



UNIVERSITY OF NOVI SAD

FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6

## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design



STUDY PROGRAMME ACCREDITATION MATERIAL:

# TECHNICAL MECHANICS AND TECHNICAL DESIGN

MASTER ACADEMIC STUDIES

Novi Sad

2012.

Prevod sa srpskog jezika:

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Programme name	Technical Mechanics and Technical Design
Independent higher education institution where the programme is being executed	University of Novi Sad
Higher education institution where the programme is being executed	Faculty of Technical Sciences
Educational-scientific/educational-art field	Technical-Technological Science
Scientific, professional or art field	Mechanical Engineering
Type of studies	Master Academic Studies
Study scope, expressed in ECTS	66-69
Academic degree, abbreviation	Master in Mechanical Engineering, M.Mech.Eng.
Study length	1
Programme implementation starting year	2008
Future course implementation starting year (for new programme)	
Number of students attending this programme	0
Planned number of students to be enrolled in this programme	32
Programme approval date (state the approval issuer)	14.11.2012 - Science Education Council 29.11.2012 - University of Novi Sad Senate
Programme language	Serbian, English
Programme accreditation year	2008
Web address containing programme information	<a href="http://www.ftn.uns.ac.rs">http://www.ftn.uns.ac.rs</a>



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### Standard 00. Introduction

The study programme for the Graduate Academic Studies – Master in Technical Mechanics and Technical Design represents a continuation of the undergraduate academic study programme in Technical Mechanics and design in engineering.

The study programme corresponds to worldwide programmes known as mechanical engineering, and it is designed as a response to engineering challenge to transform new technical developments into a commercial reality through clear application of acquired knowledge, practical engineering experience and skills for solving problems. New course implementation helps expanding knowledge, abstract thinking and skills, especially skills for real systems modelling and computer tools application.

Keeping pace with new engineering developments, this programme enables both possibility of working in complex project tasks and very active relation in analysing and solving general problems that Master in Mechanical Engineering faces daily. At this stage in education process student is preparing for team work and communication with experts of other profiles and independent decision making.



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### Standard 01. Programme Structure

The name of this study programme of graduate academic studies – Master in Technical Mechanics and Technical Design. Academic name acquired is Master in Mechanical Engineering.

The outcome of the study process is knowledge which enables students to use professional literature, to solve professional problems and to continue studies if students choose to do so.

The prerequisites for enrolling the study programme are completed undergraduate studies with at least 240 ECTS and passed enrolment exam.

The study programme of graduate academic studies Energy and Process Engineering last one year.

Lectures are realized through lectures and practical classes. During education process emphasis is placed on independent and research student work, as well as on their personal involvement in the process. During lectures, modern didactic tools are used for presenting subject content and students are informed about research trends in the field. During practical classes, which follow the lectures, actual exercises and problems are solved and appropriate examples are presented. Also additional explanations of the subject content are offered in practical classes. Practical classes can be auditory, laboratory and computer. Partially practical classes can be realized in factories and other institutions.

The number of students in a group depends on the character of the practice classes. Students are obliged to write seminar papers and homework, projects, semestral and graphic papers. Every student activity is monitored and awarded according to the regulations adopted by the Faculty. The number of awarded credits is determined by a unique methodology and reflects student involvement.

For each subject student is awarded certain number of ECTS, and the entire studies are finished when the student fulfils all obligations stated in the study programme, at least 60 ECTS.



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### Standard 02. Programme Objectives

The purpose of the study programme is set in accordance with the needs of the society. The study program of the Master studies is set so that it enables students to acquire competences socially justifiable and purposeful. The Faculty of Technical Sciences has clearly defined educational assignments and objectives for highly competent experts in the field of technical engineering. The aim of the study programme – Technical Mechanics and Technical Design is completely in accordance with the Faculty of Technical Sciences objectives.

The study programme is designed so that it enables acquiring competences which are useful for the society. Technical Mechanics has always been the key of the future technology since it includes wide-range complex problems and therefore represents essential part of the development base. Realization of such a study programme creates experts in the field of Construction Mechanics and Mechanizations competent in European and global standards and in accordance with social needs.





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### Standard 03. Programme Goals

The objective of the graduate academic studies in Technical Mechanics and Technical Design is acquiring competences and academic skills in the field of Technical Mechanics and Technical Design. In addition, this programme will provide graduates with practical skills, as well as form and develop competences necessary for critical thinking and team work and acquiring specific practical skills necessary for the profession.

The objective of the study programme of graduate academic studies in Technical Mechanics and Technical Design is to educate and form highly qualified experts able to perform tasks in production technologies and designing contemporary production process.

In addition, this programme will provide graduates with practical skills, as well as form and develop competences necessary for the technical sciences. The objective of this study programme is also education of experts in team working as well as development of abilities of presentation of results to professional public.



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### Standard 04. Graduates` Competencies

Having completed the graduate academic studies in Technical Mechanics and Technical Design, a student acquires general and subject-specific abilities in the function of qualitative performance of professional, scientific and artistic activities. Having completed this study programme, a student acquires the following general abilities:

- Ability to analyse, generate and anticipate consequences,
- Ability of critical thinking,
- Ability to solve problems by applying scientific methods and procedures

Master student acquires thorough knowledge and understanding of all disciplines of the selected study group, as well as skills for solving actual problems with utilization of scientific methods and procedures. Students at the Technical Mechanics and Technical Design are capable to write and present in an appropriate way the results of their work. Utilization of information and communication technologies is insisted upon.

The students at this level have competencies for following and application of novelties in the line of profession, as well as for cooperation with local social and international environment.

The students are enabled to design, organize and manage production. During education process student is enabled to independently conduct experiments, for statistical data processing as well as to formulate and reach appropriate results.

Upon graduation, student acquires knowledge to economically use natural resources of the Republic of Serbia in accordance of principles of sustainable development.

Special attention is paid to skill development for team work and professional ethics.



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### Standard 05. Curriculum

The curriculum of the study programme of Energy and Process Engineering is formulated so that it meets all set objectives. The structure of the study programme provides the choice of selective courses with at least 40% ECTS.

Master students expand knowledge of production engineering in specific characteristics of problems which each study group deals with. Through selective courses satisfy their interests that they developed during the studies. All subjects are one semester long and are awarded appropriate number of ECTS, and one credit equals approximately 30 hours of student activities.

The curriculum is defined description of subjects which contains title, subject type, academic year and semester, ECTS, professors name, subject objective with expected outcomes, knowledge and competences, prerequisites for attending the subject, subject content, recommended literature, teaching methods and knowledge evaluation.

The study programme is in accordance with European standards in terms of enrolment, study duration, preconditions for transferring to the following academic year, acquiring diploma and studying way.

The integral part of the curriculum of production engineering is professional practice and practical work in duration of 45 hours, realized in appropriate scientific and research institutions, in organizations for innovation activities. Student finishes the studies with elaboration of master thesis consisting of theory and methodological application of preparation necessary for understanding the field of master thesis.

Prior to defending the thesis, student passes theoretical and methodological fundamentals before a commission which is appointed for thesis defence. The final master grade is calculated on the bases of results of passed theoretical and methodological preparation and evaluation of elaboration and defence of the thesis. The thesis is defended before the commission which consists of at least 3 teachers among which at least one needs to be from another department of faculty.


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Table 5.2 Course specification

Course:		<b>Industrial Design</b>				
Course id:	M4501					
Number of ECTS:	5					
Teacher:	Maretić B. Ratko					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	0	0	0		
Precondition courses						
1. Educational goal:						
Application of theoretical knowledge acquired in higher courses of material strength, Theory of Elasticity and Mechanics in designing and strength calculation and individual constructions. Special attention is directed to defining practical problems which require complex calculation application.						
2. Educational outcomes (acquired knowledge):						
Ability to design from the perspective of strength and rigidity of practical products for industrial production with the utilization of computers.						
3. Course content/structure:						
Optimization of logn pipes with thick walls joined by overlap. Calculation of pipe network of hight pressure overloaded by banding. Rotation disk calculation during various bounary conditions. Calculation of long rotating axis. Calculation of rotating discs overloaded by connections. Calculation of rotation shaft. Frame oscillation. Oscillation of cyrcle and ring plates during various boundary conditions. Rectangular plates oscillation during pivoting. Cyrcle and rectangular plates stability.						
4. Teaching methods:						
Lectures are realized through auditory classes with tables and computer presentations. Practical classes are partially realized through auditory practical classes and partially by computers.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Computer exercise attendance		Yes	5.00	Oral part of the exam	Yes	30.00
Lecture attendance		Yes	5.00			
Project		Yes	40.00			
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	T. Atanacković	Teorija elastičnosti		FTN	1987	
2,	Shigley J., Mischke C, Budynas R.	Mechanical engineering design		Mc Graw Hill	2004	
3,	Ružić D., Čukić R.	Otpornost materijala 2		Mašinski fakultete Beograd	1993	
4,	Rašković D.	Teorija elastičnosti		Naučna knjiga Beograd	1985	


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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Modelling of non-linear systems</h2>				
Course id:	M4505					
Number of ECTS:	4					
Teachers:	Maretić B. Ratko, Simić S. Srbojlob					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	0	0	0		
Precondition courses		None				
1. Educational goal:						
Introducing students to fundamental methods of analysis and modeling of physical and engineering problems.						
2. Educational outcomes (acquired knowledge):						
Students acquire knowledge on analysis and design of engineering systems. In particular, they got a working knowledge of asymptotic methods and their application in engineering problems.						
3. Course content/structure:						
Basic modeling techniques. Units, dimensions and dimensional analysis. Asymptotic approximations. Application of asymptotic techniques in engineering - boundary layer. Multiple scales. The method of homogenization. Case studies.						
4. Teaching methods:						
Lectures, auditory/computer exercises. During the lectures fundamental methodological and practical aspects of modeling are presented. In practical classes acquired theoretical and methodological knowledge is applied in the analysis and modelling of physical and engineering systems. Special attention is paid to independent student work in case studies of actual physical and engineering systems and the use of computer in the analysis of mathematical models.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Term paper	Yes	40.00
Homework		Yes	20.00	Oral part of the exam	Yes	30.00
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	D.E. Thompson	Design Analysis: Mathematical Modeling of Nonlinear Systems		Cambridge University Press, Cambridge	1999	
2,	S. Howison	Practical Applied Mathematics		Cambridge University Press, Cambridge	2005	
3,	Mark H. Holmes	Introduction to Perturbation Methods		Springer-Verlag, New York	1995	


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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Higher Course in Elasticity</h2>				
Course id:	M4503					
Number of ECTS:	5					
Teacher:	Novaković N. Branislava					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	0	0	0		
Precondition courses		None				
1. Educational goal:						
Enabling students for voltage and deformation determination in complex technical constructions. Apart from that students will be enabled for equation formulating which are solved by final elements methods.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge is related to voltage concentration determination as well as voltage state in plates. Acquired knowledge will enable setting criteria for plastic material determination.						
3. Course content/structure:						
Equations of theory of elasticity in curvilinear coordinate systems. Karman plate theory. Differential equation of plane deformation. Method of complex variable. Voltage concentration. Plastic flow conditions.						
4. Teaching methods:						
Lectures, auditory practical classes and consultations. Theoretical part is presented in lectures and it is followed by actual examples. In practical classes exercises are given in order to expand what is covered in lectures. Independent problem solving helps students pass written part of the examination. Oral part of the final examination is eliminating.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Test		Yes	10.00	Oral part of the exam	Yes	30.00
Test		Yes	10.00	Practical part of the exam - tasks	Yes	40.00
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	T.Atanacković	Teorija elastičnosti		FTN, Novi Sad	1993	
2,	Atanackovic T. M., Guran A.	Theory of Elasticity for Scientists and Engineers		Birkhauser, Boston	2000	


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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Biomechanics of cardiovascular system</h2>				
Course id:	M45991					
Number of ECTS:	8					
Teachers:	Glavardanov B. Valentin, Grahovac M. Nenad, Spasić T. Dragan, Žigić M. Miodrag					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	0	0	0		
Precondition courses		None				
1. Educational goal:						
<p>This course, addresses the student to understand applications of the Mechanical tool in the analysis of biomedical systems which are more complex and less defined than the technical ones. Also, the intentions of the course are to relate mechanical functions with other functions existing in human body (such as biological, chemical, electrical, neurological), to understand how the advances of age, trauma and disease influence the mechanical functions of the human body; to analyze and model several structures of the cardiovascular system.</p>						
2. Educational outcomes (acquired knowledge):						
<p>At the end of the course students will be expected to have ability to use the knowledge obtained in engineering courses in the analysis of biomechanical systems especially in the analysis of motion within a human body, i.e. to pose and solve the problems by means of recognizing, identifying and formulating appropriate idealized models and by choosing the appropriate either numerical or analytical solving procedures. In doing so the student learn to use various computer tools for prediction of various normal and pathological states as well as to communicate with other either medical staff or engineers within a team work; This course prepares the student for further learning as well as for practice, hard work, creative thinking, further development of skills in design of new solutions of biomedical problems.</p>						
3. Course content/structure:						
<p>This course covers the following topics. Structures of cardiovascular system. Basic cell biology and soft tissue behavior. Biotransport phenomena. Normal condition of the arterial wall -- structure and function. Constitutive equations and experimental methods of deformation patterns evaluation. Stress analysis. Vascular diseases: hypertension, intracranial aneurysms, atherosclerotic plaque formation, aortic aneurysms. Vascular adaptation. Normal and aging heart -- structure and function. Blood function, and organ systems: lungs, kidneys and liver. Numerical methods in continuum biomechanics.</p>						
4. Teaching methods:						
<p>Lectures, auditory exercises, demonstration of computer tools. Homeworks, as a check of understanding and usage of the introduced notions that can be done within groups. Either a practical examination part -- two problems done by them own -- or seminar work based on a real problem presented in periodicals. Individual work with each of the groups which extends the knowledge and skills in biomechanics, mathematical analysis and computer tools, as well as the foreign language the student use. The examination ends with a final talk on the introduced notions and skills.</p>						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Oral part of the exam	Yes	30.00
Homework		Yes	5.00	Practical part of the exam - tasks	Yes	20.00
Homework		Yes	5.00			
Lecture attendance		Yes	5.00			
Project		Yes	30.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	J.D. Humphrey	Cardiovascular solid mechanics, cells tissues, and organs		Springer, New York	1999	
2,	N. Ayache (ed.)	Computational models for the human body		Elsevier, Amsterdam	2001	
3,	K. A. Athanasiou, R.M. Natoli	Introduction to continuum biomechanics		Morgan & Claypool	1999	
4,	C. Kleinstreuer	Biofluid Dynamics		Taylor & Francis, Boca Raton	2003	


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Table 5.2 Course specification

Course:		<b>IC Engines</b>				
Course id:	M2403					
Number of ECTS:	5					
Teacher:	Klinar J. Ivan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	2	0	0		
Precondition courses		None				
1. Educational goal:						
Acquiring expanded knowledge and skills in the field of IC Engines.						
2. Educational outcomes (acquired knowledge):						
Acquiring ability for independent and creative using of acquired knowledge and skills, solving specific and non routine problems of new tendencies in motor industry development.						
3. Course content/structure:						
Definition, history and division of IC engines. Theoretical IC engine cycles. Theoretical engine cycles: Otto, diesel, combining-analysis and comparison. Theoretical cycles. Actual cycles analysis and selection of calculation cycle parameters. Process of working matter change of four-stroke engines with suction and with specific features of two-stroke engines. Process of compression. Process of combustion. Analysis of engine indicators: middle indicating pressure, indicating power, specific indicating fuel consumption. Analysis of effective engine indicators. Forrage engine indicators: litar and specific power. Heat balance. Combustion processes analysis in Otto and diesel engines. Normal combustion flow phases. Forms of unnormal combustion. Forming space for combustion in Otto and diesel engines. Engines driving characteristics: speed analysis, load, combining, and other characteristics.						
4. Teaching methods:						
Lectures, computer and laboratory practical classes, consultations. Oral presentation followed by practical examples, diagrams, schemes on PC. Practical classes are realized on testing IC engines with appropriate laboratory equipment.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Computer exercise attendance		Yes	5.00	Oral part of the exam	Yes	70.00
Homework		Yes	20.00			
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	T.Torović, Ž.Antonić	Osnovi motora SUS		Fakultet tehničkih nauka, Novi Sad	1997	
2,	M. Živković	Motori sa unutrašnjim sagorevanjem		Mašinski fakultet Beograd	1976	
3,	D.Radonjić, R.Pešić	Toplotni proračun motora SUS		Mašinski fakultet , Kragujevac	1996	




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Table 5.2 Course specification

Course:		<b>Thermal Elasticity</b>				
Course id:	M4504					
Number of ECTS:	4					
Teacher:	Glavardanov B. Valentin					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	0	0	0		
Precondition courses						
1. Educational goal:						
Subject objective is to enable student to be able to formulate fundamental set of equations which describe thermodynamic process in elastic body and to perform equation for actual problem.						
2. Educational outcomes (acquired knowledge):						
Student is enabled to independently solve problems related to thermodynamic processes in elastic bodies, and formulate appropriate mathematical model and apply analytical methods.						
3. Course content/structure:						
Balance equations : mass balance, movement balance, energy balance. Disipation of energy and balance law, entropy production, Constitutive equations, Fundamental equations of technical theory of thermoelasticity. Flat thermoelasticity problem. Thin plates bending due to temperature.						
4. Teaching methods:						
Classic form of lectures with the utilization of computers and active student involvement.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Test		Yes	10.00	Oral part of the exam	Yes	40.00
Test		Yes	10.00	Practical part of the exam - tasks	Yes	30.00
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Naerlović N	Uvod u termoelastičnost		Naučna Knjiga Beograd	1977	
2,	Čukić R., Naerlović N., Šumarac D	Termoelastičnost		Mašinski fakultet - Beograd	1993	


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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Ecological Technologies and Systems</h2>				
Course id:	P1501					
Number of ECTS:	6					
Teachers:	Budak M. Igor, Hadžistević J. Miodrag, Hodolić J. Janko, Kovač P. Pavel, Sekulić Lj. Milenko, Vukelić B. Đorđe					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	0	3	0	0		
Precondition courses                      None						
1. Educational goal:						
Acquiring fundamental knowledge in domain of environment protection in the field of production engineering.						
2. Educational outcomes (acquired knowledge):						
Enabling students for recognition, prevention and repairing problems related to environment protection in the field of production engineering.						
3. Course content/structure:						
Objective, purpose and organization of the subject. Systematic conflict between the environment and civilization needs, Problematic environmental areas of industrial production, Mechanical engineering and environment – mechanical plants, pollution of atmosphere, waste, noise and environment, ecologization of technologies. Methodology of evaluation of activity impact on environment, Environment Management System: purpose, origin, introduction, function, evaluation, Methodology of environmental evaluation and product marking, Multicriterial evaluation of environment load, Ecological technologies and future systems. Ecological technologies: recycling, obrada zrakom sunca, solar electricity. Renewable energy: solar energy, wind energy, biomass energy, hydrogen energy, energy y environment, geothermal energy, hydropower. energy storage						
4. Teaching methods:						
Lectures are realized interactively through lectures, auditory, laboratory and computer practical classes. In lectures theoretical part is presented with characteristic examples for better understanding of subject content. In auditory practical classes, characteristic exercises are covered. Acquired knowledge is practically applied in laboratory practical classes using available laboratory equipment. Apart from lectures and practical classes, consultations are held regularly.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance		Yes	5.00		Oral part of the exam	Yes
Term paper		Yes	20.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Hodolić, J.; Bađida, M.; Majernik, M.; Šebo, D.	Mašinstvo u inženjerstvu zaštite životne sredine		Fakultet tehničkih nauka, Novi Sad	2005	
2,	Hodolić, J., Vukelić, Đ., Hadžistević, M., Budak, I. i dr.	Reciklaža i reciklažne tehnologije		Fakultet tehničkih nauka, Novi Sad	2011	
3,	Hodolić, J., Vukelić, Đ., Budak, I., Bešić, I., Muransky, J.	Ekodizajn i održivi razvoj u mašinskom inženjerstvu		Fakultet tehničkih nauka, Novi Sad	2009	
4,	Budak, I.; Hodolić, J.; Stević, M.; Vukelić, Đ., Kosec, B., Karpe, B.	Označavanje proizvoda o zaštiti životne sredine		Fakultet tehničkih nauka, Novi Sad	2009	
5,	Kovač, P.	Proizvodno mašinstvo i obnovljivi izvori energije		Fakultet tehničkih nauka, Novi Sad	2011	

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Table 5.2 Course specification

Course:		<b>Nanotechnologies</b>				
Course id:	P2507					
Number of ECTS:	6					
Teachers:	Kakaš I. Damir, Škorić N. Branko					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	0	2	0	0		
Precondition courses		None				
1. Educational goal: Introduction to main directions of modern science development – nanomaterials and nanotechnologies.						
2. Educational outcomes (acquired knowledge): Student is able to cope with development of nanotechnologies in mechanical engineering related to ultraprecise forming and nano modifications of tools and machine parts.						
3. Course content/structure: Introduction to nanotechnologies. Material designing at the nano level. Nano structures procedures. Micro electromechanical systems (MEMS) Multifunctional materials. Performing processes parameters. Characterisation of nanomaterials features. Micro production. Surface and interface with nano production. Nanoinstruments. Nanotribology.						
4. Teaching methods: Lectures are realized interactively through lectures, auditory, laboratory and computer practical classes. In lectures theoretical part is presented with characteristic examples for better understanding of subject content. In auditory practical classes, characteristic exercises are covered. Acquired knowledge is practically applied in laboratory practical classes using available laboratory equipment. Apart from lectures and practical classes, consultations are held regularly.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Homework		Yes	10.00	Oral part of the exam	Yes	40.00
Homework		Yes	40.00			
Laboratory exercise attendance		Yes	5.00			
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Grupa autora	Nanotechnology		European Commission	2004	
2,	Poole, C. P., Owens, F. J	Introduction to nanotechnology		Wiley Interscience	2003	
3,	T.M. Nenadović, T.M. Pavlović	Fizika i tehnika tankih slojeva		Institut za nuklearne nauke "Vinča", Beograd	1997	


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Table 5.2 Course specification

Course:		<b>Advanced robotics</b>			
Course id:	H829				
Number of ECTS:	5				
Teacher:	Borovac A. Branislav				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
2	0	2	0	0	
Precondition courses		None			
1. Educational goal:					
<p>The course objective is acquiring of advanced knowledge in robotics. This includes modelling and simulation of complex robotic systems and its dynamic behaviour, as well as control synthesis (on the basis of force feedback, visual information, mor cognitive system). The course objective is that student gain competences for deep insight of complex robotic systems as well as for use of advanced techniques to control them.</p>					
2. Educational outcomes (acquired knowledge):					
<p>Students will be able to model and simulate dynamics, recognize relevant dynamic effects and, on the basis of required behavior of the robot in concrete environmental situation, synthesize control system.</p>					
3. Course content/structure:					
<p>Expansion of robotics, specialized robots and robors of wide spectrum of activity, problems associated with dealing in real world, (non-structured environment), artificial vision as basic sensor information anout robot situadness in the world, force as a basic information about interraction in real world, cognition and control system synthesis.</p>					
4. Teaching methods:					
<p>The course is held through lectures and practice. On lectures will be explained theorethical fundamentals, while on the practices students will be demonstrated practical issues with maximal involvement of students. Students will be focused on research componentof course. All practical lectures will be done in labs.</p>					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Project task		Yes	30.00	Theoretical part of the exam	
				Mandatory	Points
				Yes	70.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	Siciliano B., Khatib O. (Eds.)	Springer handbook of robotics		Springer-Verlag	2008
2,	Spong M., Hutchinson S., Vidyasagar M.,	Robot Modeling and Control		John Wiley & Sons Inc.	2006
3,	R. Dorf, R. Bishop	Modern Control Systems		Pearson Education - Prentice Hall	2011
4,	G. Franklin, J. D. Powell, A. Emami-naeini	Feedback Control of Dynamic Systems		Pearson Education - Prentice Hall	2010
5,	G. Bradski, A. Kaehler	Learning OpenCV		O'Reilly Media, Inc.	2008


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Table 5.2 Course specification

Course:		<b>Mass Transfer</b>				
Course id:	M3508					
Number of ECTS:	6					
Teachers:	Dragutinović D. Gordan, Đaković D. Damir, Đurić N. Slavko					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	0	0	1		
Precondition courses		None				
1. Educational goal:						
Introduction to the basic concepts and methods of problems solving in the field of mass transfer, as well as applications to specific processes and plants.						
2. Educational outcomes (acquired knowledge):						
Knowledge gain about analysis methods of mass transfer, as well as about possibilities of mass transfer application within different industrial fields.						
3. Course content/structure:						
Basic concepts of diffusive mass transfer (basic terms, driving forces of diffusive mass transfer, equations of change and macroscopic mass (molar) balances of the components, Fick's constitutive relation for 2-k systems, diffusivity of binary mixtures, equations of Fick's type for n-k mixtures, diffusivity in n-k systems considering constitutive relations of Fick's type, Maxwell type equations, diffusivity in n-k systems considering constitutive relations of Maxwell type). Molecular diffusion (one-dimensional stagnant diffusion – binary systems, equimolar counterdiffusion, diffusion through inert environment, stationary molecular diffusion at the conditions of changeable isoconcentrated surface, one-dimensional stationary diffusion – multicomponent systems, non-stationary molecular diffusion in one direction – binary systems).						
4. Teaching methods:						
Lectures, auditory, calculation exercises, tests, consultation. The course grade is formed based upon success at lectures, tests and examination. Alternatively, the exam can be taken through two colloquiums. If the student passes both colloquiums, (s)he does not take the exam.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	70.00
Lecture attendance		Yes	5.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Milan Dimić	Difuzioni prenos mase		FTN	1994	

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Table 5.2 Course specification

Course:		<b>Professional Practice</b>				
Course id:	M45sp					
Number of ECTS:	3					
Teachers:						
Course status:		Mandatory				
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
0	0	0	0	3		
Precondition courses		None				
1. Educational goal:						
<p>One of the integral segments of the curriculum for the study programme Regional Policies and Development is professional practice carries out in adequate scientific and research institutions, relevant city and provincial institutions dealing with activities relevant to acquire adequate practical experience in regional planning and regional development. The objective of professional practice is to acquire direct and practical knowledge on the functioning and organization of institutions and establishments dealing with jobs within the profession for which the student is being educated and the possibility of applying the previously acquired knowledge in practice.</p>						
2. Educational outcomes (acquired knowledge):						
<ul style="list-style-type: none"> <li>- Educating students to apply previously acquired theoretical and professional knowledge for solving concrete practical problems of regional planning and development within the selected institution or establishment.</li> <li>- Getting students acquainted with the activities of the selected institution or establishment, their business manners, management and employees` roles in adequate fields and their organization structures.</li> <li>- Acquired professional knowledge students will apply in further education and further practice (professional work).</li> </ul>						
3. Course content/structure:						
<p>The content of professional practice is created for each candidate separately, in agreement with the management of the institution or establishment in which the practice is performed, and in accordance with demands of the profession for which the student is being educated.</p>						
4. Teaching methods:						
<p>Practical work, tutorials and writing a professional practice diary in which students describe activities and jobs they performed during professional practice.</p>						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Project		Yes	50.00	Oral part of the exam	Yes	50.00
Literature						
Ord.	Author	Title		Publisher	Year	



Table 5.2 Course specification

Course:		<b>Computer Methods in Mechanics 2</b>				
Course id:	M45021					
Number of ECTS:	5					
Teacher:	Zuković M. Miodrag					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	0	0	0		
Precondition courses		None				
1. Educational goal: Analysing and solving equation which appear in mechanics by application of numeric procedures.						
2. Educational outcomes (acquired knowledge): Application of numeric procedures in solving engineering problems.						
3. Course content/structure: Numeric solving of partially differential equations. Introduction of final elements methods. Problem setting. Transformation. Approximation with Galerkin method. Variational formulatio and direct methods. Method optimization. Numeric software: characteristics, utilization and development.						
4. Teaching methods: Lectures, practical classes and consulation.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Oral part of the exam	Yes	50.00
Lecture attendance		Yes	5.00			
Term paper		Yes	20.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	J. R. Rice	Numerica methods: Software and analysis		McGraw-Hill	1987	



Table 5.2 Course specification

Course:		<b>Study-Research Work on the Master Thesis Theoretical Framework</b>				
Course id:	SIM01					
Number of ECTS:	15					
Teachers:						
Course status:		Mandatory				
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
0	0	0	10	0		
Precondition courses		None				
1. Educational goal:						
2. Educational outcomes (acquired knowledge):						
3. Course content/structure:						
4. Teaching methods:						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Literature						
Ord.	Author	Title		Publisher	Year	




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Table 5.2 Course specification

Course:		<b>Master Thesis</b>			
Course id:	M4MR				
Number of ECTS:	8				
Teachers:					
Course status:	Mandatory				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
0	0	0	0	8	
Precondition courses		None			
1. Educational goal:					
<p>Master thesis objectives refer to very detailed and overall research in certain scientific discipline. Simultaneously, one of the objectives is to employ contemporary methodology in research and data analyses, as well as to adequately present results in the form of scientific writing. In addition, Master thesis objective is to educate students for challenges of contemporary regional development of European space.</p>					
2. Educational outcomes (acquired knowledge):					
<p>An outcome of Master thesis is presented in obtaining an original scientific paper whose results should provide certain contribution in later more detailed and serious research in the set scientific discipline, that is, regional policies and development. It is also to enable graduate Master student for the role of an analyst and evaluator of regional development strategies and policies in Europe, as well as adequate preparation for the work in educational and scientific institutions.</p>					
3. Course content/structure:					
<p>Master thesis presents a student's research paper in which they are introduced to research methodology in the field of regional and inter-regional cooperation and development. The student has the obligation, on performing field experimental research, to write a final paper in the form containing the following chapters: Introduction, Theoretical part, Experimental part, Results and discussion, Conclusions and Literature. Topics and contents of final-Master papers that would be elaborated and defended within the study programme Regional Policies and Development, could include more scientific fields and disciplines:</p>					
4. Teaching methods:					
<p>The method for elaborating Master thesis should include the preparation phase (title definition, content, methodology determination, primary sources), followed by research and field work (field research, data acquisition and database formation, etc. and the like) and the final phase – classroom work (obtained data analysis and definition, writing Master thesis text body and final tutorials with the supervisor). It is compulsory to defend the Master thesis in front of the officially appointed committee.</p>					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
		Mandatory	Points		


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Table 5.2 Course specification

Course:		<b>Vibrodiagnostics</b>			
Course id:	M2540				
Number of ECTS:	4				
Teacher:	Zuber F. Ninoslav				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
2	0	2	0	0	
Precondition courses		None			
1. Educational goal:					
Enabling students to apply fundamental knowledge in the field of technical diagnostics of machines – measurement and analysis of vibrations of rotating machines and noise, application of infrared thermography.					
2. Educational outcomes (acquired knowledge):					
Acquiring knowledge for early identification of machine damage, application during various phases of designing and through predictive and proactive machine maintenance techniques.					
3. Course content/structure:					
Signal analysis, description in time, amplitude and frequency; Deterministic and random processes; Correlation analysis; Fourier transformation; Spectral analysis, RTVA (Real Time Vibration Analysis), System analysis; System excitation and response; Transmission function; Digital signal and error processing, Measurement chain for vibration measuring; Measurement methods and characteristics; Vibrations of rotating machines; Spectral maps; Phase analysis; Campbell diagram; Orbit analysis; Modal analysis; Oscillation forms, Measurement of excitation and response; Types and characteristics of excitation; Modal parameter determination; Modification structure; Technical diagnostics and maintenance; Transmissive vibration analyzers, Diagnostics in the domain of low ( $\omega$ ), middle ( $\omega$ ) and high frequencies ( $\omega$ ); Identification and methods; Designing low cost systems for online monitoring and rotating machine protection; Transmission function; Time constant; Microphones; Fundamental elements of phonometer and systems for noise measurement in working and living environment; Regulations that define methodology of testing and border noise levels.					
4. Teaching methods:					
Lectures. Auditory classes. Consultations.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Project		Yes	30.00	Oral part of the exam	
Term paper		Yes	20.00	Mandatory	Points
				Yes	50.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	Taylor J.	The vibration analysis handbook		VCI	2003
2,	Harris C., Piersol A.	Shock and vibration handbook		McGraw Hill	2001
3,	Silva C.	Vibration fundamentals and practice		CRC	1999
4,	Taylor F.	Noise control in industry			1999

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Table 5.2 Course specification

Course:		<b>Design and maintenance of quality control in environmental engineering</b>				
Course id:	Z452					
Number of ECTS:	4					
Teachers:	Vujić V. Goran, Ubavin M. Dejan, Hadžistević J. Miodrag					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	0	0	0		
Precondition courses		None				
1. Educational goal:						
Introducing the students to the principles of quality control methods, legislation, standards and guidelines in the field, in order to obtain the knowledge in the field of implementation and maintenance of standards ISO 14000, ISO 17025, HCCP, accreditation and certification.						
2. Educational outcomes (acquired knowledge):						
Implementation and quality control in the field of Environmental Engineering, education and training in the field of practical and experimental methods, enabling the students to consider the system of an organization and the degree to which it is aligned with the requirements of selected standards, enabling the students to interpret a series of standards in a relation to the actual system and the acquisition of basic skills related to the implementation and maintenance of quality systems.						
3. Course content/structure:						
Selected units in the following fields: Quality system QM and TQM, key requirements of the standards ISO 14000, ISO 17025, the standard HCCP in environmental engineering, Monitoring of regulations, legislative, legal EU requirements, European standards in the field of interest, Type and methods of environmental assessment, Advantages and disadvantages of establishing the system, the PDCA cycle, Environmental aspects – the main pollutants and the criteria for evaluation of their significance, Aims and Objectives, Quality control of chemical and manufacturing industries, Basic principles of GLP (Good Laboratory Practice), Implementation and maintenance of internal quality control, Calibration and maintenance of instruments, The significance of PT schemes and inter-laboratory comparisons and their role in assuring the quality of test and calibration results, environmental protection in the concept of food safety, Accreditation and certification.						
4. Teaching methods:						
Lectures. Laboratory and Computing Practice. Consultations. During the semester students can pass the written part of exam through two colloquiums. Colloquiums are the forms of the knowledge assessment and they consist of theoretical and computing parts and they are in written form. During the semester students are required to attend lectures, computing and laboratory practice, as well as to pass two tests and to deliver and present term paper on selected topic. After successful fulfillment of pre-exam obligations student are allowed to take the exam, unless they have passed the written part of exam through two colloquiums, students are required to take the whole exam, covering the whole semester curriculum. The course grade is formed based on points collected by filling the pre-exam obligations, success in colloquiums or in whole exam at the end of semester.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Laboratory exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance		Yes	5.00		Oral part of the exam	Yes
Term paper		Yes	20.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Christopher Sheldon, Mark Yokson	Environmental Management Systems: A Step-by-Step Guide to Implementation and Maintenance		Earthscan	2002	
2,	Christopher Sheldon, Mark Yokson	Installing Environmental Management Systems		Earthscan	1999	
3,	Gregory Johnson	The ISO 14000 EMS Audit Handbook:		St. Lucie Press, Boca Raton, Florida	2000	
4,	J. Brady	Environmental management in organisations		The iema Handbook	2005	
5,	Donald Singer, Ronald Upton	Guidelines for Laboratory Quality Auditing		ASQC Quality Press	1993	
6,	W.Funk, V.Dammann, G. Donnevert	Quality Assurance in Analytical Chemistry		WILEY-VCH	2007	
7,	Vojislav Božanić, Gordana Pejović	Akreditovane laboratorije		Fakultet organizacionih nauka, Beograd	2010	
8,	Grupa autora (CITAC and EURACHE)	Eurachem/CITAC Guide "Quantifying Uncertainty in Analytical Measurement"		CITAC, Eurachem	2012	



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### Literature

Ord.	Author	Title	Publisher	Year
9,	Grupa autora (CITAC and EURACHEM)	Guide to Quality in Analytical Chemistry – An aid to accreditation	CITAC, Eurachem	2012
10,	S. Mortimore, C.Wallace, C. Cassianos	HCCP	Wiley-Blackwell	2001



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### Standard 06. Programme Quality, Contemporaneity and International Compliance

The study programme is coordinated with contemporary trends and situation in profession, science and art in adequate educational scientific or educational artistic field and it is compatible with similar programmes in international higher education institutions.

The study programme of Technical Mechanics and Technical Design is created as a comprehensive programme and provides students latest scientific knowledge in the field.

The programme of Technical Mechanics and Technical Design is comparable and coordinated with the following faculties:

1. Vienna University of Technology, Austria - 033245 - Mechanical Engineering,

([http://tuwis.tuwien.ac.at/zope/\\_Zopeld/75014959A119ehqUY0Q/tp/lv/sp/spfache\\_html?kode=445&spsem=2006U](http://tuwis.tuwien.ac.at/zope/_Zopeld/75014959A119ehqUY0Q/tp/lv/sp/spfache_html?kode=445&spsem=2006U))

2. Budapest University of Technology and Economics, Hungary, Faculty of Mechanical Engineering

(<http://www.bme.hu/en/organization/faculties/mechanical/index.html>, <http://www.tanok.bme.hu/bulletin/>)



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## Study Programme Accreditation

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### Standard 07. Student Enrollment

The Faculty of Technical Science, in accordance with social demands and its resources, enrolls students to adequate study programme based on their success in the previous education and entrance examination testing their knowledge, aptitudes and skills. Selection of students and their enrolment is based on success in previous education and success in the enrolment exam and in accordance with Faculty Regulation for student enrolment to study programmes.

Students from other study programme can transfer to this study programme as well as persons who completed studies. The evaluation commission (consisting of Heads of Departments included in study programme realization) evaluates all passed exams and on the bases of recognized exams decides whether the candidate`s previous success can completely or partially be recognized. The Commission can require appropriate additional differential exam or not to recognize any of the previously passed exam.



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### Standard 08. Student Evaluation and Progress

The evaluation of students is performed by continual monitoring of students' accomplishments and the points obtained in fulfilling prerequisites and taking examinations.

The students master the study programme by taking examinations and thus obtaining a certain number of ECTS credits, in accordance with the study programme of graduate academic studies in Energy and Process Engineering.

Each course at the study programme has a set number of ECTS credits which students obtain on successfully passing the examination. Students' success in mastering a certain course is constantly monitored during classes and is presented in points. Maximum number of points obtained in a course is 100. Students obtain points from a course through their work during classes, fulfilment of their prerequisites and taking the examination. Each course at the study programme has a clear and publicly known mode of obtaining points.

A student's final achievement at a course is presented using grades from 5 (fail) to 10 (excellent). A student's grade is based on the overall number of points obtained on fulfilling prerequisites and taking the examination, and in accordance with the quality of acquired knowledge and skills.

For a student to be allowed to take an exam, he/she needs to be awarded at least 15 ECTS credits in subject's prerequisites. Additional terms for taking an exam are defined for each subject individually.

Student's advancement during the studying is determined by Regulations for studying at graduate academic studies.



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### Standard 09. Teaching Staff

For the realization of the study programme, there is the faculty staff with necessary scientific, artistic and professional qualifications.

Total number of lecturers and associates employed at the study programme is adequate to accomplish the total number of classes in the study programme so that the professor performs on average 180 active classes annually (lectures, consultations, practical classes, practical work, etc), that is 6 classes weekly. All lecturers are full time employed at the Faculty.


Number of associates corresponds the needs of the study programme. Total number of associates in study programme is enough to cover total number of classes so that associates realize 300 classes on average of active classes annually, that is 10 classes weekly.

Scientific and professional qualifications of lecturers and assistants is in relation to educational and scientific field. Each professor has at least five references in the professional field in which he/she performs the lectures.

Group size for classes is up to 32, practical classes groups is up to 16, and laboratory practical classes groups up to 8 students.

None of the professors has more than 12 classes weekly. All data on lecturers and assistants (CV, references) are publicly available.



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Science, arts and professional qualifications

Name and last name:		Borovac A. Branislav	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.10.1975	
Scientific or art field:		Mechatronics, Robotics and Automation and Integral Systems	
Academic carieer	Year	Institution	Field
Academic title election:	1998	Faculty of Technical Sciences - Novi Sad	Mechatronics, Robotics and Automation and Integral Systems
PhD thesis	1986	Faculty of Technical Sciences - Novi Sad	Robotics and Flexible Automation
Magister thesis	1982	Faculty of Technical Sciences - Novi Sad	Robotics and Flexible Automation
Bachelor's thesis	1975	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	EM436	Mechatronics	( M30) Energy and Process Engineering, Undergraduate Academic Studies
2.	H102	Fundamentals in Product Development	( H00) Mechatronics, Undergraduate Academic Studies
3.	H1404	Mechatronics	( H00) Mechatronics, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
4.	H308	Industrial Robotics	( H00) Mechatronics, Undergraduate Academic Studies
5.	I600	Industrial Robotics	( F10) Engineering Animation, Undergraduate Academic Studies ( MR0) Measurement and Control Engineering, Undergraduate Academic Studies ( E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
6.	BM116A	Basics of medical robotics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
7.	EM436A	Mechatronics	( E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
8.	II1035	Industrial robotics	( I10) Industrial Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
9.	H1503	Non Industrial Robotics and Automation in Buildings	( H00) Mechatronics, Master Academic Studies ( I10) Industrial Engineering, Master Academic Studies
10.	HDOK1 S	Selected topics in industrial robotics	( E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
11.	HDOK2 S	Selected topics in non-industrial robotics	( I12) Industrial Engineering, Specialised Academic Studies
12.	IMDR0S	Selected chapters in enterprise's design, organization and control	( I12) Industrial Engineering, Specialised Academic Studies ( I22) Engineering Management, Specialised Academic Studies
13.	NIT05	Advanced Technology for Material Handling	( NIT) Industrial Engineering - Advanced Engineering Technologies, Master Academic Studies
14.	AD0007	Interactive systems in architecture	( AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
15.	H828	Advanced robotics	( H00) Mechatronics, Master Academic Studies
16.	H829	Advanced robotics	( I10) Industrial Engineering, Master Academic Studies ( M40) Technical Mechanics and Technical Design, Master Academic Studies
17.	IIDS6	Selected chapters in automation	( I12) Industrial Engineering, Specialised Academic Studies
18.	GD018	Automation and Robotics in Construction	( G00) Civil Engineering, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies



List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
19. HDOK-1	Selected Chapters in Industrial Robotics	( E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies ( H00) Mechatronics, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
20. HDOK-2	Selected Chapters in Non-Industrial Robotics	( E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies ( H00) Mechatronics, Doctoral Academic Studies ( I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
21. HDOKL1	Selected topics in non-industrial robotics	( H00) Mechatronics, Doctoral Academic Studies ( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies
22. HDOKL2	Selected topics in non-industrial robotics	( H00) Mechatronics, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies
23. IMDR0	Science of Industrial Engineering and Management	( I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies
24. IMDR80	Selected chapters in automation	( I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	M. Vukobratović, V. Potkonjak, K. Babković, B. Borovac, Simulation model of general human and humanoid motion, Multibody System Dynamics, Volume 17, Number 1, (February, 2007), pp. 71-96 (ISSN 1384-5640 (Print) 1573-272X (Online))
2.	Vukobratović M., Borovac B., Potkonjak V., Towards a Unified Understanding of Basic Notions and Terms in Humanoid Robotics, Robotica (2007) Vol. 25, pp. 87-101
3.	Vukobratović M., Borovac B., Potkonjak V., ZMP: A Review of Some Basic Misunderstandings, Int. Jour. of Humanoid Robotics, Vol. 3, No. 2 (2006), pp. 153-176
4.	V. Potkonjak, M. Vukobratović, K. Babković, B. Borovac, General Model of Dynamics of Human and Humanoid Motion: Feasibility, Potentials and Verification, Int. Jour. of Humanoid Robotics, Vol. 3, No. 2 (2006), pp. 21-48
5.	Vukobratović M., Borovac B., Babković K., "Contribution to the Study of Anthropomorphism of Humanoid Robots", Int. Jour. of Humanoid Robotics, Vol. 2, No. 3 (2005), pp. 361-387
6.	Vukobratović M., Borovac B., Note on the Article "Zero-Moment Point- Thirty Five Years of its Life", Int. Jour. of Humanoid Robotics, Vol. 2, No.2, June 2005, pp. 225-227
7.	Vukobratović M., Borovac B., "Zero-Moment Point- Thirty Five Years of its Life", Int. Jour. of Humanoid Robotics, Vol. 1, No.1, March 2004, pp. 157-173
8.	M. Vukobratović, D. Andrić, B. Borovac, "How to Achieve Various Gait Patterns from Single Nominal ", International Journal of Advanced Robotic Systems, Vol. 1., No. 2, Page 99-108, 2004
9.	L. Juhas, A. Vujanić, N. Adamović, L. Nagy, B. Borovac "A Platform for Micro-Positioning Based on Piezo-Legs", The Journal of Mechatronics, Vol. 11, (2001), pp.869-897
10.	M. Vukobratović, D. Andrić, B. Borovac, "Humanoid Robot Motion in Unstructured Environment - Generation of Various Gait Patterns from a Single Nominal ", Cutting Edge Robotics, Edited by V. Kordic, A. Lazanica, M. Merdan, Published by pIV pro literatur Ver-lag Robert Mayer-Scholz, © 2005 Advanced Robotic Systems International, Page 577-598, 2005

Summary data for teacher's scientific or art and professional activity:

Quotation total :	1998		
Total of SCI(SSCI) list papers :	35		
Current projects :	Domestic :	2	International : 1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:		Budak M. Igor	
Academic title:		Assistant Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 06.09.2001	
Scientific or art field:		Metrology, Quality, Fixtures and Ecological-Engineering Aspects	
Academic carier	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
PhD thesis	2009	Faculty of Mechanical Engineering - Ljubljana	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Magister thesis	2004	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
Bachelor's thesis	1998	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	IA018	3D Digitalization Methods	( F10) Engineering Animation, Undergraduate Academic Studies
2.	P1401	Fixture Design and Measuring Machines	( P00) Production Engineering, Undergraduate Academic Studies
3.	P1508	Reverse Engineering and CAQ	( P00) Production Engineering, Undergraduate Academic Studies ( SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies ( SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
4.	P209	Measurements and Quality	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
5.	P306	Fixtures	( P00) Production Engineering, Undergraduate Academic Studies
6.	Z207	Mechanical Engineering in Environmental Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	Z207A	Mechanical Engineering in Environmental Engineering	( Z01) Safety at Work, Undergraduate Academic Studies
8.	Z301	Pollution Measurement and Control	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
9.	Z416	EMS Systems	(Z20) Environmental Engineering, Undergraduate Academic Studies
10.	ZRI441	Material handling systems for environmental and labor protection	( Z01) Safety at Work, Undergraduate Academic Studies
11.	Z416	EMS sistemi(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
12.	BM119D	Reverse engineering and rapid prototyping in biomedical engineering	( BM0) Biomedical Engineering, Undergraduate Academic Studies
13.	P322	Introduction to Precision Engineering	( P00) Production Engineering, Undergraduate Academic Studies
14.	ZC036	Measurement and control of pollution	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
15.	P1409	Material Control Systems and CAI	( PM0) Production Engineering, Master Academic Studies
16.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
17.	Z416A	Environment Protection System Management	( PM0) Production Engineering, Master Academic Studies
18.	I907	Automated Assembly Systems for High Accuracy	( H00) Mechatronics, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
19.	P321	Reverse Engineering and Rapid Prototyping	( I10) Industrial Engineering, Master Academic Studies
20.	PIP16	Plastics and environmental protection	( PM0) Production Engineering, Master Academic Studies



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

## List of courses being held by the teacher in the accredited study programmes


ID	Course name	Study programme name, study type
21. PLIS1	Logistics and Simulation in Technologies of Plastics Processing	( PM0) Production Engineering, Master Academic Studies
22. PP103	Measurement and tools in precision engineering	( PM0) Production Engineering, Master Academic Studies
23. SM3	Software support for reverse engineering and CAQ	( PM0) Production Engineering, Master Academic Studies
24. SZSP18	Contemporary scientific approaches in life cycle assessment of products (LCA)	( Z00) Environmental Engineering, Specialised Academic Studies
25. DM411	Contemporary Approach to Integration of Reverse Engineering of Rapid Prototyping, Tools, Products and Virtual Manufacturing	( M00) Mechanical Engineering, Doctoral Academic Studies
26. DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
27. DP006	State and development trends of metrology, quality and fixtures	( M00) Mechanical Engineering, Doctoral Academic Studies
28. DP013	Ecological Engineering Aspects	( M00) Mechanical Engineering, Doctoral Academic Studies
29. DP019	Selected topics in technical diagnosis	( M00) Mechanical Engineering, Doctoral Academic Studies
30. ZDH1	Modern Methods of Eco-design	( Z00) Environmental Engineering, Doctoral Academic Studies
31. ZSP18	Modern Scientific Approaches in Product Life Cycle Assessment (LCA)	( Z00) Environmental Engineering, Doctoral Academic Studies

## Representative references (minimum 5, not more than 10)

1.	Budak I., Vukelić Đ., Bračun D., Hodolić J., Soković M.: Pre-Processing of Point-Data from Contact and Optical 3D Digitization Sensors, Sensors, 2012, Vol. 12, No 1, pp. 1100-1126, ISSN 1424-8220
2.	Tadić B., Jeremić B., Todorović P., Vukelić Đ., Proso U., Mandić V., Budak I.: Efficient workpiece clamping by indenting cone-shaped elements, International Journal of Precision Engineering and Manufacturing, 2012, Vol. 13, No 10, pp. 1725-1735, ISSN 2234-7593
3.	Kosec G., Nagode A., Budak I., Antić A., Kosec B.: Failure of the pinion from the drive of a cement mill, Engineering Failure Analysis, 2011, Vol. 18, pp. 450-454, ISSN 1350-6307
4.	Budak I., Soković M., Barišić B.: Accuracy improvement of point data reduction with sampling-based methods by Fuzzy logic-based decision-making, MEASUREMENT, 2011, Vol. 44, No 6, pp. 1188-1200, ISSN 0263-2241
5.	Budak I., Hodolić J., Soković M.: Development of a programme system for data-point pre-processing in Reverse Engineering, Journal of Materials Processing Technology, 2005, Vol. 162, pp. 730-735, ISSN 0924-0136
6.	Jevremović D., Puškar T., Budak I., Vukelić Đ., Kojić V., Eggbeer D., Williams R.: An RE/RM approach to the design and manufacture of removable partial dentures with a biocompatibility analysis of the F75 Co-Cr SLM alloy, Materijali in tehnologije, 2012, Vol. 46, No 2, pp. 123-129, ISSN 1580-2949
7.	Trifković B., Budak I., Todorović A., Hodolić J., Puškar T., Jevremović D., Vukelić Đ.: Application of Replica Technique and SEM in Accuracy Measurement of Ceramic Crowns, Measurement Science Review, 2012, Vol. 12, No 3, pp. 90-97, ISSN 1335-8871
8.	Agarski B., Kljajin M., Budak I., Tadić B., Vukelić Đ., Bosak M., Hodolić J.: Application of multi-criteria assessment in evaluation of motor vehicles' environmental performances, Tehnički vjesnik/Technical Gazette, 2012, Vol. 19, No 2, pp. 221-226, ISSN 1330-3651
9.	Vukelić Đ., Miljanić D., Ranđelović S., Budak I., Džunić D., Erić M., Pantić M.: Burnishing process based on optimal depth of workpiece penetration (Article in press, date of acceptance 28.08.2012, Manuscript Number: MIT-45-2012), Materijali in tehnologije, 2012, ISSN 1580-2949
10.	Vukelić Đ., Tadić B., Miljanić D., Budak I., Todorović P., Ranđelović S., Jeremić B.: Novel workpiece clamping method for increased machining performance, Tehnički vjesnik-Technical Gazette, 2012, Vol. 19, No 4, pp. 837-846, ISSN 1330-3651.

## Summary data for teacher's scientific or art and professional activity:

Quotation total :	25		
Total of SCI(SSCI) list papers :	20		
Current projects :	Domestic :	4	International : 7

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Dragutinović D. Gordan		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 06.04.1980		
Scientific or art field:	Thermodynamics and Heat Transfer		
Academic career	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Thermodynamics and Heat Transfer
PhD thesis	1987	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics
Magister thesis	1983	Faculty of Mechanical Engineering - Beograd	Thermal Energetics and Thermotechnics
Bachelor's thesis	1977	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	M203	Fundamentals of Thermodynamics	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
2.	M203L	Fundamentals in Thermodynamics	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( MR0) Measurement and Control Engineering, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
3.	M210	Thermodynamics	( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
4.	M215	Fundamentals of Heat Transfer	( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
5.	M3303	Fundamentals of Process Engineering	( M30) Energy and Process Engineering, Undergraduate Academic Studies
6.	URZP31	Fundamentals of Thermodynamics with Heat Transfer	( ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
7.	GS013	Special topics of building physics and thermodynamics	( G10) Energy Efficiency in Buildings, Specialised Academic Studies
8.	BMIM4A	Transport phenomena and Living systems	( BM0) Biomedical Engineering, Master Academic Studies
9.	M3508	Mass Transfer	( M30) Energy and Process Engineering, Master Academic Studies ( M40) Technical Mechanics and Technical Design, Master Academic Studies
10.	DM307	Selected Chapters in Mass Transfer	( M00) Mechanical Engineering, Doctoral Academic Studies
11.	DM313	Process Kinetics	( M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Dragutinovic, G.D., Baclic, B.S. "Operation of Counterflow Regenerators", Book Vol. 4 in Series "Developments in Heat Transfer", Computational Mechanics Publications, Southampton, 1998.
2.	Baclic, B.S. and Dragutinovic, G.D., "Asymmetric-unbalanced Counterflow Thermal Regenerator Problem: Solution by the Galerkin Method and meaning of dimensional Parameters, Int. J. Heat Mass Transfer, Vol.34, No. 2, 1991, pp. 483-498.



## Study Programme Accreditation

MASTER ACADEMIC STUDIES


Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

3.	Dragutinovic, G.D., Baclic, B.S., "Interpolation and collocation methods for prediction of thermal regenerator performances", Thermal Science, Vol. 12, No. 4, 1996. pp. 307-327.
4.	Baclic, B.S., Heggs, P.J., and Dragutinovic, G.D., "Prediction of the Effectiveness of Unbalanced - Asymmetric Counterflow Regenerators", Publications of the Faculty of Technical Sciences, Vol. 15, 1984, pp. 1-15, University of Novi Sad.
5.	Baclic, B.S., Gvozdenac, D.D., and Dragutinovic, G.D., "Easy way to calculate the Amzelius-Schumann J function", Thermal Science, Vol. 1, No. 1, 1997, pp. 109-116.
6.	Dragutinović, D.G., Dimić, M., Sinteza optimalnih mreža toplotnih razmenjivača, Termotehnika, 1, 1998.
7.	Bašić, Đ., Petrović, J., Marić, M., Dragutinović, G., i dr., Mogućnost korišćenja energetskeg potencijala geotermalnih voda u Vojvodini, Novi Sad, Prometej, 2009
8.	Martinov, M., Dragutinović, G., i dr., Mogućnost kombinovane proizvodnje električne i toplotne energije iz biomase u AP Vojvodini, Novi Sad, PSEMR AP Vojvodina, 2008
9.	Nedeljkov, M., Dragutinović, G., Mathematical Simulation od Deep-Bed Drying of Grains - A numerical simulation, CHISA, Prag, avgust 1987
10.	Nedeljkov, M., Dragutinović, G., Mogućnosti i uslovi racionalizacije procesa konvektivnog sušenja zrnastih poljoprivrednih proizvoda, 7. simpozijum termičara, Ohrid, maj 1984.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	11			
Total of SCI(SSCI) list papers :	2			
Current projects :	Domestic :	2	International :	0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Đaković D. Damir		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad		
	01.12.2001		
Scientific or art field:	Process Technics		
Academic carieer	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Process Technics
PhD thesis	2011	Faculty of Technical Sciences - Novi Sad	Process Technics
Magister thesis	2007	Faculty of Technical Sciences - Novi Sad	Process Technics
Bachelor's thesis	2001	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	I079	Modern Energy Technologies	( M50) Energy Management, Master Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
2.	M3303	Fundamentals of Process Engineering	( M30) Energy and Process Engineering, Undergraduate Academic Studies
3.	M3406	Heat Apparatus	( M30) Energy and Process Engineering, Undergraduate Academic Studies
4.	M3409A	Modern Energy Technologies	( M30) Energy and Process Engineering, Undergraduate Academic Studies
5.	M3507	Combustion Technology	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
6.	Z412A	Process apparatus for protecting the environment	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	Z412	Procesni aparati za zaštitu okoline(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	M211	Measurement and Regulation	( M30) Energy and Process Engineering, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
9.	M3031	Engineering Calculations of Energy Technologies Apparatus and Equipment	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
10.	M3517	Construction in energy and process engineering	( M30) Energy and Process Engineering, Master Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
11.	ZRI41A	Security and Safety at Work in Process Plants	( Z01) Safety at Work, Undergraduate Academic Studies
12.	I079	Modern Energy Technologies	( M50) Energy Management, Master Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
13.	I915	Energy Transformations	( M30) Energy and Process Engineering, Master Academic Studies
14.	I916	Energy Management in Industry	( M50) Energy Management, Master Academic Studies
15.	GS002	Energy Efficiency of Heating and Air Conditioning Systems	( G10) Energy Efficiency in Buildings, Specialised Academic Studies
16.	I070	Energy efficiency	( M50) Energy Management, Master Academic Studies
17.	I915	Energy Transformations	( M50) Energy Management, Master Academic Studies
18.	M3503	Dinamika i modeliranje termoenergetskih postrojenja(uneti naziv na engleskom)	( M30) Energy and Process Engineering, Master Academic Studies
19.	M3506	Drying Technique	( M30) Energy and Process Engineering, Master Academic Studies
20.	M3508	Mass Transfer	( M30) Energy and Process Engineering, Master Academic Studies ( M40) Technical Mechanics and Technical Design, Master Academic Studies



UNIVERSITY OF NOVI SAD

FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
21. M3515	Energy Systems	( M30) Energy and Process Engineering, Master Academic Studies ( M50) Energy Management, Master Academic Studies
22. M3517	Construction in energy and process engineering	( M30) Energy and Process Engineering, Master Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
23. DM307	Selected Chapters in Mass Transfer	( M00) Mechanical Engineering, Doctoral Academic Studies
24. DM313	Process Kinetics	( M00) Mechanical Engineering, Doctoral Academic Studies


Representative references (minimum 5, not more than 10)

1.	Đaković D.: Comments on 'Water sorption isotherms and thermodynamic properties of pearl millet grain', International Journal of Food Science and Technology, 2012, Vol. 47, No. 2, pp. 441-441, ISSN: 0950-5423.
2.	Spasojevic, M. D., Jankovic M.R., Djakovic D.D.: A New Approach to Entropy Production Minimization in Diabatic Distillation Column with Trays, Thermal Science, 2010, Vol. 14, No. 2, pp. 317-328, ISSN: 0354-9836.
3.	Djuric, S. N., Stanojevic, P. C., Djakovic, D. D., Jovic, A. M.: The Study on the Effect of Fractional Composition and Ash Particle Diameter on the Ash Collection Efficiency at the Electrostatic Precipitator, Chemical Industry & Chemical Engineering Quarterly, 2010, Vol. 16, No. 3, pp. 229-236, ISSN: 1451-9372.
4.	Anđelković A., Cvjetković T., Đaković D., Stojanović I.: Development of Simple Calculation Model for Energy Performance of Double Skin Façades, Thermal Science, 2012, Vol. 16, No Suppl 1, pp. 251-267, ISSN 0354-9836.
5.	Čenejac A., Bjelaković R., Anđelković A., Đaković D.: Covering of Heating Load of Object by Using ground heat as a Renewable Energy Source, Thermal Science, 2012, Vol. 16, No Suppl 1, pp. 225-235, ISSN 0354-9836
6.	Đaković D, Vujić G, Bašić Đ, Dimić M. "Several models of grain drying theory – principles and obstacles", PSU-UNS International Conference on Engineering and Environment - ICEE-2007, Phuket, Thailand: Prince of Songkla University, Faculty of Engineering, 10-11 May, 2007, pp. 614- 617
7.	Đaković D, Dimić M. "Poređenje nekih jednačina konvektivnog sušenja zrnastih materijala u nepokretnom tankom sloju", Zbornik apstrakata, ISBN 86-80587-70-2, s. 62, CD ISBN 978-86-80-587-80-6, 13. Simpozijum termičara Srbije, Sokobanja, Srbija, 16.10.-19.10.2007.
8.	Đaković D, Spasojević M, Štrbac D, Dimić M. "Primena eksergijske analize na proces sušenja kukuruza u tankom sloju", PTEP, 12(4), 233-235, 2008
9.	Đaković D, Dimić M, Spasojević M, Štrbac D, "Possibility of exergy analysis application on drying process", 4th International Conference on Engineering Technologies, ICET 2009, 28-30th April, 2009, ISBN: 978-86-7892-161-2, pp. 376-380, Novi Sad, Serbia
10.	Đaković D, Dimić M. "Pregled pristupa modelovanju fenomena prenosa u sušarama sa kombinovanim tokovima", PTEP, 13(3), 283-287, 2009

Summary data for teacher's scientific or art and professional activity:

Quotation total :	0
Total of SCI(SSCI) list papers :	5
Current projects :	Domestic : 2 International : 1





	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Đurić N. Slavko		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.01.2007		
Scientific or art field:	Environment Protection Engineering		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
PhD thesis	2003	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering
Magister thesis	1998	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering
Bachelor's thesis	1980	Faculty of Mathematics - Beograd	Mathematics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	M3303	Fundamentals of Process Engineering	( M30) Energy and Process Engineering, Undergraduate Academic Studies
2.	M3406	Heat Apparatus	( M30) Energy and Process Engineering, Undergraduate Academic Studies
3.	Z304	Propagation of Disturbances	(Z20) Environmental Engineering, Undergraduate Academic Studies
4.	Z304A	Propagation of disturbances	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
5.	Z306	Process Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
6.	Z306A	Process Engineering	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
7.	Z311	Process Systems and Equipment	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z412A	Process apparatus for protecting the environment	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	Z417	Methods and Systems for Water Treatment	(Z20) Environmental Engineering, Undergraduate Academic Studies
10.	ZR404	Occupational Safety Systems, Means and Equipment	( Z01) Safety at Work, Undergraduate Academic Studies
11.	Z101	Uvod i principi zaštite okruženja(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
12.	Z401A	Projektovanje i planiranje u zaštiti životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
13.	Z412	Procesni aparati za zaštitu okoline(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
14.	Z417	Postupci i postrojenja za tretman voda(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
15.	ZRI41A	Security and Safety at Work in Process Plants	( Z01) Safety at Work, Undergraduate Academic Studies
16.	Z501	21BProtection System Design	(Z20) Environmental Engineering, Master Academic Studies
17.	Z501	Projektovanje sistema zaštite(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
18.	M3506	Drying Technique	( M30) Energy and Process Engineering, Master Academic Studies
19.	M3508	Mass Transfer	( M30) Energy and Process Engineering, Master Academic Studies ( M40) Technical Mechanics and Technical Design, Master Academic Studies
20.	M3511	Diffusion apparatus	( M30) Energy and Process Engineering, Master Academic Studies
21.	SZSP17	Savremene instrumentalne metode analize zagađujućih supstanci u životnoj sredini	( Z00) Environmental Engineering, Specialised Academic Studies

		UNIVERSITY OF NOVI SAD			
		FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6			
<b>Study Programme Accreditation</b>					
MASTER ACADEMIC STUDIES			Technical Mechanics and Technical Design		
List of courses being held by the teacher in the accredited study programmes					
ID	Course name	Study programme name, study type			
22.	ZD060	Selected topics in air pollution	( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies		
23.	ZRD28A	Selected topics in the science of occupational safety	( Z01) Safety at Work, Doctoral Academic Studies		
Representative references (minimum 5, not more than 10)					
1.	Đurić, S., Omerović, M., Brankov, S., Džaferović, E., Stanojević, P, (2011): Experimental examination of sulphur dioxide separation from mixture of gas in dry procedure with the aid of calcium carbonate, Thermal Science, ISSN 0354-9836 Vol. 15, No.1, pp. 115-124				
2.	Đurić S., Stanojević P., Đaković D., Jovović A., (2010): The study on the effect of fractional Composition and ash particle Diameter on the ash collection Efficiency at the electrostatic Precipitator, Chemical Industry & Chemical Engineering Quarterly, ISSN 1451-9372 Vol.16, No.3, pp. 229-236				
3.	Đurić S., Stanojević P., Đuranović D., Brankov S., Milašinović S., Qualitative analysis of coal combusted in boilers of the thermal power plants in Bosnia and Herzegovina, Thermal Science 2012 Volume 16, Issue 2, Pages: 605-612.				
4.	Nakomčić, B., Stajić, T., Cepić, Z., Đurić, S., Geothermal energy potentials in the province of Vojvodina from the aspekt of the direct energy utilization, Renewable and Sustainable Energy Reviews, 2012 Volume 16, Issue 8, Pages: 5696-5700				
5.	Djuric Slavko N, Brankov Sasa D, Stanojevic Petko, Bozickovic ranko, IRANIAN JOURNAL OF CHEMISTRY & CHEMICAL ENGINEERING-INTERNATIONAL ENGLISH EDITION, (2012), vol. 31 br. 2, str. 45-51				
6.	Slavko (Nikola) Đurić, Žarko (Mirko) Bojić, Dragan (Boro) Đuranović, Boro (Branko) Gojković, Slobodan (Nestor) Tašin, Zdravko (Cvijan) Božičković, The analysis of the road traffic accidents directly caused by tractor drivers in the territory of the Republic of Serbia, RAD PRIHVAČEN ZA ŠTAMPU U ČASOPISU: TTEM-Technics Technologies Education Management, Vol.8, No.2, 5/6. 2013				
7.	Đurić, S., Đaković, D., (2009): The qualitative estimation of Montenegro lignite characteristics, 4th Internacional Conference on Engineering Technologies ICET, Novi Sad, 28th-30th April, 2009., PROCEEDINGS, ISBN 978-86-7892-227-5, Vol. 1, pp. 73-79				
8.	Đurić, S., Vojinović-Miloradov, M., Krmar, M., Slivka, J., Mrđa, D., (2007): Arandelović, I., Đaković, D., Stanojević, P., Research of radionuclides influence in soil on environment of municipality Petrovo, Republika Srpska, Bosnia & Herzegovina, XI international ECO-CONFERENCE, 26th-29th September 2007, Novi Sad, Environmental protection of urban and suburban settlements, ISBN 978-86-83177-30-1, ISBN 86-83177-27-0 (za izdavačku celinu), Vol. I, pp. 169-176				
9.	Đurić, S., (2011): Redukcija emisije SO <sub>2</sub> na energetskim postrojenjima primenom suvih aditivnih postupaka, ENERGIJA, ekonomija, ekologija, 2011, List saveza energetičara, ISSN 0354-8651, Broj 1, Godina XIII, Str. 168-170				
10.	Đurić, S., Đaković, D., Brankov, S., Omerović, M., Džaferović, E., (2010): Matematički model proračuna ravnotežnog sastava gasifikacije komunalnog čvrstog otpada, ENERGIJA, ekonomija, ekologija 2010, List saveza energetičara, ISSN 0354-8651, Broj 4, Godina XII, Str. 67-74				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :		3			
Total of SCI(SSCI) list papers :		6			
Current projects :		Domestic :	3	International :	1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES <span style="float: right;">Technical Mechanics and Technical Design</span>	



### Science, arts and professional qualifications

Name and last name:	Glavardanov B. Valentin		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 17.05.1990		
Scientific or art field:	Deformable Body Mechanics		
Academic carieer	Year	Institution	Field
Academic title election:	2008	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
PhD thesis	1997	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
Magister thesis	1995	Faculty of Mathematics - Beograd	Deformable Body Mechanics
Bachelor's thesis	1989	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics

#### List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	F107	Technical Mechanics	( F00) Graphic Engineering and Design, Undergraduate Academic Studies
2.	H202	Strength of materials	( H00) Mechatronics, Undergraduate Academic Studies
3.	M204	Strength of Materials	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
4.	M2412	Theory of Elasticity	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
5.	M4302	Biomechanics and mechanics of sport	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
6.	M4304	Advanced strength of materials	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
7.	M4306	Similarity and dimensional methods	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
8.	M4401	Continuum mechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
9.	URZP14	Fundamentals of Mechanical Engineering	( ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
10.	BMI128	Continuum Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
11.	II1004	Mechanics and Industrial Engineering	( I10) Industrial Engineering, Undergraduate Academic Studies
12.	M44041	Dynamics of non-smooth mechanical systems	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
13.	M4504	Thermal Elasticity	( M40) Technical Mechanics and Technical Design, Master Academic Studies
14.	M45991	Biomechanics of cardiovascular system	( M40) Technical Mechanics and Technical Design, Master Academic Studies
15.	DM402	Selected Chapters in Elasticity Theory	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies
16.	DM404	Selected Chapters in Mechanics of Continuum	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies
17.	DZ003	Selected Chapters in Mechanics	( M00) Mechanical Engineering, Doctoral Academic Studies
18.	FDS143	Selected Chapters in Technical Mechanics	( F00) Graphic Engineering and Design, Doctoral Academic Studies
19.	ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6		
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design		
Representative references (minimum 5, not more than 10)			
1.	Spasic D.T., Glavardanov B.V.: Stability of a rigid sphere supported by a thin elastic column, European Journal of Mechanics A-Solids, vol. 15, No 2, pp 337-350,1996		
2.	Atanackovic M.T., Glavardanov B.V.: Twisted axially loaded rod with shear and compressibility, Acta Mechanica, vol.119, pp 119-130, 1996		
3.	V. B. Glavardanov and T. M. Atanackovic, Stability of a pipe through which a spring is pulled. Int. J. Non-Linear Mechanics 35, 7–20 (2000).		
4.	V. B. Glavardanov and T. M. Atanackovic, Optimal shape of a twisted compressed rod. European Journal of Mechanics A-Solids, 20, 795–809 (2001).		
5.	T. M. Atanackovic, V. B. Glavardanov, Buckling of a twisted and compressed rod. International Journal of Solids and Structures, 39, 2987-2999 (2002)		
6.	R.B. Maretić, V. B. Glavardanov, Stability of a Rotating Heated Circular Plate With Elastic Edge Support, Journal of Applied Mechanics-Transaction of the ASME, 71, 896-899, (2004)		
7.	Valentin Glavardanov: Zbirka rešenih zadataka iz teorije elastičnosti, FTN, Novi Sad, 2003.		
8.	T.M. Atanacković, V.B. Glavardanov: "Optimal shape of a heavy compressed column", Structural and Multidisciplinary Optimization, 28, 388-396, (2004)		
9.	R. Maretić, V. Glavardanov and V. Mitic, Vibration and Stability of a Heavy and Heated Vertical Circular Plate, International Journal of Structural Stability and Dynamics, vol 10, No 5,1111-1121, 2010		
10.	Glavardanov V, Maretić R, Stability of a twisted and compressed clamped rod, Acta Mechanica, 202, 17-33, 2009		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		2	
Total of SCI(SSCI) list papers :		14	
Current projects :		Domestic :	1
		International :	0





## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
18. DTM03	Biomechanical models and analysis of impact	( M40) Technical Mechanics, Doctoral Academic Studies
19. ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Grahovac N., Žigić M., Spasić D.: On impact scripts with both fractional and dry friction type of dissipation, INT J BIFURCAT CHAOS, 2012, Vol. 22, No 4, pp. 1-10, ISSN 0218-1274
2.	Grahovac N., Žigić M.: Modelling of the hamstring muscle group by use of fractional derivatives, Computers and Mathematics with Applications, 2010, Vol. 59, No 5, pp. 1695-1700, ISSN 0898-1221.
3.	Glavardanov V., Maretić R., Grahovac N.: Buckling of a twisted and compressed rod supported by Cardan joints, European Journal of Mechanics - A: Solids, 2009, Vol. 28, pp. 131-140, ISSN 0997-7538
4.	N. M. Grahovac, M. M. Zigić, and D. T. Spasić: On multiple impacts with fractional type of dissipation, 1st International Congress of Serbian Society of Mechanics, Beograd: Serbian Society of Mechanics, 10-13 April, 2007, str. 173- 180
5.	Grahovac N., Žigić M.: Fractional derivative viscoelastic model of the hamstring muscle group, 3rd IFAC Workshop on Fractional Differentiation and its Applications, Ankara, Turkey: 05-07 november, 2008
6.	Žigić M., Grahovac N.: Dynamical behavior of a polymer gel during impact. Fractional derivative viscoelastic model, 3. International Congress of Serbian Society of Mechanics, Vlasinsko jezero, 5-8 Jul, 2011, pp. 871-878, ISBN 978-86-909973-3-6, UDK: 531/534(082)
7.	Grahovac N., Žigić M., Spasić D.: On impact scripts with both fractional and dry friction type of dissipation, 4. IFAC Workshop on Fractional Differentiation and Its Applications, Badajoz, 18-20 Oktobar, 2010
8.	Grahovac N.: Generalized Zener model in the analysis of free vibration of a viscoelastic oscillator, 2. International Congress of Serbian Society of Mechanics, Palić: Serbian Society of Mechanics, 1-5 Jun, 2009, pp. 145-153, ISBN 978-86-7892-173-5, UDK: 531/534(082)
9.	Žigić M., Grahovac N., Spasić D.: A simplified earthquake dynamics of a column like structure with fractional type of dissipation, 1. International Congress of Serbian Society of Mechanics, Kopaonik: Serbian Society of Mechanics, 10-13 April, 2007, pp. 165-172, ISBN 978-86-909973-0-5, UDK: 531/534(082)
10.	Kovinčić N., Žigić M., Grahovac N., Spasić D.: On Impact in Biomechanical Systems, International scientific conference on mechanics, 6. International Scientific Conference on Mechanics - Sixth Polyakhov's Reading, Saint Petersburg, 31-3 Januar, 2012, pp. 251-251, ISBN 978-5-91563-101-3

Summary data for teacher's scientific or art and professional activity:

Quotation total :	5		
Total of SCI(SSCI) list papers :	3		
Current projects :	Domestic :	1	International : 0



Science, arts and professional qualifications

Name and last name:	Hadžistević J. Miodrag		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.02.1993		
Scientific or art field:	Metrology, Quality, Fixtures and Ecological-Engineering Aspects		
Academic career	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
PhD thesis	2004	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Magister thesis	1999	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Bachelor's thesis	1992	Faculty of Technical Sciences - Novi Sad	Cutting Processing Tools and Tribology

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P1401	Fixture Design and Measuring Machines	( P00) Production Engineering, Undergraduate Academic Studies
2.	P1508	Reverse Engineering and CAQ	( P00) Production Engineering, Undergraduate Academic Studies ( SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies ( SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
3.	P209	Measurements and Quality	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
4.	P306	Fixtures	( P00) Production Engineering, Undergraduate Academic Studies
5.	URZP15	Work safety during interventions	( ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
6.	Z207	Mechanical Engineering in Environmental Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	Z207A	Mechanical Engineering in Environmental Engineering	( Z01) Safety at Work, Undergraduate Academic Studies
8.	Z301	Pollution Measurement and Control	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
9.	Z416	EMS Systems	(Z20) Environmental Engineering, Undergraduate Academic Studies
10.	ZR101	Introduction and Principles of Occupational Safety	( Z01) Safety at Work, Undergraduate Academic Studies
11.	ZR404	Occupational Safety Systems, Means and Equipment	( Z01) Safety at Work, Undergraduate Academic Studies
12.	Z207	Mašinstvo u inženjerstvu zaštite životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
13.	Z416	EMS sistemi(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
14.	IM1714	Introduction and principles of occupational occupational health and safety	(I20) Engineering Management, Undergraduate Academic Studies
15.	ZC036	Measurement and control of pollution	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
16.	P1409	Material Control Systems and CAI	( PM0) Production Engineering, Master Academic Studies
17.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
18.	Z416A	Environment Protection System Management	( PM0) Production Engineering, Master Academic Studies
19.	Z452	Design and maintenance of quality control in environmental engineering	( M40) Technical Mechanics and Technical Design, Master Academic Studies



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

## List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
20. PLIS1	Logistics and Simulation in Technologies of Plastics Processing	( PM0) Production Engineering, Master Academic Studies
21. PP103	Measurement and tools in precision engineering	( PM0) Production Engineering, Master Academic Studies
22. SDOM30	Probability, Statistics and Theory of Engineering Experiment	( Z00) Environmental Engineering, Specialised Academic Studies
23. SM3	Software support for reverse engineering and CAQ	( PM0) Production Engineering, Master Academic Studies
24. SZSP18	Contemporary scientific approaches in life cycle assessment of products (LCA)	( Z00) Environmental Engineering, Specialised Academic Studies
25. ZCM09	Occupational Health and Safety	( ZC0) Clean Energy Technologies, Master Academic Studies
26. ZR406A	System Regulations and EU Practice in Occupational Health and Safety	( Z01) Safety at Work, Master Academic Studies
27. DOM30	Probability, Statistics and Theory of Engineering Experiment	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies
28. DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
29. DP006	State and development trends of metrology, quality and fixtures	( M00) Mechanical Engineering, Doctoral Academic Studies
30. DP013	Ecological Engineering Aspects	( M00) Mechanical Engineering, Doctoral Academic Studies
31. DP019	Selected topics in technical diagnosis	( M00) Mechanical Engineering, Doctoral Academic Studies
32. ZSP18	Modern Scientific Approaches in Product Life Cycle Assessment (LCA)	( Z00) Environmental Engineering, Doctoral Academic Studies
33. ZRD211	Sustainable design and product safety	( Z01) Safety at Work, Doctoral Academic Studies
34. ZRD213	Current state and development tendencies of quality management of work environment	( Z01) Safety at Work, Doctoral Academic Studies
35. ZRD235	Systemic regulation in the field of occupational safety and health	( Z01) Safety at Work, Doctoral Academic Studies


## Representative references (minimum 5, not more than 10)

1.	Stević, M.: Povećanje tačnosti merenja numerički upravljanih mernih mašina, edicija tehničke nauke - monografija, FTN izdavaštvo, ISBN 86-7892-028-9, Novi Sad, 2006.
2.	Lomen, I., Cvetičanin, L., Hodolić, J., Stević, M.: Softwarova aplikacija na učenje hladiny hluku v priemyselných podnikoch, Časopis Acta Mechanica Slovaca, 2/2002, Ročník 6., pp. 165-168, Košice, Slovačka, 2002.
3.	Sovilj, B., Vukelić, M., Pejić, V., Ilić, B., Tomić, D., Stević, M.: Određivanje funkcije postojanosti jednozubog odvalnog glodala u zavisnosti od rezima rezanja, Zbornik radova instituta za proizvodno mašinstvo, broj 9, Novi Sad, str. 135-144, 1992. god.
4.	Stević, M., Hodolić, J., Vukmirović, S.: Develop Model For Coorrection Of Measuring Error On CMM, 11th International CIRP Life Cycle Engineering Seminar "Product Life Cycle – Quality Management Issues", Proceedings, Beograd, pp. 217-222, 2004. god.
5.	Matin I., Hadžistević M., Hodolić J., Vukelić Đ., Lukić D.: A CAD/CAE Integrated Injection Mold Design System for Plastic Products, International Journal of Advanced Manufacturing Technology, 2012, Vol. 63, No 5-8, pp. 595-607, ISSN 0268-3768
6.	Brajlih T., Tasić T., Drštvenček I., Valentan B., Hadžistević M., Pogačar V., Balić J., Ačko B.: Possibilities of Using Three-Dimensional Optical Scanning in Complex Geometrical Inspection, Strojnski vestnik = Journal of Mechanical Engineering, 2011, Vol. 57, No 11, pp. 826-833, ISSN 0039-2480
7.	Sekulić M., Jurković Z., Hadžistević M., Gostimirović M.: The influence of mechanical properties of workpiece material on the main cutting force in face milling, Metalurgija, 2010, Vol. 49, No 4, pp. 339-342, ISSN 0543-5846, UDK: 669.14/15:620.171.70/178:620.18 = 111
8.	Morača S., Hadžistević M., Drštvenšek I., Radaković N.: Application of Group Technology in Complex Cluster type Organizational Systems, Strojnski vestnik = Journal of Mechanical Engineering, 2010, Vol. 56, No 10, pp. 663-675, ISSN 0039-2480
9.	Radlovački V., Kamberović B., Delić M., Hadžistević M., Pečujlija M.: ARE QUALITY MANAGEMENT SYSTEM AND INFORMATION TECHNOLOGIES MANAGEMENT TOOLS - ESTIMATES OF SERBIAN QUALITY MANAGERS, INTERNATIONAL JOURNAL ADVANCED QUALITY, 2012, Vol. 40, No 1, pp. 33-36, ISSN 2217-8155, UDK: 658.5
10.	Hadžistević M., Morača S.: Networks and Quality Improvement, International Journal for Quality Research, 2009, Vol. 3, No 4, pp. 353-361, ISSN 1800-6450

## Summary data for teacher's scientific or art and professional activity:


Quotation total :	20
Total of SCI(SSCI) list papers :	9
Current projects :	Domestic : 2 International : 2



	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

### Science, arts and professional qualifications

Name and last name:		Hodolič J. Janko	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 06.12.1974	
Scientific or art field:		Metrology, Quality, Fixtures and Ecological-Engineering Aspects	
Academic career	Year	Institution	Field
Academic title election:	1997	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
PhD thesis	1989	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
Magister thesis	1979	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
Bachelor's thesis	1974	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	IA018	3D Digitalization Methods	( F10) Engineering Animation, Undergraduate Academic Studies
2.	P1401	Fixture Design and Measuring Machines	( P00) Production Engineering, Undergraduate Academic Studies
3.	P1508	Reverse Engineering and CAQ	( P00) Production Engineering, Undergraduate Academic Studies ( SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies ( SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
4.	P209	Measurements and Quality	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
5.	P2617	Planning Methods and Experiment Processing	( P00) Production Engineering, Undergraduate Academic Studies
6.	P306	Fixtures	( P00) Production Engineering, Undergraduate Academic Studies
7.	Z207	Mechanical Engineering in Environmental Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z207A	Mechanical Engineering in Environmental Engineering	( Z01) Safety at Work, Undergraduate Academic Studies
9.	Z301	Pollution Measurement and Control	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
10.	Z416	EMS Systems	(Z20) Environmental Engineering, Undergraduate Academic Studies
11.	ZR320	Experimental Analysis of Safety and Health on Workplace	( Z01) Safety at Work, Undergraduate Academic Studies
12.	ZRI441	Material handling systems for environmental and labor protection	( Z01) Safety at Work, Undergraduate Academic Studies
13.	Z207	Mašinstvo u inženjerstvu zaštite životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
14.	Z416	EMS sistemi(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
15.	ZC036	Measurement and control of pollution	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
16.	P1409	Material Control Systems and CAI	( PM0) Production Engineering, Master Academic Studies
17.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
18.	P3501	Tool Designing for Plastic	( PM0) Production Engineering, Master Academic Studies
19.	Z416A	Environment Protection System Management	( PM0) Production Engineering, Master Academic Studies
20.	PIP16	Plastics and environmental protection	( PM0) Production Engineering, Master Academic Studies
21.	PLIS1	Logistics and Simulation in Technologies of Plastics Processing	( PM0) Production Engineering, Master Academic Studies

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
22. SDOM30	Probability, Statistics and Theory of Engineering Experiment	( Z00) Environmental Engineering, Specialised Academic Studies
23. SZDH1	Modern Methods of Eco-design	( Z00) Environmental Engineering, Specialised Academic Studies
24. SZSP18	Contemporary scientific approaches in life cycle assessment of products (LCA)	( Z00) Environmental Engineering, Specialised Academic Studies
25. DM411	Contemporary Approach to Integration of Reverse Engineering of Rapid Prototyping, Tools, Products and Virtual Manufacturing	( M00) Mechanical Engineering, Doctoral Academic Studies
26. DOM30	Probability, Statistics and Theory of Engineering Experiment	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies
27. DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
28. DP006	State and development trends of metrology, quality and fixtures	( M00) Mechanical Engineering, Doctoral Academic Studies
29. DP013	Ecological Engineering Aspects	( M00) Mechanical Engineering, Doctoral Academic Studies
30. ZDH1	Modern Methods of Eco-design	( Z00) Environmental Engineering, Doctoral Academic Studies
31. ZSP18	Modern Scientific Approaches in Product Life Cycle Assessment (LCA)	( Z00) Environmental Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Budak I., Vukelić Đ., Bračun D., Hodolić J., Soković M.: Pre-Processing of Point-Data from Contact and Optical 3D Digitization Sensors, <i>Sensors</i> , 2012, Vol. 12, No 1, pp. 1100-1126, ISSN 1424-8220
2.	Bešić I., Van Gestel N., Kruth J., Bleys P., Hodolić J.: Accuracy improvement of laser line scanning for feature measurements on CMM, <i>Optics and Lasers in Engineering</i> , 2011, Vol. 49, No 11, pp. 1274-1280, ISSN 0143-8166
3.	Matin I., Hadžistević M., Hodolić J., Vukelić Đ., Lukić D.: A CAD/CAE Integrated Injection Mold Design System for Plastic Products, <i>International Journal of Advanced Manufacturing Technology</i> , 2012, Vol. 63, No. 5-8, pp. 595-607, ISSN 0268-3768
4.	Jakovljević Ž., Petrović P., Hodolić J.: Contact states recognition in robotic part mating based on support vector machines, <i>International Journal of Advanced Manufacturing Technology</i> , 2012, Vol. 59, No 1-4, pp. 377-395, ISSN 0268-3768
5.	Mrkajić V., Stamenković M., Maleš M., Vukelić Đ., Hodolić J.: Proposal for reducing problems of the air pollution and noise in the urban environment, <i>Carpathian Journal of Earth and Environmental Sciences</i> , 2010, Vol. 5, No 1, pp. 49-56, ISSN 1842-4090
6.	Vukelić Đ., Zuperl U., Hodolić J.: Complex system for fixture selection, modification, and design, <i>International Journal of Advanced Manufacturing Technology</i> , 2009, Vol. 45, No 7-8, pp. 731-748, ISSN 0268-3768
7.	Budak I., Hodolić J., Soković M.: Development of a programme system for data-point pre-processing in Reverse Engineering, <i>Journal of Materials Processing Technology</i> , 2005, Vol. 162, pp. 730-735, ISSN 0924-0136
8.	Agarski B., Budak I., Kosec B., Hodolić J.: An Approach to Multi-criteria Environmental Evaluation with Multiple Weight Assignment, <i>Environmental Modeling &amp; Assessment</i> , 2012, Vol. 17, No 3, pp. 255-266, ISSN 1420-2026.
9.	Trifković B., Budak I., Todorović A., Hodolić J., Puškar T., Jevremović D., Vukelić Đ.: Application of Replica Technique and SEM in Accuracy Measurement of Ceramic Crowns, <i>Measurement Science Review</i> , 2012, Vol. 12, No 3, pp. 90-97, ISSN 1335-8871.
10.	Agarski B., Kljajin M., Budak I., Tadić B., Vukelić Đ., Bosak M., Hodolić J.: Application of multi-criteria assessment in evaluation of motor vehicles' environmental performances, <i>Tehnički vjesnik/Technical Gazette</i> , 2012, Vol. 19, No 2, pp. 221-226, ISSN 1330-3651.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	42
Total of SCI(SSCI) list papers :	22
Current projects :	Domestic : 3                      International : 6

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Kakaš I. Damir		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.09.1971		
Scientific or art field:	Surface Engineering, Micro and Nano Technologies		
Academic career	Year	Institution	Field
Academic title election:	1994	Faculty of Technical Sciences - Novi Sad	Surface Engineering, Micro and Nano Technologies
PhD thesis	1982	Faculty of Technical Sciences - Novi Sad	Casting and Thermal Processing Technology and Surface Engineering, Micro and Nano
Magister thesis	1976	Faculty of Technical Sciences - Novi Sad	Casting and Thermal Processing Technology and Surface Engineering, Micro and Nano
Bachelor's thesis	1971	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P105	Heat Processing	( P00) Production Engineering, Undergraduate Academic Studies
2.	P110	Casting Technology	( P00) Production Engineering, Undergraduate Academic Studies
3.	P210	Surface Engineering	( P00) Production Engineering, Undergraduate Academic Studies
4.	P211	Devices and Plasma Procedures in Mechanical Engineering	( P00) Production Engineering, Undergraduate Academic Studies
5.	P2402	Designing of Thermal Processing Technologies	( P00) Production Engineering, Undergraduate Academic Studies
6.	P2403	Contemporary Casting Technologies	( P00) Production Engineering, Undergraduate Academic Studies
7.	P3405	Thermal Processing of Contemporary Tools	( P00) Production Engineering, Undergraduate Academic Studies
8.	M2061	Basics of Manufacturing Technologies 1	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
9.	P2503	Process Design in Casting Technology	( PM0) Production Engineering, Master Academic Studies
10.	P2507	Nanotechnologies	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
11.	PP2111	Mechanical Engineering in Medicine and Bioengineering	( PM0) Production Engineering, Master Academic Studies
12.	SMI002	Modeling and simulation of thermo chemical and metallurgical processes	( PM0) Production Engineering, Master Academic Studies
13.	DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
14.	DP004	Advanced Technologies in Casting and Heat Treatment	( M00) Mechanical Engineering, Doctoral Academic Studies
15.	DP007	Procedures of Plasma Deposition	( M00) Mechanical Engineering, Doctoral Academic Studies
16.	DP011	Nanotechnologies and Nanomaterials Forming	( M00) Mechanical Engineering, Doctoral Academic Studies
17.	DP014	Nano and Micro Layers Characterization	( M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Kovačević L., Terek P., Kakaš D., Miletić A.: A correlation to describe interfacial heat transfer coefficient during solidification of Al-Si alloy casting, Journal of Materials Processing Technology, 2012, Vol. 212, No 9, pp. 1856-1861, ISSN 0924-0136.
2.	Kakaš D., Škorić B., Rakita M.: Tribological behavior of duplex coating improved by ion implantation , Thin Solid Films., 2004, Vol. 459, No 1-2, pp. 152-155, ISSN 0040-6090
3.	Kakaš D., Škorić B., Gredić T.: Influence of plasma nitriding on mechanical and Tribological Properties Of Steel with subsequent PVD Surface Treatments., Thin Solid Films., 1998, Vol. 317, No 1-2, pp. 486-489, ISSN 0040-6090
4.	Zlatanović M., Kakaš D., Mazibrada LJ., Kunosić A., Münz W.: Influence of plasma nitriding on wear performance of TiN coating , Surface and Coating Technology, 1994, Vol. 64, No 3, pp. 173-181
5.	Kakaš D., Škorić B., Bibić N., Rakita M.: Microstructural studies of TiN coatings prepared by PVD and IBAD , Surface Science, 2004, Vol. 566, No 1-3, pp. 40-44, ISSN 0039-6028



## Study Programme Accreditation

MASTER ACADEMIC STUDIES


Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

6.	Škorić B., Kakaš D., Rakita M., Bibić N., Peruškob D.: Structure, hardness and adhesion of TiN coatings deposited by PVD and IBAD on nitrided steels, <i>Vacuun</i> , 2004, Vol. 76, No 2-3, pp. 169-172, ISSN 0042-207X
7.	Kakaš D., Terek P., Kovačević L., Miletić A., Škorić B.: Influence of interfacial layer thickness and substrate roughness on adhesion of TiN coatings deposited at low temperatures by IBAD, <i>SURF REV LETT</i> , 2011, Vol. 18, No 3-4, pp. 83-90, ISSN 0218-625X.
8.	Škorić B., Kakaš D., Ješić D., Gostimirović M., Miletić A.: Characterization of duplex hard coatings with additional ion implantation, <i>Metalurgija</i> , 2012, Vol. 51, No 1, pp. 87-90, ISSN 0543-5846.
9.	Škorić B., Kakaš D., Miletić A., Arsenović M., Gostimirović M.: Tribochemical Characterization of Duplex Hard Coatings with Additional Ion Implantation, <i>Oxidation Communication</i> , 2011, Vol. 34, No 2, pp. 326-338, ISSN 0209-4541.
10.	Škorić B., Kakaš D., Gostimirović M., Miletić A.: Nanoscale modification of hard coatings with ion implantation, <i>Materijali in tehnologije</i> , 2011, Vol. 45, No 5, pp. 447-450, ISSN 1580-2949.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	31			
Total of SCI(SSCI) list papers :	12			
Current projects :	Domestic :	2	International :	1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Klinar J. Ivan		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.02.1972		
Scientific or art field:	Internal Combustion Engines		
Academic career	Year	Institution	Field
Academic title election:	1999	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines
PhD thesis	1988	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines
Magister thesis	1978	Faculty of Agriculture - Novi Sad	Motor Vehicles
Bachelor's thesis	1971	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	M213	Machine Usage	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
2.	M2418	Mechatronics of Motors and Road Vehicles	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M2523	IC Engine Equipment	( S00) Traffic and Transport Engineering, Undergraduate Academic Studies
4.	S0I241	Internal Combustion Engines	( S00) Traffic and Transport Engineering, Undergraduate Academic Studies
5.	H2403	Equipment and IC Engines Mechatronics	( H00) Mechatronics, Master Academic Studies
6.	M2403	IC Engines	( M40) Technical Mechanics and Technical Design, Master Academic Studies
7.	M2547	Equipment of IC engines and motor vehicles	( M22) Mechanization and Construction Engineering, Master Academic Studies
8.	M2548	Diagnostics and maintenance of IC engines and vehicles	( M22) Mechanization and Construction Engineering, Master Academic Studies
9.	LIM14	Monitoring and Diagnostics of Transportation Means	( LIM) Logistic Engineering and Management, Master Academic Studies
10.	DM420	Selected Chapters – Internal Combustion (IC) Engines	( M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Dorić J., Klinar I.: The realisation and analysis of a new thermodynamic cycle for internal combustion engine, Thermal Science, 2011, Vol. 15, No 4, ISSN 0354-9836.
2.	Dorić J., Klinar I.: Efficiency characteristics of a new Quasi-Constant Volume Combustion spark ignition engine, Thermal Science, 2012, doi:10.2298/TSCI120530158D, ISSN 0354-9836
3.	Dorić J., Klinar I.: Efficiency of a new IC engine concept with variable piston motion, Thermal Science, 2012, doi:10.2298/TSCI110923020D, ISSN 0354-9836.
4.	Klinar I., Stefanović A., Rajković M.: Possibilities of piston-cylinder diagnostics of fits of engines, Tribology in industry, vol.21, No.1, p 12-17, 1999.
5.	Klinar I., Dorić J.: One method vor determining the limit values of diagnostic parameters of I.C. engine piston-cylinder assemblies, 6. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Palić: Fakultet tehničkih nauka, 29-30 Septembar, 2010, pp. 305-310, ISBN 978-86-7892-278-7
6.	Klinar I., Ličen H., Stefanović A., Bošnjaković S.:Influence of special additives for fuel on efektivness of engine, 38. International Petroleum Conference, Proceedings, A7-1-13, Bratislava, 1997.
7.	Dorić J., Klinar I., Nikolić N., Stojić B.: Use of natural gas in agricultural machinery, 39. 39th INTERNATIONAL SYMPOSIUM: ACTUAL TASKS ON AGRICULTURAL ENGINEERING, Opatija: Sveučilište u Zagrebu Agronomski Fakultet, Hrvatska, 22-25 Februar, 2011, pp. 149-160, ISBN 1333-2651, UDK: 631
8.	Dorić J., Klinar I., Dorić M.: Constant Volume Combustion Cyle for IC Engines, FME Transactions, 2011, Vol. 29, No 3, pp. 97-104, ISSN 1451-2092.
9.	Dorić J., Nikolić N., Klinar I.: Unconventional variable displacement internal combustion engine, 2. International Conference on Innovative Technologies IN-TECH, Bratislava: Faculty of Engineering University of Rijeka, 1-3 Septembar, 2011, pp. 35-39, ISBN 978-953-6326-77-8.
10.	Dorić J., Klinar I., Nikolić N.: Realisation of dwell motion mechanism with non-circular gears, 7. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Balatonfured: Faculty of technical sciences, 24-26 Maj, 2012, pp. 345-348, ISBN 978-86-7892-399-9.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	0
Total of SCI(SSCI) list papers :	3



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FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6




## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Current projects :	Domestic :	0	International :	0
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	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

### Science, arts and professional qualifications

Name and last name:		Kovač P. Pavel	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.12.1975	
Scientific or art field:		Processes for Material Removal Processing	
Academic carieer	Year	Institution	Field
Academic title election:	1998	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
PhD thesis	1987	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
Magister thesis	1980	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
Bachelor's thesis	1975	Faculty of Technical Sciences - Novi Sad	Machine Tools, Flexible Technological Systems and Automatization Processes Design

#### List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P1406	Theory of Machining Processes	( P00) Production Engineering, Undergraduate Academic Studies
2.	P1507	Inovational Technologies	( P00) Production Engineering, Undergraduate Academic Studies
3.	P208	Technology for Cutting Processing	( P00) Production Engineering, Undergraduate Academic Studies
4.	P2617	Planning Methods and Experiment Processing	( P00) Production Engineering, Undergraduate Academic Studies
5.	P305	Nonconventional Procedures in Processing	( P00) Production Engineering, Undergraduate Academic Studies
6.	P4410	Design and Product Functionality	( P00) Production Engineering, Undergraduate Academic Studies
7.	ZR320	Experimental Analysys of Safety and Health on Workplace	( Z01) Safety at Work, Undergraduate Academic Studies
8.	P316A	Technology for Microcutting Processes	( P00) Production Engineering, Undergraduate Academic Studies
9.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
10.	P1505	Modelling and Simulation in Processing	( PM0) Production Engineering, Master Academic Studies
11.	P1509	Highly Productive Processing	( PM0) Production Engineering, Master Academic Studies
12.	P3502	Mold and die machining technology	( PM0) Production Engineering, Master Academic Studies
13.	PIP16	Plastics and environmental protection	( PM0) Production Engineering, Master Academic Studies
14.	PP101	Intelligent Forming Processes	( PM0) Production Engineering, Master Academic Studies
15.	SDOM30	Probability, Statistics and Theory of Engineering Experiment	( Z00) Environmental Engineering, Specialised Academic Studies
16.	DOM30	Probability, Statistics and Theory of Engineering Experiment	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies
17.	DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
18.	DP002	State and Trend in Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies
19.	DP009	Artificial Intelligence Application in Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies
20.	DP013	Ecological Engineering Aspects	( M00) Mechanical Engineering, Doctoral Academic Studies
21.	DP020	State and Tendencies in Development of Unconventional Forming Processes	( M00) Mechanical Engineering, Doctoral Academic Studies
22.	DP021	Selected Chapters in Micro and Nano Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies

#### Representative references (minimum 5, not more than 10)

1.	Kovač P., Milikić D.:Rezanje metala, Univerzitet u Novom Sadu, 1998
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UNIVERSITY OF NOVI SAD

FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6

**Study Programme Accreditation**


MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

2.	Kovač P., Milikić D., Gostimirović M., Sekulić M., Savković B.: Zbirka zadataka iz tehnologije obrade rezanjem, Fakultet tehničkih nauka, Novi Sad, 2011.
3.	Kovač Pavel, Metode planiranja i obrade eksperimenata, FTN Novi Sad, 2011
4.	Kovač P.: Podloge za upravljanje procesom čeonog glodanja, FTN, IPM, Novi Sad, 1988
5.	Kovač P.: Modeliranje procesa obrade-faktorni planovi eksperimenta, Fakultet tehničkih nauka, Novi Sad, 2006
6.	Kovač P.: Teorija obradnih procesa -praktikum za vežbe, Fakultet tehničkih nauka, Novi Sad, 2007
7.	Kovač P., Rodić D., Pucovsky V., Savković B., Gostimirović M.: APPLICATION OF FUZZY LOGIC AND REGRESSION ANALYSIS FOR MODELING SURFACE ROUGHNESS IN FACE MILLING, Journal of Intelligent Manufacturing, 2012, ISSN 0956-5515, UDK: DOI 10.1007/s10845-012-0623-z
8.	Šiđanin L., Kovač P.: Fracture mechanisms in chip formation processes, Materials Science and Technology, Vol. 13, 1997, pp. 439-444
9.	Pavel Kovač, Zuzana Palkova, Proizvodno mašinstvo i obnovljivi izvori energije, FTN Novi Sad 2011
10.	Kovač P., Šiđanin L.: Investigation of chip formation during milling, Int. J. Production Economic, 51, 1997, pp. 149-153
Summary data for teacher's scientific or art and professional activity:	
Quotation total :	7
Total of SCI(SSCI) list papers :	15
Current projects :	Domestic : 1 International : 7



	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Maretić B. Ratko		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 18.05.1993		
Scientific or art field:	Deformable Body Mechanics		
Academic career	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
PhD thesis	1997	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
Magister thesis	1993	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
Bachelor's thesis	1987	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	A237	Material Resistance	( A00) Architecture, Undergraduate Academic Studies
2.	M204	Strength of Materials	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
3.	M4305	Thermomechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
4.	URZP14	Fundamentals of Mechanical Engineering	( ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
5.	Z108	Fundamentals of Mechanics	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
6.	BMI127	Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
7.	II1004	Mechanics and Industrial Engineering	( I10) Industrial Engineering, Undergraduate Academic Studies
8.	M44051	Theory of Plates and Shells	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
9.	M4501	Industrial Design	( M40) Technical Mechanics and Technical Design, Master Academic Studies
10.	M4505	Modelling of non-linear systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies
11.	DM403	Mathematical Rod Theory	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
12.	ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	R. Maretić, V. Glavardanov and V. Milosević-Mitić: Transverse vibrations and stability of a heavy and heated vertical circular plate. International Journal of Structural Stability and Dynamics, 2010, 10(5), 1111-1121.
2.	V. Glavardanov, R. Maretić and N. Grahovac: Buckling of a twisted and compressed rod supported by Cardan joints. European Journal of Mechanics A/Solids, 2009, 28, 131- 140.
3.	V. Glavardanov and R. Maretić: Stability of a twisted and compressed clamped rod. Acta Mechanica, 2009, 202, 17-33.
4.	R. Maretić and V. Glavardanov: Impact of mounting with an overlap on vibration and stability of a rotating annular plate. Journal of Sound and Vibration, 2008, 313, 308- 324.



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

5.	R. Maretic, V. Glavardanov and D. Radomirovic: Asymmetric vibrations and stability of a rotating annular plate loaded by a torque. <i>Meccanica</i> , 2007, 42, 537- 546.
6.	R. Maretic, 2005, "Transverse vibration and stability of an eccentric rotating circular plate", <i>Journal of Sound and Vibration</i> 280, 467-478.
7.	R. B. Maretic, V. B. Glavardanov, 2004, "Stability of a Rotating Heated Circular Plate with Elastic Support", <i>Journal of Applied Mechanics, Transactions of the ASME</i> , 71, 897-899.
8.	R. B. Maretic and T. M. Atanackovic, 2001, <i>Journal of Engineering Mechanics</i> Vol 127, 242-247, Buckling of Column with Base Attached to Elastic Half-Space.
9.	L. Cveticanin, R. Maretic, 2000., <i>Mechanism and Machine Theory</i> 35, 1391-1411. Dynamic analysis of a cutting mechanism.
10.	T.M. Atanackovic, R.B. Maretic, J.M. Milidragovic, 1999, <i>Archive of Applied Mechanics</i> 69, 94-104, On the stability of an elastic column positioned on an elastic half space.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	25		
Total of SCI(SSCI) list papers :	14		
Current projects :	Domestic :	1	International : 0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES <span style="float: right;">Technical Mechanics and Technical Design</span>	

Science, arts and professional qualifications

Name and last name:	Novaković N. Branislava		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 05.12.1997		
Scientific or art field:	Deformable Body Mechanics		
Academic carieer	Year	Institution	Field
Academic title election:	2011		Deformable Body Mechanics
PhD thesis	2006	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
Magister thesis	2001	Faculty of Technical Sciences - Novi Sad	Deformable Body Mechanics
Bachelor's thesis	1987	Faculty of Technical Sciences - Novi Sad	Theory of Construction

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	GG15	Strength of Materials	( G00) Civil Engineering, Undergraduate Academic Studies
2.	GG410	Selected Chapters in the Theory of Elasticity	(G00) Civil Engineering, Undergraduate Academic Studies
3.	H202	Strength of materials	( H00) Mechatronics, Undergraduate Academic Studies
4.	M2412	Theory of Elasticity	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
5.	M4402	Dynamics and Stability of Constructions	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
6.	BMI96	Mechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
7.	II1004	Mechanics and Industrial Engineering	( I10) Industrial Engineering, Undergraduate Academic Studies
8.	M2546	Selected Chapters in the Theory of Elasticity	( M22) Mechanization and Construction Engineering, Master Academic Studies
9.	M4503	Higher Course in Elasticity	( M40) Technical Mechanics and Technical Design, Master Academic Studies
10.	DAU003	Selected Chapters in Mechanics	( E20) Computing and Control Engineering, Doctoral Academic Studies ( H00) Mechatronics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
11.	DM403	Mathematical Rod Theory	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
12.	DZ003	Selected Chapters in Mechanics	( M00) Mechanical Engineering, Doctoral Academic Studies
13.	ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Atanackovic, T. M., Novakovic, B. N.: ON A FRACTIONAL DERIVATIVE TYPE OF A VISCOELASTIC BODY. Theoretical and Applied Mechanics. Vol. 28-29, pp 27-37, Belgrade 2002
2.	B. N. Novakovic, T. M. Atanackovic.: ON STABILITY OF THE COLUMN WITH A STEP CHANGE IN A CROSS SECTION. Iranian Journal of Science and Technology. Vol 28, No B4, 2004
3.	T. M. Atanackovic, B. N. Novakovic, : OPTIMAL SHAPE OF AN ELASTIC COLUMN ON ELASTIC FOUNDATION. European Journal of Mechanics A/Solids. Vol.25, No 1, pp 154-165, 2006
4.	Branislava N. Novaković: O STABILNOSTI ŠTAPA NA ELASTIČNOJ PODLOZI, Međunarodna konferencija 2006 SAVREMENI PROBLEMI U GRAĐEVINARSTVU, Subotica, 2-3 Jun 2006
5.	Novakovic B., Atanackovic T.: ON THE OPTIMAL SHAPE OF AN ELASTIC ROD ON ELASTIC FUONDATION, The First International Conference on Computational Mechanics, Belgrade, November 15-17, 2004
6.	B. N. Novakovic, STABILITY OF THE COLUMN WITH A STEP CHANGE, 23th Congress of Theoretical and Applied Mechanics, Belgrade, October 12-13, 2001
7.	B. N. Novakovic, ON STABILITY OF THE COLUMN WITH A STEP CHANGE, ISIRR 2002, Novi Sad, October 2002



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**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

8.	Atanackovic T., Novakovic B. : STABILITY OF AN ELASTIC ROD ON ELASTIC FOUNDATION, 24th Congress of Theoretical and Applied Mechanics, Belgrade, October 9-10, 2003.
9.	B. N. Novaković, T. M. Atanacković: STABILNOST ELASTIČNOG ŠTAPA NA ELASTIČNOJ PODLOZI, INDIS 2003, 9th National and 3rd International scientific meeting, Novi Sad,
10.	Atanackovic T.M., Novakovic B.N.: OPTIMAL SHAPE OF AN ELASTIC, 25th Congress of Theoretical and Applied Mechanics, Novi Sad, June 1-3, 2005.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	2			
Total of SCI(SSCI) list papers :	5			
Current projects :	Domestic :	1	International :	0



Science, arts and professional qualifications

Name and last name:	Rakarić Đ. Zvonko		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 15.11.1999		
Scientific or art field:	Mechanics		
Academic carier	Year	Institution	Field
Academic title election:	2012		Mechanics
PhD thesis	2011	Faculty of Technical Sciences - Novi Sad	Technical Mechanics
Magister thesis	2009	Faculty of Technical Sciences - Novi Sad	Mechanics
Bachelor's thesis	1999	Faculty of Technical Sciences - Novi Sad	Mechanics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	E104	Mechanics	( E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies ( MR0) Measurement and Control Engineering, Undergraduate Academic Studies
2.	F107	Technical Mechanics	( F00) Graphic Engineering and Design, Undergraduate Academic Studies
3.	GG14	Mechanics 2	( G00) Civil Engineering, Undergraduate Academic Studies
4.	IAKI01	Selected Chapters in Kinematics	( F10) Engineering Animation, Undergraduate Academic Studies
5.	M103	Mechanics 1	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
6.	M107	Mechanics 2	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
7.	M201	Mechanics 3	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
8.	M2411	Theory of Oscillation	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
9.	M4301	Computer Methods in Mechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
10.	M45021	Computer Methods in Mechanics 2	( M40) Technical Mechanics and Technical Design, Master Academic Studies

Representative references (minimum 5, not more than 10)

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES


Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

1.	Rakarić Z., Kovačić I.: An elliptic averaging method for harmonically excited oscillators with a purely non-linear non-negative real-power restoring force, in press, Communication in Non-linear Science and Numerical Simulations, 2012, ISSN 1007-5704
2.	Rakarić Z., Kovačić I.: Approximations for motion of the oscillators with a non-negative real power restoring force, Journal of Sound and Vibration, 2011, No 330, pp. 321-336, ISSN 0022-460X
3.	Kovačić I., Rakarić Z.: Study of oscillators with a non-negative real-power restoring force and quadratic damping, Nonlinear Dynamics, 2011, Vol. 64, No 3, pp. 293-304, ISSN 0924-090X, UDK: DOI: 10.1007/s11071-010-9861-9
4.	Cvetičanin L., Kovačić I., Rakarić Z.: Asymptotic methods for vibrations of the pure fractional-order non-linear oscillators, Computers
5.	Kovačić I., Rakarić Z.: Oscillators with a fractional-order restoring force: higher-order approximations for motion via a modified Ritz method, Communication in Non-linear Science and Numerical Simulations, 2010, Vol. 15, pp. 2651-2658, ISSN 1007-5704
6.	Kovačić I., Rakarić Z., Cvetičanin L.: A non-simultaneous variational approach for a certain class of non-linear oscillators, Applied Mathematics and Computation, 2010, Vol. 217, pp. 3944-3954, ISSN 0096-3003
7.	Rakarić Z.: Oscillators with a quasi-constant restoring force: approximations for motion, Meccanica, 2010, ISSN 0025-6455
8.	Rakarić Z., Kovačić I.: Oscillators with a purely nonlinear non-negative real-power restoring force: approximations for free and forced response via elliptic functions and averaging, 7. European Nonlinear Dynamics Conference - ENOC, Rim, 24-29 Jul, 2011, ISBN ISBN 978-88-906234-2
9.	Rakarić Z., Kovačić I.: On the behaviour of forced oscillators with a non-negative real-power restoring force and van der Pol damping, 3. International Congress of Serbian Society of Mechanics, Vlasinsko jezero, 5-8 Jul, 2011, pp. 1284-1296, ISBN 978-86-909973-3-6
10.	Rakarić Z., Zuković M.: Iteration method solutions for oscillators with $\text{sign}(x) x ^\alpha$ elastic force, 2. International Congress of Serbian Society of Mechanics, Palić, 1-5 Jun, 2009, pp. 1-10, ISBN 978-86-7892-173-5, UDK: paper A14

Summary data for teacher's scientific or art and professional activity:

Quotation total :	20		
Total of SCI(SSCI) list papers :	6		
Current projects :	Domestic :	1	International : 1

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	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Sekulić Lj. Milenko		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 14.03.1994		
Scientific or art field:	Processes for Material Removal Processing		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
PhD thesis	2007	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
Magister thesis	1998	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing
Bachelor's thesis	1993	Faculty of Technical Sciences - Novi Sad	Processes for Material Removal Processing

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P1406	Theory of Machining Processes	( P00) Production Engineering, Undergraduate Academic Studies
2.	P1507	Inovational Technologies	( P00) Production Engineering, Undergraduate Academic Studies
3.	P208	Technology for Cutting Processing	( P00) Production Engineering, Undergraduate Academic Studies
4.	P305	Nonconventional Procedures in Processing	( P00) Production Engineering, Undergraduate Academic Studies
5.	P4410	Design and Product Functionality	( P00) Production Engineering, Undergraduate Academic Studies
6.	P316A	Technology for Microcutting Processes	( P00) Production Engineering, Undergraduate Academic Studies
7.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
8.	P1505	Modelling and Simulation in Processing	( PM0) Production Engineering, Master Academic Studies
9.	P1509	Highly Productive Processing	( PM0) Production Engineering, Master Academic Studies
10.	P3502	Mold and die machining technology	( PM0) Production Engineering, Master Academic Studies
11.	P4410A	Production Design	( PM0) Production Engineering, Master Academic Studies
12.	PP101	Intelligent Forming Processes	( PM0) Production Engineering, Master Academic Studies
13.	ZRMI2A	Product safety and user/consumer protection	( Z01) Safety at Work, Master Academic Studies
14.	DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
15.	DP002	State and Trend in Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies
16.	DP009	Artificial Intelligence Application in Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies
17.	DP020	State and Tendencies in Development of Unconventional Forming Processes	( M00) Mechanical Engineering, Doctoral Academic Studies
18.	DP021	Selected Chapters in Micro and Nano Forming by Material Removal	( M00) Mechanical Engineering, Doctoral Academic Studies
19.	ZRD211	Sustainable design and product safety	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Gostimirović M., Kovač P., Sekulić M., Škorić B.: Influence of discharge energy on machining characteristics in EDM, J MECH SCI TECHNOL, 2012, Vol. 26, No 1, pp. 173-179, ISSN 1738-494X
2.	Cukor G., Jurković Z., Sekulić M.: Rotatable Central Composite Design of Experiments versus Taguchi Method in the Optimization of Turning, Metalurgija, 2011, Vol. 50, No 1, pp. 17-20, ISSN 0543-5846
3.	Gostimirović M., Sekulić M., Kopač J., Kovač P.: Optimal Control of Workpiece Thermal State in Creep-Feed Grinding Using Inverse Heat Conduction Analysis, Strojnski vestnik = Journal of Mechanical Engineering, 2011, Vol. 57, No 10, pp. 730-738, ISSN 0039-2480
4.	Gostimirović M., Kovač P., Sekulić M.: An inverse heat transfer problem for optimization of the thermal process in machining, Indian Academy of Sciences, Sadhana - Academy Proceedings in Engineering Science, 2011, Vol. 36, No 4, pp. 489-504, ISSN 0256-2499
5.	Gostimirović M., Kovač P., Škorić B., Sekulić M.: Effect of Electrical Pulse Parameters on the Machining Performance of EDM, INDIAN J ENG MATER S, 2011, Vol. 18, No 6, pp. 411-415, ISSN 0971-4588



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design


Representative references (minimum 5, not more than 10)

6.	Sekulić M., Jurković Z., Hadžistević M., Gostimirović M.: The influence of mechanical properties of workpiece material on the main cutting force in face milling, <i>Metalurgija</i> , 2010, Vol. 49, No 4, pp. 339-342, ISSN 0543-5846
7.	Sekulić M., Kovač P., Gostimirović M.: Drilling cutting forces monitoring using virtual instrumentation, Central European Exchange Program for University Studies, Cracow University of Technology, Technical University of Košice, 2009, str. 31-36, ISBN 978-83-7242-509-6
8.	Kovač P., Gostimirović M., Sekulić M., Pižurica N.: The Internet/Intranet Application for Cutting Regime Setting, <i>Journal of Machine Engineering</i> , 2010, Vol. 10, No 2, pp. 18-24, ISSN 1895-7595
9.	Sekulić M., Kovač P.: Modelling of components of resultant force during face milling, <i>Journal of Machine Engineering</i> , 2008, Vol. 8, No 2, pp. 65-72, ISSN 1895-7595
10.	Milikić, D., Sekulić, M., Gostimirović, M., Uzelac, S. Naziv: Uticaj trenja i poprečnog sečiva burgije na položaj i veličinu sila rezanja Naziv časopisa: Časopis Jugoslovenskog društva za tribologiju TRIBOLOGIJA U INDUSTRIJI, 1999.

Summary data for teacher's scientific or art and professional activity:

Quotation total :	40			
Total of SCI(SSCI) list papers :	6			
Current projects :	Domestic :	1	International :	3



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	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Simić S. Srbojlob		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 25.11.1993		
Scientific or art field:	Mechanics		
Academic carieer	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Mechanics
PhD thesis	1999	Faculty of Technical Sciences - Novi Sad	Mechanics
Magister thesis	1997	Faculty of Mathematics - Beograd	Mechanics
Bachelor's thesis	1993	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	E104	Mechanics	( E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies ( MR0) Measurement and Control Engineering, Undergraduate Academic Studies
2.	GG07	Mechanics 1	( G00) Civil Engineering, Undergraduate Academic Studies
3.	M4305	Thermomechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
4.	Z108	Fundamentals of Mechanics	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
5.	M44031	Analytical mechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
6.	M4505	Modelling of non-linear systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies
7.	BMIM4A	Transport phenomena and Living systems	( BM0) Biomedical Engineering, Master Academic Studies
8.	DM407	Nonlinear Mechanics with Nonconservative Properties	( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
9.	DSIM8	Selected Chapters in Dynamics and Control	( M40) Technical Mechanics, Doctoral Academic Studies
10.	DZ003	Selected Chapters in Mechanics	( M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Srbojlob S. Simić: Analiitička mehanika: dinamika, stabilnost, bifurkacije, Fakultet tehničkih nauka, Novi Sad 2006., Edicija „Tehničke nauke - udžbenici“, 415 str., ISBN 86-85211-83-2
2.	Srbojlob S. Simić, Ratko B. Maretić: Osnove mehanike, Fakultet tehničkih nauka, Novi Sad 2008., Edicija „Tehničke nauke - udžbenici“, 273 str., ISBN 978-86-7892-147-6
3.	B.D. Vujanovic, T. Kawaguchi, S.S. Simic (1997), A Class of Conservation Laws of Linear Time-Dependent Dynamical Systems, TENSOR (NS), 58 (3), pp. 243-252.
4.	T.M. Atanackovic, S.S. Simic (1999), On the optimal shape of a Pflüger column, European Journal of Mechanics, A/Solids, 18 (5), pp. 903-913.<lang>
5.	S.S. Simic (2002), On the symmetry approach to polynomial conservation laws of one-dimensional Lagrangian systems, International Journal of Non-Linear Mechanics, 37, pp. 197-211.<lang>
6.	T. Ruggeri, S. Simić (2004), Non Linear Wave Propagation in Binary Mixtures of Euler Fluids, Continuum Mechanics and Thermodynamics, 16, pp. 125-148.<lang>
7.	T. Ruggeri, S. Simić (2007), On the Hyperbolic system of a mixture of Eulerian fluids: a comparison between single- and multi-temperature models, Mathematical Methods in the Applied Sciences, 30, pp. 827-849.<lang>
8.	T. Ruggeri, S. Simić (2009) Average temperature and Maxwellian iteration in multitemperature mixtures of fluids, Physical Review E, vol. 80, 026317
9.	T. Atanacković, S. Konjik, S. Pilipović, S. Simić (2009) Variational problems with fractional derivatives: Invariance conditions and Nöther's theorem, Nonlinear Analysis: Theory, Methods and Applications, vol. 71, pp. 1504-1517
10.	S. Simić (2009) Shock structure in continuum models of gas dynamics, Nonlinearity, vol. 20, pp. 1337-1366

Summary data for teacher's scientific or art and professional activity:



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## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Quotation total :	7		
Total of SCI(SSCI) list papers :	9		
Current projects :	Domestic :	1	International : 1



Science, arts and professional qualifications

Name and last name:	Spasić T. Dragan		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad		
	01.09.1985		
Scientific or art field:	Mechanics		
Academic carieer	Year	Institution	Field
Academic title election:	2005	Faculty of Technical Sciences - Novi Sad	Mechanics
PhD thesis	1993	Faculty of Technical Sciences - Novi Sad	Mechanics
Magister thesis	1991	Faculty of Mathematics - Beograd	Mechanics
Bachelor's thesis	1884	Faculty of Technical Sciences - Novi Sad	Information-Communication Systems

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	A207	Mechanics	( A00) Architecture, Undergraduate Academic Studies ( F10) Engineering Animation, Undergraduate Academic Studies
2.	H112	Mechanics 1 – Fundamentals	( H00) Mechatronics, Undergraduate Academic Studies ( S00) Traffic and Transport Engineering, Undergraduate Academic Studies
3.	H201	Mechanics 2 - General	( H00) Mechatronics, Undergraduate Academic Studies
4.	H303	Mechatronics 3 – Further Chapters	( H00) Mechatronics, Undergraduate Academic Studies
5.	I600	Industrial Robotics	( F10) Engineering Animation, Undergraduate Academic Studies ( MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
6.	M4302	Biomechanics and mechanics of sport	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
7.	ASO	Introduction to engineering	( ASO) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
8.	BMI127	Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
9.	BMI128	Continuum Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
10.	BMI96	Mechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
11.	II1004	Mechanics and Industrial Engineering	( I10) Industrial Engineering, Undergraduate Academic Studies
12.	M44041	Dynamics of non-smooth mechanical systems	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
13.	M44061	Optimization of mechanical systems	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
14.	BMIM4A	Transport phenomena and Living systems	( BM0) Biomedical Engineering, Master Academic Studies
15.	M45991	Biomechanics of cardiovascular system	( M40) Technical Mechanics and Technical Design, Master Academic Studies
16.	SZD051	Applications of optimal control theory in living environment protection	( Z00) Environmental Engineering, Specialised Academic Studies
17.	DM406	Nonsmooth Mechanics and Optimization	( H00) Mechatronics, Doctoral Academic Studies ( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( OM1) Mathematics in Engineering, Doctoral Academic Studies
18.	DZ003	Selected Chapters in Mechanics	( M00) Mechanical Engineering, Doctoral Academic Studies



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

## List of courses being held by the teacher in the accredited study programmes


ID	Course name	Study programme name, study type
19. ZD051	Applications of optimal control theory in living environment protection	( Z00) Environmental Engineering, Doctoral Academic Studies
20. DM801	Biomedical mechanics	( M40) Technical Mechanics, Doctoral Academic Studies
21. DTM02	Theory of impact	( H00) Mechatronics, Doctoral Academic Studies ( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( S00) Traffic Engineering, Doctoral Academic Studies
22. DTM03	Biomechanical models and analysis of impact	( M40) Technical Mechanics, Doctoral Academic Studies
23. ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

## Representative references (minimum 5, not more than 10)

1.	Spasić D., Glavardanov V.: Does generalized elastica lead to bimodal optimal solutions?, International Journal of Solids and Structures, 2009, Vol. 46, No 14-15, pp. 2939-2949, ISSN 0020-7683
2.	Grahovac N., Žigić M., Spasić D.: On impact scripts with both fractional and dry friction type of dissipation, INT J BIFURCAT CHAOS, 2012, No Prihvaćen za štampu, ISSN 0218-1274
3.	D. T. Spasic and T. M. Atanackovic (2004), "Bimodal optimization of a compressed rotating rod", Acta Mechanica, 173, N 1-4, 77-87
4.	Spasić D.: Optimizing the electrodynamic stabilization method for a man-made Earth satellite, AUTOMAT REM CONTR , 2011, Vol. 72, No 9, pp. 112-121, ISSN 0005-1179
5.	Petrović Lj., Spasić D., Atanacković T.: On a mathematical model of a human root dentin , Dental Materials, 2005, Vol. 21, pp. 125-128, ISSN 0109-5641
6.	Mitić G., Spasić D.: Clinical Characteristic and type of thrombophilia in women with pregnancy-related venous thromboembolic disease, GYNECOL OBSTET INVES, 2011, Vol. 72, No 2, pp. 103-108, ISSN 0378-7346
7.	T. M. Atanackovic and D. T. Spasic, (2004): "On viscoelastic compliant contact-impact models", Transactions of ASME Journal of Applied Mechanics, 71, 134-138
8.	Radovic R., Spasic D.T., Karadzic B., Novakovic B., Atanackovic J., Jelcic Z.. and Tepavcevic B., (2002), ""New challenges and opportunities for the city of Novi Sad"", Coordinated by T. Atanackovic, The Danube Commision of EU and The University of Novi Sad, (monograph 157 pages in English and Serbian)
9.	Spasić D.: Boudary elements, theory and applications (English to serbian traslation done by D.T. Spasić), Beograd, Gradjevinska knjiga, 2011
10.	BD Vujanović, DT Spasić: Metodi optimizacije: primenjeni varijacioni račun, analitička mehanika, optimalno upravljanje, UNS, 1997.

## Summary data for teacher's scientific or art and professional activity:

Quotation total :	16
Total of SCI(SSCI) list papers :	8
Current projects :	Domestic : 1 International : 0

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	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:		Škorić N. Branko	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 21.03.1985	
Scientific or art field:		Surface Engineering, Micro and Nano Technologies	
Academic carier	Year	Institution	Field
Academic title election:	2011	Faculty of Technical Sciences - Novi Sad	Surface Engineering, Micro and Nano Technologies
PhD thesis	2001	Faculty of Technical Sciences - Novi Sad	Casting and Thermal Processing Technology and Surface Engineering, Micro and Nano
Magister thesis	1994	Faculty of Technical Sciences - Novi Sad	Casting and Thermal Processing Technology and Surface Engineering, Micro and Nano
Bachelor's thesis	1984	Faculty of Technical Sciences - Novi Sad	Casting and Thermal Processing Technology and Surface Engineering, Micro and Nano

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P105	Heat Processing	( P00) Production Engineering, Undergraduate Academic Studies
2.	P110	Casting Technology	( P00) Production Engineering, Undergraduate Academic Studies
3.	P210	Surface Engineering	( P00) Production Engineering, Undergraduate Academic Studies
4.	P211	Devices and Plasma Procedures in Mechanical Engineering	( P00) Production Engineering, Undergraduate Academic Studies
5.	P2402	Designing of Thermal Processing Technologies	( P00) Production Engineering, Undergraduate Academic Studies
6.	P2403	Contemporary Casting Technologies	( P00) Production Engineering, Undergraduate Academic Studies
7.	P3401	Characteristics and Application of Plastic Materials	( P00) Production Engineering, Undergraduate Academic Studies
8.	P3405	Thermal Processing of Contemporary Tools	( P00) Production Engineering, Undergraduate Academic Studies
9.	II1001	Engineering materials	( I10) Industrial Engineering, Undergraduate Academic Studies
10.	ZRI42A	Safety at work in metallurgy and thermochemical treatment of metal	( Z01) Safety at Work, Undergraduate Academic Studies
11.	P2503	Process Design in Casting Technology	( PM0) Production Engineering, Master Academic Studies
12.	P2507	Nanotechnologies	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
13.	PP2111	Mechanical Engineering in Medicine and Bioengineering	( PM0) Production Engineering, Master Academic Studies
14.	SMI002	Modeling and simulation of thermo chemical and metallurgical processes	( PM0) Production Engineering, Master Academic Studies
15.	DP001	Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
16.	DP004	Advanced Technologies in Casting and Heat Treatment	( M00) Mechanical Engineering, Doctoral Academic Studies
17.	DP007	Procedures of Plasma Depozition	( M00) Mechanical Engineering, Doctoral Academic Studies
18.	DP011	Nanotechnologies and Nanomaterials Forming	( M00) Mechanical Engineering, Doctoral Academic Studies
19.	DP014	Nano and Micro Layers Characterization	( M00) Mechanical Engineering, Doctoral Academic Studies
20.	ZRD213	Current state and development tendencies of quality management of work environment	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Škorić B., Kakaš D., Influence of type of plasma coatings on friction coefficient and contact temperature on wear of tool steel, Oxidation Communications, vol.17, Bulgarian-English Academic Publishing House ,1994, 214-219
2.	Škorić B., Kakaš D., Tribological behaviour of TiN and TiAlN deposited layers on substrates plasma nitrided at low pressure, Materials and Manufacturing Processes, Vol 10, 1 ,New York, USA,1995, 133-138
3.	Škorić B., Kakaš D., Sovilj B., Microstructural and tribological study of magnetron sputtered coating, Journal of the Balkan Tribological Association, Vol.3, No.3, 1997,142-147.



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FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES


Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

4.	Škorić B., Kakaš D., Influence of plasma Nitriding on Mechanical and Tribological Properties of Steel with subsequent PVD Surface Treatments., Thin Solid Films, Elsevier Science, Oxford, England, 317 ,1998, 486-489
5.	Škorić B., Kakaš D., Examination of tribological properties of plasma surface layer using special test equipment, Computer Standards & Interfaces, Elsevier Science, Oxford, England, Volume 21, Issue 2, 1999, 123.
6.	Kakaš D., Škorić B., Rakita M., Tribological behavior of duplex coating improved by ion implantation, Thin Solid Films, Elsevier Science, Oxford, England, Volume 459, Issues 1-2, Oxford, England, 2004, 152-155.
7.	Škorić B., Kakaš D., Rakita M., Bibić N., Peruško D Structure, hardness and adhesion of TiN coatings deposited by PVD and IBAD on nitrided steels, Vacuum, Pergamon, England, Volume 76, Issue 2-3, 2004,169-172
8.	Škorić B., Kakaš D., Bibić N., Rakita M., Microstructural studies of TiN coatings prepared by PVD and IBAD, Surface Science, Elsevier Science B V , North-Holland, Volumes 566-568, Part 1, 2004, 40-44.
9.	Škorić B., Kakaš D., Karakterizacija mikro i nano slojeva, monografija, FTN, Novi Sad, 2007
10.	Škorić B.: Tribological characterization of duplex coatings with additional ion bombardment, Brussels, European science foundation, 2008, str. 289-299, ISBN 978-92-898-0040-2

Summary data for teacher's scientific or art and professional activity:

Quotation total :	38		
Total of SCI(SSCI) list papers :	16		
Current projects :	Domestic :	1	International : 1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

### Science, arts and professional qualifications

Name and last name:	Ubavin M. Dejan		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.08.2005		
Scientific or art field:	Environment Protection Engineering		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
PhD thesis	2012	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Magister thesis	2008	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Bachelor's thesis	2004	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering

#### List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	Z205	Sustainable Use of Natural Resources and Environmental Protection System	( G10) Geodesy and Geomatics, Undergraduate Academic Studies ( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
2.	Z309A	Solid Waste Management	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
3.	Z401A	Design and Planning in Environmental Protection	(Z20) Environmental Engineering, Undergraduate Academic Studies
4.	Z401B	Design and Planning in Environmental Engineering	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
5.	Z409A	Hazardous Waste Management and Recycling Technologies	(Z20) Environmental Engineering, Undergraduate Academic Studies
6.	Z414	Contemporary Methods of Soil Remediation	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	OAS214	Integralni katastar zagađivača(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z309A	Upravljanje čvrstim otpadom(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	M3202	Identification and reduction of pollution from industry	( M30) Energy and Process Engineering, Undergraduate Academic Studies
10.	ZC047	Waste to energy technologies	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
11.	Z452	Design and maintenance of quality control in environmental engineering	( M40) Technical Mechanics and Technical Design, Master Academic Studies
12.	Z508	Specific Design Conditions in Environment Protection	(Z20) Environmental Engineering, Master Academic Studies
13.	Z511	Institutional Framework for Accidental Risk Management	(Z20) Environmental Engineering, Master Academic Studies
14.	ZR501	Hazardous Materials and Hazardous Waste	( Z01) Safety at Work, Master Academic Studies
15.	ZR502	Occupational Risk Assessment	( Z01) Safety at Work, Master Academic Studies
16.	Z508	Specifični uslovi projektovanja u zaštiti životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
17.	Z511	Institucionalni okviri upravljanja akcidentnim rizicima(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
18.	GH508	Landfill desing and municipal waste treatmant systems	(G00) Civil Engineering, Master Academic Studies
19.	MPK027	Management of environmental facilities	( MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engleskom), Master Academic Studies
20.	SZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	( Z00) Environmental Engineering, Specialised Academic Studies
21.	ZD052	Efficient Use of Natural Resources and Low-Carbon Development	( Z00) Environmental Engineering, Doctoral Academic Studies
22.	ZDI23	Material Flow Analysis in Urban Systems	( Z00) Environmental Engineering, Doctoral Academic Studies



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

## List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type
23. ZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	( OM1) Mathematics in Engineering, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies
24. ZRD213	Current state and development tendencies of quality management of work environment	( Z01) Safety at Work, Doctoral Academic Studies
25. ZRD231	Economic implication of occupational health and safety projects implementation	( Z01) Safety at Work, Doctoral Academic Studies


## Representative references (minimum 5, not more than 10)

1.	Stanisavljević N., Ubavin D., Batinić B., Fellner J., Vujić G.: Methane emissions from landfills in Serbia and potential mitigation strategies: a case study, WASTE MANAGE RES, 2012, ISSN 0734-242X
2.	Vukmirović G., Vukmirović S., Vujić G., Stanisavljević N., Ubavin D., Batinić B.: Using ANN model to determine future waste characteristics in order to achieve specific waste management targets -case study of Serbia, Journal of Scientific and Industrial Research (JSIR), 2011, Vol. 70, No 07, pp. 513-518, ISSN 0022-4456
3.	Vujić G., Jovičić N., Maja Đ., Ubavin D., Nakomčić Smaragdakis B., Gordana J., Dušan G.: INFLUENCE OF AMBIENCE TEMPERATURE AND OPERATIONAL - CONSTRUCTIVE PARAMETERS ON LANDFILL GAS GENERATION - CASE STUDY NOVI SAD, Thermal Science - International Scientific Journal, 2010, Vol. 14, No 2, pp. 555-564, ISSN 0354-9836, UDK: 547.211:631.41
4.	Vujić B., Milovanović D., Ubavin D.: Analiza koncentracionih nivoa čestičnih materija (PM10, ukupnih suspendovanih čestica i čađi) u Zrenjaninu, Hemijska industrija, 2010, Vol. 64, No 5, pp. 453-458, ISSN 0367-598X
5.	Landfill gas modelling and risk assessment in the purpose of the good managing in municipal landfill of Novi Sad - CHISA 2004, 16th International Congress of Chemical and Process Engineering, Prague, Czech Republic, August 2004
6.	Analysis of location for building objects; - Sixth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe and the Commonwealth of Independent States (Prague 2003), Czech Republic, September 2003
7.	Vujić, G. Batinić, B. Ubavin, D. Stanisavljević. N., Analysis of municipal waste content & waste amount as the basis for the new waste management policy in Vojvodina, Serbia, ISWA/WMRAS World Congress, Singapore: ISWA, 03. - 06. Novembar, 2008.
8.	Ubavin D., Vujić G., Stanisavljević N., Batinić B., Miroslavljević Z.: National Methane Emissions from Waste Disposal Sites in Serbia, 1. The ISWA 2012 World Solid Waste Congress, Florence: ISWA, 17-19 Septembar, 2012, pp. 1279-1287, ISBN 978-88-907694-2-9
9.	Stanisavljević N., Jokanović S., Batinić B., Ubavin D., Vujić G.: Evaluation of Different Waste Management Options for South East Europe, Exemplified for The City of Novi Sad, 1. The ISWA 2012 World Solid Waste Congress, Florence: ISWA, 17-19 Septembar, 2012, pp. 1266-1272, ISBN 978-88-907694-2-9
10.	Batinić B., Ubavin D., Stanisavljević N., Vujić G., Tot B.: Analysis of relation between socioeconomic factors and MSW practice using ANN models, 1. The ISWA 2012 World Solid Waste Congress, Florence: ISWA, 17-19 Septembar, 2012, ISBN 978-88-907694-2-9

## Summary data for teacher's scientific or art and professional activity:

Quotation total :	3
Total of SCI(SSCI) list papers :	4
Current projects :	Domestic : 3 International : 0



	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Vujić V. Goran		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 20.02.1999		
Scientific or art field:	Environment Protection Engineering		
Academic carieer	Year	Institution	Field
Academic title election:	2012		Environment Protection Engineering
PhD thesis	2007	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Magister thesis	2003	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Bachelor's thesis	1998	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	E0S42	Renewable sources and environmental protection	( E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
2.	Z204A	Monitoring of the Living Environment	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
3.	Z309A	Solid Waste Management	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
4.	Z401A	Design and Planning in Environmental Protection	(Z20) Environmental Engineering, Undergraduate Academic Studies
5.	Z401B	Design and Planning in Environmental Engineering	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
6.	Z409A	Hazardous Waste Management and Recycling Technologies	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	OAS214	Integralni katastar zagađivača(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z101	Uvod i principi zaštite okruženja(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	Z205	Održivo korišćenje prirodnih resursa i sistem zaštite životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
10.	Z309A	Upravljanje čvrstim otpadom(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
11.	Z401A	Projektovanje i planiranje u zaštiti životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
12.	Z409A	Upravljanje opasnim otpadom(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
13.	M3202	Identification and reduction of pollution from industry	( M30) Energy and Process Engineering, Undergraduate Academic Studies
14.	ZC047	Waste to energy tehnologies	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
15.	Z452	Design and maintenance of quality control in environmental engineering	( M40) Technical Mechanics and Technical Design, Master Academic Studies
16.	Z508	Specific Design Conditions in Environment Protection	(Z20) Environmental Engineering, Master Academic Studies
17.	Z511	Institutional Framework for Accidental Risk Management	(Z20) Environmental Engineering, Master Academic Studies
18.	ZR501	Hazardous Materials and Hazardous Waste	( Z01) Safety at Work, Master Academic Studies
19.	Z508	Specifični uslovi projektovanja u zaštiti životne sredine(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
20.	GH508	Landfill desing and municipal waste treatmant systems	(G00) Civil Engineering, Master Academic Studies
21.	MPK012	Solid waste management	( MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engleskom), Master Academic Studies
22.	MPK014	Monitoring and system control	( MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engleskom), Master Academic Studies
23.	PIP16	Plastics and environmental protection	( PM0) Production Engineering, Master Academic Studies

UNIVERSITAS STUDIORUM NEOPLANTENSIS		UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6		КАТЕДРА ТЕХНИЧКИХ НАУКА НОВИ САД	
Study Programme Accreditation					
MASTER ACADEMIC STUDIES			Technical Mechanics and Technical Design		
List of courses being held by the teacher in the accredited study programmes					
ID	Course name	Study programme name, study type			
24.	SZD042	Models of economic evaluation of environmental projects	( Z00) Environmental Engineering, Specialised Academic Studies		
25.	SZD051	Applications of optimal control theory in living environment protection	( Z00) Environmental Engineering, Specialised Academic Studies		
26.	SZDI23	Material Flow Analysis in Urban Systems	( Z00) Environmental Engineering, Specialised Academic Studies		
27.	SZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	( Z00) Environmental Engineering, Specialised Academic Studies		
28.	ZCM06	Security of strategic energy facilities	( ZC0) Clean Energy Technologies, Master Academic Studies		
29.	ZD051	Applications of optimal control theory in living environment protection	( Z00) Environmental Engineering, Doctoral Academic Studies		
30.	ZDI23	Material Flow Analysis in Urban Systems	( Z00) Environmental Engineering, Doctoral Academic Studies		
31.	ZDO42	Models of Economic Evaluation of Projects for Environment Protection	( OM1) Mathematics in Engineering, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies		
32.	ZSP20	Systemic Regulation of Environment	( G00) Civil Engineering, Doctoral Academic Studies		
33.	ZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	( OM1) Mathematics in Engineering, Doctoral Academic Studies ( Z00) Environmental Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies		
Representative references (minimum 5, not more than 10)					
1.	Vujić, G., Pešenjanski, I.: Combustion chamber for stawn bals, Fifth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2000.				
2.	Vujić, G., Marinić, I., Bašić, Đ.: Waste Separation and Recycling Methods, Which Are The Most Suitable For City of Novi Sad, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.				
3.	Vujić, B., Vujić, G.: Environmental due diligence and its appliance in specific national environmental condition in Serbia&Montenegro, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.				
4.	Jezdimirovic.I.A., Vujic,G., Mudric, J.: Special Conditions of Raw and Drinking Water management, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.				
5.	Vujić, G., Bašić, Đ. Mihajlov, A.: Process of privatisation and environment in Serbia and Montenegro, PSU-UNS conference, HAT-YAI, Thailand, 16-18 december. 2003.				
6.	Vujić, G., Vojinović-Miloradov M., Bašić, Đ., Vujić,B., Čabradi, G., Tomašević, B.: Landfill gas modelling and risk assessment in the purpose of the good managing in municipal landfill of Novi Sad, CHISA 2004, 22-26,08.2004.Prague, Czech Republic.				
7.	Ubavin, D., Vujić, G., Bašić, Đ.:Landfill gas extraction and collection systems; PSU-UNS International Conference On Engineering And Environment - ICEE-2005, Novi Sad 19-21 May, 2005.				
8.	Ubavin, D., Vujić, G., Mihajlov, A., Bašić, Đ.: Gas to energy opportunity on landfill in city of Novi Sad – Serbia and Montenegro D. Faculty of Technical Sciences, Novi Sad, Serbia and Montenegro, World Congress and Exhibition "ISWA 2005", November 6.-10. 2005. Buenos Aires, Argentina Ref No 194, Proceedings p.82				
9.	Marjanović, D., Vujić, G , Mihajlović, V., Ubavin, D.: Selection of Technology and Public Opinion as Key Factors in Regional Landfill Location Selection, PSU-UNS International Conference on Engineering and Environment - ICEE-2007, Phuket May10-11, 2007. Proceedings CD ICCEE2007149				
10.	Vujić, G , Mihajlović, V., Ubavin, D.: Possibilities for Landfill Gas Usage at Novi Sad Landfill, PSU-UNS International Conference on Engineering and Environment - ICEE-2007, Phuket May10-11, 2007. Proceedings CD ICEE2007150				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :		0			
Total of SCI(SSCI) list papers :		0			
Current projects :		Domestic :	1	International :	1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:		Vukelić B. Đorđe	
Academic title:		Assistant Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 23.10.2000	
Scientific or art field:		Metrology, Quality, Fixtures and Ecological-Engineering Aspects	
Academic carier	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
PhD thesis	2010	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Magister thesis	2005	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Bachelor's thesis	2000	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	P1401	Fixture Design and Measuring Machines	( P00) Production Engineering, Undergraduate Academic Studies
2.	P1508	Reverse Engineering and CAQ	( P00) Production Engineering, Undergraduate Academic Studies ( SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies ( SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
3.	P209	Measurements and Quality	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
4.	P306	Fixtures	( P00) Production Engineering, Undergraduate Academic Studies
5.	Z207	Mechanical Engineering in Environmental Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
6.	Z207A	Mechanical Engineering in Environmental Engineering	( Z01) Safety at Work, Undergraduate Academic Studies
7.	Z301	Pollution Measurement and Control	( Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
8.	ZRI441	Material handling systems for environmental and labor protection	( Z01) Safety at Work, Undergraduate Academic Studies
9.	II1037	Disassembly and recycling technologies	( I10) Industrial Engineering, Undergraduate Academic Studies
10.	P322	Introduction to Precision Engineering	( P00) Production Engineering, Undergraduate Academic Studies
11.	ZC036	Measurement and control of pollution	( ZC0) Clean Energy Technologies, Undergraduate Academic Studies
12.	P1409	Material Control Systems and CAI	( PM0) Production Engineering, Master Academic Studies
13.	P1501	Ecological Technologies and Systems	( M40) Technical Mechanics and Technical Design, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
14.	Z416A	Environment Protection System Management	( PM0) Production Engineering, Master Academic Studies
15.	I907	Automated Assembly Systems for High Accuracy	( H00) Mechatronics, Master Academic Studies ( PM0) Production Engineering, Master Academic Studies
16.	P321	Reverse Engineering and Rapid Prototyping	( I10) Industrial Engineering, Master Academic Studies
17.	PIP16	Plastics and environmental protection	( PM0) Production Engineering, Master Academic Studies
18.	PLIS1	Logistics and Simulation in Technologies of Plastics Processing	( PM0) Production Engineering, Master Academic Studies
19.	PP103	Measurement and tools in precision engineering	( PM0) Production Engineering, Master Academic Studies
20.	SM3	Software support for reverse engineering and CAQ	( PM0) Production Engineering, Master Academic Studies



## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

## List of courses being held by the teacher in the accredited study programmes


ID	Course name	Study programme name, study type
21.	SMI003 Software support for cutting tools and fixtures modeling	( PM0) Production Engineering, Master Academic Studies
22.	SZDH1 Modern Methods of Eco-design	( Z00) Environmental Engineering, Specialised Academic Studies
23.	DM411 Contemporary Approach to Integration of Reverse Engineering of Rapid Prototyping, Tools, Products and Virtual Manufacturing	( M00) Mechanical Engineering, Doctoral Academic Studies
24.	DP001 Design and Research Methods in Production Engineering	( M00) Mechanical Engineering, Doctoral Academic Studies
25.	DP006 State and development trends of metrology, quality and fixtures	( M00) Mechanical Engineering, Doctoral Academic Studies
26.	DP013 Ecological Engineering Aspects	( M00) Mechanical Engineering, Doctoral Academic Studies
27.	DP019 Selected topics in technical diagnosis	( M00) Mechanical Engineering, Doctoral Academic Studies
28.	ZDH1 Modern Methods of Eco-design	( Z00) Environmental Engineering, Doctoral Academic Studies

## Representative references (minimum 5, not more than 10)

1.	Budak I., Vukelić Đ., Bračun D., Hodolić J., Soković M.: Pre-Processing of Point-Data from Contact and Optical 3D Digitization Sensors, Sensors, 2012, Vol. 12, No 1, pp. 1100-1126, ISSN 1424-8220.
2.	Tadić B., Jeremić B., Todorović P., Vukelić Đ., Proso U., Mandić V., Budak I.: Efficient workpiece clamping by indenting cone-shaped elements, International Journal of Precision Engineering and Manufacturing, 2012, Vol. 13, No 10, pp. 1725-1735, ISSN 2234-7593.
3.	Tadić B., Todorović P., Vukelić Đ., Jeremić B.: Failure analysis and effects of redesign of a polypropylene yarn twisting machine, Engineering Failure Analysis, 2011, Vol. 18, No 5, pp. 1308-1321, ISSN 1350-6307.
4.	Matin I., Hadžistević M., Hodolić J., Vukelić Đ., Lukić D.: A CAD/CAE Integrated Injection Mold Design System for Plastic Products, International Journal of Advanced Manufacturing Technology, 2012, Vol. 63, No. 5-8, pp. 595-607, ISSN 0268-3768.
5.	Tadić B., Todorović P., Lužanin O., Miljanić D., Jeremić B., Bogdanović B., Vukelić Đ.: Using specially designed high-stiffness burnishing tool to achieve high-quality surface finish, DOI: 10.1007/s00170-012-4508-2, International Journal of Advanced Manufacturing Technology, 2012, ISSN 0268-3768.
6.	Mrkajić V., Stamenković M., Maleš M., Vukelić Đ., Hodolić J.: Proposal for reducing problems of the air pollution and noise in the urban environment, Carpathian Journal of Earth and Environmental Sciences, 2010, Vol. 5, No 1, pp. 49-56, ISSN 1842-4090.
7.	Vukelić Đ., Zuperl U., Hodolić J.: Complex system for fixture selection, modification, and design, International Journal of Advanced Manufacturing Technology, 2009, Vol. 45, No 7-8, pp. 731-748, ISSN 0268-3768.
8.	Vukelić Đ., Ostojić G., Stankovski S., Lazarević M., Tadić B., Hodolić J., Simeunović N.: Machining fixture assembly/disassembly in RFID environment, Assembly Automation, 2011, Vol. 31, No 1, pp. 62-68, ISSN 0144-5154.
9.	Trifković B., Budak I., Todorović A., Hodolić J., Puškar T., Jevremović D., Vukelić Đ.: Application of Replica Technique and SEM in Accuracy Measurement of Ceramic Crowns, Measurement Science Review, 2012, Vol. 12, No 3, pp. 90-97, ISSN 1335-8871.
10.	Tadić B., Vukelić Đ., Hodolić J., Mitrović S., Erić M.: Conservative-Force-Controlled Feed Drive System for Down Milling, Strojniški vestnik - Journal of Mechanical Engineering, 2011, Vol. 57, No 5, pp. 425-439, ISSN 0039-2480.

## Summary data for teacher's scientific or art and professional activity:

Quotation total :	34		
Total of SCI(SSCI) list papers :	21		
Current projects :	Domestic :	3	International : 3

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications

Name and last name:	Zuber F. Ninoslav		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 16.03.1998		
Scientific or art field:	Machine Constructions, Transport Systems and Logistics		
Academic carier	Year	Institution	Field
Academic title election:	2011	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
PhD thesis	2010	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Magister thesis	2000	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Bachelor's thesis	1997	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	M2507	Methods of experimental testing of machines	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
2.	M305A	Metal Structures	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
3.	H2501	Motor Vehicle Equipment	( H00) Mechatronics, Master Academic Studies
4.	M2508	Metal Constructions in Machine Building	( M22) Mechanization and Construction Engineering, Master Academic Studies
5.	M2531	Weighing and Dosing	( M22) Mechanization and Construction Engineering, Master Academic Studies
6.	M2540	Vibrodiagnostics	( H00) Mechatronics, Master Academic Studies ( M22) Mechanization and Construction Engineering, Master Academic Studies ( M40) Technical Mechanics and Technical Design, Master Academic Studies
7.	LIM13	Packaging Techniques and Packaging	( LIM) Logistic Engineering and Management, Master Academic Studies
8.	H797	Mechatronics in mechanization - advanced topics	( H00) Mechatronics, Master Academic Studies
9.	DM412	Experimental testing and analysis in mechanization - advanced topics	( M00) Mechanical Engineering, Doctoral Academic Studies ( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Zuber N., Bajric R., Karic S.: Experimental vibration investigation of an industrial beater wheel mill, TTEM. Tehnics technologies education management, 2011, Vol. 5, No 4, pp. 688-692, ISSN 1840-1503
2.	Zuber N., Šostakov R., Bajrić R.: Application of vibration signal analysis and artificial intelligence methods in fault identification of rolling element bearings, Technics Technologies Education Management, 2011, Vol. 6, No 1, pp. 3-10, ISSN 1840-1503
3.	Zuber N., Ličen H., Bajrić R.: An innovative approach to the condition monitoring of excavators in open pits mines, Technics Technologies Education Management, 2010, Vol. 5, No 1, pp. 3-10, ISSN 1840-1503
4.	Bajrić R., Barićak V., Delalić S., Muratović P., Zuber N.: INVESTIGATION OF POSSIBLE RESONANT PROBLEMS DURING BEATER WHEEL MILL OPERATION, Technics Technologies Education Management, 2010, Vol. 5, No 1, pp. 32-37, ISSN 1840-1503
5.	Ninoslav Zuber, Rastislav Šostakov: Implementation of rotating machinery remote monitoring, Second Conference "Maintenance 2012", 13-16.06.2012, Zenica, pp. 141-148, ISSN 1986-583X
6.	Ninoslav Zuber: Application of artificial intelligence methods in automated vibrodiagnostics of rotating machines in mining industry – a case study, 4th International Conference "Noise and Vibration"2012, Niš, Serbia, pp 193-202, ISBN: 978-86-6093-042-4
7.	Ninoslav Zuber: Roller elements bearing vibrodiagnostics, 4th International Conference "Noise and Vibration"2012, Niš, Serbia, pp 185-192, ISBN: 978-86-6093-042-4
8.	Zuber N., Ličen H., Klačnja Miličević A.: Applied Remote condition monitoring of the bucket wheel excavator, Journal of Applied Engineering Science, 2009, Vol. 7, No 25, pp. 31-40, ISSN 1451-4117, UDK: 33



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FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

Representative references (minimum 5, not more than 10)

9.	Zuber Ninoslav, Ličen Hotimir, mlađi: Mogućnosti primene metoda veštačke inteligencije u automatizaciji vibrodijagnostičkih metoda, Tehnička dijagnostika, vol. 10, br. 2, pp. 9-16, 2011, UDC: 62-51:612.321.12, ISSN 1451-1975
10.	Ninoslav Zuber, Hotimir Licen, Patrice Dannepond: PREDIKTIVNO ODRŽAVANJE OPREME NA BAZI MERENJA I ANALIZE VIBRACIJA: TIPOVI, STRATEGIJE UVOĐENJA I PRIMENE, PRIMER, Power Plants 2006, Vrnjacka Banja, Srbija: 2006,
Summary data for teacher's scientific or art and professional activity:	
Quotation total :	0
Total of SCI(SSCI) list papers :	4
Current projects :	Domestic : 1 International : 0



Science, arts and professional qualifications

Name and last name:	Zuković M. Miodrag		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.12.1995		
Scientific or art field:	Mechanics		
Academic carier	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Mechanics
PhD thesis	2008	Faculty of Technical Sciences - Novi Sad	Mechanics
Magister thesis	2000	Faculty of Technical Sciences - Novi Sad	Mechanics
Bachelor's thesis	1994	Faculty of Technical Sciences - Novi Sad	Mechanics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	IAKI01	Selected Chapters in Kinematics	( F10) Engineering Animation, Undergraduate Academic Studies
2.	M103	Mechanics 1	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
3.	M107	Mechanics 2	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
4.	M201	Mechanics 3	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
5.	M2411	Theory of Oscillation	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
6.	M4301	Computer Methods in Mechanics	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
7.	Z108	Fundamentals of Mechanics	( Z01) Safety at Work, Undergraduate Academic Studies ( ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
8.	BMI127	Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
9.	M44061	Optimization of mechanical systems	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies



## Study Programme Accreditation


MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

List of courses being held by the teacher in the accredited study programmes

ID	Course name	Study programme name, study type	
10. BMIM4A	Transport phenomena and Living systems	( BM0) Biomedical Engineering, Master Academic Studies	
11. M45021	Computer Methods in Mechanics 2	( M40) Technical Mechanics and Technical Design, Master Academic Studies	
12. DTM01	Computer Methods in kinematics and dynamics of mechanical systems	( M40) Technical Mechanics, Doctoral Academic Studies	
Representative references (minimum 5, not more than 10)			
1.	Zukovic, M. and Cveticanin, L.: Chaotic Responses in a Stable Duffing System of Non-ideal Type, Journal of Vibration and Control, 2007, Vol. 13, No. 6, str. 751- 767, ISSN 10775463.		
2.	Zukovic, M., Cveticanin, L., Chaos in non-ideal mechanical system with clearance, Journal of Vibration and Control , 15(8): 1229-1246, 2009		
3.	Miodrag Zuković, TORZIONE PARAMETARSKE OSCILACIJE CILINDRIČNOG ZUPČASTOG PARA SA EVOLVENTNIM OZUBLJENJEM, Magistarska teza, Novi Sad, 2000.		
4.	Zuković, M., NELINEARNE TORZIONE OSCILACIJE U ZUPČASTIM PRENOSNICIMA, VII Međunarodna konferencija fleksibilne tehnologije MMA 2000, Novi Sad, 08.juna 2000.		
5.	Zuković, M., Radomirović, D. Kuzmanović, S.: Analiza uticaja rasporeda zupčanika na dinamiku dvostepenog reduktora, Drugi skup o konstruisanju, oblikovanju i dizajnu KOD 2002, Novi Kneževac, Maj 2002, str. 141-144.		
6.	Radomirović, D., Zuković, M., Gligorić, Radojka: Uticaj ubrzanja, nagiba i mase prikolice na kretanje traktora, Traktori i pogonske mašine, Vol.7, No.4, Novi Sad, Decembar, 2002, str.57-61.		
7.	Zuković, M., Radomirović, D. Rakarić, Z.: Nelinearne oscilacije u mehaničkim sistemima sa zazorom, VIII MEĐUNARODNA KONFERENCIJA FLEKSIBILNE TEHNOLOGIJE, MMA 2003., Novi Sad, Srbija i Crna Gora, 26-27. Jun 2003.		
8.	Radomirović, D., Maretić, R., Zuković, M.: UNUTRAŠNJE KOORDINATE RAVANSKIH KRIVIH U MEHANICI, Letopis naučnih radova, Godina 27(2003), broj 1, strana 119-127		
9.	Radomirović, D., Gligorić, Radojka, Zuković, M.: Kretanje traktora sa jednoosovinskom prikolicom, Traktori i pogonske mašine, Vol.8, No.4, Novi Sad, Novembar, 2003, str.124-129.		
10.	M. Zuković and Z. Rakarić : Steady state vibration of mechanical system with electric motor and nonlinear spring, Book of Abstracts, The First International Conference on COMPUTATION MECHANICS, Belgrade (CM'04), Serbia and Montenegro, November, 15-17, 2004., 31		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :	0		
Total of SCI(SSCI) list papers :	7		
Current projects :	Domestic :	1	International : 0



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	<b>Study Programme Accreditation</b> MASTER ACADEMIC STUDIES                      Technical Mechanics and Technical Design	

Science, arts and professional qualifications



Name and last name:	Žigić M. Miodrag		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.10.2007		
Scientific or art field:	Mechanics		
Academic carieer	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Mechanics
PhD thesis	2012	Faculty of Technical Sciences - Novi Sad	Mechanics
Magister thesis	2008	Faculty of Technical Sciences - Novi Sad	Mechanics
Bachelor's thesis	2004	Faculty of Technical Sciences - Novi Sad	Mechanics

List of courses being held by the teacher in the accredited study programmes

	ID	Course name	Study programme name, study type
1.	GG15	Strength of Materials	( G00) Civil Engineering, Undergraduate Academic Studies
2.	GG410	Selected Chapters in the Theory of Elasticity	(G00) Civil Engineering, Undergraduate Academic Studies
3.	H112	Mechanics 1 – Fundamentals	( H00) Mechatronics, Undergraduate Academic Studies ( S00) Traffic and Transport Engineering, Undergraduate Academic Studies
4.	H201	Mechanics 2 - General	( H00) Mechatronics, Undergraduate Academic Studies
5.	H202	Strength of materials	( H00) Mechatronics, Undergraduate Academic Studies
6.	H303	Mechatronics 3 – Further Chapters	( H00) Mechatronics, Undergraduate Academic Studies
7.	M204	Strength of Materials	( M20) Mechanization and Construction Engineering, Undergraduate Academic Studies ( M30) Energy and Process Engineering, Undergraduate Academic Studies ( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies ( P00) Production Engineering, Undergraduate Academic Studies
8.	M4302	Biomechanics and mechanics of sport	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
9.	M4306	Similarity and dimensional methods	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
10.	BMI128	Continuum Biomechanics	( BM0) Biomedical Engineering, Undergraduate Academic Studies
11.	II1004	Mechanics and Industrial Engineering	( I10) Industrial Engineering, Undergraduate Academic Studies
12.	M44061	Optimization of mechanical systems	( M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
13.	M4504	Thermal Elasticity	( M40) Technical Mechanics and Technical Design, Master Academic Studies
14.	BMIM4A	Transport phenomena and Living systems	( BM0) Biomedical Engineering, Master Academic Studies
15.	M45991	Biomechanics of cardiovascular system	( M40) Technical Mechanics and Technical Design, Master Academic Studies
16.	SZD051	Applications of optimal control theory in living environment protection	( Z00) Environmental Engineering, Specialised Academic Studies
17.	DM801	Biomedical mechanics	( M40) Technical Mechanics, Doctoral Academic Studies
18.	DTM02	Theory of impact	( H00) Mechatronics, Doctoral Academic Studies ( M00) Mechanical Engineering, Doctoral Academic Studies ( M40) Technical Mechanics, Doctoral Academic Studies ( S00) Traffic Engineering, Doctoral Academic Studies
19.	DTM03	Biomechanical models and analysis of impact	( M40) Technical Mechanics, Doctoral Academic Studies
20.	ZRD16A	Selected chapters in mechanics and elasticity theory	( Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	N. M. Grahovac, M. M. Zigic: Modelling of the hamstring muscle group by use of fractional derivatives, Computers and Mathematics with applications, Vol. 59, Issue 5 (2010), 1695-1700.
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	UNIVERSITY OF NOVI SAD				
	FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6				
<b>Study Programme Accreditation</b>					
MASTER ACADEMIC STUDIES		Technical Mechanics and Technical Design			
Representative references (minimum 5, not more than 10)					
2.	N. Grahovac., M. Žigić, D. Spasić, On impact scripts with both fractional and dry friction type of dissipation, International Journal of Bifurcation and Chaos, Vol. 22, No 4 (2012), 1250076 (10 pages).				
3.	N. M. Grahovac, M. M. Zigić, and D. T. Spasić: On multiple impacts with fractional type of dissipation, 1st International Congress of Serbian Society of Mechanics, Beograd: Serbian Society of Mechanics, 10-13 April, 2007, str. 173- 180, UDK: 531/534(082), ISBN 978-86-909973-0-5.				
4.	M. M. Žigić, N. M. Grahovac and D. T. Spasić: A simplified earthquake dynamics of a column like structure with fractional type of dissipation, 1st International Congress of Serbian Society of Mechanics, Beograd: Serbian Society of Mechanics, 10-13 April, 2007, str. 165- 172, UDK: 531/534(082), ISBN 978-86-909973-0-5.				
5.	Grahovac N., Žigić M: Fractional derivative viscoelastic model of the hamstring muscle group, 3rd IFAC Workshop on Fractional Differentiation and its Applications, Ankara, Turkey: 05-07 november, 2008.				
6.	M. M. Zigic, Viscoelastic response of the human hamstring muscle during a ramp-and-hold type of experiment, 2nd International Congress of Serbian Society of Mechanics, Palic: Serbian Society of Mechanics, 01-05 June, 2009, str. 165-173, UDK: 531/534(082), ISBN 978-86-7892-173-5.				
7.	Grahovac N., Žigić M., Spasić D.: On impact scripts with both fractional and dry friction type of dissipation, 4. IFAC Workshop on Fractional Differentiation and Its Applications, Badajoz, 18-20 Oktobar, 2010				
8.	Žigić M., Grahovac N.: Dynamical behavior of a polymer gel during impact. Fractional derivative viscoelastic model, 3. International Congress of Serbian Society of Mechanics, Vlasinsko jezero, 5-8 Jul, 2011, pp. 871-878, ISBN 978-86-909973-3-6, UDK: 531/534(082)				
9.	Bačlić B., Žigić M., Phase spaces of rheonomic energy-like conservation laws, 25th Yugoslav Congress on Theoretical and Applied Mechanics, 1-3 June, 2005.				
10.	Kovinčić N., Žigić M., Grahovac N., Spasić D.: On Impact in Biomechanical Systems, International scientific conference on mechanics, 6. International Scientific Conference on Mechanics - Sixth Polyakhov's Reading, Saint Petersburg, 31-3 Januar, 2012, pp. 251-251, ISBN 978-5-91563-101-3				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :		5			
Total of SCI(SSCI) list papers :		2			
Current projects :		Domestic :	1	International :	0



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## Study Programme Accreditation

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

### Standard 10. Organizational and Material Resources

To perform a study programme, the adequate human, spatial, technical and technological, library and other resources suitable to the study programme features and predicted students` number are to be provided. Lectures at this study programme is realized in two shifts, so the required minimum of space 2m<sup>2</sup> per student is met.

There is also an adequate equipment of all courses with the appropriate textbook literature, devices and supplementary equipment available on time and in a sufficient number for normal performance of the teaching process. Likewise, the Faculty of Technical Sciences has its own library, with well equipped and for this study programme adequate library funds. The adequate information technology is also available for performing the study programme.

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Technical Mechanics and Technical Design

**Standard 11. Quality Control**

The quality control of the study programme is performed regularly and systematically through self-evaluation and external quality control.

The quality control process comprises the continual monitoring of the quality of lecturing and the quality of resources necessary for the successful efficiency of undergraduate studies. Quality control bodies are the following: Board for Quality and Self-Evaluation, Committee for Quality and Committee for Undergraduate Studies Quality with undergraduate studies study programme executives-in-charge.

The study programme quality is evaluated on the basis of lecturers' competence, students' participation and involvement in scientific and research projects, resource wealth (contemporariness of equipment, contemporariness of available literature in libraries and bases), and the number of scientific publications realized during studies.

During the quality control of a study programme, the active role of students and their evaluation of the programme quality are also provided.

Quality monitoring is performed by a Committee consisting of Heads of Departments involved in study programme realization and one student from each academic year.

Quality Committee consists of:

- 1.Prof. Mila Stojaković, PhD
- 2.Prof. Srboljub Simić, PhD
- 3.Prof. Dragoje Milkić, PhD
- 4.Prof. Bela Sabo, PhD
- 5.Prof. Đorđe Lađinović, PhD
- 6.Prof. Vladimir Katić, PhD
- 7.Prof. Mirana Miloradov-Vojinović, PhD
- 8.Prof. Miroslav Plančak, PhD
- 9.Prof. Jovan Vladić, PhD
- 10.Prof. Miroslav Prša, PhD
- 11.Marina Raičić, student
- 12.Sanja Cvetinović, student