT OF  
THE MATERIALS ECONOMY  
Technical University of Sofia, Department of Industrial engineering and  
management, Sofia, Bulgaria
- M0-38 **Ilija Popov:**  
NEW CONSTRUCTIVE – TECHNOLOGICAL APPROACH AT  
MODERNIZING THE PRODUCTION EQUIPMENT  
Technical University Sofia – Branch Plovdiv, Plovdiv, Bulgaria
- M0-39 **Goce Armenski, Marjan Gusev:**  
TOWARDS PAPERLESS OFFICE  
Faculty of Natural Sciences and Mathematics, Ss. Cyril and  
Methodius University, Skopje, Macedonia
- M0-40 **Ivan Dimitrov, Stojanka Petkova:**  
THEORETIC INVESTIGATION OF THE DETERMINANTS IMPACT  
ON THE LEVEL OF DECENTRALIZATION AND PERFORMANCE  
MEASUREMENT SYSTEM CHOICES  
University “Prof. Ass. Zlatarov”, Bourgas, Bulgaria
- M0-41 **Nedka Nikolova:**  
IDENTIFICATION OF THE FACTORS AND SYMPTOMS OF THE  
BANKRUPTCY OF THE COMPANY  
Technical University – Varna, Varna, Bulgaria

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**10,45 – 11,00 Coffee break**

**11,00 – 13,00**

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- M0-42 **Živoslav Adamović, Ljiljana Petrovic:**  
VIRTUAL FACTORY AND MAINTENANCE  
Technical faculty Mihajlo Pupin, Zrenjanin, Serbia and Montenegro

- M0-43 **Tome Jolevski, Silvana Angelovska, Zore Angelovski:**  
PERFORMANCE INDICATORS – BASIS FOR SUCCESSFUL  
APPLICATION OF BENCHMARKING TO MAINTENANCE (MK)  
Technical Faculty, University “St. Kliment Ohridski“, Bitola, Macedonia
- M0-44 **Natalia Nikolova, Dimtrichka Makedonska, Kiril Tenekedjiev:**  
DECISION CONTEXT IN THE DEFINITION OF AN OPTIMAL SET  
OF SPARE PARTS  
Technical University, Varna, Bulgaria
- M0-45 **Mladen Velev:**  
AN APPROACH FOR EVALUATION OF COMPANY  
COMPETITIVENESS  
Technical University of Sofia, Faculty of Management, Sofia, Bulgaria
- M0-46 **Predrag Cosic, Andrija Levanic:**  
IMPROVING PROCESS PLANNING THROUGH PRODUCTION  
COSTS  
University of Zagreb, Faculty of Mechanical Engineering and Naval  
Architecture, Zagreb, Croatia
- M0-47 **Radmil Polenakovik, Liljana Polenakovik:**  
RECOGNIZING COSTS RELATED TO POOR HIRING DECISIONS  
Department for Industrial Engineering and Management, Faculty of  
Mechanical Engineering, University Ss. Cyril and Methodius, Skopje,  
Macedonia
- M0-48 **Darina Pavlova, Kiril Georgiev:**  
BUILDING UP COMPETITIVE ADVANTAGES USING  
TECHNOLOGY TRANSFER  
Technical University - Varna, Varna, Bulgaria
- M0-49 **Kiril Anguelov, Ivan Dakov, Vladislav Lazarov:**  
RE-ENGINEERING OF THE ADMINISTRATIVE SERVICE OF  
STUDENTS IN HIGHER SCHOOLS  
Technical University of Sofia, Department of Industrial engineering and  
management, Sofia, Bulgaria
- M0-50 **Milan Stojceski:**  
BUILDING CONTINUOUS IMPROVEMENT OF PROCESSES (MK)  
Technical Faculty, University “St. Kliment Ohridski“, Bitola, Macedonia
- M0-51 **Valentin Neață:**  
SOME CONSIDERATIONS ON BUSINESS IMPROVEMENT  
BY ENHANCING CUSTOMERS SATISFACTION  
“Lucian Blaga” University of Sibiu, Faculty of Engineering, Sibiu,  
Romania
- M0-52 **Atanas Tashev, Valentina Nikolova-Aleksieva:**  
BUSINESS PROCESS REENGINEERING – A POSITIVE WAY TO  
RADICAL CHANGE  
Technical University – Sofia, Branch Plovdiv, Bulgaria

M0-53 **Valentin Neață:**  
SOME CONSIDERATIONS ON THE RELATIONSHIP BETWEEN A  
FIRM'S TOTAL QUALITY MANAGEMENT AND CUSTOMER  
LOYALTY  
"Lucian Blaga" University of Sibiu, Faculty of Engineering, Sibiu,  
Romania

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**13,00 – 15,00 Lunch**

**15,00 – 16,40**

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M0-54 **Elka Vassileva, Vaska Dimitrova:**  
ADDITIONAL BENEFITS, WHAT THE BRANDS SUGGEST BY  
SELECTED PARFUMERIE AND COSMETIC PRODUCTS IN  
BULGARIA  
University of National and World Economy, Department of Commodity  
Sciences, Sofia, Bulgaria

M0-55 **Vesna Bucevska:**  
THREE STRATEGIES FOR CONNECTION OF QUALITY POLICIES,  
OBJECTIVES AND PROCESSES (MK)  
Faculty of Economics, University "Ss. Cyril and Methodius", Skopje,  
Macedonia

M0-56 **Neviana Taneva, Lidia Galabova:**  
ROLE OF THE SIX SIGMA APPROACH IN INNOVATION PROCESS  
Technical University – Sofia, Sofia, Bulgaria

M0-57 **Zoran Minovski:**  
COST SYSTEM IN QUALITY MANAGEMENT AND ITS  
CONTINUOUS IMPROVEMENT (MK)  
Faculty of Economics, University Ss. Cyril and Methodius, Skopje,  
Macedonia

M0-58 **Stanislav Škapa:**  
USING RESAMPLING METHODS FOR AN ESTIMATION OF  
PROCESS CAPABILITY INDEXES  
Faculty of Business and Management, Technical University Brno, Czech  
Republic

M0-59 **Ljupco Pecijareski:**  
INFLUENCE OF THE ORGANIZATIONAL CULTURE ON THE  
CONTEMPORARY MANAGEMENT (MK)  
Faculty of Economics, University "St. Kliment Ohridski", Prilep,  
Macedonia

M0-60 **Ulrich Heyder:**  
TEAM BUILDING AND ORGANIZATIONAL DEVELOPMENT  
Institut für Sozialwissenschaften, Technische Universität Braunschweig,  
Germany

M0-61 **Elenica Sofijanova:**  
SOURCES FOR INTER-GROUP CONFLICTS AS A CRITICAL  
FACTORS FOR INSTABILITY AND INFLEXIBILITY (MK)  
ISPPI, University "Ss. Cyril and Methodius", Skopje, Macedonia

M0-62 **Slavica Petreska:**  
WORKING SPEED OF A GENERAL MANAGER (MK)  
Macedonian Post, Prilep Branch for Regional Traffic, Prilep, Macedonia

M0-63- **Olga Geraskova:**  
SMALL FIRM OWNER: MANAGER - LEADER IN CHANGE  
PROCESS IN THE FIRM,  
Technical university – Sofia, Sofia, Bulgaria

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**16,40 – 17,00 Coffee break**

**17,00 – 19,00**

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M0-64 **Violeta Subeska-Todorovska, Radmil Polenakovik, Novica  
Todorovski:**  
CREATING NEW EMPLOYEE PROFILE IN THE ORGANIZATIONS  
(MK) Faculty of Mechanical Engineering, University Ss. Cyril and  
Methodius, Skopje, Macedonia

M0-65 **Natasha Nestorovska:**  
MODEL OF CHARACTERISTICS OF BUSINESS-LEADERSHIP (MK)  
ISPPI, University "Ss. Cyril and Methodius", Skopje, Macedonia

M0-66 **Natasha Kraleva:**  
NEGOTIATION AS A MANAGEMENT FUNCTION (MK)  
ISPPI, University "Ss. Cyril and Methodius", Skopje, Macedonia

M0-67 **Vania Ivanova:**  
SITUATION AND EXPECTATION FOR DEVELOPMENT OF THE  
BULGARIAN TELECOMMUNICATION MARKET  
Higher College of Telecommunication and Post  
Sofia, Bulgaria

M0-68 **Dimitar Dimitrakiev, Natalia Nikolova, Kiril Tenekedjiev:**  
BENEFITS OF USING SIMULATION SYSTEMS TO TEST IN-QUEUE  
FLIGHT PERFORMANCE  
Technical University – Varna, Varna, Bulgaria

M0-69 **Vanco Donev, Redzep Bedzeti:**  
SIMULATION DRIVING SCHEDULE OF JSP – SKOPJE (MK)  
Faculty of Mechanical Engineering, University Ss. Cyril and Methodius,  
Skopje, Macedonia

- M0-70 **Monica Cojocaru, Călin Deneș:**  
THE ROLE OF ENGLISH IN IMPROVING COMMUNICATION IN  
THE ROMANIAN INDUSTRIAL ENVIRONMENT  
“Lucian Blaga” University, Sibiu, Romania
- M0-71 **Vladimir Desnica, Dragana Sarac:**  
REORGANIZATION OF DELIVERY SERVICE BY MEANS OF  
DECENTRALIZATION  
JP PTT saobracaja “Srbija”, Novi Sad, Serbia an Montenegro
- M0-72 **Daniela Dragneva Dimova:**  
RISK ASSESSMENT IN BUSINESS PLANNING  
Technical University – Gabrovo, Bulgaria
- M0-73 **Snezana Ristevska–Jovanovska, Pance Jovanovski:**  
TRENDS IN ORGANIZATIONAL BUYING ON B&B MARKETS AND  
BUYING PROCESS (MK)  
Faculty of Economics, University Ss. Cyril and Methodius, Skopje,  
Macedonia
- M0-74 **Gabriela Proștean, Adrian Pugna, Constantin Cosovan:**  
STRATEGY OF CONTROL DEVELOPED FOR PROJECT  
MANAGEMENT INTELLIGENT SYSTEM  
University Politehnica of Timisoara, Timisoara, Romania
- M0-75 **Mircea Nitulescu, Anca Draghici:**  
HUMAN INTERFACE OPTIMISATION USING AN  
ERGONOMICS DESIGN AND ANALYSIS METHODOLOGY  
“Transilvania” University of Brasov, Brasov, Romania
- M0-76 **Snezhanka Ovcharova, Hristo Krachunov:**  
HUMAN RESOURCE MANAGEMENT IN THE FIELD OF  
INTELLECTUAL SERVICES AND KNOWLEDGE  
Varna Free University, Varna, Bulgaria
- M2-77 **Cristian Vasar, Gabriela Proștean, Ioan Filip, Iosif Szeidert:**  
A PETRI NET APPROACH TO THE MODELLING AND ANALYSIS  
OF MANUFACTURING SYSTEMS  
“Politehnica” University of Timisoara, Timisoara, Romania

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**19,00 End of session - Closing remarks**

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<b>September 18, 2004</b>
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**08,00 – 18,00 Sightseeing, Ohrid and area**

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**Official languages** of the conference are Macedonian and English.

**First author address** is shown in the Program.

**(MK)** – written in Macedonian language.

**Conference web site:** <http://www.mf.ukim.edu.mk>

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**? How to reach Republic of Macedonia and Ohrid town?**



*With airplane:* airports Skopje and Ohrid  
Info: [www.airport.com.mk](http://www.airport.com.mk)



*With car:* Serbia and Montenegro (entrance Tabanovce), Greece (entrance Bogorodica an Medzitlija), Bulgaria (entrance Deve Bair and Novo selo) and Albania (entrance Kafasan and Sv. Naum)

**? More information for Ohrid town:** <http://www.ohrid.com.mk>