



UNIVERSITY OF NOVI SAD

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

Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering



STUDY PROGRAMME ACCREDITATION MATERIAL:

MECHANIZATION AND CONSTRUCTION ENGINEERING

MASTER ACADEMIC STUDIES

Novi Sad

2012.

Prevod sa srpskog jezika:

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Study Programme Accreditation

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Mechanization and Construction Engineering

Programme name	Mechanization and Construction Engineering
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	61
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	11
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	http://www.ftn.uns.ac.rs



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Mechanization and Construction Engineering

Standard 00. Introduction

The study programme for the Graduate Academic Studies – Master in Production Engineering is a continuation of undergraduate programme in Production Engineering at the Faculty of Technical Sciences, University of Novi Sad. Curriculum is created in accordance with contemporary scientific and professional tendencies, Bologna recommendations and development strategy of Autonomous Province of Vojvodina and the Republic of Serbia.

The study programme for the Graduate Academic Studies – Master in Construction Mechanics and Mechanization lasts 1 (one) year and the final master thesis is planned to be written in the second semester. Students who successfully complete this programme gain title of Master in Mechanical Engineering (M.Sc. in Mech.Eng.), and the study programme name Construction Mechanics and Mechanization is stated in the Diploma Supplement.

The study programme for the Graduate Academic Studies – Master in Construction Mechanics enables students to acquire scientific and research knowledge and skills for designing, technical exploitation and machines and equipment maintenance in the field of transport, building, agricultural mechanization, engines and vehicles. Special emphasis is placed on team work in small groups in laboratories and computer classrooms.



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Mechanization and Construction Engineering

Standard 01. Programme Structure

The name of this study programme of graduate academic studies – master is Construction Mechanics and Mechanizations. Academic name acquired is Master graduated engineering of Construction Mechanics and Mechanizations. The outcome of the study process is knowledge which enables students to apply acquired knowledge in problems in professional practice (designing, maintenance and technical exploitation of modern mechanizations and machines and devices of general purpose), and enables students to adequately use scientific and professional literature 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 terms for enrolment exam are set by Faculty Regulation Book.

The study programme for the Graduate Academic Studies – Master in Construction Mechanics and Mechanization lasts one year and students, in accordance with their interests, choose one of two study (selective) groups. Lectures in selective group is organized if there are enough students. In case that there are not enough students, lectures are not organized or the Faculty Management reaches a special decision on lectures realization at the group (mentor work with students).

The study programme includes common subjects which represent fundamental subjects for the field of mechanization (transport and building engineering, agricultural mechanical engineering, engines and vehicles). The first selective study group – Machine designing, transport and logistics places emphasis on problems of designing mobile machines (transport and building mechanization), logistics of transport flow and modern logistic methods for food processing machines maintenance. The second selective study group – Engines, vehicles and agricultural mechanical engineering places emphasis on problems in technical exploitation and IC engines, motor vehicles and agricultural mechanization maintenance. Students within the selective study group have mandatory and selective courses. Selective courses are selected from suggested subjects. However, students have opportunity to according to their interests and with the consent of the Head of the Study Programme to choose any of the subjects offered at the Faculty of Technical Sciences (FTN), University of Novi Sad. In that case all prerequisites for attending lectures in the chosen subject must be fulfilled.

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.

Each subject is awarded certain number of ECTS, and the studies are completed when the student fulfils all requirements stipulated by the study programme and is awarded at least 60 ECTS.



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Standard 02. Programme Objectives

The purpose of the study programme - Construction Mechanics and Mechanizations is set in accordance with the needs of the society.

The study program of the Master studies in Construction Mechanics and Mechanizations 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 - Construction Mechanics and Mechanizations is completely in accordance with the Faculty of Technical Sciences objectives. 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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Mechanization and Construction Engineering

Standard 03. Programme Goals

The objective of the graduate academic studies in Construction Mechanics and Mechanizations is acquiring competences and academic skills in the field of Construction Mechanics and Mechanizations. 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 Construction Mechanics and Mechanizations 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.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

Standard 04. Graduates` Competencies

Having completed the graduate academic studies in Construction Mechanics and Mechanizations, 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 Construction Mechanics and Mechanizations 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.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

Standard 05. Curriculum

The curriculum of the study programme of Construction Mechanics and Mechanizations is formulated so that it meets all set objectives. The structure of the study programme provides the choice of selective courses with at least 30% 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 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:		Professional Practice			
Course id:	M2512				
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"> - 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. - 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. - Acquired professional knowledge students will apply in further education and further practice (professional work). 					
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	
Project		Yes	50.00	Oral part of the exam	Mandatory
				Yes	Points
				50.00	
Literature					
Ord.	Author	Title		Publisher	Year


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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Transport Systems and Devices</h2>				
Course id:	M2503					
Number of ECTS:	6					
Teacher:	Vladić M. Jovan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	0		
Precondition courses		None				
1. Educational goal:						
Acquiring knowledge in the field of transport processes and material flow and enabling operation automation transport system simulation.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge can be used in practice for creating solution and main projects of complex automated transport systems as well as theoretical for professional subjects in the field of transport engineering and logistics.						
3. Course content/structure:						
Introduction. Material flow in production and distribution. Transport units. Storing and reloading. Fundamental elements in material flow. Border line cases. Stochastic transport units. Deviding and joining of flow characteristics. Universal element flow. Spacial arrangement of equipment – layout. Flow diagrams. Material flow models. Mechanisation and automation reload process. Transport systems. Characteristics, selection and dimensioningof transport systems. Transporters. Stopping, accumulation, joining and deviding devices. Flexible transport systems in production and distribution – equipment for commissioning. Automated transported line. Systems and devices for signalization, coding and labeling. Fundamentals of managing transport – manipulative systems. Modular projecting – composing transport systems.						
4. Teaching methods:						
Lectures. Auditory and laboratory practical classes. Consultation. Final grade is calculated on the bases of written and oral part and partial examination score.						
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	70.00
Lecture attendance		Yes	5.00			
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Vladić J.	Transportno manipulacioni sistemi, skripta		FTN, Novi Sad	2006	
2,	Dieter A.	Materialflusslehre		Vieweg	1998	
3,	Guenter M.	Materialflusstechnik		TU München	2002	
4,	Zrnich Đ.	Projektovanje fabrika		MF, Beograd	1993	
5,	Zrnich Đ., Savić D.	Simulacija procesa unutrašnjeg transporta		MF, Beograd	1997	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Metal Constructions in Machine Building</h2>				
Course id:	M2508					
Number of ECTS:	7					
Teacher:	Zuber F. Ninoslav					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	1	0	0		
Precondition courses		None				
1. Educational goal:						
Acquiring systematic knowledge for understanding designing process, calculation and construction, building and exploitation of machine system support structure.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge are necessary fundamentals for engineering work in designing processes and exploitation of machine system support structure.						
3. Course content/structure:						
Machine construction function. Load source and its impact on construction, load implementation in construction. Materials in construction building. Proof concept of construction bearing capacity (static and dynamic hardness proof, rigidity and stability). Proof of element and construction elastic stability. Elements of skeletal construction theory (lattice-type, frame, skeletal construction with mixed ties, box thin walled carriers). Theory and calculation by matrix methods of analysis, aided by computer. Global and fragment analysis of tension by computer program. Structural forms of construction bearing capacity: means of transportation, building machines and cranes, tanks and cisterns. Construction and dimensioning of construction elements. Joining construction elements (riveted, welded, flexible and bolt connection), construction forming and hardness proof. Designing and construction of machine bearing capacity, designing and development phases; formulation of assignments, structure selection, solution elaboration, project documentation, regulations and procedures of standardized bearing capacity procedure proofs. Synthesis criteria: construction forming and optimization, technology, transport, assembly, dynamic endurance, corrosion resistance and supervision. Light metal construction synthesis, testing and verification of their efficiency. Development.						
4. Teaching methods:						
Lectures, consultations and company visits. Practical classes: numeric (N), laboratory (L), computer (C) and consultations.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Theoretical part of the exam	Yes	50.00
Lecture attendance		Yes	5.00			
Presentation		Yes	10.00			
Project task		Yes	15.00			
Project task		Yes	15.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Brkljač N.	Autorizovana napisana predavanja predmetnog nastavnika		FTN, Novi Sad	1995	
2,	Momirski M.	Elementi teorije skeletnih konstrukcija		FTN, Novi Sad	1982	
3,	Babin N., Brkljač N., Šostakov R.	Metalne konstrukcije		FTN, Novi Sad	2006	
4,	Petković Z.	Metalne konstrukcije u mašingradnji II		Mašinski fakultet Beograd	1996	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Automated Machine Designing</h2>				
Course id:	M2509A					
Number of ECTS:	6					
Teacher:	Vladić M. Jovan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	0	3	0	0		
Precondition courses		None				
1. Educational goal:						
Mastering contemporary methodology of machine designing and devices by integrated computer systems.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge should provide excellent bases for elaboration projects of transport machines and devices and forming of virtual machine prototypes.						
3. Course content/structure:						
Product development. Role and significance of designing. Designing as a creative process. Designing theory. Project types. Project task. Conceptual designing. Methods for forming variant solutions. Methods for selection of optimal variant. Conceptual project. Phases and procedures of construction designing and drafting. Main machine project. Methodology of automated design. Automation of conceptual designing phase. Application of expert systems in designing. Fundamentals of industrial design. Automation of engineering analysis application by CAE programmes. Principles of elements, connections, masses and mobile machine load modelling – preprocessing. Forming of dynamic models and operation simulation of transporting machines (ADAMS). Application of MKE in engineering analysis (softwares for FEM). Determination of tension and dimensioning of elements. Optimization softwares and methods. Integration of software and forming of virtual machine prototypes (Virtual Prototyping). Operation simulation and behaviour of virtual prototype as project solution control. Development of construction documentation. Principles and regulations of technical documentation of main machine project writing.						
4. Teaching methods:						
Lectures are realized through lectures and computer practical classes. During classes students have an opportunity to be exempt from the written part of examination after two partial examination. Prior to the final examination student needs to successfully elaborate two project tasks and one subject project. Final examination is related to theoretical topics.						
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	30.00			
Project task		Yes	15.00			
Project task		Yes	15.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Vladić, J.	Automatizovano projektovanje (skripta)		FTN Novi Sad	2007	
2,	Jovanović, M.	Teorija projektovanja konstrukcija računarom		MF Niš	1994	
3,	Jovanović, M., Jovanović, J.	CAD/FEA praktikum za projektovanje u mašinstvu		MF Niš i MF Podgorica	2000	
4,	Zamani, G.N.	CATIA V5 FEA Tutorials		University of Windsor	2006	
5,	Cozzens, R.	CATIA V5 Workbook		Southern Utah University	2006	
6,	Babin, N., Vladić, J., Brkljač, N., Šostakov, R.	Metalne konstrukcije u mašinstvu		FTN Novi Sad	2012	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Hydraulic Power Transmission in Mechanisation 2</h2>				
Course id:	M2542					
Number of ECTS:	5					
Teacher:	Malešev T. Petar					
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:						
<p>Extending knowledge acquired in subject Hydrotransmitters in Mechanization 1 – acquiring knowledge on regulation of hydrostatic transmission systems, on regulated components of hydrosystems, on synthesis of such systems, on proportional hydraulics and on fundamentals in hydrodynamic transmission components.</p>						
2. Educational outcomes (acquired knowledge):						
<p>Ability to understand operation of regulated hydrostatic transmission systems, introduction to regulators functions and realized solutions for pumps of regulators and engines, ability of correct synthesis of such systems.</p>						
3. Course content/structure:						
<p>Introduction to subject. Two-step hydro engines. Hydro engines with continual regulation of specific volume. Types of pump regulators. Pumps with pressure compensator. Pumps with constant flow regulation. Pumps with constant power regulation. Pumps with constant regulation of specific volume. Pumps with Load-Sensing regulation. Regulator superposition. Proportional hydraulics. Electronic card for controlling proportional hydraulic components. Application of Hydrodynamic clutches. Hydrodynamic torque converters.</p>						
4. Teaching methods:						
<p>Lectures. Auditory, computer and laboratory practical classes. There is a possibility of active student participation in lectures and taking exam partially.</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	50.00
Lecture attendance		Yes	5.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Malešev P.	Hidroprenosnici u mehanizaciji, skripta		FTN-Novı Sad	2010	
2,	Grupa autora	Proportionalhydraulik		REXROTH	2001	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Selected Chapters in the Theory of Elasticity</h2>				
Course id:	M2546					
Number of ECTS:	5					
Teacher:	Novaković N. Branislava					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	1	0	0	1		
Precondition courses		None				
1. Educational goal:						
Students learn to analyze complex problems of machine design methods of the theory of elasticity.						
2. Educational outcomes (acquired knowledge):						
The knowledge acquired will be used by students in specialized subjects for the analysis of various stress conditions and dilatation of the rods and plates.						
3. Course content/structure:						
Stress analysis. Equilibrium equation expressed in terms of stress. Principal stresses. Analysis of deformation. The generalized Hooke's law. Bending. Twisting. Bending and torsion of thin-walled beams. Buckling. Lateral buckling of beams. Stress state of the plate. Plate buckling.						
4. Teaching methods:						
Lectures. Auditory exercises. In lectures, theoretical part of the material accompanied by characteristic examples. Exercises to work on additional tasks that extend the material in class. Consultation.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Homework		Yes	5.00	Written part of the exam - tasks and theory	Yes	40.00
Homework		Yes	5.00		Oral part of the exam	Yes
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	T. Atanacković	Teorija elastičnosti		Fakultet tehnickih nauka	1993	
2,	S. Timošenko, A. D. Gudier	Teorija elastičnosti		Naucna knjiga	1962	



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Table 5.2 Course specification

Course:		Working Strength				
Course id:	M2526					
Number of ECTS:	5					
Teacher:	Šostakov S. Rastislav					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	1	1	0	0		
Precondition courses		None				
1. Educational goal:						
Acquiring fundamental knowledge in the field of dimensioning elements of driving mechanisms and bearing constructions on the basis of working strength, and introduction to technical regulations in this field.						
2. Educational outcomes (acquired knowledge):						
Higher level of designing skills in the field of mobile means of mechanization, driving mechanisms and machine elements exposed to fatigue in general.						
3. Course content/structure:						
Stress characteristics, time-invariable strain, stress concentration, constant temperatures and multiaxial stress state impacts and a strength proof. Mechanical and thermal material fatigue. Time-variable strain with constant amplitude or stress relation, material characteristics, proof of permanent and time-limited fatigue endurance. Experimental and "synthetic" fatigue endurance determination, testing programs and testing equipment. Hypotheses of mechanical and thermal fatigue damages accumulation. Fatigue endurance proof and service life forecasting, influence of multiaxial stress state, concept of nominal stress and hot-spot stress. Review of technical regulations according to application. Probability character of a proof. Specific quality of welded part fatigue. Monitoring the fatigue crack based on the fracture mechanics. Forming the structure components exposed to fatigue.						
4. Teaching methods:						
Lectures. Practical classes: auditory (A), numeric (N), laboratory (L), computer (C). Individual consultation. The final examination consists of elaboration and defence of independent paper and theoretical part (which can be taken through partial examinations).						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Theoretical part of the exam	Yes	40.00
Lecture attendance		Yes	5.00	Practical part of the exam - tasks	Yes	30.00
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	B. Hänel, E. Haibach, T. Seeger, G. Wirthgen, ...	Rechnerischer Festigkeitsnachweis für Maschinenbauteile		VDMA Verlag	1998	
2,	D. Cottin, E. Puls	Angewandte Betriebsfestigkeit		Deutscher Verlag für Grunstoffindustrie, Leipzig	1985	
3,	W.-U. Zammert	Betriebsfestigkeitsberechnung		Fried. Vieweg&Sohn, Braunschweig	1985	
4,	Z. Savić, M. Ognjanović, M. Janković	Osnovi konstruisanja		Naučna knjiga, Beograd	1981	



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Table 5.2 Course specification

Course:		Eurologistics				
Course id:	M2528					
Number of ECTS:	7					
Teacher:	Georgijević S. Milosav					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	2	1	0	0		
Precondition courses						
1. Educational goal: Acquiring knowledge in global goods flow.						
2. Educational outcomes (acquired knowledge): Students acquire knowledge in systematic goods flow in Supply Chain technologies, with the emphasis on European market.						
3. Course content/structure: Globalization, SC – Supply Chain technology and processes from raw materials to final product and buyer, make or buy analysis. Determination of optimal deviation of operation between supplier and buyer, transactional costs. Methods of determination of production capacities on the bases of defined transactional costs. European economic space and goods flow. Infrastructure and distributional procedures. Global – sourcing. Forwarding agencies. Examples of industry, business and services.						
4. Teaching methods: Active students participation. Oral and written testing.						
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
Lecture attendance		Yes	5.00			
Presentation		Yes	10.00			
Project		Yes	50.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	V. Gajić	Logistika preduzeća (skripta)			1999	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Food Processing Machines 1</h2>				
Course id:	M2530					
Number of ECTS:	6					
Teacher:	Malešev T. Petar					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	0		
Precondition courses		None				
1. Educational goal: Acquiring knowledge for designing, maintenance and exploitation of food processing machines.						
2. Educational outcomes (acquired knowledge): Acquired knowledge should enable optimal designing, professional maintenance and exploitation of food processing machines.						
3. Course content/structure: Food processing machines in industry. Significance, requirements, regulation and automation. Constructive solutions for machines for technological operations, driving engine power, capacity and specific characteristics conditioned by characteristics of working materials and technological requirements: machines for washing, cleaning, peeling, grinding, cutting, mills, crushers, squeezers, presses, rollers, fillers, mixers, moulding and dividing machines, collectors, depositors, centrifuges, separators, sifters, filters, drying, curing and slaughtery equipment						
4. Teaching methods: Lectures, auditory and laboratory practical classes with active student participation in lectures and possibility of partial examination during the semester.						
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			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	-	Autorizovana predavanja predmetnog nastavnika		-	-	
2,	Stanišić I.	Tehnološke operacije		Tehnološki fakultet, Novi Sad	1980	


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Table 5.2 Course specification

Course:		Weighing and Dosing				
Course id:	M2531					
Number of ECTS:	6					
Teacher:	Zuber F. Ninoslav					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	0		
Precondition courses		None				
1. Educational goal:						
The objective is introducing students with:- metrological aspect of mass measuring – mass measurement methods with non automatic and automatic operation – technologies and equipment used in the process						
2. Educational outcomes (acquired knowledge):						
Subject outcome enables the following knowledge:- metrological characteristics of measurement systems for mass measurement – methods and technologies used for mass measurement – procedures of automated mass measurement and procedures of process control						
3. Course content/structure:						
Fundamental principles. Experimental analysis, legal metrology. Measurement chain and measurement chain elements. Fundamental characteristics of measurement systems. Statistic characteristics; Calibration; Accuracy class; Dynamic characteristics; Transmission function of measurement system; Mechanical values measurement; Measurement methods; Mass and process values measurement; Mass and mass flow measurement; Industrial weighing and dosing; Mass and volume flow measurement; Level measurement; Temperature measurement; Industrial measurement, Industrial measurement characteristics; Protection; ?x-environment; "Intelligent" sensors, connecting sensors into networks, digital communication of measruement and controlling systems; practical application of mass sensors in process industry; scale bunker construction, general guidelines, sequence and continual dosing; weighing examples, dosing, dosing model operation, dosing systems -??D/FI? electronics for dynamic weigning; control scale model operation.						
4. Teaching methods:						
Lectures. Auditory and laboratory practical classes.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Project		Yes	30.00	Oral part of the exam	Yes	50.00
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Ličen H.	Metode ispitivanja mašina, skripta			1998	
2,	Doebelin E.	Measurement systems		Mcgraw hill	1976	
3,	Piersol A., Bendat J.	Random data		Mcgraw hill	1982	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Logistic Processes Management</h2>			
Course id:	M2535				
Number of ECTS:	5				
Teacher:	Georgijević S. Milosav				
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					
1. Educational goal:					
Objective is to expand general systematic knowledge for managing material flow from raw materials to recycling necessary for designing.					
2. Educational outcomes (acquired knowledge):					
Students should acquire knowledge and first experience how to relate the idea of construction or product with consideration of material flow and process management which include planning of the whole logistic chain from the design and production to distribution and recycling.					
3. Course content/structure:					
Forms of management in logistics, logistics as an extended form of local management, short-term and strategic management in a company. Project defining, product life cycle, concepts of project and resource management, monitoring and control – managing project realization, planning and managing logistic systems in a company, planning and managing global goods and material flow, SWOT analysis, supply chains, VDI suggestions for logistic processes management. Supply Chain Management, logistic controlling, Internet der Dinge. Availability and tools for system evaluation, role of simulations. Examples of companies worldwide.					
4. Teaching methods:					
Active participation of students. Knowledge testing during lectures and oral and written part of the examination.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Exercise attendance		Yes	5.00	Theoretical part of the exam	
Lecture attendance		Yes	5.00		
Presentation		Yes	10.00		
Project		Yes	50.00		
Literature					
Ord.	Author	Title		Publisher	Year
1,	Martin X.	Planiranje logističkih sistema		Mašinski fakultet Niš	2004
2,	Barac N, Milovanović G.	Menadžment poslovne logistike		Ekonomski fakultet Niš	2003
3,	Juenemann R, Beyer A.	Steuerung von Materialfluss-und Logistiksystemen		Springer, Berlin	1998



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Table 5.2 Course specification

Course:		Packaging Machines				
Course id:	M2532					
Number of ECTS:	6					
Teachers:	Malešev T. Petar, Vladić M. Jovan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	1	0	0		
Precondition courses		None				
1. Educational goal: Acquiring knowledge in designing, maintenance and exploitation of packaging machines.						
2. Educational outcomes (acquired knowledge): Acquired knowledge should enable optimal designing, professional maintenance and exploitation of packaging machines.						
3. Course content/structure: Introduction. Systems for transport and packaging in food processing industry. Packaging materials. Machines for individual packaging. Machines for transportation packaging. Machines and devices for dosing and measurement. Special machines and devices for packaging. Transport lines for sorting. Automated lines for packaging small grain materials. Lines for filling bottles. Automation for systems for transport and packaging.						
4. Teaching methods: Lectures. Auditory and laboratory classes.						
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
Lecture attendance		Yes	5.00			
Presentation		Yes	10.00			
Project		Yes	50.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Vladić J.	Mašine za pakovanje, skripta		FTN, Novi Sad	2003	
2,	Vladić J.	Neprekidni i automatizovani transport I deo (skripta)		FTN, Novi Sad	1999	
3,	Vladić J.	Neprekidni i automatizovani transport II deo (skripta)		FTN, Novi Sad	1999	



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Table 5.2 Course specification

Course:		Tractors				
Course id:	M2651					
Number of ECTS:	5					
Teachers:	Veselinov V. Branislav, Martinov L. Milan					
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: Acquiring knowledge on tractors as complex engineering systems, their choice and utilization.						
2. Educational outcomes (acquired knowledge): Knowledge on contemporary concept, designing and tractor utilization.						
3. Course content/structure: Tractor history, tractor as a vehicle and operation machine, tractor classification, purpose. Tractor construction concept and review of functional units. Tractor engine characteristics. Tractor transmission composition, transmission parts characteristics, driving bridge, power distribution. Tractor movement over soft surfaces, driving. Tractor pneumatic tires. Control and breaking systems. Tractor ergonomics, noise, vibrations, micro climate, tractor stability and safety. Machine connecting to tractor – requirements and setting. Tractor PTO and hydraulic tractor systems and specific characteristics. Tractor evaluation from the point of view of application efficiency, environment protection. Tractor safety, tractor control. Contemporary electronics on tractor.						
4. Teaching methods: Auditory classes and agricultural companies.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Final exam - part one	Yes	30.00
Lecture attendance		Yes	5.00	Final exam - part two	Yes	40.00
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Časnji F.	Traktori			2006	
2,	Martinov M. i ostali	Moj traktor		Res trade, Novi Sad	2007	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Power and Motion Transmission in Agricultural Machinery</h2>			
Course id:	M2653				
Number of ECTS:	7				
Teacher:	Čavić M. Maja				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
3	2	1	0	0	
Precondition courses		None			
1. Educational goal:					
<p>Improve students' knowledge in the field of analysis and synthesis of mechanisms of agricultural machinery, further improved techniques mastered by implementing optimization procedures. The acquisition of knowledge in the field of power transmission and motion specific to the design of agricultural machinery.</p>					
2. Educational outcomes (acquired knowledge):					
<p>Qualification for quality selection and implementation of appropriate procedures for analysis and synthesis and optimization methods in the design of mechanisms for agricultural machinery. Preparedness for applying modern methods of power transmission and motion in the design of agricultural machinery.</p>					
3. Course content/structure:					
<p>Analysis of the complex plane and spatial mechanisms in agricultural machines, Synthesis of complex mechanisms of agricultural machinery, Optimal synthesis of mechanisms of agricultural machinery (Formulation of optimization problem in the field TMiM, Defining the objective function and constraints), Special mechanisms in agricultural machines, Mechanisms with elastic members, Dynamic of mechanisms of agricultural machinery (Problem formulation, Analysis of the load, Establishment of a model of machine), Procedures for solving problems in the field of machine dynamics.</p>					
4. Teaching methods:					
Teaching forms: lectures, graphic and computer practical classes, consultations.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Project		Yes	30.00	Oral part of the exam	Mandatory
				Practical part of the exam - tasks	Points
				Yes	30.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	Zlokolica M., Čavić M., Kostić M.	Mehanika mašina		FTN, Novi Sad	2005
2,	Zlokolica M., Cvetičanin L.	Prenos snage i kretanja		FTN, Novi Sad	1989
3,	Chironis N.P., Sclater N.	Mechanisms and Mechanical Devices Sourcebook		McGraw Hill	2001
4,	Gligorić R.	Mehanizmi poljoprivrednih mašina		Poljoprivredni fakultet, Novi Sad	2006
5,	Martinov M., Marković D.	Mašine i oruđa za obradu zemljišta		FTN, Novi Sad	2002



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Specific Machine Elements of Agricultural Machinery</h2>											
Course id:	M2654												
Number of ECTS:	5												
Teacher:	Kuzmanović B. Siniša												
Course status:	Elective												
Number of active teaching classes (weekly)													
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:									
2	1	1	0	0									
Precondition courses		None											
1. Educational goal:													
Introducing students to the specific machine elements in agricultural machinery. Training for self-construction of mechanical components and systems on agricultural machinery.													
2. Educational outcomes (acquired knowledge):													
The acquired knowledge will be practically applied in the field.													
3. Course content/structure:													
Introduction to the special structural elements of agricultural machinery. Riveted joints. Welds. Pressed compounds. Gimbal shaft. Pins. Special bearings for agricultural machinery. Special coupling for agricultural machinery. Special springs for agricultural machinery. Special coupling for agricultural machinery.													
4. Teaching methods:													
Lectures, practical, graphic and computational exercises and workshops. Parts of the material that make logical sections shall be in the form of two tests, writing assignments and theory. Colloquia are part of it, but the theory is calculated as the oral and written tasks such. If a student does not pass through the tests exam, then the exam is to just those who did not pass the preliminary exams during classes. Rating exam is based on attendance of lectures and exercises, reviews of graphic work and success in tests and exams.													
Knowledge evaluation (maximum 100 points)													
Pre-examination obligations		Mandatory	Points	Final exam									
Exercise attendance		Yes	5.00	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="background-color: #e0e0ff;">Theoretical part of the exam</td> <td style="background-color: #e0e0ff;">Mandatory</td> <td style="background-color: #e0e0ff;">Points</td> </tr> <tr> <td colspan="2"></td> <td>Yes</td> <td>30.00</td> </tr> </table>		Theoretical part of the exam		Mandatory	Points			Yes	30.00
Theoretical part of the exam		Mandatory	Points										
		Yes	30.00										
Graphic paper		Yes	20.00										
Homework		Yes	10.00										
Lecture attendance		Yes	5.00										
Test		Yes	10.00										
Test		Yes	10.00										
Test		Yes	10.00										
Literature													
Ord.	Author	Title		Publisher	Year								
1,	S. Kuzmanović	Konstruisanje, oblikovanje i dizajn		FTN Novi Sad	2006								
2,	S. Kuzmanović	Mašinski elementi - oblikovanje, proračun i primena		FTN Novi Sad	2012								
3,	M. Ognjanović	Razvoj i dizajn mašina		Mašinski fakultet u Beogradu	2007								



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Simulation and design of IC engines</h2>				
Course id:	M2514					
Number of ECTS:	6					
Teacher:	Dorić Ž. Jovan					
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:						
Acquiring fundamental theoretical and practical knowledge in the field of simulations and design IC engines						
2. Educational outcomes (acquired knowledge):						
Ability to utilize acquired knowledge and skills, to solve specific non-routine problems and to understand new tendencies in design and simulations of IC engines.						
3. Course content/structure:						
Kinematics of crank gear: placement, velocity and acceleration. Dynamics of engine: forces analysis, total and mean tangential force. Forces on crankshaft journals and bearings. Load diagrams. Non-uniformity of engine torque. Excess of work. Balancing of engine. General principles and stages of IC engine design. Flywheel calculation. Piston assembly calculation: piston, piston rings and piston pin. Calculation of in-line engine connecting rod. Calculation of crankshaft: bearings, journals and webs. Software tools application in simulation and analysis of dynamic behavior of crank gear elements.						
4. Teaching methods:						
Classes are held in the form of lectures, laboratory practice and computer exercises in specialized computer classroom. Office-hours are also provided.						
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
Graphic paper		Yes	20.00			
Graphic paper		Yes	20.00			
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Miodrag Živković	Motori sa unutrašnjim sagorevanjem, II deo		Mašinski fakultet, Beograd	1990	
2,	Tripo Torović, Miodrag Bejatović	Poznavanje motornih vozila, I deo		Morava komerc, Beograd	2002	
3,	Richard van Basshuysen, Fred Schaeffer	Internal combustion engines, Basics, Components, Systems, Perspectives		SAE international	2004	
4,	Nebojša Nikolić	Materijal sa predavanja i vežbi			2012	



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Table 5.2 Course specification

Course:		Motor Vehicle Simulation and Modelling				
Course id:	M2515					
Number of ECTS:	5					
Teacher:	Časnji F. Ferenc					
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: Acquiring fundamental theoretical and practical knowledge in the field of simulation and motor vehicle modelling.						
2. Educational outcomes (acquired knowledge): Enabling for utilization of acquired knowledge and skills in independent or team work, as well as ability for further advancement in the field of simulation and motor vehicle modelling.						
3. Course content/structure: Definitions and basic concepts. Types of vehicle models. Full-vehicle models. Tyre models. Software simulation of the dynamic behavior of the vehicle - the analysis the effects of the vehicle inertial and design parameters (mass, moment of inertia, center of gravity position and stiffness, damping and kinematics of suspension system) in the vertical, longitudinal and lateral dynamics of the vehicle during maneuvers and the characteristic modes of motion (crossing road bumps, acceleration / braking, turning, the standard tests - lane change and Fishhook "J" maneuvers). Kinematic and dynamic modeling of mechanical vehicle subassemblies (suspension, steering, transmission) using the multi-body software MSC Adams.						
4. Teaching methods: Lectures, computer classes, consultations.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam		
Computer exercise attendance		Yes	5.00	Oral part of the exam	Mandatory	Points
Lecture attendance		Yes	5.00		Yes	30.00
Term paper		Yes	20.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Poznanović N., Stojić B.	Simulacije i modeliranje motornih vozila, skripta		FTN, Novi Sad,	2010	
2,	Gillespie T.D.	Fundamentals of Vehicle Dynamics		SAE	1992	
3,	Michael Blundell, Damian Harty	Multibody Systems Approach to Vehicle Dynamics		Elsevier Butterworth-Heinemann, Oxford	2004	
4,	***	MSC/ADAMS User manual		Mechanical Dynamics	2012	
5,	***	CarSim Educational - User Reference Manual		UMTRI / Mechanical Simulation Corp.	2000	
6,	***	CarSim Educational - User Reference Manual		UMTRI / Mechanical Simulation Corp.	2000	
7,	***	SRPS/ISO standardi, oblast dinamika vozila		***	2012	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Hybrid and electric vehicles</h2>				
Course id:	M2551					
Number of ECTS:	6					
Teacher:	Grabić U. Stevan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	0		
Precondition courses		None				
1. Educational goal:						
<p>The goal of the course is to provide the knowledge base in the field of hybrid vehicles and electric vehicles. It includes short history of development in this area, state-of-the-art and trends of future development.</p>						
2. Educational outcomes (acquired knowledge):						
<p>Attendees of the course will become familiar with the main topologies of hybrid and electric vehicles, with the principals of operation of the mechanical and electrical drive train and the role that each basic part has inside them. Laboratory exercises provide practical knowledge of measuring techniques, measurement equipment and measurement praxis required to test the response of system's basic parts.</p>						
3. Course content/structure:						
<p>Basics of power electronics, electric machines, and motor drives. Hybrid and electric vehicle drive train architecture analysis and design methodologies. Interaction between internal combustion engine and electric drive train in hybrid vehicles. Energy storage systems and their management. Regenerative braking. Fuel cell applications in vehicles. Control principles of hybrid and electric vehicle drive trains. Case study of hybrid system - Toyota Prius. Case studies of electric vehicle systems. Trends of future development.</p>						
4. Teaching methods:						
<p>The course is thought in the form of lectures, audio exercises and laboratory exercises. Lecturers cover following issues: basic topologies of hybrid and electric vehicles drive trains, requirements that they need to meet, operating principles of basic parts and interaction between them. Lectures include overview of historical development and trends of future development of these issues. Auditory exercises include: 1. solving calculation examples that help attendee to understand operation of the electrical and mechanical systems, 2. calculation of the essential system parameters, 3. determine mutual interaction of different units and subsystems. Laboratory exercises are held in the laboratory equipped with appropriate demo setups and testbeds of vehicle installations' systems, measurement equipment and computers. By using this equipment attendees gain direct insight into the operation principles of different system parts and system as a whole and obtain practical experience.</p>						
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	50.00
Laboratory exercise defence		Yes	40.00			
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Mehrdad Ehsani, Yimin Gao, Ali Emadi	Modern Electric, Hybrid Electric, and Fuel Cell Vehicles: Fundamentals, Theory, and Design, Second Edition		CRC Press	2009	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Selected Chapters of IC Engines and Motor Vehicles</h2>				
Course id:	M2553					
Number of ECTS:	7					
Teacher:	Dorić Ž. Jovan					
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:						
Increasing knowledge in the field of environmental aspects of IC engines and motor vehicles, the use of alternative fuels and norms in the area of motor vehicles.						
2. Educational outcomes (acquired knowledge):						
Capacity for independent and creative use of the acquired knowledge and skills to solve complex and non-routine problems and understanding of new trends in the development of engines and vehicles.						
3. Course content/structure:						
<p>Ecological aspects of motor vehicle emissions of internal combustion engines, toxic components of exhaust gases of internal combustion: hydrocarbons, carbon monoxide, carbon dioxide, nitrogen oxides and particulate matter, the use of catalytic converters in the exhaust system of motor vehicles, features of the new European test cycle for motor vehicle engine emissions test methods, the noise of motor vehicles, the life cycle of motor vehicles, motor vehicle recycling, alternative power sources, alternative fuels for motor vehicles: CNG, LPG??, methanol, ethanol, biofuels and hydrogen, power systems for compressed natural gas engine systems, engine power liquefied petroleum gas engines, reduction of toxic components using alternative fuels.</p> <p>Norms in the field of motor vehicles. International and national standards in the field of vehicles. Uniform Technical Prescriptions for Vehicles.</p>						
4. Teaching methods:						
Lecture. Mentoring. The research study work.						
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
Lecture attendance		Yes	5.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Dušan Gruden	Traffic and Environment		Springer	2001	
2,	Ivan Klinar	Motori sa unutrašnjim sagorevanjem		Fakultet tehničkih nauka	2008	
3,	Patterson DJ, Henein NA	Emissions from Combustion Engines and Their Control		Ann Arbor, Michigan	1974	
4,	Guibet JC	Fuels and Engines		Edition Technics Paris	1997	
5,	UN	UNECE regulative		UNECE	2012	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Maintenance of Agricultural Machinery</h2>				
Course id:	M2655					
Number of ECTS:	5					
Teacher:	Navalušić V. Slobodan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	1	1	0	0		
Precondition courses		None				
<p>1. Educational goal:</p> <p>Training the students to design the system of maintenance of agricultural machinery. Introduction to the process of defining the maintenance systems in all important elements and details, especially from the point of conception, organization and technology.</p>						
<p>2. Educational outcomes (acquired knowledge):</p> <p>Acquired knowledge is used in profession, individual work, as well as in further educational process.</p>						
<p>3. Course content/structure:</p> <p>Science maintenance. The goals of maintenance. Maintenance methodologies. Design of the maintenance systems. Conception and maintenance technology. Modes of failure of technical systems. Measure the performance of the technical system. Corrective and preventive maintenance. Intelligent maintenance. Automation of maintenance. Reengineering of the maintenance process. Maintenance costs. Training programs for maintenance.</p>						
<p>4. Teaching methods:</p> <p>Lectures, auditory and laboratory exercises.</p>						
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			
Project task		Yes	15.00			
Project task		Yes	15.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Ž. Adamović	Tehnologija održavanja		Univerzitet u Novom Sadu	1996	
2,	Ž. Adamović, Z. Sajfert	Reinženjering		Tehnički fakultet "Mihajlo Pupin", Zrenjanin	2004	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Equipment of IC engines and motor vehicles</h2>				
Course id:	M2547					
Number of ECTS:	7					
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 expended theoretical and practical knowledge in the field of functionality and construction of IC engines and vehicles.						
2. Educational outcomes (acquired knowledge):						
Ability to independently and creatively use acquired knowledge and skills to consider and solve new problems, as well as interdisciplinary approach to the problems in the field of functionality and construction of IC engines and vehicles.						
3. Course content/structure:						
Alternative fuel systems for SI and CI engines with liquid and gaseous fuels. Design and construction of fuel system in SI and CI engines. Phenomena and processes in the injection system and the calculation of certain elements of the system. Characteristics and influential factors in the operation of the ignition system. Regulators of engine speed with direct and indirect effects. Structural elements of the regulator. Characteristics of the data controller and the regulation process. Engine lubrication systems: structural elements and design. Engine cooling system: structural elements and construction. Automatic control of engine temperature. Engine start system.						
4. Teaching methods:						
Oral presentation in lectures accompanied with appropriate images, diagrams and schemes projected aided by PC computers. Auditory practical classes and laboratory practical classes in testing tables for IC engines testing with appropriate laboratory equipment.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Laboratory exercise attendance		Yes	5.00	Oral part of the exam	Yes	70.00
Lecture attendance		Yes	5.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Klinar I	Oprema motora SUS		Fakultet tehničkih nauka	1995	
2,	Klinar I	Sistemi napajanja gorivom motora SUS		Fakultet tehničkih nauka	1991	



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Table 5.2 Course specification

Course:		Diagnostics and maintenance of IC engines and vehicles			
Course id:	M2548				
Number of ECTS:	6				
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	0	2	0	0	
Precondition courses		None			
1. Educational goal:					
Acquiring of extended knowledge and skills in the field of diagnostics and maintenance of IC engines					
2. Educational outcomes (acquired knowledge):					
Ability for independent and creative using of knowledge and skills, solving specific and non routine problems in the processes of IC Engines and motor vehicles diagnostics and maintenance.					
3. Course content/structure:					
Causes of malfunctions. Maintenance system: organization, conception and maintenance technologies. Maintenance system characteristics: availability, readiness and maintainability. Diagnostics: importance and definition of diagnostics; structure and diagnostics parameters and symptoms; diagnostics methods. Problems of spare parts supply. Organization of service and repair workshops: type, size and location of workshop; type of technology processes. Economic aspects of exploitation, maintenance and repair. Wear and other forms of IC engine parts damage and their restoration: piston-cylinder assembly, valves, gears, plain and roller bearings. Periodic and non-periodic intervention in the transmission, brake system, steering system, suspension system and other vital elements of the vehicle.					
4. Teaching methods:					
Lectures, exercises, laboratory exercises, office hours					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Laboratory exercise attendance		Yes	5.00	Oral part of the exam	
Lecture attendance		Yes	5.00		
Test		Yes	10.00		
Test		Yes	10.00		
		Mandatory		Yes	70.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	Klinar Ivan	Tehnička eksploatacija mašina		Fakultet tehničkih nauka	2008



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Table 5.2 Course specification

Course:		ROAD TRAFFIC FORENSIC ENGINEERING				
Course id:	M2549					
Number of ECTS:	5					
Teachers:	Časnji F. Ferenc, Papić M. Zoran					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	0	2	0	1		
Precondition courses		None				
1. Educational goal:						
Acquiring basic theoretical and practical knowledge in the field of road traffic forensic engineering. Mastering the procedures and methods of forensic engineering.						
2. Educational outcomes (acquired knowledge):						
Training students in the application of engineering knowledge to study adverse events in the road transportation. Mastering the technique of test traces relevant for the analysis of traffic accidents and other adverse events in traffic. Training in the use of modern technical equipment and laboratory investigations in road vehicles forensic engineering.						
3. Course content/structure:						
Forensic Engineering: Role, importance, definitions, applications. Expertise - roles, types, procedures, content and form of reports, legal framework. Traffic accidents: definition and classification. Gathering facts and evidence: an investigation, forensic documentation, trace analysis, photogrammetry, measuring instruments and equipment. Analysis and reconstruction of traffic accidents: the basis of impact mechanics, time-space reconstruction of traffic accidents. Computer software for analysis and reconstruction of traffic accidents. Expertise of the vehicles involved in accidents: vehicle inspection, causal analysis of the state of the vehicle systems in the context of vehicle accidents. The analysis of tachograph records. Damage assessment. Expertise in disputes over faults and failures of the vehicles. Identification and authentication of the vehicle data.						
4. Teaching methods:						
Lectures, auditory and laboratory classes.						
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			
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Kostić, S	Tehnike bezbednosti i kontrole saobraćaja		FTN, Novi Sad	2005	
2,	Kostić, S.	Ekspertize saobraćajnih nezgoda		FTN, Novi Sad	2009	
3,	Lipovac, K.	Uviđaji saobraćajnih nezgoda-Fotografisanje		VŠUP, Zemun	2001	
4,	Rotim, F., Peran, Z.	Forenzika prometnih nesreća		Hrvatsko znanstveno društvo za promet	2011	
5,	Rotim, F.	Elementi sigurnosti cestovnog prometa-kinetika vozila		Znanstveni savjet za promet, JAZU, Zagreb	1990	
6,	Rotim, F	Elementi sigurnosti cestovnog prometa - Sudari vozila		Znanstveni savjet za promet, HAZU, Zagreb	1991	
7,	Van Kirk, D.	Vehicular accident investigation and reconstruction		CRC Press, Boca Raton, Florida, USA	2001	
8,	Robar, N., Ruotolo, G.	Advanced traffic accident investigation		Institute of Police Technology and Management, Jacksonville, Florida, USA	1998	
9,	Šotra, D.	Štetni događaji u saobraćaju		AMS Osiguranje, Beograd	2010	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">IT in Biosystems</h2>				
Course id:	H2405					
Number of ECTS:	6					
Teachers:	Martinov L. Milan, Veselinov V. Branislav					
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:						
To acquire knowledge on sense and needs for locationally specific agriculture.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge on locationally specific agriculture, procedures, machines and equipment.						
3. Course content/structure:						
<p>Subject introduction, introduction to subject schedule and students assignments. Fundamental principles of locational specific agricultural production. Defining of ecological, economical and ethical principles of precise agricultural production. Identification of location specific resources and needs. Procedures for defining local resources and needs. Identification of state and quality of the land and other resources. Locating processes of resources and objects, GPS and DGPS, satellite system, precision. GIS and planning procedures for implementation of precise agricultural production. Integral principles of precise agricultural production. Web sites in the field of Precision Farming.</p>						
4. Teaching methods:						
Auditory classes, Power Point Presentation						
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			
Project		Yes	40.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Anonim	Yearbook Agricultural Engineering		KTBL, LAV, VDI-MEG	2007	
2,	Eichhorn, H.	Landtechnik		Verlag Eugen Ulmer, Stuttgart	1999	
3,	Auernhammer, H.	Elektronik in Traktoren und Maschinen		Verlagsunion Agrar, Münch., Wien, Zürich	1991	
4,	Timmerman G.J., Kamp P.G.H.	Computerised Environmental Control in Greenhouses		PCT, Holandija	2003	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Automatic Control Systems in Motor Vehicles</h2>				
Course id:	M2550					
Number of ECTS:	5					
Teacher:	Kulić J. Filip					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	1	1	0	1		
Precondition courses		None				
1. Educational goal:						
Introducing students to contemporary control concepts and systems applied to motor vehicles.						
2. Educational outcomes (acquired knowledge):						
Students will be able to understand the way of operation of modern control systems applied to motor vehicles. Doing so, they will be able to participate in the design, implementation and maintenance of control systems in motor vehicles.						
3. Course content/structure:						
SAU components in motor vehicles: sensors, actuators, microprocessor-based control units (CPUs), detection and treatment in case of occurrence of failures (failures); Connecting SAU components in vehicles and their communication, communication protocols (CAN-bus); Examples of practical realization of automatic control systems in vehicles: Antilock Brake System (ABS), electronic stabilization of vehicles, detection of errors (failures, errors) and security concepts; electrohydraulic and electromechanical braking systems, vehicle control systems (direction), an integrated system of a vehicle control; Advanced and distributed functions: control lights and wipers, automatic speed control, automatic start-stop engine function, electronic parking brake, brake energy recuperation.						
4. Teaching methods:						
Lectures; Computing (N), Laboratory (L), Computer (C) and Computer-Laboratory (CL) Practice; Consultations. Part of the course which represents a logical whole can be passed in the form of colloquium. Colloquium and the examination are oral and written. Colloquium and the written part of the examination are taken in the written form, while oral part of the examination is oral. Course grade is formed based on the success in Colloquium, computer-laboratory practice and written and oral part of the examination.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Test		Yes	10.00	Theoretical part of the exam	Yes	20.00
Test		Yes	10.00	Practical part of the exam - tasks	Yes	50.00
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Toralf Trautmann	Grundlagen der Fahrzeugmechatronic		Vieweg+Teubner	2009	
2,	N.Jorgovanović; F.Kulić	Skripte za predmet Automatsko upravljanje motornim vozilima		FTN	2012	


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Table 5.2 Course specification

Course:		Studijski istraživački rad na teorijskim osnovama - master rada			
Course id:	SIM22				
Number of ECTS:	11				
Teachers:					
Course status:		Mandatory			
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
0	0	0	11	0	
Precondition courses		None			
1. Educational goal:					
<p>Providing a student with basic knowledge, inevitable for self-reliant research activities in the chosen field and completion of his final master-work, by deepening previous accomplishments in the field of his final master-work. Apart from theoretical, also acquiring proficiency in knowledge and skills needed for completion of preparatory and concluding activities during the final master-work carrying through, like: getting an insight into the broader relevant literature, reviewing and analyzing it and forming corresponding excerpts and conclusions, interpretation and verification of experimental data and associating of obtained results with previously acquired knowledge in the chosen field, etc.</p>					
2. Educational outcomes (acquired knowledge):					
<p>Obtaining a fully formed student, capable of starting research work, from choosing the treated scientific field, through reviewing previous knowledge and performing research work, to verification of obtained results, completing scientific papers and their presentation to the competent public.</p>					
3. Course content/structure:					
<p>Defining the necessary additional knowledge/skills/tutorials/experiments etc, for completion of final master-work. If necessary, getting an insight into the supplementary literature. Acquisition/production/obtaining of equipment needed for experimental work. Tutorials with corresponding teaching staff. Visits to corresponding institutions/business organizations. Preparing and completing the final master work, correcting and improving it, completion of material for master-work public presentation. Production and publishing papers obtained on the basis of final master-work and knowledge gained during its completion.</p>					
4. Teaching methods:					
<p>Self-reliant theoretical work, tutorials, experimental research, contacts and visits to corresponding institutions/business organizations, completion of periodical reports on the finalized parts-integrated entireties of final master-work, etc.</p>					
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:		Master Thesis				
Course id:	M23MR					
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:						
1. Master thesis objectives: 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 development of individual ability to prepare acquired results of independent work in an appropriate form to be publicly presented and to answer questions related to the topic.						
2. Educational outcomes (acquired knowledge): 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. 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.						
3. Course content/structure: 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.						
4. Teaching methods: 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.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Writing the master thesis		Yes	50.00	Master thesis defence	Yes	50.00



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Table 5.2 Course specification

Course:		Vibrodiagnostics				
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 (ω), middle (ω) and high frequencies (ω); 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	Mandatory	Points
Project		Yes	30.00	Oral part of the exam	Yes	50.00
Term paper		Yes	20.00			
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:		<h2 style="margin: 0;">Occupational Safety and Protection in Operation with Machinery</h2>			
Course id:	M2541				
Number of ECTS:	6				
Teachers:	Oros V. Đura, Šostakov S. Rastislav				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
3	1	1	0	1	
Precondition courses		None			
1. Educational goal:					
Acquiring knowledge in the field of occupational safety and health in mechanization operation.					
2. Educational outcomes (acquired knowledge):					
Practical ability for conducting jobs for occupational safety and health in mechanization operation.					
3. Course content/structure:					
Introducing students to problems, scientific work and obligations. Fundamental equipment characteristics. Specific danger in mechanization operation. Constructive safety measures. Safety measures in exploitation (application in accordance with purpose, handling and maintenance). Job organization characteristics in measure enforcement in job safety. Prevention and periodic testing implementation. Operation instructions and equipment documentation. Specific legal regulations. Specific procedure in the case of equipment failure.					
4. Teaching methods:					
Lectures, auditory practical classes and consultations. Lectures are realized through presentations followed by slides and topic video materials as well as auditory practical classes with active student participation. Practical classes are based on numerous practical examples. Student visits to companies for data collection are planned. Apart from lectures and practical classes, consultation are held regularly. Prerequisites include project elaboration and presentation and two tests. The final test is oral.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
		Mandatory	Points		
Laboratory exercise attendance		Yes	5.00	Final exam - part one	
Lecture attendance		Yes	5.00	Final exam - part two	
Test		Yes	10.00	Practical part of the exam - tasks	
Test		Yes	10.00		
Literature					
Ord.	Author	Title		Publisher	Year
1,	Kosić S.	Pravilnik o merama i normativima zaštite na radu na oruđima za rad – sa komentarom		NIMP Zaštita rada, Beograd	1991
2,	Blagojević D, Purić Lj.	Metodologije, aparati, instrumenti i uređaji za merenja i ispitivanja iz zaštite na radu		Jugoslovenski zavod za produktivnost rada i informacione sisteme	1984
3,	Dević M.	Pregledi i ispitivanja strojeva i uređaja		CIP, Zagreb	1985
4,	Šostakov R, Brkljač N.	Priručnik za rukovoce viljuškara		Međunarodna menadžerska akademija, Novi Sad	2007
5,	EES	Direktive u vezi opreme za rad		-	-
6,	SRPS, EN	Propisi, standardi i pravilnici zaštite na radu sa sredstvima mehanizacije		-	-
7,	Šostakov R, Brkljač N, Georgijević M, Vladić J, Živanić D, Malešev P. Oros Dj.	Bezbednost i zaštita na radu sa sredstvima mehanizacije		skripta FTN	2012



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	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Food Processing Machines 2</h2>				
Course id:	M2534					
Number of ECTS:	6					
Teacher:	Malešev T. Petar					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	1		
Precondition courses		None				
1. Educational goal:						
Acquiring knowledge necessary for designing, maintenance and exploitation of food processing machines.						
2. Educational outcomes (acquired knowledge):						
Acquired knowledge should enable optimal designing, professional maintenance and exploitation of food processing machines.						
3. Course content/structure:						
Constructive solutions for machines for technological operations, driving engine power, capacity and specific characteristics conditioned by characteristics of working materials and technological requirements: machines for washing, cleaning, peeling, grinding, cutting, mills, crushers, squeezers, presses, rollers, fillers, mixers, moulding and dividing machines, collectors, depositors, centrifuges, separators, sifters, filters, drying, curing and slaughtery equipment.						
4. Teaching methods:						
Lectures, auditory and laboratory practical classes. Final exam is oral.						
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			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	-	Autorizovana predavanja		-	-	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Industrial design of agricultural machines</h2>				
Course id:	M2656					
Number of ECTS:	4					
Teacher:	Kuzmanović B. Siniša					
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:						
Introduction to students with the design and construction of agricultural machinery. Training for independent construction elements and systems on agricultural machinery.						
2. Educational outcomes (acquired knowledge):						
The acquired knowledge will be practically applied in the field.						
3. Course content/structure:						
<p>The definition of agricultural machinery design. Factors that affect the design of machinery (function, purpose, structure, size, material, weight, ergonomic requirements, health and safety requirements, batch size, delivery time, quality, efficiency, reliability, price, method of manufacture and technologicality, assembly, labeling, testing, preservation, packaging, storage, transport, deconservation, installation, operation, use, service, maintenance, hygiene requirements, maintenance, weather, biological factors, recycling, ecology, special requirements. Defining the shape of the parts to be produced: casting, pressing, stamping, welding, soldering, gluing, riveting, grinding, milling, planing, drilling, grinding, electro, punching, pulling, bending, deep drawing, punching, drawing extruding, rolling, molding sintering, heat-treated components, elements designed for plating and painting. packaging Design. Protection of copyright.</p>						
4. Teaching methods:						
Lectures, practical, graphic and computational exercises and workshops. Parts of the material that make logical sections shall be in the form of two tests, writing assignments and theory. Colloquia are part of it, but the theory is calculated as the oral and written tasks such. If a student does not pass through the tests exam, then the exam is to just those who did not pass the preliminary exams during classes. Rating exam is based on attendance of lectures and exercises, reviews of graphic work and success in tests and exams.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Theoretical part of the exam	Yes	30.00
Graphic paper		Yes	20.00			
Homework		Yes	10.00			
Lecture attendance		Yes	5.00			
Test		Yes	10.00			
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	S. Kuzmanović	Industrijski dizajn		FTN Novi Sad	2012	
2,	S. Kuzmanović	Konstruisanje, oblikovanje i dizajn		FTN Novi Sad	2006	
3,	M. Ognjanović	Razvoj i dizajn mašina		Mašinski fakultet u Beogradu	2007	



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Table 5.2 Course specification

Course:		Methodology of Design				
Course id:	M2511					
Number of ECTS:	4					
Teacher:	Navalušić V. Slobodan					
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 student to independently develop new products through specific phases from defining the project assignment to elaboration of designing documentation.						
2. Educational outcomes (acquired knowledge):						
Acquisition of theoretical basis related to the methodology of new product development, as well as acquisition of practical knowledge obtained through specific exercises on the computer.						
3. Course content/structure:						
Introduction to the course. Methodology of the new product development. Creative process. Process of engineering design. Defining and solving project assignments. Formulating project assignment. The phase of conceptual design. The phase of detail design. The phase of elaboration of designing documentation. Methodology of analysis and development of structures. Methodology of structure quality assurance. Methodology of evaluation of the quality level of the structure – method of evaluation. Methodology of optimization of design – method of multicriteria optimization. Methodology of planning and testing mechanical structures. Methodology of development management. Engineer as a manager. Introduction to engineering economics. Pricing policy for new products. Design, team work and ethics.						
4. Teaching methods:						
Lectures. Computer Practice. Consultations.						
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		
Lecture attendance		Yes	5.00			
Project		Yes	30.00			
Project task		Yes	15.00			
Project task		Yes	15.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	S. Kuzmanović	Metodologija konstruisanja		FTN, Novi Sad	1998	
2,	N. Marjanović	Metode konstruisanja		Mašinski fakultet u Kragujevcu	1999	
3,	R. Eggert	Engineering Design		Prentice Hall	2005	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">IC Engines and Vehicle Testing</h2>				
Course id:	M2519					
Number of ECTS:	6					
Teacher:	Dorić Ž. Jovan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	0	3	0	0		
Precondition courses None						
1. Educational goal:						
Acquireing wide knowledge and skills in the filed of IC Engines and motor vehicles testing.						
2. Educational outcomes (acquired knowledge):						
Ability for independent and creative using of knowledge and skills, solving specific and non routine problems and understanding new tendencies in the process of IC Engines and motor vehicles testing.						
3. Course content/structure:						
<p>General on IC engines testing. Goals and types of IC engines testing. Testing organization and conducting. Report on testing. Review of size and parameters which are tested. Measurement equipment for engines testing: general and specific. Stands for engines testing. Engine breaks: mechanic, air, hydraulic and electric. Diagram of break characteristics. Break testing in terms of operation stability. Certain parameters and engine characteristics recording: power, torque, fuel and lubricant consumption, mechanical losses, content of fumes, characteristic temperatures, oil pressure, etc. Speed characteristics, load characteristics, engine idle speed and other characteristics of engines on the stand. Special procedures in engine testing. General on motor vehicle testing. Goal, type, organization and conduction of vehicle testing. Universal and specific measurement equipment. Internationa and home standards in the field of vehicle testing. Determination of basic vehicle characteristics: dimentions, weight and axle load, barycentar position and vehicle inertia moment. Vehicle operation load testing and their systems. Determination of speed, acceleration, outer resistance and realized power. Vehicle dijagnostics. Vehicle parts testing – safety related parts testing. Agricultural tractors testing.</p>						
4. Teaching methods:						
Lectures, laboratory practical classes (field testing), constructions.						
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	25.00
Lecture attendance		Yes	5.00		Oral part of the exam	Yes
Term paper		Yes	20.00			
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	M. Živković, R. Trifunović	Ispitivanje motora SUS		Mašinski fakultet, Beograd	1987	
2,	Todorović, J	Ispitivanje motornih vozila		Mašinski fakultet, Beograd	1995	
3,	Č. Duboka	Priručnik za laboratorijske vežbe iz ispitivanja motornih vozila		Mašinski fakultet, Beograd	1983	


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Table 5.2 Course specification

Course:		Automotive electrics				
Course id:	M2552					
Number of ECTS:	4					
Teacher:	Grabić U. Stevan					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	1	1	0	0		
Precondition courses		None				
1. Educational goal:						
The goal of the course is to provide the knowledge base in the field of electrical installations applied in vehicles propelled by internal combustion engine. It includes short history of development in this area, state-of-the-art and trends of future development.						
2. Educational outcomes (acquired knowledge):						
Students at the end of the course are familiar with the main topologies of electrical installations in vehicles propelled by internal combustion motors, with the principals of operation of the circuits and the role that each basic part has inside them. Laboratory exercises provide practical knowledge of measuring techniques, measurement equipment and measurement praxis required to test the response of installations' basic parts.						
3. Course content/structure:						
History of development of electrical installations applied in vehicles propelled by internal combustion engines. Basic operating principles of basic parts applied in modern vehicles and demands that they need to fulfill. Interaction between different parts. Calculation of basic parameters of different parts. Installation topologies applied in modern vehicles. Trends of development of electrical installations in future vehicles.						
4. Teaching methods:						
The course is thought in the form of lectures, audio exercises and laboratory exercises. Lecturers cover following issues: basic topologies of electrical installations in vehicles, requirements that they need to meet, operating principles of basic parts and interaction between them. Lectures include overview of historical development and trends of future development of these issues. Auditory exercises include: 1. solving calculation examples that help attendee to understand operation of the electrical system in more details, 2. calculation of the essential system parameters, 3. determine mutual interaction of different units and subsystems. Laboratory exercises are held in the laboratory equipped with appropriate demo setups and testbeds of vehicle installations' systems, measurement equipment and computers. By using this equipment attendees gain direct insight into the operation principles of different system parts and system as a whole and obtain practical experience.						
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	50.00
Laboratory exercise defence		Yes	40.00			
Lecture attendance		Yes	5.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Bosh GmbH	Automotive electrics, Automotive electronics		John Wiley & Sons	2004	



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Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Agricultural machinery for renewable energy sources</h2>				
Course id:	M2652					
Number of ECTS:	6					
Teachers:	Martinov L. Milan, Veselinov V. Branislav					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	1	1	0	1		
Precondition courses						
1. Educational goal:						
The objective of the course is to learn about potentials, production and utilization of renewable energy sources in agriculture and rural areas, as well as machinery used for these purposes.						
2. Educational outcomes (acquired knowledge):						
Acquiring of knowledge and skills on production, harvesting, processing and utilization of renewable energies in agriculture and machinery used for these purposes.						
3. Course content/structure:						
An introduction to the course, acquainting students with responsibilities at work. The energy situation in the world, prospects and problems. Energy inputs in agriculture, the state and perspective. Power saving options in agricultural production and processing. The energy balancing of agricultural production. Basics of economic and energy balancing. Examples of economic and energy balancing. World, EU and national programs in the energy sector, with emphasis on agriculture. Renewable energy, definitions, applications, documentation. Solar energy in agriculture. Solid biomass, production and use in agriculture. Liquid biomass and second-generation biofuels, the importance for agriculture. Burning biomass and biogas. Cogeneration and trigeneration based on biomass. Other forms of renewable energy sources and their applications in agriculture. Renewable energy and rural development. Visit to one of three plants using renewable energy sources.						
4. Teaching methods:						
Oral lectures and exercises, visit of one producer, laboratory exercises						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Final exam - part one	Yes	30.00
Lecture attendance		Yes	5.00	Final exam - part two	Yes	40.00
Term paper		Yes	20.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Martinov M., Đatkov Đ.	Predloške za nastavu		Fakultet tehničkih nauka	2012	

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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 graduate academic studies in Construction Mechanics and Mechanization is comprehensive study programme which offers students latest scientific and professional knowledge in the field.

Since the graduate academic studies in Construction Mechanics and Mechanization includes two study groups based on the transport mechanical engineering, logistics, engines, vehicles and agricultural mechanical engineering. The group division is conditioned by economy requirements in the immediate environment and greater area (Vojvodina). Therefore compatibility of study programme is stated for both of them. Process of coordination of the study programme with international study programmes at relevant international faculties faces difficulties due to the fact that the process of transition to studying in accordance with Bologna declaration is under way or it has not started yet. The most coordinated study programmes is with Fakultet für Maschinenbau TU Stuttgart and Fakultet Maschinenwesen TU Dresden (http://www.tu-dresden.de/die_tu_dresden/fakultaeten/fakultaet_maschinenwesen/studium/studienordnungen_2006). Coordination with programmes of relevant international faculties which transferred to new way of studying is expressed in two groups:

-The graduate academic studies in Construction Mechanics and Mechanization is coordinated with:

1. TU München – Fakultet für Maschinenwesen,
http://mw.tum.de/?Seite=I_Hauptstudium&Extra=Masterstudiengang_Maschinenwesen_4, Modul:
Logistik
Antriebstechnik
Fahrzeugtechnik
Verbrennungsmotoren

2. TU Wien – Fachschaft Maschinenbau,
<http://www.fsmb.at/portal/modules.php?name=News&file=article&sid=58>, Module:
Konstruktion
Transport
Automotive Engineering

3. Technická univerzita v Kosiciach – Strojnícka fakulta,
<http://www.sjf.tuke.sk/studium.php>, Module
Dopravná technika a logistika
Strojné inžinierstvo
Automobilová výroba

4. Brno University of Technology – Faculty of Mechanical Engineering,
http://www.fme.vutbr.cz/studium/ch_obor.html?lang=1&obor=N2335, Module:
Automotive and Material handling Engineering
-Construction, Transport and Agricultural Machinery
-Motor Vehicles and Internal Combustion Engines
-Construction, Transport and Agricultural Machinery

- The graduate academic studies in Construction Mechanics and Mechanization for the study (selective) group Machine Designing, Transport and Logistics is coordinated with:

Delft University of Technology – Mechanical Engineering
http://www.ocp.tudelft.nl/wbmt/fac/Onderw/Docs/Ondwys_e.htm, Modul:
Transportation Engineering – Transport Engineering and Logistics

- The graduate academic studies in Construction Mechanics and Mechanization for the study (selective) group Engines, vehicles and agricultural machine engineering is coordinated and comparable with:

Sveučilište u Zagrebu – Fakultet strojarstva i brodogradnje,
http://www.fsb.hr/?opisi_kolegija,



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Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

Standard 07. Student Enrollment

A higher education institution, 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.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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 Construction Mechanics and Mechanization.

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 exams are defined for each subject individually. Student's advancement during the studying is determined by Regulations for studying at graduate academic studies.

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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:	Časnji F. Ferenc		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 30.01.1971		
Scientific or art field:	Motor Vehicles		
Academic career	Year	Institution	Field
Academic title election:	1996	Faculty of Technical Sciences - Novi Sad	Motor Vehicles
PhD thesis	1985	Faculty of Technical Sciences - Novi Sad	Motor Vehicles
Magister thesis	1977	Faculty of Agriculture - Novi Sad	Motor Vehicles
Bachelor's thesis	1971	Faculty of Mechanical Engineering - Novi Sad	Motor Vehicles

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

	ID	Course name	Study programme name, study type
1.	H2402	Motor Vehicle Mechatronics	(H00) Mechatronics, Undergraduate Academic Studies
2.	M2404A	Motor Vehicles	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M303	Fundamentals of Motor Vehicles	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
4.	M310A	Road Vehicle Theory	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
5.	S0I361	Road Vehicles	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies
6.	ZR403A	Motor vehicles operation safety	(Z01) Safety at Work, Undergraduate Academic Studies
7.	M2515	Motor Vehicle Simulation and Modelling	(M22) Mechanization and Construction Engineering, Master Academic Studies
8.	M2549	ROAD TRAFFIC FORENSIC ENGINEERING	(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.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies

Representative references (minimum 5, not more than 10)

1.	Časnji F: Ergonomski nedostaci poljoprivrednih traktora, Monografija, Fakultet tehničkih nauka, Novi Sad, 1991, str.157.
2.	Časnji F., Ružić D: Pregled ergonomskih karakteristika traktora velike snage, Monografija povodom 30 godina izdavanja časopisa MVM, Kragujevac, 2005. str. 9-19.
3.	Časnji F., Stojić B: Razvoj hibridnih elektro-dizel traktora, Traktori i pogonske mašine, 13 (2008)4, Novi Sad 54-59
4.	Časnji F., Torović T., Muzikravić V: Energetska efikasnost traktora, Monografija, Fakultet tehničkih nauka - Novi Sad, 2009, str. 180
5.	Ružić D., Časnji F.: Thermo Interaction Between a Human Body and Vehicle Cabin, in: Heat transfer Phenomena and applications, ed. Salim N. Kazi, Vol. 1, pp. 295-318, In Tech. Rijeka, 2012.
6.	Časnji F: Smanjenje potrošnje goriva pomoću mehatroničkih sistema u transmisiji traktora, poglavlje u monografiji "Aktuelni pravci razvoja traktora", FTN Novi Sad, 2010, str. 41-57.
7.	Pantelić-Milinković Z., Časnji F., Demić M: Mogućnost snižavanja unutrašnje buke povećanjem akustičke apsorpcije, Zbornik radova međunarodnog naučnog simpozijuma Motorna vozila i motori, Kragujevac, 2004, str. 352-360.
8.	Časnji F., Klinar I., Muzikravić V: Savremene tendencije u automobilske tehnici - mehaničke komponente i elektronski sistemi, DDOR Novi Sad, Novi Sad, 2001.god. str.80
9.	Milidrag S., Časnji F., Muzikravić V., Poznanović N.: Sistemi upravljanja motornih vozila, monografija, Fakultet tehničkih nauka, Novi Sad, 1996, str. 137.
10.	Časnji F., Križnar M., Milidrag S.: Stanje i pravci razvoja motornih vozila i traktora, monografija naučne konferencije sa međunarodnim učešćem „Mašinstvo za XXI vek“, Novi Sad, 1995, str. 469-484.

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

Quotation total :	38		
Total of SCI(SSCI) list papers :	0		
Current projects :	Domestic :	0	International : 0



Science, arts and professional qualifications

Name and last name:		Čavić M. Maja	
Academic title:		Assistant Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 03.11.1988	
Scientific or art field:		Machine Elements, Construction Principles, Machine and Mechanizm	
Academic carieer	Year	Institution	Field
Academic title election:	2012		Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
PhD thesis	2012	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Magister thesis	1994	Faculty of Mechanical Engineering - Beograd	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Bachelor's thesis	1987	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication

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

	ID	Course name	Study programme name, study type
1.	H306	Machine Mechanics	(H00) Mechatronics, Undergraduate Academic Studies
2.	M208	Theory of Mechanisms and Machines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
3.	M2409	Power and Motion Transmission	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
4.	M2410	Mechanism Synthesis	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
5.	M2525	Mechanisms	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
6.	S012	Descriptive Geometry and Engineering Drawing	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
7.	H570	Mechanisms in Mechatronics	(H00) Mechatronics, Master Academic Studies
8.	M2653	Power and Motion Transmission in Agricultural Machinery	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
10.	DM215	Seelcted Chapters in Machine and Mechanisms Theory	(M00) Mechanical Engineering, Doctoral Academic Studies
11.	DM409	Selected Chapter in Power and Motion Transmission	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Zlokolica M., Čavić M., Kostić M.: ABOUT THE TOOL'S MOTION IN THE POLYGONAL HOLES DRILLING APPLYING CENTRODES, Manufacturing Intelligent Design and Optimization Processes, Journal of Machine Engineering, Vol 7, No 2, 2007, pp 41-50, Editorial Institution of Wroclav Board of Scientific Technical Societies Federation NOT, Wroclaw, Poland, 2007, ISSN 1895-7595
2.	Sorli, M., Ferraresi, C., Kolarski (Cavic), M., Borovac, B., Vukobratović, M.: Mechanics of turin parallel robot, Mechanism and Machine Theory, 1997, Vol. 32, No. 1, pp. 51-77, ISSN: 0094-114X.
3.	Kolarski (Cavic), M., Vukobratović, M., Borovac, B.: Dynamic analysis of balanced robot mechanisms, Mechanism and Machine Theory, 1994, Vol. 29, No. 3, pp. 427-454, ISSN: 0094-114X.
4.	M.Kostić, M. Čavić, M. Zlokolica: ABOUT OPTIMAL SYNTHESIS OF COMPLEX PLANAR MECHANISM, 12th IFToMM World Congress, Besancon, France, 18-21 june, 2007, Proceedings online on www.iftomm.org, www.iftomm2007.com
5.	Čavić M., Kostić M., Zlokolica M.: POSITION ANALYSIS OF THE HIGH CLASS KINEMATIC GROUP MECHANISMS Naziv skupa: 12th IFToMM World Congress , 12. The World Congress in Mechanism and Machine Science - IFToMM, Besancon, 18-21 Jun, 2007, ISBN www.iftomm2007.com



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

6.	Zlokolica, M., Cavic, M., Kostic, M.: Analytical description of polygonal holes boring - General approach, Strojnicki Vestnik - Journal of Mechanical Engineering, 2010, Vol. 56, No. 7-8, pp. 511-520, ISSN: 0039-2480.
7.	Kostić M., Čavić M., Zlokolica M., Veselinović Č.: ABOUT DRIVING-TRANSMISSION SYSTEMS IN THERMOFORMING MACHINES , 2. Power Transmissions, Novi Sad, 25-26 April, 2006, pp. 509-514, ISBN 86-85211-78-6
8.	Čavić M.: MODULARNI PRISTUP ANALIZI I SINTEZI MEHANIZAMA SA KINEMATIČKIM GRUPAMA VIŠE KLASI, Novi Sad, 2012
9.	Čavić M., Kostić M., Zlokolica M.: Dynamical Condition for Mechanism Synthesis, Monografija Machine Design, 2008, pp. 109-114, ISSN ISBN 978-86-7892-105
10.	Kostić M., Čavić M., Zlokolica M.: PERFORMANCE OF LEVER-CAM DWELL MECHANISM, Machine Design, 2009, pp. 115-120, ISSN 1821-1259

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:	Dorić Ž. Jovan		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.10.2008		
Scientific or art field:	Internal Combustion Engines		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines
PhD thesis	2012	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines
Master's thesis	2008	Faculty of Technical Sciences - Novi Sad	Internal Combustion Engines
Bachelor's thesis	2008		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.	H2421	EC Engineers Mechatronics	(H00) Mechatronics, Undergraduate Academic Studies
2.	M213	Machine Usage	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M2403A	IC Engines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
4.	M2523	IC Engine Equipment	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies
5.	M302	Fundamentals of IC Engines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
6.	S0I241	Internal Combustion Engines	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies
7.	M2514	Simulation and design of IC engines	(M22) Mechanization and Construction Engineering, Master Academic Studies
8.	M2519	IC Engines and Vehicle Testing	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	M2553	Selected Chapters of IC Engines and Motor Vehicles	(M22) Mechanization and Construction Engineering, Master Academic Studies
10.	LIM14	Monitoring and Diagnostics of Transportation Means	(LIM) Logistic Engineering and Management, Master Academic Studies
11.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
12.	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.: Efficiency of a new IC engine concept with variable piston motion, Thermal Science, 2012, doi: 10.2298/TSCI110923020D, 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.: The realisation and analysis of a new thermodynamic cycle for internal combustion engine, Thermal Science, 2011, Vol. 15, No 4, ISSN 0354-9836.
4.	Dorić J.: Radijalno-rotacioni bezventilski motor SUS sa potpunijim širenjem radnog tela, Beograd, Zavod za intelektualnu svojinu Republike Srbije, Bilten, 2008, str. 1639-1640, ISBN 0354-771X, UDK: 631.372.
5.	Dorić J., Klinar I., Dorić M.: Constant Volume Combustion Cycle for IC Engines, FME Transactions, 2011, Vol. 29, No 3, pp. 97-104, ISSN 1451-2092.
6.	Nikolić N., Antonić Ž., Dorić J.: Usporedni prikaz dva analitička postupka konstruisanja polarnog dijagrama opterećenja glavnih ležišta kolenastog vratila, IMK-14 - Istraživanje i razvoj, 2011, Vol. 1, No 38, pp. 3-10, ISSN 0354-6829.
7.	Nikolić N., Torović T., Antonić Ž., Dorić J.: An Algorithm for Obtaining Conditional Wear Diagram of IC Engine Crankshaft Main Journals, FME Transactions, 2011, Vol. 39, No 4, pp. 157-164, ISSN 1451-2092.
8.	Dorić J., Klinar I.: Efficiency of a Valveless IC engine with more complete expansion, 1. International Conference on Innovative Technologies IN-TECH, Prague, 14-16 Septembar, 2010.
9.	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.
10.	Nikolić N., Torović T., Antonić Ž., Dorić J.: A Comparative Approach to the Load Determination of IC Engine Main Bearings, 7. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Balatonfured, 24-26 Maj, 2012, pp. 199-204, ISBN 978-86-7892-399-9.

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

Quotation total : | 0



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Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

Total of SCI(SSCI) list papers :	3			
Current projects :	Domestic :	2	International :	0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:		Georgijević S. Milosav	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.02.1977	
Scientific or art field:		Machine Constructions, Transport Systems and Logistics	
Academic carier	Year	Institution	Field
Academic title election:	2000	University of Novi Sad - Novi Sad	Machine Constructions, Transport Systems and Logistics
PhD thesis	1989	Faculty of Philosophy - Novi Sad	Machine Constructions, Transport Systems and Logistics
Magister thesis	1982	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Bachelor's thesis	1973	University of Novi Sad - 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.	H2463	Mechanization Management	(H00) Mechatronics, Undergraduate Academic Studies
2.	M2405	Warehouses and Equipment	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M308	Engineering Logistics and Simulation	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
4.	S0218	Reload Logistics	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies
5.	S1218	Reload Logistics	(S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
6.	ZR407A	Occupational safety in internal transport, reloading and warehouse	(Z01) Safety at Work, Undergraduate Academic Studies
7.	M2528	Eurologistics	(M22) Mechanization and Construction Engineering, Master Academic Studies
8.	M2535	Logistic Processes Management	(H00) Mechatronics, Master Academic Studies (M22) Mechanization and Construction Engineering, Master Academic Studies
9.	LIM04	Internal Transport and Storage	(LIM) Logistic Engineering and Management, Master Academic Studies
10.	LIM06	Simulation and Optimization in Logistics	(LIM) Logistic Engineering and Management, Master Academic Studies
11.	LIM15	Technical Intralogistics	(LIM) Logistic Engineering and Management, Master Academic Studies
12.	LIM23	Logistic Centers	(LIM) Logistic Engineering and Management, Master Academic Studies
13.	LIM27	Logistics of Warehousing and Commissioning	(LIM) Logistic Engineering and Management, Master Academic Studies
14.	LIM28	Intralogistic System Planning	(LIM) Logistic Engineering and Management, Master Academic Studies
15.	LIM29	Simulation of Large Logistic Systems	(LIM) Logistic Engineering and Management, Master Academic Studies
16.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
17.	DM213	Contemporary Methods of Designing and Machine Constructing	(M00) Mechanical Engineering, Doctoral Academic Studies
18.	DM331	Selected Chapters in Transport and Construction Machines	(M00) Mechanical Engineering, Doctoral Academic Studies
19.	DOM20	Engineering Analysis Methods	(M00) Mechanical Engineering, Doctoral Academic Studies
20.	DOM27	Logistics and Simulation	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Georgijevic M.: Anwendung von Rechenmodellen bei der dynamischen Analyse von Hebezeugen, dhf - deutsche hebe und fördertechnik, 1990, Nr.10, s. 46-53
2.	Georgijevic M.: Einwirkung der konstruktiven Lösung und Antriebsregulierung auf Dynamik von Hafenebezeugen, dhf-deutsche hebe und fördertechnik, 1991. Nr. 6, s. 64-69



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

3.	Georgijevic M.: Einfluss der Wippantrieb-Regulierung auf Lastpendel und Dynamik von Wippdrehe Krannen, dhf - deutsche hebe und fördertechnik, 1992, Nr. 3, s. 74-81
4.	Georgijevic M, Milisavljevic B.: Pendeln des Containers bei der Katzenbewegung der Portalkrane, dhf - deutsche hebe und fördertechnik, 1994, Nr.9, s. 41-47
5.	Georgijevic M.: Zur Regelung und Steuerung bei Kranen, dhf- deutsche hebe und fördertechnik, Nr. 1/2-97, s. 58-64,
6.	Georgijević M.: Using Simulation in Material Flow Processes and Machine Design, Simulation News Europe, July 2002, p.18,19
7.	M. Georgijevic, R. Kostic, Erhöhung der Lebensdauer von Fördermaschinen durch mechatronische Systeme, 30. Tagung DVM – Arbeitskreis Betriebsfestigkeit Mechatronik und Betriebsfestigkeit - Stuttgart, 8. und 9. Oktober, 2003, s.139-163 (Predavanje po pozivu)
8.	Georgijevic M, Radanovic R.: Simulation komplexer Systeme und Optimierung 9. Symposium Simulation als betriebliche Entscheidungshilfe: Neuere Werkzeuge und Anwendungen aus der Praxis (Proc. zum 9. Symposium), Goettingen s. 307-320, 2004
9.	Georgijevic M.: Fuzzy Control zur Regelung einer Krananlage, Erfolgsbilanz für Fuzzy Logik, Augsburg, 1992
10.	Pap E, Bojanic V, Georgijevic M, Bojanic,.: Application of Pseudo-Analysis in the Synchronization of Container Terminal Equipment Operation , ACTA POLYTECHNICA HUNGARICA, (2011), vol. 8 br. 6, str. 5-21.

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications



Name and last name:	Grabić U. Stevan		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 10.10.1997		
Scientific or art field:	Power Electronics, Machines and Facilities		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
PhD thesis	2011	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
Magister thesis	2004	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
Bachelor's thesis	1997	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities



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

	ID	Course name	Study programme name, study type
1.	EE305	Power Electronics 1	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
2.	EE425	Energy Converter Control	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	EE520	Design of Electrical Machines and Converters	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
4.	EM434	Power Electronics	(H00) Mechatronics, Undergraduate Academic Studies
5.	EOS08	Electrical machines and devices	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
6.	EOS12	Power electronics	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
7.	EOS17	Software tool in power electronics	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
8.	EOS23	Wind Energy Conversion System	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
9.	EOS32	Grid connected renewable energy systems	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
10.	Z107	Electrical Engineering, Environment and Protection	(Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
11.	EE0406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
12.	EE406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
13.	EE520	Design of Electrical Machines and Converters	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
14.	M2551	Hybrid and electric vehicles	(M22) Mechanization and Construction Engineering, Master Academic Studies
15.	M2552	Automotive electrics	(M22) Mechanization and Construction Engineering, Master Academic Studies
16.	S0151Ž	Electrical Substation and Electric Traction	(S00) Traffic and Transport Engineering, Master Academic Studies
17.	SI011	Wind, solar and small hydro power plants	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
18.	SI041	Grid connected renewable energy systems	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
19.	EE544	Renewable energy sources	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies

Representative references (minimum 5, not more than 10)

1.	S.Grabić, N.Čelanović, V.Katić: Series Converter Stabilized Wind Turbine with Permanent Magnet Synchronous Generator, 35th IEEE Power Electronics Specialists Conference PESC 2004, Aachen (Germany), pp. 464-468.
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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 Mechanization and Construction Engineering		
Representative references (minimum 5, not more than 10)			
2.	M.Vekić, Z.Ivanović, S.Grabić, V.Katić: Control of Variable Speed Wind Turbine Under Grid Disturbances, 13th International Symposium on Power Electronics - Ee2005, Novi Sad, no.T7-1.1.		
3.	Z.Ivanović, M.Vekić, S.Grabić, V.Katić: Control of Multilevel Converter Driving Variable Speed Wind Turbine in Case of Grid Disturbances, 12th International Power Electronics and Motion Control Conference EPE-PEMC 2006, Portoroz (Slovenija), pp. 1569-1573.		
4.	E.Adžić, S.Grabić, V.Katić: Analysis and Control Design of STATCOM in Distribution Network Voltage Control Mode, VIth International Symposium Nikola Tesla, 2006, Beograd, 135-138.		
5.	M.Milošević, G.Andersson, S.Grabić: Decoupling Current Control and Maximum Power Point Control in Small Power Network with Photovoltaic Source, Power Systems Conference and Exhibition PSCE 2006, no.10.5, pp.1005-1011.		
6.	V.Katić, Z.Čorba, D.Milićević, S.Grabić, Z.Ivanović, M.Vekić, E.Adžić, B.Dumnić: Modeling of Wind and Solar Electric Power Sources for Application in Vojvodina, PSU-UNS International Conference on Engineering and Environment - ICEE 2007, Phuket (Thailand).		
7.	Z.Ivanović, M.Vekić, S.Grabić, V.Katić: Modelovanje i analiza rada mrežnog invertora u slučaju nesimetrije u sistemu, 50. konferencija ETRAN, Beograd, jun 2006, str.344-347		
8.	Ivanović Z., Adžić E., Vekić M., Grabić S., Čelanović N., Katić V.: HIL Evaluation of Power Flow Control Strategies for Energy Storage Connected to Smart Grid Under Unbalanced Conditions, Available: 10.1109/TPEL.2012.2184772, IEEE Transaction on Power Electronics, 2012, Vol. 27, ISSN 0885-8993		
9.	Vekić M., Grabić S., Majstorović D., Čelanović I., Čelanović N., Katić V.: Ultra Low Latency HIL based Rapid Development of Complex Power Electronics Systems, IEEE Transaction on Power Electronics, 2012, ISSN 0885-8993		
10.	Grabić S., Čelanović N., Katić V.: Permanent Magnet Synchronous Generator Cascade for Wind Turbine Application, IEEE Transaction on Power Electronics, 2008, Vol. 23, No 3, pp. 1136-1142, ISSN 0885-8993		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		36	
Total of SCI(SSCI) list papers :		4	
Current projects :		Domestic : 2	International : 0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

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.	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.		
2.	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.		
3.	Klinar I.: Tehnička eksploatacija mašina, osnovni udžbenik, Fakultet tehničkih nauka-Novi Sad, 2006. UDK621.8(075.8), ISBN86-85211-85-9		
4.	Klinar I.: Motori SUS, osnovni udžbenik, Fakultet tehničkih nauka-Novi Sad, 2005. UDK621.43(075.8), ISBN86-85211-47-6		
5.	Klinar I.: Oprema motora SUS, osnovni udžbenik, Fakultet tehničkih nauka-Novi Sad, 1993. UDK621.43(075.8)		
6.	Klinar I.: Sistemi napajanja gorivom motora SUS, pomoćni udžbenik (skripta), FTN-Institut za mehanizaciju, 1991. UDK621.43(075.8)		
7.	Klinar I.: Procesi i pojave u sistemu ubrizgavanja, pomoćni udžbenik (skripta), FTN-Institut za mehanizaciju, Novi Sad, 1995. UDK621.43(075.8)		
8.	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.		
9.	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		
10.	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.		

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

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



Science, arts and professional qualifications

Name and last name:	Kulić J. Filip		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.09.1994		
Scientific or art field:	Automatic Control and System Engineering		
Academic carier	Year	Institution	Field
Academic title election:	2008	Faculty of Technical Sciences - Novi Sad	Automatic Control and System Engineering
PhD thesis	2003	Faculty of Technical Sciences - Novi Sad	Automatic Control and System Engineering
Magister thesis	1999	Faculty of Technical Sciences - Novi Sad	Automatic Control and System Engineering
Bachelor's thesis	1994	Faculty of Technical Sciences - Novi Sad	Electroenergetics

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

	ID	Course name	Study programme name, study type
1.	AU44	Control Systems Design	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
2.	E226	Automatic Control Systems	(E20) Computing and Control Engineering, Undergraduate Academic Studies (H00) Mechatronics, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
3.	E238A	Control Systems Technology	(BM0) Biomedical Engineering, Undergraduate Academic Studies (E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
4.	EEI302	Systems of Automatic Control in Power Engineering	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
5.	H1405	Optimization Methods	(H00) Mechatronics, Undergraduate Academic Studies
6.	H302	Control Systems 2	(H00) Mechatronics, Undergraduate Academic Studies
7.	M325	Automatic Control Systems	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
8.	BMI125	Biological Control Systems	(BM0) Biomedical Engineering, Undergraduate Academic Studies
9.	E2315	Electrical Machines in Automatic Control Systems	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
10.	EMSAU ₁	Automatic Control Systems in Electronics	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
11.	SEAU01	Nonlinear programming and evolutionary computations	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies
12.	SEAU03	Real-time control algorithms	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies
13.	DE410S	Selected Topics in the Field of Automatic Control	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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

ID	Course name	Study programme name, study type
14. E2515	Intelligent Control Systems	(E20) Computing and Control Engineering, Master Academic Studies (MR0) Measurement and Control Engineering, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
15. M2550	Automatic Control Systems in Motor Vehicles	(M22) Mechanization and Construction Engineering, Master Academic Studies
16. E2532	Automatic Control Systems Project Management	(E20) Computing and Control Engineering, Master Academic Studies
17. SEAM01	Intelligent Control Systems	(SE0) Software Engineering and Information Technologies, Master Academic Studies
18. DAU007	Selected Topics in Artificial Intelligence in Control and Signal Processing	(E20) Computing and Control Engineering, Doctoral Academic Studies
19. DE410	Selected Topics in the Field of Automatic Control	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies
20. SID04	Current State in the Field	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (E20) Computing and Control Engineering, Doctoral Academic Studies (F00) Graphic Engineering and Design, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies (G00) Civil Engineering, Doctoral Academic Studies (G10) Geodesy and Geomatics, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies (S00) Traffic Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies
21. DAU017	Selected Topics from Totally Integrated Automatic Control Systems	(E20) Computing and Control Engineering, Doctoral Academic Studies
22. SID04	Present State in the Field	(A00) Architecture, Doctoral Academic Studies (AS0) Scenic Design, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies
Representative references (minimum 5, not more than 10)		
1.	Dragan Kukolj, Vesna Bengin, Filip Kulić: Osnovi klasične teorije automatskog upravljanja kroz rešene probleme, Sombor, Somel, 1995. 241str., UDK: 681.5(075.8),	
2.	Dragan Kukolj, Filip Kulić: Projektovanje sistema automatskog upravljanja u prostoru stanja, Novi Sad, Fakultet tehničkih nauka, 1995. 232str., UDK: 681.5(075.8),	
3.	D.Kukolj, F.Kulić, E.Levi: Design Of The Speed Controller For Sensorless Electric Drives Based On AI Techniques: A Comparative Study, Artificial Intelligence in Engineering, 2000, Vol. 14, str. 165- 174	
4.	D.Kukolj, S.Kuzmanović, E.Levi, F.Kulić: Design of Near Optimal, Wide Range Fuzzy Logic Controller, Fuzzy Sets and Systems, 2001, Vol. 120, No. 1, str. 17- 34	
5.	D.Kukolj, F.Kulić, D.Popović, Z.Gorečan: Determining Topological Changes and Critical Load Levels of a Power System by Means of Artificial Neural Network, Electric Machines and Power Systems, 1997, Vol. 25, No. 8, str. 917- 926, ISSN 0731-356x.	
6.	D.Kukolj, D.Popović, F.Kulić, Z.Gorečan: Fast Dynamic Stability Analysis of a Power System Using Artificial Neural Networks, European Transactions on Electrical Power (ETEP), 1998, Vol. 8, No. 3, str. 207- 212, ISSN 1430-144X.	
7.	D.Popović, D.Kukolj, F.Kulić: Monitoring and Assessment of Voltage Stability Margins Using Artificial Neural Networks with a Reduced Input Set, IEE Proc. -Gener. Transm. Distrib, 1998, Vol. 145, No. 4, str. 355- 362, ISSN 1350-2360.	



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

8.	Matić Dragan, Kulić Filip, Pineda-Sanchez Manuel, Kamenko Ilija: "Support vector machine classifier for diagnosis in electrical machines: Application to broken bar", Expert Systems With Applications, vol.39 br.10, str. 8681-8689, 2012.
9.	Čongradac Velimir, Kulić Filip: "Recognition of the importance of using artificial neural networks and genetic algorithms to optimize chiller operation", Energy and Buildings, vol. 47, str. 651-658; April 2012.
10.	Ilić Slobodan; Vukmirović Srđan; Erdeljan Aleksandar; Kulić Filip: "Hybrid Artificial Neural Network System for Short-Term Load Forecasting, Thermal Science, vol.16, br. , str. S215-S224, 2012

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

Quotation total :	32		
Total of SCI(SSCI) list papers :	12		
Current projects :	Domestic :	2	International : 0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:		Kuzmanović B. Siniša	
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:		Machine Elements, Construction Principles, Machine and Mechanizm	
Academic carieer	Year	Institution	Field
Academic title election:	1996	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
PhD thesis	1980	Faculty of Mechanical Engineering - Beograd	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Magister thesis	1976	Faculty of Mechanical Engineering - Beograd	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Bachelor's thesis	1973	Faculty of Mechanical Engineering - Beograd	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.	F408	Industrial Design	(F00) Graphic Engineering and Design, Undergraduate Academic Studies
2.	H205	Mecahnical Elements 1	(H00) Mechatronics, Undergraduate Academic Studies
3.	H208	Mechanical Elements 2	(H00) Mechatronics, Undergraduate Academic Studies
4.	M202	Mechanical Elements	(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.	M2419	Product Development	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
6.	URZP14	Fundamentals of Mechanical Engineering	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
7.	F51011	Design of industrial products	(F00) Graphic Engineering and Design, Master Academic Studies
8.	M2654	Specific Machine Elements of Agricultural Machinery	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	M2656	Industrial design of agricultural machines	(M22) Mechanization and Construction Engineering, Master Academic Studies
10.	DM213	Contemporary Methods of Designing and Machine Constructing	(M00) Mechanical Engineering, Doctoral Academic Studies
11.	DM215	Seelcted Chapters in Machine and Mechanisms Theory	(M00) Mechanical Engineering, Doctoral Academic Studies
12.	DOM23	Product Development	(M00) Mechanical Engineering, Doctoral Academic Studies
13.	FDS211	Selected Chapters in Design	(F00) Graphic Engineering and Design, Doctoral Academic Studies
14.	FDS214	Selected Chapters in Industrial Product Modelling	(F00) Graphic Engineering and Design, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Miltenović, V. A., Kuzmanović, B. S., Miltenović, Đ. V., Tica, M. M., Rackov, J. M.: Thermal stability of crossed helical gears with wheels made from sintered steel, Thermal Science, 2012, Vol. 16, Suppl. 2, pp. S607-S619, doi:10.2298/TSCI120503190M.
2.	Kuzmanović, S.: Konstruisanje, oblikovanje i dizajn - 1. deo, Fakultet tehničkih nauka, Novi Sad, 2006, str.357, ISBN 86-85211-82-4
3.	Kuzmanović, S.: Konstruisanje, oblikovanje i dizajn - 2. deo, Fakultet tehničkih nauka, Novi Sad, 2005, str.181, ISBN 86-85211-57-3
4.	Kuymanović, S.: Menadžment proizvodima, Univerzitet u Novom Sadu, Novi Sad, 2007, str.301, ISBN 978-86-499-0149-0
5.	Kuzmanović, S.: Mašinski elementi - oblikovanje, proračun i primena, Fakultet tehničkih nauka, Novi Sad, 2012, str.394, ISBN 978-86-7892-282-4



Study Programme Accreditation

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

6.	Kuzmanović, S.: Industrijski dizajn, Fakultet tehničkih nauka, Novi Sad, 2012, str.329, ISBN 978-86-7892-404-0
7.	Kuzmanović, S., Trbojević, R., Rackov, M.: Zbirka zadataka iz mašinskih elemenata, Fakultet tehničkih nauka, Novi Sad, 2009, str.198, ISBN 978-86-7892-154-4
8.	Kuzmanović, S.: Univerzalni zupčasti reduktori sa cilindričnim zupčanicima, Fakultet tehničkih nauka, Novi Sad, 2009, str.231, ISBN 978-86-7892-202-2
9.	Kuzmanović, S., Rackov, M.: Bezazorni prenosnici u vojnom mašinstvu, Vojnotehnički institut, Beograd, 2012, str.101, ISBN 978-86-81123-51-5
10.	Vereš, M., Harman, B., Kuzmanović, S., Rackov, M.: Determination of the Correct Mating Cylindrical Teeth Flanks Profiles When the Path of Contact is Given, Slovak University of Technology in Bratislava, Faculty of Mechanical Engineering, Bratislava, 2009, str. 145-151, ISBN 978-80-227-3326-7

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:	Malešev T. Petar		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 12.11.1975		
Scientific or art field:	Machine Constructions, Transport Systems and Logistics		
Academic carier	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
PhD thesis	1993	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Magister thesis	1987	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Bachelor's thesis	1975	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.	H2464	Building Machines Mechatronics	(H00) Mechatronics, Undergraduate Academic Studies
2.	M2406	Construction and Utility Machines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M315	Hydraulic Transmissions in Mechanization	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
4.	ZRI413	Occupational Safety and Protection in Working with Civil Engineering and Utility Mechanization	(Z01) Safety at Work, Undergraduate Academic Studies
5.	M2530	Food Processing Machines 1	(M22) Mechanization and Construction Engineering, Master Academic Studies
6.	M2532	Packaging Machines	(M22) Mechanization and Construction Engineering, Master Academic Studies
7.	M2534	Food Processing Machines 2	(M22) Mechanization and Construction Engineering, Master Academic Studies
8.	M2542	Hydraulic Power Transmission in Mechanisation 2	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	LIM13	Packaging Techniques and Packaging	(LIM) Logistic Engineering and Management, Master Academic Studies
10.	DM331	Selected Chapters in Transport and Construction Machines	(M00) Mechanical Engineering, Doctoral Academic Studies
11.	DM410	Selected Chapters in Food Processing Machines and Equipment	(M00) Mechanical Engineering, Doctoral Academic Studies
12.	DOM25	Contemporary Procedures for Mobile Machine Designing	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Vladić J., Malešev P., Šostakov R., Brkljač N.: Dynamic analysis of the load lifting mechanisms, STROJNIŠKI VESTNIK - JOURNAL OF MECHANICAL ENGINEERING, 54(10), pp. 655-661, 2008.
2.	P.Malešev, J.Vladić, M.Plavšić: Influence of boom cylinder diameter in the duration of lifting hydraulic excavator working device with loaded bucket, XIII Međnarodnaja naučno-tehničkaskaja konferencija "Razvitie sproitelnih mašin...", Moskva, 1996. godine, zbornik radova, strane 292-295
3.	J.Vladić, P. Malešev: Characteristics of modeling the transport and civil engineering machines from the aspect of the application of universal programme packages, XIV Međnarodni naučno-stručni skup Transport u industriji, Beograd, 1996. godine, Zbornik radova, strane 4.8-4.13
4.	P.Malešev, M.Plavšić, J.Vladić: Primena kvazistatičke simulacije kod određivanja ekstremnih naprezanja nosećih konstrukcija, XIII Međnarodni skup Transport u industriji, Beograd, 1994. godine, Zbornik radova, strane 233-238
5.	P. Malešev: Die Aehnlichkeitslehre in der Konstruktion, časopis "Hebezeuge und Foerdermittel", Berlin, Nr. 3, 1998. godina, strane 72-73
6.	J.Vladić, P.Malešev, N.Babin: Experimental analysis of bicable ropeway dynamic behaviour, Međnarodnaja naučno-tehničkaskaja konferencija "Razvitie stroitelnih mašin...", Moskva, 1996. godine, Zbornik radova, strane 300-303
7.	P. Malešev, J.Vladić: Examination of hydraulic excavator dynamic loads, Časopis Agricultural engineering, Novi Sad, vol. V, broj 1-4, 1999. godine, strane 21-29
8.	P.Malešev, M.Plavšić: Kriterijum nepromenljivosti odnosa ugaonih brzina pri izboru hidrocilindara bagerskog uređaja, Časopis Tehnika, Beograd, broj 3-4, 1997. godine, strane 1-4
9.	P. Malešev: O mogućnosti primene raspodela potrebnih sila u hidrocilindrima bagerskog uređaja pri njihovom dimenzionisanju, Časopis Tehnika, Beograd, broj 5-6, 1996. godine, strane 13-16



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

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| 10. | P.Malešev, M.Plavšić, Z.Ristić: Ocena efikasnosti standardima definisanih pokazatelja u vezi mogućnosti razvijanja sila rezanja kod hidrauličnih bagera, Časopis Tehnika, Beograd, broj 11-12, 1991. godine, strane 755-758 |
|-----|---|

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:	Martinov L. Milan		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 10.12.1978		
Scientific or art field:	Biosystems Engineering		
Academic carier	Year	Institution	Field
Academic title election:	1999	Faculty of Technical Sciences - Novi Sad	Biosystems Engineering
Bachelor's thesis	2000	Faculty of Mechanical Engineering - Novi Sad	Mechanical Engineering
PhD thesis	1988	Faculty of Technical Sciences - Novi Sad	Biosystems Engineering
Magister thesis	1981	Faculty of Agriculture - Zagreb	Biosystems Engineering

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

	ID	Course name	Study programme name, study type
1.	M2407	Biosystem Machines 2	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
2.	M304	Biosystem Machines 1	(H00) Mechatronics, Undergraduate Academic Studies (M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
3.	URZP54	Devices in the Process Industry	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
4.	Z475A	Environmental engineering in biosystems	(Z20) Environmental Engineering, Undergraduate Academic Studies
5.	Z476	Energy and renewable energy sources in rural areas	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
6.	ZRI421	Occupational Safety in Agriculture and Forestry	(Z01) Safety at Work, Undergraduate Academic Studies
7.	Z475	Inženjerstvo zaštite životne sredine u biosistema(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z476	Energija i obnovljivi izvori energije u ruralnim oblastima(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	H2405	IT in Biosystems	(H00) Mechatronics, Master Academic Studies (M22) Mechanization and Construction Engineering, Master Academic Studies
10.	M2651	Tractors	(M22) Mechanization and Construction Engineering, Master Academic Studies
11.	M2652	Agricultural machinery for renewable energy sources	(M22) Mechanization and Construction Engineering, Master Academic Studies
12.	Z477	Sustainable Agriculture Engineering	(Z20) Environmental Engineering, Master Academic Studies
13.	Z478A	Information technology support sustainable biosystems	(Z20) Environmental Engineering, Master Academic Studies
14.	Z477	Inženjerstvo održive poljoprivrede(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
15.	Z478	Informaciono-tehnološka podrška održivom razvoju biosistema(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
16.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
17.	SZSP14	Contemporary approach to the biosystems engineering	(Z00) Environmental Engineering, Specialised Academic Studies
18.	SZSP16	Engineering of renewable energy sources in agriculture	(Z00) Environmental Engineering, Specialised Academic Studies
19.	SZSP18	Contemporary scientific approaches in life cycle assessment of products (LCA)	(Z00) Environmental Engineering, Specialised Academic Studies
20.	ZCM12	Logistic of energy biomass	(ZC0) Clean Energy Technologies, Master Academic Studies
21.	ZR406A	System Regulations and EU Practice in Occupational Health and Safety	(Z01) Safety at Work, Master Academic Studies
22.	DM207	Standardization in biosystems engineering related to the safety	(Z01) Safety at Work, Doctoral Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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



ID	Course name	Study programme name, study type
23. DOM24	Procedure and Machines for Sustainable Agriculture	(M00) Mechanical Engineering, Doctoral Academic Studies
24. HDOK11	Advanced Application of ICT in Agriculture	(H00) Mechatronics, Doctoral Academic Studies
25. HDOL11	Advanced application of ICT in agriculture	(H00) Mechatronics, Doctoral Academic Studies
26. ZSP14	Contemporary Approaches to Sustainable Engineering Biosystems	(Z00) Environmental Engineering, Doctoral Academic Studies
27. ZSP16	Engineering of Renewable Energy in Agriculture	(OM1) Mathematics in Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies
28. 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.	Bojić S., Golub M., Müller J., Obradović R., Martinov M.: Convective drying of naked seeded oil pumpkin seeds (<i>Cucurbita pepo</i> L.) in a medium scale batch dryer with different modes of air circulation., <i>Zeitschrift für Arznei- und Gewürzpflanzen</i> , 2012, Vol. 17, No 3, pp. 108-115, ISSN 1431-9292
2.	Đatkov Đ., Effenberger M., Lehner A., Martinov M., Tešić M., Gronauer A.: New method for assessing the performance of agricultural biogas plants, <i>Renewable energy</i> , 2012, Vol. 40, No 1, pp. 104-112
3.	Gavrić M., Martinov M., Bojić S., Đatkov Đ., Pavlović M.: Short- and long-term dynamic accuracies determination of satellite-based positioning devices using a specially designed testing facility, <i>Computer and Electronics in Agriculture</i> , Elsevier, Amsterdam, the Netherlands, 2011, Vol. 76, No 2, pp. 297-305
4.	Scarlat N., Martinov M., Dallemand J.: Assessment of the availability of agricultural crop residues in the European Union: Potential and limitations for bioenergy use, <i>Waste Management</i> , 2010, Vol. 30, No 10, pp. 1889-1897, ISSN 0956-053X
5.	Kratzeisen M., Starcevic N., Martinov M., Maurer C., Mueller J.: Applicability of biogas digestate as solid fuel, <i>Fuel</i> , 2010, Vol. 89, No 9, pp. 2544-2548
6.	Martinov M, Mujic I, Müller J. 2007. Impact of drying air temperature on course of drying and quality of <i>Hypericum perforatum</i> L. <i>Zeitschrift für Arznei- und Gewürzpflanzen</i> , 12(3): 124-128.
7.	Martinov M., Veselinov B., Bojić S., Đatkov Đ.: Investigation of maize cobs crushing – preparation for use as a fuel, <i>Thermal Science - International Scientific Journal</i> , 2011, Vol. 15, No 1, pp. 235-243, ISSN 0354-9836, UDK: 621
8.	Jokić, S., Mujić, I., Martinov, M., Velić, D., Bilić, M. and J. Lukinac. 2009. Influence of drying procedure on colour and rehydration characteristic of wild asparagus <i>Czech Journal of Food Sciences</i> 27(3): 171-177.
9.	Oztekin, S, Martinov, M. 2007. <i>Medicinal and Aromatic Crops, Harvesting, Drying and Processing</i> , Haworth Food and Agricultural Products Press, New York.
10.	Martinov, M., Tesic, M. and M. Ilic. 2006. Latest developments on RES policy, implementation and planning in Serbia. Workshop: „Data Gathering on Renewable Energies for New Member States and Candidate Countries“ organized by European Commission, Joint Research Center, Cavtat-Dubrovnik, 15-16 November 2006, Book of procc. 279-287.

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

Quotation total :	20
Total of SCI(SSCI) list papers :	10
Current projects :	Domestic : 4 International : 1

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:	Milojević D. Zoran		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 27.10.1997		
Scientific or art field:	Machine Elements, Construction Principles, Machine and Mechanizm		
Academic carieer	Year	Institution	Field
Academic title election:	2008	University of Novi Sad - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng.Communication
PhD thesis	2008	University of Novi Sad - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng.Communication
Magister thesis	2002	Faculty of Technical Sciences - Novi Sad	Machine Tools, Flexible Technological Systems and Automatization Processes Design
Bachelor's thesis	1995	Faculty of Technical Sciences - Novi Sad	Automatic Control and System Engineering

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

	ID	Course name	Study programme name, study type
1.	EOS03	Fundamentals in Mechanical Engineering(Machine elements and Materials)	(E01) Power Engineering - Renewable Sources of Electrical Energy, Undergraduate Professional Studies
2.	F202	Fundamentals in Mechanical Engineering	(F00) Graphic Engineering and Design, Undergraduate Academic Studies
3.	M108	Engineering Graphic Communications	(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.	M2610	Graphic Communications and CAD	(H00) Mechatronics, Undergraduate Academic Studies
5.	S012	Descriptive Geometry and Engineering Drawing	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
6.	IA013	Interactive Engineering Graphics	(F10) Engineering Animation, Undergraduate Academic Studies
7.	ZC007	Engineering Graphic Communications	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
8.	M2511	Methodology of Design	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	AID04	Haptic devices usage in the virtual environment	(F20) Engineering Animation, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Gligorić, R., Milojević, Z.:" TEHNIČKO CRTANJE ", Edicija univerzitetski udžbenik, br 166, ISBN 86-499-0131-5., Univerzitet u Novom Sadu, 2004. god. (356 strana)
2.	Milojević, Z., Navalusić, S., Zeljković, M.: " NC VERIFICATION AS A COMPONENT OF VIRTUAL MANUFACTURING", Academic Journal of Manufacturing Engineering, Vol. 5, No 2-2007., Editura Politehnica, Timisoara, Romania, pp: 48-54, 2007. ISSN: 1583-7904.
3.	Milojević, Z., Navalusić, S., Zeljković, M.: " DEVELOPMENT OF THE MODULE FOR REAL'TIME VERIFICATION OF NC MACHINING PROGRAM", Journal Manufacturing Engineering Manufacturing Accuracy Increasing problems, Wroclaw, 2007.
4.	Obradović, R., Milojević, Z: PLANE SECTION OF CONE AND CYLINDER IN COMPUTER GEOMETRY, Facta Universitatis, Series Architecture and Civil Engineering, Vol. 3, No.2, Niš 2005., pp. 195-207
5.	Milojević, Z., Zeljković, M., Navalusić, S., Milisavljević, B., Gatalo, R.:" ANALYSIS OF THE ISOPARAMETRIC HEXAHEDRAL ELEMENTS ACCURACY IN THE FEM STRUCTURAL ANALYSIS OF THE MAIN SPINDLE ASSEMBLY", Journal of Machine Engineering, Vol.2 No. 1-2 , Open and Global Manufacturing Design, Wroclaw, 2002. god., pp. 193-203
6.	Marjanović N., Isailović B., Marjanović V., Milojević Z., Blagojević M., Bojić M.: A practical approach to the optimization of gear trains with spur gears, Mechanism and Machine Theory, 2012, Vol. 53, pp. 1-16, ISSN 0094-114X
7.	Milojević Z., Navalusić S., Milankov M., Obradović R., Desnica E., Harhaji V.: Methodology for 3D femur approximate model generation, HealthMED, 2011, Vol. 5, No 5, pp. 1211-1217, ISSN 1840-2991



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**Study Programme Accreditation**

MASTER ACADEMIC STUDIES



Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

8.	Milojević Z., Navalušić S., Milankov M., Obradović R., Harhaji V., Desnica E.: System for femoral tunnel position determination based on the X - ray , HealthMED, 2011, Vol. 5, No 4, pp. 894-900, ISSN 1840-2991
9.	Milankov M., Savić D., Milojević Z.: Geometric considerations regarding the surface of the tibial insertion of the ACL graft, Knee Surg Sports Traumatol Arthrosc, 2012, Vol. 20, No 9, pp. 1887-1888, ISSN 0942-2056
10.	Obradović R., Petter O., Vidaković M., Popkonstantinović B., Popović B., Milojević Z.: Using Contemporary 3D Web Technologies in the Process of CAD Model Design (prihvaćen za objavljivanje u 2013), Technics Technologies Education Management, 2013, Vol. 8, No 1, 2/3, ISSN 1840-1503

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:		Navalušić V. Slobodan	
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:		Machine Elements, Construction Principles, Machine and Mechanizm	
Academic carieer	Year	Institution	Field
Academic title election:	2006	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
PhD thesis	1996	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Magister thesis	1986	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanizm Theory, Power and Motion Transfer and Eng. Communication
Bachelor's thesis	1975	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.	A555	Perspective	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
2.	EOS03	Fundamentals in Mechanical Engineering(Machine elements and Materials)	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
3.	F202	Fundamentals in Mechanical Engineering	(F00) Graphic Engineering and Design, Undergraduate Academic Studies
4.	GG03	Descriptive Geometry	(G00) Civil Engineering, Undergraduate Academic Studies
5.	GI104	Descriptive Geometry in Geomatics	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
6.	M108	Engineering Graphic Communications	(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.	M2610	Graphic Communications and CAD	(H00) Mechatronics, Undergraduate Academic Studies
8.	S012	Descriptive Geometry and Engineering Drawing	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
9.	IA013	Interactive Engineering Graphics	(F10) Engineering Animation, Undergraduate Academic Studies
10.	ASO5	Descriptive Geometry with Perspective 1	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
11.	ASO9	Descriptive Geometry with Perspective 2	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
12.	ZC007	Engineering Graphic Communications	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
13.	M2511	Methodology of Design	(M22) Mechanization and Construction Engineering, Master Academic Studies
14.	M2655	Maintenance of Agricultural Machinery	(M22) Mechanization and Construction Engineering, Master Academic Studies
15.	AD0013	Theory of curves and surfaces	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
16.	DM213	Contemporary Methods of Designing and Machine Constructing	(M00) Mechanical Engineering, Doctoral Academic Studies
17.	DM409	Selected Chapter in Power and Motion Transmission	(M00) Mechanical Engineering, Doctoral Academic Studies
18.	AID04	Haptic devices usage in the virtual environment	(F20) Engineering Animation, Doctoral Academic Studies



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**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

1.	Milojević, Z., Navalušić, S., Zeljković, M.: " NC VERIFICATION AS A COMPONENT OF VIRTUAL MANUFACTURING", Academic Journal of Manufacturing Engineering, Vol. 5, No 2-2007., Editura Politehnica, žitimisoara, Romania, pp: 48-54, 2007. ISSN: 1583-7904
2.	Milojević, Z., Navalušić, S., Zeljković, M.: " DEVELOPMENT OF THE MODULE FOR REAL'TIME VERIFICATION OF NC MACHINING PROGRAM", Journal Manufacturing Engineering Manufacturing Accuracy Increasing problems, Wroclaw, 2007
3.	Milojević, Z., Navalušić, S., Zeljković, M.: " AN EXACT APPROACH TO 3-AXIS MILLING NC SIMULATION AND VERIFICATION", Journal Manufacturing Engineering Vol.3, No.5, Kosicah, 2006., pp. 14-17
4.	Milojević, Z., Navalušić, S., Zeljković, M.: " DEVELOPMENT OF THE MODULE FOR VERIFICATION OF NC MACHINING PROGRAM ", Journal of Machine Engineering, Vol.5 No. 1-2, Intelligent Machines and factories, Wroclaw, 2005. god., pp. 177-185
5.	Zeljković, M., Zeljković, Ž., Navalušić, S., Milojević, Z.: " SOFTWARE SOLUTION DEVELOPMENT FOR THE GRINDING WHEEL PROFILING CYCLE ON THE CNC GRINDING MACHINE", Journal of Machine Engineering, Vol.4 No. 1-2, Machine tools and factories of the knowledge, Wroclaw, 2004. god., pp. 254-262
6.	Desnica E., Letić D., Gligorić R., Navalušić S.: Implementation of information technologies in higher technical education, Metalurgia international, 2012, Vol. 17, No 3, pp. 76-82, ISSN 1582-2214
7.	Milojević Z., Navalušić S., Milankov M., Obradović R., Harhaji V., Desnica E.: System for femoral tunnel position determination based on the X - ray , HealthMED, 2011, Vol. 5, No 4, pp. 894-900, ISSN 1840-2991
8.	Desnica E., Letić D., Navalušić S.: Concept of distance learning model in graphic communication teaching at university level education, Technics Technologies Education Management, 2010, Vol. 5, No 2, pp. 378-388, ISSN 1840-1503
9.	Milojević Z., Navalušić S., Milankov M., Obradović R., Desnica E., Harhaji V.: Methodology for 3D femur approximate model generation, HealthMED, 2011, Vol. 5, No 5, pp. 1211-1217, ISSN 1840-2991
10.	Navalušić, S., R. Gatalo, M. Zeljković: Automated Gearbox Design Based on Principles of Expert System Building, JSPE Publication Series No.1, Advancement of Intelligent Production, edited by Eiji Usui, Elsevier Science B. V., Amsterdam - Lausanne - New York - Oxford - Shannon - Tokyo, 1994, pp. 45-50
Summary data for teacher's scientific or art and professional activity:	
Quotation total :	0
Total of SCI(SSCI) list papers :	4
Current projects :	Domestic : 0 International : 0



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



Mechanization and Construction Engineering

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



	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	



Science, arts and professional qualifications

Name and last name:	Oros V. Đura		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad		
	05.11.1982		
Scientific or art field:	Power Electronics, Machines and Facilities		
Academic carier	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
PhD thesis	2008	Faculty of Technical Sciences - Novi Sad	Electroenergetics
Magister thesis	1997	School of Electrical Engineering - Beograd	Power Electronics, Machines and Facilities
Bachelor's thesis	1982	Faculty of Technical Sciences - Novi Sad	Electroenergetics

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



	ID	Course name	Study programme name, study type
1.	H361	Control of Electrical Drives	(H00) Mechatronics, Undergraduate Academic Studies
2.	M109	Electric Machines and Power Electronics	(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 (S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
3.	M112	Electrical Engineering and Electric Machines	(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 (S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
4.	E2315	Electrical Machines in Automatic Control Systems	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
5.	EE419A	Testing of electrical machines	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
6.	EE421A	Electrical Design and Calculation Software	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
7.	ZR405A	Protection from the harmful effects of electricity in the application of power converters	(Z01) Safety at Work, Undergraduate Academic Studies
8.	ZR43A	Health and safety regulations in electrical systems	(Z01) Safety at Work, Undergraduate Academic Studies
9.	EE534	Special Electric Motor Drives	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
10.	M2541	Occupational Safety and Protection in Operation with Machinery	(M22) Mechanization and Construction Engineering, Master Academic Studies
11.	GS016	Lighting in Buildings	(G10) Energy Efficiency in Buildings, Specialised Academic Studies

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Study Programme Accreditation				
MASTER ACADEMIC STUDIES			Mechanization and Construction Engineering	
List of courses being held by the teacher in the accredited study programmes				
ID	Course name	Study programme name, study type		
12.	ZRD235	Systemic regulation in the field of occupational safety and health	(Z01) Safety at Work, Doctoral Academic Studies	
13.	ZRD236	State and development of health and safety at work in the field of electrical engineering	(Z01) Safety at Work, Doctoral Academic Studies	
Representative references (minimum 5, not more than 10)				
1.	Vasić V., Marčetić D., Oros Đ.: Prediction of Local Instabilities in Open-loop Induction Motor Drives, COMPEL - The international journal for computation and mathematics in electrical engineering, 2010, Vol. 29, No 3, ISSN 0332-1649			
2.	Đura V. Oros, Veran V. Vasić, Darko P. Marčetić: NFO sensorless induction motor drive with on-line stator resistance parameter update, Electric Power Components and Systems, 2008, Vol. 36, No. 12, str. 1318- 1336, ISSN 1532-5008.			
3.	Oros Đ., Vasić V., Marčetić D., Kulić F.: Influence of parameters detuning on induction motor NFO shaft-sensorless scheme, Journal of Advances in Electrical and Computer Engineering, 2010, Vol. 10, No 4, pp. 121-124, ISSN 1582-7445			
4.	Reljić D., Vasić V., Oros Đ.: Power factor correction and harmonics mitigation based on phase shifting approach, 15. International Power Electronics and Motion Control Conference, EPE-PEMC 2012 ECCE Europe, Novi Sad, Serbia, pp. DS3b.12-1 - 12-8, ISBN: 978-1-4673-1971-3, IEEE catalog number CFP 1234A-USB			
5.	Dumnić B., Oros Đ., Miličević D., Matić D., Vasić V.: Vector Control of Induction Generator with Parallel Stator Resistance and Rotor Speed Estimation, 31. Power Electronics, Intelligent Motion, Power Quality PCIM, Nuremberg: Mesago PCIM GmbH, 4-6 Maj, 2010, pp. 608-612, ISBN 978-3-8007-3229-6			
6.	Vasić V., Marčetić D., Oros Đ., Kulić F.: Prediction of local instabilities caused by inverter dead time in AC drive, 13. European Conference on Power Electronics and Applications, Barcelona, 8-10 Septembar, 2009, ISBN 9789075815009			
7.	Francuski Lj., Kulić F., Dumnić B., Oros Đ.: Fuzzy PI Controller for Vector Control of Induction Machine, 9. NEUREL- Symposium on Neural Network Applications in Electrical Engineering, Beograd: IEEE SCG Section, CAS - SP Chair, 25-27 Septembar, 2008, pp. 207-210, ISBN 978-1-4244-2903-5			
8.	Reljić D., Vasić V., Oros Đ.: Power Quality Considerations of Variable Speed AC Drives, A Simulation Study, Paper No. T6-2.4, pp. 1-5,, 16. International Symposium on Power Electronics – Ee, Novi Sad, 26-28 Oktobar, 2011, ISBN 978-86-7892-355-5			
9.	Reljić D., Miličević D., Adžić E., Dumnić B., Grabić S., Porobić V., Vekić M., Ivanović Z., Katić V., Vasić V., Marčetić D., Oros Đ., Čorba Z.: Modern Laboratory Tools for Experimental Research in the Field of Electric Drives, 15. International Symposium on Power Electronics Ee, Novi Sad: Društvo za energetsku elektroniku-Novu Sad, Elektrotehnički institut "Nikola Tesla"-Beograd, Fakultet tehničkih nauka-Novu Sad, 28-30 Oktobar, 2009, pp. 1-5, ISBN 978-86-7892-208-4			
10.	Ostojić D., Vasić V., Đujić D., Oros Đ.: The Influence of Parameter Mismatch on Natural Field Orientation Controlled Induction Motor Speed Estimation, 1. International Conference on Power Electronics and Intelligent Control for Energy Conservation, Varšava, 6-19 Oktobar, 2005			
Summary data for teacher's scientific or art and professional activity:				
Quotation total :		3		
Total of SCI(SSCI) list papers :		4		
Current projects :		Domestic :	1	International : 0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:		Papić M. Zoran	
Academic title:		Assistant 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:		Traffic Systems	
Academic carieer	Year	Institution	Field
Academic title election:	2011	Faculty of Technical Sciences - Novi Sad	Traffic Systems
PhD thesis	2010	Faculty of Technical Sciences - Novi Sad	Traffic Engineering
Magister thesis	1998	Faculty of Technical Sciences - Novi Sad	Traffic Systems
Bachelor's thesis	1992	Faculty of Technical Sciences - Novi Sad	Traffic Systems
List of courses being held by the teacher in the accredited study programmes			
ID	Course name	Study programme name, study type	
1.	S0433 Traffic Accidents Expertise	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies	
2.	S0435 Parking and Public Parking Garages	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies	
3.	S0440 Traffic Terminal Servers	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies	
4.	M2549 ROAD TRAFFIC FORENSIC ENGINEERING	(M22) Mechanization and Construction Engineering, Master Academic Studies	
5.	S0I53F Forensic Engineering in Traffic	(S00) Traffic and Transport Engineering, Master Academic Studies	
6.	S0MI4N Behaviour processes in traffic engineering	(S00) Traffic and Transport Engineering, Master Academic Studies	
7.	SDI24 Road Safety Measures	(S00) Traffic Engineering, Doctoral Academic Studies	
8.	DSSB2 Behavioural models in traffic safety	(S00) Traffic Engineering, Doctoral Academic Studies	
Representative references (minimum 5, not more than 10)			
1.	Analiza savremenih metoda i mogućnosti njihove primene za utvrđivanje sudarnih brzina kod ekspertiza čeonih sudara automobila, magistarska teza, Fakultet tehničkih nauka, Novi Sad, 1998.		
2.	Analyze of Changes in Exterior Dimensions of Cars During Collison with Fixed Barriers, Mobility & Vehicle Mechanics, Vol. 23, No.1, Kragujevac, 1997.		
3.	Analyses of Car Body Deformable Behaviour in Frontal Off-Set Collision, "MOTAUTO '97", Proceeding Vol.2, Russe, Bulgaria, 1997.		
4.	An Analytical approach to determination of the impact speed in frontall passenger car collisions, "MOTOATO 98", Proceeding Vol. III, Sofia october 1998.		
5.	Determination of some vehicle parametars necessary for vehicle crash expertise using impulse-balance method, "MOTAUTO' 99", Proceeding Vol. II, Plovdiv, 1999.		
6.	Application of Marquard Equations in Vehicle Crash Expertise, "MOTAUTO '01", Proceeding Vol. II, Varna October 2001.		
7.	Analiza intenziteta usporenja vozila bez upotrebe radne kočnice, VIII Simpozijum sa međunarodnim učešćem "Prevenција saobraćajnih nezgoda na putevima 2004", Novi Sad, Oktobar 2006.		
8.	Ispitivanje pouzdanosti primene kočionog koeficijenta za utvrđivanje brzine kretanja vozila", VII Simpozijum sa međunarodnim učešćem "Prevenција saobraćajnih nezgoda na putevima 2004", Novi Sad, Oktobar 2004.		
9.	Uticaj uličnog parkiranja na kapacitet gradskih saobraćajnica, časopis Tehnika 08/2006, Beograd, 2006.		
10.	Prilog istraživanju manevra bočnog izmicanja vozila za potrebe ekspertiza saobraćajnih nezgoda		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		0	
Total of SCI(SSCI) list papers :		3	
Current projects :		Domestic :	International :
		2	0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications



Name and last name:		Šostakov S. Rastislav	
Academic title:		Assistant Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.03.1974	
Scientific or art field:		Machine Constructions, Transport Systems and Logistics	
Academic carier	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
PhD thesis	2007	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Magister thesis	1983	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
Bachelor's thesis	1974	Faculty of Mechanical Engineering - 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.	H2404	Driving Systems Mechatronics	(H00) Mechatronics, Undergraduate Academic Studies
2.	M2408	Cranes	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M2507	Methods of experimental testing of machines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
4.	M301	Driving Systems	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
5.	M312A	Fundamentals of Transportation Machines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
6.	ZR308A	Security and Safety Equipment for working	(Z01) Safety at Work, Undergraduate Academic Studies
7.	ZR407A	Occupational safety in internal transport, reloading and warehouse	(Z01) Safety at Work, Undergraduate Academic Studies
8.	M2526	Working Strength	(M22) Mechanization and Construction Engineering, Master Academic Studies
9.	M2541	Occupational Safety and Protection in Operation with Machinery	(M22) Mechanization and Construction Engineering, Master Academic Studies
10.	LIM12	Transport Technique and Material Flow	(LIM) Logistic Engineering and Management, Master Academic Studies
11.	LIM27	Logistics of Warehousing and Commissioning	(LIM) Logistic Engineering and Management, Master Academic Studies
12.	LIM29	Simulation of Large Logistic Systems	(LIM) Logistic Engineering and Management, Master Academic Studies
13.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
14.	DM214	Selected Chapters in Working Strength	(M00) Mechanical Engineering, Doctoral Academic Studies
15.	DM331	Selected Chapters in Transport and Construction Machines	(M00) Mechanical Engineering, Doctoral Academic Studies
16.	DM410	Selected Chapters in Food Processing Machines and Equipment	(M00) Mechanical Engineering, Doctoral Academic Studies
17.	DOM25	Contemporary Procedures for Mobile Machine Designing	(M00) Mechanical Engineering, Doctoral Academic Studies
18.	DOM28	Modeling and Simulation of Driving Systems	(M00) Mechanical Engineering, Doctoral Academic Studies
19.	ZRD238	State and trends of development safety and health at work in the area mechanical engineering	(Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	J. Vladić, P. Malešev, R. Šostakov, N. Brkljač: Dynamic Analysis of the Load Lifting Mechanisms, Strojnicki vestnik - Journal of Mechanical Engineering, Vol. 54, No 10, pp. 655-661, 2008, ISSN: 0039-2480.
2.	N. Zuber, R. Šostakov, R. Bajrić: Application of vibration signal analysis and artificial intelligence methods in fault identification of rolling element bearings, Technics Technologies Education Management - TTEM, Vol. 6, No 1, pp. 3-10, 2011, ISSN: 1840-1503.
3.	R. Šostakov, D. Uzelac, F. Časnji: Surveying The Transient Operating Regimes Of A Driving Mechanism With A Hydrodynamic Coupling, "Mobility&Vehicles Mechanics, Kragujevac, 1999, Vol. 25, No 2&3, p. 47-54

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6			
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering			
Representative references (minimum 5, not more than 10)				
4.	D. Uzelac, R. Šostakov, S. Tašin: Starting Of An Electric Motor Drive With Hydrodynamic Coupling, "Facta Universitatis", Series "Mechanical Engineering", Nis, 1998, Vol. 1, No 5, p. 537-545			
5.	R. Šostakov, D. Uzelac, N. Brkljač: Metodologija praćenja rada pogonskog mehanizma sa hidrodinamičkom spojnicom i određivanja trajanja njegovog zaleta, "Tehnika, Mašinstvo", Beograd, 54(2005)3, str. 17-24			
6.	R. Šostakov, N. Babin, N. Brkljač: Analiza mogućnosti i postupaka uklapanja domaćih u međunarodne bazne standarde iz oblasti dizalica, I međunarodni naučno-stručni skup "Teška mašinogradnja "93", Kruševac, Vrnjačka Banja, 1993, Zbornik radova, str. 85-90			
7.	R. Sostakov, N. Babin, M. Zubic: The Concept Of Surveying The Transient States Of Crane Driving Mechanisms Operation Based On The Operating Point Motion - Didactical And Practical Aspect, XIV International Conference on Material Handling and Warehousing, Belgrade, 11. - 12. 12. 1996, Collected Papers, p. 2.20.-2.25			
8.	R. Sostakov, J. Vladoic, D. Uzelac, N. Brkljac: Berechnung der Anlaufdauer eines Antriebssystems mit hydrodynamischer Kupplung aufgrund des vereinigtes M-n Diagrams, XIV International Conference on Material Handling and Warehousing, Belgrade, 11. - 12. 12. 1996, Collected Papers, p. 4.67.-4.72			
9.	R. Sostakov, P. Dragicevic, N. Babin, H. Licen: Subroutine For ON-LINE Discretisation And Classification Of A Stress-Time Function Using Modified Full Cycles Method, XIV International Conference on Material Handling and Warehousing, Belgrade, 11. - 12. 12. 1996, Collected Papers, p. 4.99.-4.102			
10.	R. Sostakov, R. Jevremovic, M. Zubic: Electrical Motor Modelling As A Part Of Crane Driving Mechanism Modelling, XIV International Conference on Material Handling and Warehousing, Belgrade, 11. - 12. 12. 1996, Collected Papers, p. 4.162.-4.167			
Summary data for teacher's scientific or art and professional activity:				
Quotation total :				0
Total of SCI(SSCI) list papers :				2
Current projects :				Domestic : 1 International : 0

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	



Science, arts and professional qualifications



Name and last name:	Veselinov V. Branislav		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.08.1974		
Scientific or art field:	Biosystems Engineering		
Academic career	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Biosystems Engineering
PhD thesis	2003	Faculty of Technical Sciences - Novi Sad	Biosystems Engineering
Magister thesis	1989	Faculty of Technical Sciences - Novi Sad	Biosystems Engineering
Bachelor's thesis	1973	Faculty of Mechanical Engineering - 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.	M2407	Biosystem Machines 2	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
2.	M304	Biosystem Machines 1	(H00) Mechatronics, Undergraduate Academic Studies (M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
3.	URZP54	Devices in the Process Industry	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
4.	Z475A	Environmental engineering in biosystems	(Z20) Environmental Engineering, Undergraduate Academic Studies
5.	Z476	Energy and renewable energy sources in rural areas	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
6.	ZRI421	Occupational Safety in Agriculture and Forestry	(Z01) Safety at Work, Undergraduate Academic Studies
7.	Z475	Inženjerstvo zaštite životne sredine u biosistema(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z476	Energija i obnovljivi izvori energije u ruralnim oblastima(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	H2405	IT in Biosystems	(H00) Mechatronics, Master Academic Studies (M22) Mechanization and Construction Engineering, Master Academic Studies
10.	M2651	Tractors	(M22) Mechanization and Construction Engineering, Master Academic Studies
11.	M2652	Agricultural machinery for renewable energy sources	(M22) Mechanization and Construction Engineering, Master Academic Studies
12.	Z477	Sustainable Agriculture Engineering	(Z20) Environmental Engineering, Master Academic Studies
13.	Z478A	Information technology support sustainable biosystems	(Z20) Environmental Engineering, Master Academic Studies
14.	Z477	Inženjerstvo održive poljoprivrede(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
15.	Z478	Informaciono-tehnološka podrška održivom razvoju biosistema(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
16.	SZSP14	Contemporary approach to the biosystems engineering	(Z00) Environmental Engineering, Specialised Academic Studies
17.	SZSP16	Engineering of renewable energy sources in agriculture	(Z00) Environmental Engineering, Specialised Academic Studies
18.	DOM24	Procedure and Machines for Sustainable Agriculture	(M00) Mechanical Engineering, Doctoral Academic Studies
19.	ZSP14	Contemporary Approaches to Sustainable Engineering Biosystems	(Z00) Environmental Engineering, Doctoral Academic Studies
20.	ZSP16	Engineering of Renewable Energy in Agriculture	(OM1) Mathematics in Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, 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			
Study Programme Accreditation					
MASTER ACADEMIC STUDIES			Mechanization and Construction Engineering		
Representative references (minimum 5, not more than 10)					
1.	Veselinov, B.: Prilog razvoju sistema za presovanje vlaknastih biomaterijala kod presa za valjkaste bale sa promenljivom zapreminom komore za presovanje, Fakultet tehničkih nauka, Novi sad, Magistarski rad, 1989, 98 strana				
2.	Veselinov, B.: Uticaj raznih postupaka mehaničkog usitnjavanja suve pitome nane na kvalitet dobijene biljne sirovine, Fakultet tehničkih nauka, Novi Sad, Doktorska disertacija, 2003, 110 strana				
3.	Martinov, M., Veselinov, B., Bojić, S. 2007. Maize Cobs Processor – Preparations for its use as a Fuel. 11-th International Research/Expert Conference »Trends in the Development of Machinery and Associated Technology« TMT 2007, Hammamet, Tunisia, 05-09 Septembar, 1167-1170				
4.	Martinov, M., Adamović, D., Veselinov, B., Mujić, I., Bojić, S. 2008. Fazno sušenje lekovitog bilja u šaržnoj sušari. Savremena poljoprivredna tehnika, 34(1-2), 1-12. (ISSN 0350-2953)				
5.	Martinov, M., Veselinov, B., Bojić, S. 2008. Drobljenje oklasaka kukuruza – priprema za korišćenje kao gorivo. Savremena poljoprivredna tehnika, 34(1-2), 26-31				
6.	Veselinov, B., Adamović, D., Martinov, M. 2008. Istraživanje mogućnosti mehanizovanog branja cvasti nevena, Bilten za hmelj, sirak i lekovito bilje, Institut za ratarstvo i povrtarstvo Novi Sad, 40(81), 22-33				
7.	Martinov, M., Veselinov, B. 2009. Stanje u oblasti poljoprivrednog inženjerstva – Akcenti Konferencije VDI-MEG LAND-TECHNIK 2008. Savremena poljoprivredna tehnika, 35(3), 157-168. (ISSN 0350-2953)				
8.	Martinov, M., Adamović, D., Veselinov, B., Matavuly, M., Bojic, S. and I. Mujic. 2008. Practice oriented investigation of chamomile and peppermint drying in batch dryer. 36. International Symposium Agricultural Engineering: Actual Tasks on Agricultural Engineering, Opatija, 11-15 February 2008, Book of Proc, 479-490. ISSN1533-2651				
9.	Martinov M, Bojic S, Golub M, Veselinov B. 2012. Practice oriented investigation of hull-less oil pumpkin seeds, Cucurbita pepo L., drying in batch dryers. 7th Conference of Medicinal and Aromatic Plants of Southeastern European Countries. Subotica 27th-31st of Mai 2012, CD of Proc. 241-247. ISBN: 978-86-83-141-16-6				
10.	Martinov M, Golub M, Djordje Dj, Bojic S, Veselinov B. 2012. Total and available yield of soybean residues. 4th International Scientific and Expert Conference TEAM 2012 Technique, Education, Agriculture & Management. Slavonski Brod, 17th to 19th October 2012, CD of proc. 307-310. ISSN 1847-9065				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :			0		
Total of SCI(SSCI) list papers :			1		
Current projects :			Domestic :	5	International :
				0	

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

Science, arts and professional qualifications

Name and last name:	Vladić M. Jovan		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 12.11.1975		
Scientific or art field:	Machine Constructions, Transport Systems and Logistics		
Academic carieer	Year	Institution	Field
Academic title election:	1999	Faculty of Technical Sciences - Novi Sad	Machine Constructions, Transport Systems and Logistics
PhD thesis	1989	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering
Magister thesis	1982	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.	M207A	Computer-Aided Design	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
2.	M2402	Continuous and Automated Transport	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
3.	M2610	Graphic Communications and CAD	(H00) Mechatronics, Undergraduate Academic Studies
4.	M312A	Fundamentals of Transportation Machines	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
5.	M313A	CAD/CAE Course	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies
6.	S0218	Reload Logistics	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies
7.	S1218	Reload Logistics	(S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
8.	ZR407A	Occupational safety in internal transport, reloading and warehouse	(Z01) Safety at Work, Undergraduate Academic Studies
9.	H2504	Transportation and Manipulation Systems	(H00) Mechatronics, Master Academic Studies
10.	M2503	Transport Systems and Devices	(M22) Mechanization and Construction Engineering, Master Academic Studies
11.	M2509A	Automated Machine Designing	(M22) Mechanization and Construction Engineering, Master Academic Studies
12.	M2532	Packaging Machines	(M22) Mechanization and Construction Engineering, Master Academic Studies
13.	LIM12	Transport Technique and Material Flow	(LIM) Logistic Engineering and Management, Master Academic Studies
14.	LIM13	Packaging Techniques and Packaging	(LIM) Logistic Engineering and Management, Master Academic Studies
15.	LIM24	Urban Logistics	(LIM) Logistic Engineering and Management, Master Academic Studies
16.	H797	Mechatronics in mechanization - advanced topics	(H00) Mechatronics, Master Academic Studies
17.	DM213	Contemporary Methods of Designing and Machine Constructing	(M00) Mechanical Engineering, Doctoral Academic Studies
18.	DM331	Selected Chapters in Transport and Construction Machines	(M00) Mechanical Engineering, Doctoral Academic Studies
19.	DM410	Selected Chapters in Food Processing Machines and Equipment	(M00) Mechanical Engineering, Doctoral Academic Studies
20.	DOM20	Engineering Analysis Methods	(M00) Mechanical Engineering, Doctoral Academic Studies
21.	DOM23	Product Development	(M00) Mechanical Engineering, Doctoral Academic Studies
22.	DOM25	Contemporary Procedures for Mobile Machine Designing	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Vladić J., Đokić R., Kljajin M., Karakašić M.: Modelling and simulations of elevator dynamic behaviour, Tehnički vjesnik/Technical Gazette, 2011, Vol. 18, No 3, pp. 423-434, ISSN 1330-3651, UDK: 62(05)=163.42=111
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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


Mechanization and Construction Engineering

Representative references (minimum 5, not more than 10)

2.	Vladić J., Malešev P., Šostakov R., Brkljač N.: Dynamic Analysis of the Load Lifting Mechanisms, Strojnski vestnik = Journal of Mechanical Engineering, 2008, No 10, pp. 655-661, ISSN 0039-2480
3.	Vladić J., Đokić R., Živanić D.: Simulations and dynamic models of electrical elevators, 7. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Balatonfured: Faculty of Technical Sciences, 24-26 Maj, 2012, pp. 121-126, ISBN 978-86-7892-399-9
4.	Đokić R., Vladić J., Živanić D.: Design and bases for assembling prefabricated industrial objects, 6. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Palić: Fakultet tehničkih nauka, 29-30 Septembar, 2010, pp. 189-192, ISBN 978-86-7892-278-7
5.	Vladić J., Đokić R.: Modeling and dynamic analysis as basis for elevators design, 6. Simpozijum o konstruisanju, oblikovanju i dizajnu – KOD, Palić: Fakultet tehničkih nauka, 29-30 Septembar, 2010, pp. 193-198, ISBN 978-86-7892-278-7
6.	Vladić J., Živanić D., Đokić R., Gajić A.: Analysis and Choice of Prefabricated Industrial Halls Elements , 19. International conference on MATERIAL HANDLING, CONSTRUCTIONS AND LOGISTICS, Beograd: Mašinski fakultet Beograd, 15-16 Oktobar, 2009, pp. 257-260, ISBN 978-86-7083-672-3
7.	Vladić J., Gajić A., Đokić R., Živanić D.: Choice of Optimal Transportation Mechanisation at Open Pit , 6. International Conference "Heavy Machinery" - HM, Kraljevo: Faculty of mechanical engineering Kraljevo, 24-29 Jun, 2008, pp. 63-68, ISBN 978-86-82631-45-3
8.	Vladić J., Živanić D., Đokić R., Gajić A.: Analysis of Material Flows and Logistics Approach in Design of Material Handling Systems, 6. International Conference "Heavy Machinery" - HM, Kraljevo: Faculty of mechanical engineering Kraljevo, 24-29 Jun, 2008, pp. 69-72, ISBN 978-86-82631-45-3
9.	Vladić J., Đokić R.: Dynamic behaviour of elevators and tribological processes in their driving systems, 2. Power Transmissions, Novi Sad: FTN Novi Sad, 25-26 April, 2006, pp. 537-542
10.	Vladić, J.: Računske i eksperimentalne metode za statičku i dinamičku analizu žičara, monografija, 1991., FTN Novi Sad

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

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

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6	
	Study Programme Accreditation MASTER ACADEMIC STUDIES Mechanization and Construction Engineering	

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



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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, Vrnjackska 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



UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Mechanization and Construction Engineering

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 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

Mechanization and Construction Engineering

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.