STUDY PROGRAMME ACCREDITATION MATERIAL:

CLEAN ENERGY TECHNOLOGIES

MASTER ACADEMIC STUDIES

Novi Sad

2012.

Prevod sa srpskog jezika:

Jelisaveta Šafranj

Ivana Mirović

Marina Katić

Vesna Bodganović

Dragana Gak

Ličen Branislava

Content

Content

Programme name	Clean Energy Technologies
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	Interdisciplinary
Scientific, proffesional or art field	Energy Technologies: Technical-Technological Sciences
Type of studies	Master Academic Studies
Study scope, expressed in ECTS	60
Academic degree, abbreviation	Master in Energy Technologies, M.Ener.Tech.
Study length	1
Programme implementation starting year	
Future course implementation starting year (for new programme)	2013
Number of students attending this programme	0
Planned number of students to be enrolled in this programme	32
Programme approval date (state the approval issuer)	14.11.2012 - Science Education Council 29.11.2012 - University of Novi Sad Senate
Programme language	Serbian, English
Programme accreditation year	
Web address containing programme information	http://www.ftn.uns.ac.rs

Standard 00. Introduction

The study program of master academic studies in Clean energy technologies is the continuation of the study program of graduate studies of Clean energy technologies at the Faculty of Technical Sciences, University of Novi Sad. The incorporation of engineering and technical disciplines into the program of graduate and master academic studies of Clean energy technologies results into high multidisciplinary and interdisciplinary programs. For the purpose of programs realization one has to study the curriculum even from the aspect of electrical engineering, mechanical engineering and the fundamental disciplines of mathematics, chemistry, physics and other, getting multidisciplinary image of the study program.
Master Program of Clean energy technologies should enable students to further concretize and expand their knowledge within a selected study group, that are based on comprehension of the basic principles of engineering in various fields of environment protection, acquiring additional expert knowledge for the implementation of modern technical systems, gaining ability for knowledge integration to be applied in any particular case, ensuring them to be engaged in independent research and creative work during realization of the study program.

Standard 01. Programme Structure

The name of the master academic study programme is Clean energy technologies. The academic degree obtained is Master in energy technologies. The structure of the programme enables the students to acquire the in-depth knowledge in the chosen area of interest, to gain the knowledge which will enable them to use professional literature, to apply the knowledge to practical professional problems as well as to continue their studies, if they decide to do so.
Admission requirements are the completion of the graduate studies worth at least 240 ECTS
Procedures for registration, ranking and enrolling of applied candidates are defined in the Regulations of student enrolment on study programmes.
Master academic study programme Clean energy technologies lasts one academic year and is evaluated with 60 ETCS credits. This study program is comprised of elective and olbigatory courses, professional praxis and master thesis.
Students can choose, in accordance with the Head of the Study programme, certain courses offered by the Faculty of Technical Sciences, University of Novi Sad, or any other university in the country or abroad, according to their affiliations and wishes, if the prerequisites for attending that course are met.
Each course lasts one term and is worth a certain number of ECTS credits where one credit is equivalent to approximately 30 hours of work (lectures, practice, preparation for examination, etc.).
Teaching is performed in the form of lectures and practical classes. The teaching process emphasizes students` independent and research work and their participation in the teaching process. During the lectures the subject matter is taught using the suitable didactic material but at the same time the students are introduced to the research trends in the given field. At the practice classes which accompany the lectures, particular practical tasks are solved and additional examples are given to further illustrate the topic. Practical classes also provide additional explanation of the topics presented at lecture classes. Practice can be auditory, laboratory, computer. Practice classes can partially be conducted in a factory or other institution.
Student's work is followed and valued according to regulations adopted at the Faculty. The number of points earned is expresses according to uniform system and reflects the students` workload.
Each course is worth a certain number of ECTS credits and the Master studies are considered to be completed after the student has fulfilled all the obligations prescribed by the study programme and has attained the minimum of 60 ECTS credits.

Standard 02. Programme Objectives

The purpose of the study program is to educate students for the profession of Master in energy technologies in accordance with the basic needs of society.

Study program of Clean energy technologies is designed to provide acquisition of competence and skills that are socially justified and useful. The Faculty of Technical Sciences defined master tasks and objectives for the purpose of education of highly competent staff in the field of industry, business, profession, science and engineering disciplines. The purpose of the study program of Clean energy technologies is fully consistent with the master tasks and goals of the Faculty of Technical Sciences.

The realization of such a curriculum results in education of master engineers of Clean energy technologies that have competence, comparability and competitiveness in European and world levels.

Standard 03. Programme Goals

The aim of the studies is to achieve competence and academic skills in the field of Clean energy technologies. Being continued to graduate, including additional fundamental scientific disciplines as well as some vocational courses in master degree, master studies enable students to develop creative skills and ability to consider issues with critical independent thinking, developing capacity for teamwork, cooperation and mastery of specific theoretical and applicative skills.

The aim of the studies is to educate a professional who possesses the necessary knowledge in basic scientific disciplines (mathematics, physics, chemistry, mechanics, thermodynamics, and other natural sciences ...), in order to form a realistic picture of the processes that occur in industrial and energy systems, as well as classic and special engineering disciplines in the field of mechanical engineering, electrical engineering, programming and applied professional disciplines regarding energy engineering, environmental projects, alternative energies, management.

One of the particular objectives, consistent with the goals of experts in education at the Faculty of Technical Sciences is raising awareness among students for the need of continued education, sustainable development and environment protection. The aim of the study program is to educate a master capable of teamwork, a master who can reveal the scientific results to experts and public, but also to form a master who is able to be engaged in research.

Standard 04. Graduates` Competencies

Master students of Clean energy technologies are competent and qualified to solve complex multidisciplinary problems both theoretically and practically. Competencies include, above all, developing skills of critical and independent thinking, skills of problem analysis, solution synthesis, prediction and behavior of selected budget solutions with a clear idea of good and bad sides of the chosen solution.

Qualifications and competences that signify completion of the master academic studies are gained by the students:

1. who demonstrated theoretical knowledge and understanding in the field of Clean energy technologies, which is increased by the knowledge gained at graduate studies, being the basis for development of critical independent thinking;
2.who are able to apply knowledge for solving complex problems in the new or unknown environment;
3. who have the ability to integrate knowledge, solve complex engineering problems and to reason on the basis of information available, including considerations and responsibilities;
4. who are able to clearly and unambiguously transfer the knowledge and way of reasoning to professionals and general public;
5. who possess the ability to continue their studies in individual way

Regarding specific abilities, it is worth mentioning that when mastering the academic curriculum, a student acquires basic knowledge and understanding of all disciplines of the selected study group and ability to solve specific problems using scientific methods and procedures.

A student with master`s degree in Clean energy technologies is capable to adequately define and present the results by intensive use of information and communication technologies.

A student with master`s degree has an additional competency, compared to students in graduate studies, for knowledge application in practice and monitoring and implementation of innovations in the profession.

Students are trained to design, organize and manage clean energy technologies. During education, a student acquires the ability to independently plan and conduct experiments of statistical data processing and to formulate and make the appropriate conclusions.

A student with master`s degree in Clean energy technologies acquires special competence to sustainably use and protect the natural resources of the Republic of Serbia in accordance with the principles of sustainable development.

Standard 05. Curriculum

The curriculum of master academic studies in Clean energy technologies is designed for the purpose of achieving defined goals and competencies. The structure of the curriculum includes elective courses with at least 30% points.

Through elective courses, students meet their affinities profiled during graduate academic studies. Fundamental scientific disciplines, studied at this level, give the research character of the program, enabling even better understanding of complex processes in environment, with conditions for further scientific research of students. All courses last one semester and carry a certain number of points where one point corresponds to about 30 hours of student activities.

The curriculum includes the description of each course containing the name, type of article, year and semester, the number of ECTS credits, the name of the teacher, the course aims with expected outcomes, knowledge and competencies, prerequisites for attending the course , course content, recommended literature, methods of teaching, the way of knowledge testing and assessment and other data. The study program is consistent with European standards in terms of conditions of enrolment, duration of study, conditions of transition to the next year, graduation, and modes of study.

An integral part of the curriculum of Clean energy technologies is a professional practice and practical work of 45 hours, which is implemented in the relevant scientific research institutions, in organizations for innovation activities, in organizations which provide infrastructural support to innovation activities, in enterprises and public institutions. A student is completing his/her studies by elaboration master thesis, which consists of theoretical and methodological preparation necessary for in-depth understanding of the chosen field for writing master thesis paper.

Prior to the defence of the paper, a candidate has to pass the theoretical and methodological foundations, before a Commission, as a rule, that is composed for the defence. The final assessment of the diploma paper i.e. master paper is performed on the basis of the passed theoretical and methodological preparation and elaboration evaluation and defence of the paper itself. Final paper is defended before a committee consisting of at least three professors, of whom one member has to be from another Department or Faculty.

Table 5.2 Course specification

Course:		Bioenergy Fuels and Alternative Processes
Course id:	M3555	
Number of ECTS:	7	
Teacher:		Vićević D. Marija
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:

Introduction to biofuels fundamentals and technologies. Introduction to alternative methods in odrer to improve processes. Problem solving methods in the field of biofuels.

2. Educational outcomes (acquired knowledge):

Students acquire knowledge in the field of biofuels and alternative technologies in the process of their production, as well as fundamental knowledge necessary for managing and designing those processes.

3. Course content/structure:

Biomass production. Raw materials and row material selection for the biomass production. Bio mass production on hydrocarbon foundations. Algae production (processing and application). Secondar biomass. Biomass processing. Biogass production. Raw materials for bio gass production. Biodiezel produciton. Thermal and technical characteristics of fuels produced from biomass. Fundamentals in bio chemical reactors. Bioprocesses kinetics fundamentals. Application of bioenergnets and Serbian potentials in their production. Alternative processes (green processes; inovation processes, reaction and equipment; sustainable production; identification process methods).

4. Teaching methods:

Lectures, computer and audiotory practical classes, consultations, study and research work.

Knowledge evaluation (maximum 100 points)

Pre-examination obligations	Mandatory	Points	Final exam	Mandatory	Points
Computer exercise attendance	Yes	5.00	Theoretical part of the exam	Yes	70.00
Lecture attendance	Yes	5.00			
Term paper	Yes	10.00			
Test	Yes	10.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Jay Bailey, James Bailey, David F. Ollis	Biochemical Engineering Fundamentals, 2nd ed.	Graw-Hill, New York	1987
2,	Radaković, M.	Biodizel, Biogas, Biomasa	AGM knjiga	2009
3,	Reay, D., Ramshaw, C., Harvey.	A. process intensification: Engineering for Efficiency, Sustainability and Flexibility: Australasian Edition	Butterworth-Heinemann Title	2008

Table 5.2 Course specification

Course:		Implementation of Energy Management in Industry and Buildings
Course id:	M3M01	
Number of ECTS:	8	
Teacher:		Petrović R. Jovan
Course status:		Elective

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
3	3	0	0	0

Precondition courses: None

1. Educational goal:

Students will be enabled to do systematic studies of energy systems in industry and buildings, study the role and importance of specific energy systems in administration and buildings, evaluate impacts that energy systems have on business results of companies, possibilities in improvement of energy efficiency in industrial energy systems and buildings as well as development of energy management ethics

2. Educational outcomes (acquired knowledge):

Acquired knowledge will enable the candidates to understand relations between energy and production flows in industry, correlation between energy and relating policies in buildings as well as impact that energy consumption has in total costs, possibilities and validity in lowering the energy consumption costs. Special attention will be given to mastering the practice, techniques and technologies in implementing and practical realization of energy management systems in industry and buildings.

3. Course content/structure:

Concept of energy management in industry and buildings; Correlation between energy consumption and energy usage and production and securing the written laws in buildings; Energy indicators; Energy cost centers; Procedures in implementation of energy management systems; Energy management and environmental protection as an pushing force of integral management; Tools and procedures in controlling the energy flows; Adjustment and recording praxis.

4. Teaching methods:

Verbal method – visual method – practical method.

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			
Test	Yes	10.00			
Test	Yes	10.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Peter Harris	Preparing the Company Energy Plan – A Management Planning Guide	Energy Publications	1986
2,	Frank Kreith, D. Yogi Goswami	Energy Management and Conservation Handbook	Taylor and Francis Group, LLC	2008
3,	John Littler, Randall Thomas	Design with energy: The conservation and use of energy in buildings	Cambridge University Press	2003
4,	L. D. Danny Harvey	Energy Efficiency and the Demand for Energy Services	Earthscan	2010
5,	Energetski institut Hrvoje Požar: Ž. Borković i grupa autora	Vodič kroz energetski efikasnu gradnju	Nacionalna i sveučilišna knjižnica - Zagreb	2005

Table 5.2 Course specification

Course:		Risk Management
Course id:	M3M04	
Number of ECTS:	6	
Teacher:		Jovanović S. Aleksandar
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:

Subject goal is for students to receive scientific competences and academic skills in the field of risk management including the development of creative analytic abilities and problem synthesis and critical thinking abilities.

2. Educational outcomes (acquired knowledge):

Outcome and porpoise of this subject is to educate and enable students in independent and team scientific research in the field of risk management. Outcome of this subject is for the students to acquire the necessary scientific and expert competences.

3. Course content/structure:

Theoretic settings of risk management. Criteria and methods in risk assessment and the assessment of consequences and incidents. Revising the problems with numerical and informational methods. Problems and development in implementation of simulation methods and communication software. Part of the teaching is done individually – research in the field of simulation and risk assessment. Students research covers active keeping track of scientific sources, organization and implementation of experiments and statistical processing of gathered data, numerical simulations, possible writhing of the paper.

4. Teaching methods:

Verbal, visual and practical methods will be used. Lectures will consist of theoretical material accompanied with specific problems for better understanding of the subject. Throughout the scientific and interrogative work students will need to follow the current trends in this field and further increase their knowledge of this matter. The work with the professor will enable students to later independently write scientific papers.

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	35.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	35.00
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Jovanovic, A.	Risk-based inspection and maintenance in power and process plants in Europe	Nuclear Engineer and Design	2003
2,	Jovanovic, A., De Witte, M.	The hypertext based reference procedure used in expert system for life assessme		1991

Table 5.2 Course specification

Course:		Energy storage
Course id:	M3M07	
Number of ECTS:	6	
Teacher:		Gvozdenac D. Dušan
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:

The increasing use of renewable energy sources requires more intensive and more efficient energy storage. In this course, students will learn about the available technologies for the storage of all types of energy.

2. Educational outcomes (acquired knowledge):

Acquisition of theoretical and practical knowledge of energy storage technologies. Students will be trained to assess the needs and potential of energy storage in power systems.

3. Course content/structure:

Primary energy storage (solid fuels, liquid fuels, gaseous fuels), Thermal energy storage (technology based on water, molten salt technology); Steam accumulator; storage of mechanical energy (spring, compressed air energy storage, flywheel energy storage, hydraulic accumulator, storage potential energy of water), storage of electricity (electrochemical forms of energy storage, batteries, fuel cells); electric energy storage (capacitors), storage of biological energy (starch, glycogen).

4. Teaching methods:

Lectures and theoretical exercises. The exam is written. The rating is based on the success of the oral and written exam, and the presence in lectures and exercises.

Knowledge evaluation (maximum 100 points)

Pre-examination obligations	Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance	Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	40.00
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	D. Gvozdenac	Skladištenje energije (skripta)	FTN	2013
2,	F. S. Barnes, J. G. Levine	Large Energy Storage Systems Handbook (Mechanical and Aerospace Engineering Series)	Taylor&Francis Group	2011
3,	R. Zito	Energy Storage: A New Approach	John Wiley & Sons	2010

Table 5.2 Course specification

Course:		Clean technologies for electrical vehicles
Course id:	ZCM02	
Number of ECTS:	8	
Teachers:		Katić A. Nenad, Katić A. Vladimir
Course status:		Elective

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
3	3	0	0	0

Precondition courses: None

1. Educational goal:

Course goal is to introduce students with possibilities of renewable energy sources technology application for implementation of vehicles drive-trains and power supplies, mostly for light electrical vehicles like automobiles and motor-bikes. In such way, course prepare the student for global strategy for reducing harmful emissions and effects of Earth global warming. Students will learn key technical characteristics, and will be offered with hands-on practices on available small, battery-supplied electrical vehicles.

2. Educational outcomes (acquired knowledge):

Course will give the student flexible option for starting or continuing their education in the field of electrical vehicles. They would learn how to find optimal solution for electrical vehicle drive-train and vehicle's power supply, taking environmental protection measures. Students would gain elementary technical background for designing electrical vehicles drive-trains and power supplies.

3. Course content/structure:

Introduction - concept and types of clean technologies, from the aspects of light electrical vehicles. Technologies survey and their comparison. Vehicle's internal combustion drive with clean and pure fuels: natural gas, liquid gas, bio-gas, and biodiesel. Hybrid electrical vehicles (HEV). Pure electrical vehicles. Battery supplied electrical vehicles. Rechargeable batteries and other methods for energy storage. Fuel-cells in drive system. Drive on solar energy. Examples of modern electrical and hybrid automobiles. Electrical motor-bikes - key characteristics and drive system. Electrical bikes - key characteristics and operation principle. Power supplies inside electrical vehicle. Energy management in electrical vehicles.

4. Teaching methods:

Course include theoretical lectures and active student participation through discussion on given tasks, group and individual scientific research, interpretation of case studies, etc. Theoretical background and introduction to mathematical models are part of course lectures, while simulation and hands-on solving of different problems are part of laboratory practices. Individual student would be rated through the work on different case studies.

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
Lecture attendance	Yes	5.00			
Term paper	Yes	20.00			
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	V.Katić, I.Kapetanović,V.Fuštić	Obnovljivi izvori električne energije	TEMPUS-JADES, Fakultet tehničkih nauka, Novi Sad	2007
2,	Larminie J., Lowry J.	Electric Vehicle Technology Explained	John Wiley & Sons, New York	2012

Table 5.2 Course specification

Course:		Electric Power Market
Course id:	ZCM05	
Number of ECTS:	6	
Teacher:		Katić A. Nenad
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:

The aim of the course is to familiarize students with the market aspects of the use of electricity as one of the most usable form of energy, which is characterized by a low degree of adverse impact on environment. Student will be introduced to the concept of deregulated systems and economic and market aspects of working with electricity. Students will become familiar with the requirements and technical solutions and systems that enable the practical realization of such organized systems.

2. Educational outcomes (acquired knowledge):

Students will be able to monitor the parameters of the modern market in electricity trading in the deregulated system. Will enable it to understand and carry out functions in terms of regulatory agencies to monitor and market conditions and exchange of electricity.

3. Course content/structure:

Introductory sections - principles of regulation and monopoly power utilities organizations, causes and motives of the principles of deregulation and restructuring of the electric power industry. The new organization and the technical and economic conditions, new entrants operating in the electricity sector. Organization and functioning of the participants in the electricity market. The experience with deregulation in the world, the rules of the European Union. Deregulation and restructuring of the power industry in Serbia. Market and business conditions in the energy sector. The role of regulatory agencies in the EU and Serbia. The methods and conditions of pricing power among different entities in a deregulated system. Regional and European markets, and energy exchange. Future development of the market

4. Teaching methods:

Teaching methods include lecture and active student participation through discussion on a given topic, group and individual scientific research, processing, case studies, etc.. Theoretical aspects and mathematical models will be presented at the lectures, while the practical work and simulation work to be done in the exercise. Independent student work will be reported in the preparation of project / case studies.

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	40.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	10.00
Term paper	Yes	20.00			
Test	Yes	10.00			
Test	Yes	10.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	N. Katić, V. Borozan, S. Halilčević	Ekonomija elektroenergetskih sistema	TEMPUS-CEFES, Fakultet tehničkih nauka, Novi Sad	2007
2,	S. Filipović, G. Tanić	Izazovi na tržištu električne energije	Ekonomski institut, Beograd	2010

Table 5.2 Course specification

Course:		Renewable and Distributed Electrical Energy Sources
Course id:	ZCM08	
Number of ECTS:	6	
Teachers:		Katić A. Nenad, Katić A. Vladimir
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 this course is to provide students with basic knowledge of the principles and operation of renewable electric. energy sources, as a new generation distributed over the distribution network. The focus will be on wind energy, solar and hydropower (small hydro). The aim is to thoroughly introduce the modes, design, construction, and technical and economic aspects of their application, especially in light of the available capacity in Vojvodina and Serbia. In addition, the present and the interconnection of these sources into the existing distribution system, as well as all the problems and advantages of this approach.

2. Educational outcomes (acquired knowledge):

Students will be able to calculate, design and apply various forms of renewable energy, and to improve their applicability. They will gain practical experience in working with wind and solar power, as well as know-how on their operation and connection to the existing power system.

3. Course content/structure:

Introduction - overview of renewable energy sources. Energy potential and geographic distribution. The situation in Serbia and Vojvodina. The display and conversion opportunities. Converters of solar energy and wind energy into electricity - theories, models and practices. Characteristics and selection of electric generators in wind power plants. Energy electric inverters - application of wind power, the use of the power of the sun. Questions of construction and assembly. Complex power plants (wind farms) - mode, surveyor regimes, management, networking with EES. Small hydro power plants - kenstrukcija, manage and connect. Economic and commercial conditions for use of renewable resources for the production and sale of electricity. Connection options renewable sources into the power system. Advantages and problems in distributed work (unstable networks, island operation, power quality, energy production, etc..).

4. Teaching methods:

Theoretical aspects and mathematical models will be presented at the lectures. Problem solving and design methods will be made ??on the auditory exercises, while the practical work and measurement characteristics to be done in the laboratory exercises. Independent student work will be reported in the project.

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
Lecture attendance	Yes	5.00			
Term paper	Yes	20.00			
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Thomas Ackermann	Wind Power in power systems	John Wiley and Sons, Chichester	2005
2,	Vladica Mijailović	Distribuirani izvori energije - princip rada i eksploatacioni aspekti	Akademska misao, Beograd	2011

Table 5.2 Course specification

Course:		Modern software tools for clean energy technologies
Course id:	ZCM11	
Number of ECTS:	7	
Teacher:		Čelanović L. Nikola
Course status:		Elective

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
3	3	0	0	0

Precondition courses: None

1. Educational goal:

The aim of the course is to familiarize students with existing software tools available for the determination of the energy potential of each renewable energy. In addition, the aim is to present software tools for the design of appropriate plants and their overall simulation of the interaction with the electric power system, energy storage devices and corresponding consumers.

2. Educational outcomes (acquired knowledge):

Students will be able to choose the appropriate software tools in the field of clean energy technologies and to use some of them related to the design of appropriate systems based on the energy of wind, sun and water. In addition, you will be able to perform the simulation of power plants and investigate their effects.

3. Course content/structure:

Introduction - basic features and characteristics of software tools. Overview of available tools for assessing the energy potential of wind, solar and hydro energy. Comparison of tools for each source and the most appropriate choice based on specified criteria. Testing the software selected for the determination of the potential of solar, hydro and wind energy in Vojvodina and Serbia. Software for design of solar, wind and small hydro power plants, and comparison of their key characteristics. Solar plant design testing. Connection to the power grid and testing of possible situations. Connect with storage devices and testing the characteristics of their work. Review of software tools for simulation and comprehensive introduction to those who have the best features of the practical application. Testing of selected tools.

4. Teaching methods:

Teaching methods include lecture and active student participation through the discussion on a selected topic, group and individual scientific research, data processing, case studies, etc.. Theoretical aspects and mathematical models will be presented at the lectures, while the practical work and simulation work to be done in the form ofexercise. Independent student work will be reported in the preparation of project / case studies.

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	60.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	10.00
Term paper	Yes	20.00			

Literature				
Ord.	Author	Title	Publisher	Year
1,	Riso Laboratories	Wind Atlas Analysis and Application Program	Course Notes	2004
2,	Volker Quaschning	Understanding Renewable energy systems	Earthscan	2005

Table 5.2 Course specification

Course:		Novel materials in energetics
Course id:	ZCM03	
Number of ECTS:	8	
Teacher:		Štrbac D. Dragana
Course status:		Elective

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
3	3	0	0	0

Precondition courses: None

1. Educational goal:

Introducing students to the specific needs of modern energy sector in terms of material properties, as well as the specific types of new materials, their relevant characteristics and possibilities of their application in the energy sector.

2. Educational outcomes (acquired knowledge):

The ability to choose adequate, convenient and high-quality novel materials for specific applications in the field of energy production.

3. Course content/structure:

Requests for novel materials in modern energy production(specific materials for solar panels, wind turbines, high-efficiency power generators, photovoltaic properties, mechanical properties, energy efficiency). Modern magnetic materials for energy storage and conversion of energy (magnets with , nanocomposites magnets, high temperature permanent magnets). Modern polymers for energy. High temperature and flame resistant polymers. Corrosion resistant polymers. Polymers for electrical and electronic applications. Materials for specific applications in modern energy production(thin films for energy conversion and storage of energy, steel and ceramic coating materials for reducing energy losses, materials for high capacity hydride batteries, nanostructured superconductors).

4. Teaching methods:

Lectures, exercises, 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	70.00
Lecture attendance	Yes	5.00			
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	I. Vouldis, P. Millet, J. L. Valles	Novel materials for energy applications	European Communities	2008
2,	Manas Chanda, Salil K. Roy	Plastics Technology Handbook	CRC Press	2008
3,	John Lawton et al.	Novel Materials in the Environment: The case of nanotechnology	Royal Commission on environmental pollution	200x

Table 5.2 Course specification

Course:		Security of strategic energy facilities
Course id:	ZCM06	
Number of ECTS:	6	
Teachers:		Sakulski M. Dušan, Štrbac D. Dragana, Vujić V. Goran
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:

The educational objective involves introducing students to the basic concepts of security of strategic energy and nuclear plants and facilities, and its application. Based on an analysis of serious industrial accidents flaws in the security system installations will be discussed as well as risks regarding the use and storage of large amounts of energy sources.

2. Educational outcomes (acquired knowledge):

Students gain knowledge about the basic concept of security that must be taken into consideration in design and maintenance of strategic energy systems. Students will also be introduced to basic security systems of large power plants as well as the basic methods of security analysis (probabilistic and deterministic) applicable to different types of power plants.

3. Course content/structure:

Theoretical Studies: Overview of global energy picture in the world and Serbia. Security risks associated with different methods of electricity production. The basic principles of safety in design and maintenance of power plants (redundancy principle, the principle of diversity, spatial separation principle, the principle of fail-safe, etc.). Protection of power plants from terrorist attacks. The application of the basic principles of security in nuclear plants. Practical lessons: The exercises are dealing with lecture material in detail through practical examples.

4. Teaching methods:

At the lectures theoretical part of the material is presented accompanied by practical examples from industry in order to facilitate understanding and adoption of theoretical material. The auditory exercises are dealing in detail with teaching materials with a more active student participation and practical application of modern analysis methods (deterministic and probabilistic) of facilities security. Consultations are held as a part of the regular teaching methods in addition to performing lectures and exercises.

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	60.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	10.00
Term paper	Yes	20.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	D.G. Cacuci	Nuclear Reactor Safety Systems	Woodhead Publishing Series in Energy	2001
2,	Vujić V. Zoran	Bezbednost strateških energetskih sistema	Skripta, interno izdanje FTN	2011

Table 5.2 Course specification

Course:		Occupational Health and Safety
Course id:	ZCM09	
Number of ECTS:	6	
Teacher:		Hadžistević J. Miodrag
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 educational objective of this course is to introduce students to the basic principles of the occupational health and safety and the importance of their use. It explains the necessity of establishing a system of occupational health and safety, describes the elements of the system and how it is established. Students learn about the role of government, union of employers and union of workers whose close cooperation is the basis of success in the implementation of occupational health and safety at the state level. Students gain knowledge of the assets and equipment of occupational health and safety which minimizes impacts of identified hazards and the procedures necessary to implement aspects of occupational health and safety regulations defined by law, education of workers and the use of personal protective equipment.

2. Educational outcomes (acquired knowledge):

Students will gain the basic knowledge of the importance of the principles of occupational health and safety. They will be introduced to the role of all stakeholders in the implementation of occupational health and safety and thus will gain the necessary knowledge to use the system in enterprises. Students will become familiar with the legislation in the field of occupational health and safety, arising from the directives of the European Union, the International Labour Organisation conventions and international standards.

3. Course content/structure:

Basic concepts of occupational health and safety. Occupational health and safety system in the Republic of Serbia. International legal sources in the field of occupational health and safety. Directives of the European Union. Serbian legal acts in the field of occupational health and safety. Power plants. Products for personal protection. Green economy. Green jobs. Workplace risk assessment. Examples of good practice (power plants).

4. Teaching methods:

Lectures, oral and laboratory practices. In lectures, theoretical part of the material with appropriate practical examples is inroduced, to facilitate the understanding and adoption teaching materials. In laboratory exercises knowledge on the available laboratory equipment are practically applied.

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	20.00
Lecture attendance	Yes	5.00	Oral part of the exam	Yes	50.00
Test	Yes	10.00			
Test	Yes	10.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Bez autora	Zakon o bezbednosti i zdravlju na radu	Sl. glasnik R. Srbije broj 101/2005.	2005
2,	Bez autora	Pravilnici iz oblasti bezbednosti i zdravlja na radu		X
3,	Simo Kosić, Vera Božić Trefalt, Dragoslav Tomović	Bezbednost i zdravlje na radu - direktive Evropske unije	Agencija za bezbednost i zdravlje u radnoj i životnoj sredini	2006

Table 5.2 Course specification

Course:		Logistic of energy biomass
Course id:	ZCM12	
Number of ECTS:	7	
Teacher:		Martinov L. Milan
Course status:		Elective

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
3	3	0	0	0

Precondition courses: None

1. Educational goal:

Acquisition of knowledge about production and logistic of solid biomass in the form of crop residues and energy crops.

2. Educational outcomes (acquired knowledge):

Knowledge and skills related to energetic utilization of crop residues and energy crops in agriculture and forestry

3. Course content/structure:

Introduction in course subjects, information on students obligation and knowledge evaluation. Biomass as energy source, status and prospectus. Crop residues, energy crops and their characteristics relevant for its energetic utilization. Defining of potentials and possible increase of it. Establishing of biomass action plans from community to republic level. Crop residues, amount, harvesting, storage, transport, processing. Impact of crop residues off-take on soil fertility, possible reduction or elimination of negative impacts. Mechanized harvest and manipulation of crop residues. Production of energy plants, having in mind preservation of soil fertility, biodiversity and reduction of competition for food production. Evaluation of possible increase of yield and introduction of dual cropping. Harvest and utilization of forest residues. Assessment of potentials, mechanization of supply chain. Production and energetic utilization of energy crops, SRC (short rotation coppices). Backgrounds for economic evaluation, whereby is focused logistic. Visit to one farm or producer of energy crops.

4. Teaching methods:

Auditory classes, seminar paper with oral defense, colloquial exam and oral exam.

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	60.00
Lecture attendance	Yes	5.00			
Term paper	Yes	30.00			

Literature

Ord.	Author	Title	Publisher	Year
1,	Martinov, M.	Predloške za nastavu u elektronskoj formi (Power Point)	Fakultet tehničkih nauka, Novi Sad	2004
2,	Grupa autora	Energy and Biomass Engineering, CIGR, ASAE	ASABE, St. Joseph	1999
3,	Kaltschmitt, M., Hartmann, H.	Energie aus Biomasse	Springer, Berlin	2009
4,	Grupa autora	Energiepflanzen: Datensammlung für die Planung des Energiepflanzenbaus	KTBL, Darmstadt	2006

Table 5.2 Course specification

Course:		Professional practice
Course id:	Z504	
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:

Gaining direct knowledge about the functioning and organization of companies and institutions dealing with matters within the profession for which the student is getting qualifications and possibilities of applying previously acquired knowledge into practice.

2. Educational outcomes (acquired knowledge):

Training students to apply previously acquired theoretical and professional knowledge to solve specific practical engineering problems in the selected companies or institutions. Introducing students to activities of the selected companies or institutions, ways of doing business, management and the place and role of engineers in their organizational structures.

3. Course content/structure:

Formed for each candidate separately, in agreement with the management of companies or institutions, performing professional practice and in accordance with the needs of the profession for which the student is qualified.

4. Teaching methods:

Consultation and writing a diary of professional practice in which a student describes the activities and tasks that he performed during the professional practice.

Knowledge evaluation (maximum 100 points)					
Pre-examination obligations	Mandatory	Points	Final exam	Mandatory	Points
Project	Yes	50.00	Project defence	Yes	50.00

Literature				
Ord.	Author	Title	Publisher	Year

Table 5.2 Course specification

Course:		Research on Theoretical Grounds - Master Thesis
Course id:	ZCSIM1	
Number of ECTS:	15	
Teachers:		
Course status:	Mandatory	

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
0	0	0	20	0

Precondition courses: None

1. Educational goal:

The application of basic theoretical, methodological, scientific, technical and professional knowledge and application of methods to solve specific problems within the selected area. In the second part of this master thesis, students study the problem, and the complexity of its structure and on the basis of the analysis draws conclusions on the possible ways of solving it. Studying literature students are introduced to the methods are designed for solving similar tasks and engineering practice in solving them. The aim of the activities of students in this part of the research is to acquire the necessary experience in solving complex problems and tasks and possibilities for the application of previously acquired knowledge in practice.

2. Educational outcomes (acquired knowledge):

Training students to independently apply previously acquired knowledge in different fields that have been previously studied, in order to review the structure of the given problem and its system analysis in order to draw conclusions on possible directions for its resolution. Through the use of literature alone, students expand their knowledge of selected field and the study of various methods and papers relating to similar problems. In this way, the students develop the ability to conduct analysis and identify problems within the given topic. Practical application of acquired knowledge in different areas of stuedenata develop the ability to look at the place and role of engineers in the chosen field, the need to cooperate with other professions and teamwork.

3. Course content/structure:

Formed in accordance with the individual needs of the working out of a master thesis, its complexity and structure. Students study the literature, graduate and master thesis, projects that deal with similar topics, makes analyzes in order to find solutions specific task which is defined task of master thesis work. Part of teaching the course is conducted through independent study research. Studio work includes active monitoring of the primary themes of knowledge, organization and conduct experiments, numerical simulation and statistical analysis of data, writing and / or disclosure of the conference from the narrow field of science teaching which belongs to the master theme of work.

4. Teaching methods:

Mentor of master thesis of the task compiles and submits it to the student. The student is required to work within the framework of the development of a given topic, which is defined task of master thesis work, using literature from the proposed mentor. During the preparation of of master thesis, a mentor can give students additional guidance, refer to specific literature and further directed him to of master thesis the production of quality work. In the research study, the student consults with the supervisor, if necessary, with other teachers who are dealing with the topics of the field work. Within a given topic, the student, if necessary perform certain measurements, tests, counts, surveys and other research, statistical data, if provided task of master thesis work.

Knowledge evaluation (maximum 100 points)					
Pre-examination obligations	Mandatory	Points	Final exam	Mandatory	Points
Term paper	Yes	50.00	Oral part of the exam	Yes	50.00

Literature				
Ord.	Author	Title	Publisher	Year
1,	grupa autora	časopisi sa Kobson liste		sve
2,	grupa autora	časopisi, diplomski i master radovi		sve

Table 5.2 Course specification

Course:		Elaboration and Defence of Diploma - Master Thesis
Course id:	ZCMR1	
Number of ECTS:	15	
Teachers:		
Course status:	Mandatory	

Number of active teaching classes (weekly)				
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:
0	0	0	0	10

Precondition courses: None

1. Educational goal:

Acquiring knowledge about structure and form of report writing after the analysis, and other activities carried out within the assigned theme of graduate-master thesis . By creating the diploma Master thesis, students gain experience in writing papers within which it is necessary to describe the problem, implemented methods and procedures and the achieved results. In addition, the objective of the elaboration and defense of the diploma Master thesis is to develop students`skills for independent paper preparation in a suitable form for the purpose of public presentation, and to respond to comments and questions about a given topic.

2. Educational outcomes (acquired knowledge):

Training students for a systematic approach in solving the given problem, carrying out analyses, applying knowledge and accepting knowledge from other areas in order to find solutions for a given problem. Through independent studying and solving tasks in a given topic, they acquire the knowledge about the complexity of the problems in the field of their profession. Through elaboration of master thesis, students get certain experiences that can be applied in practice when solving problems in the field of their profession. By preparation of results for public defense, public defense and answering questions and complaints of the Commission, the student acquires the necessary experience how to present the results of independent or team work in practice.

3. Course content/structure:

It is individually formed in accordance with the needs and needs and the area covered by a given master thesis. In agreement with the mentor, a student makes a master thesis in writing in accordance with the rules provided by the Faculty of Technical Sciences. A student prepares and publically defends a written master thesis, in agreement with a mentor and in accordance with prescribed rules and procedures.

4. Teaching methods:

During the elaboration of the master thesis, a student consults with his/her mentor, and if necessary with other teachers dealing within a sphere of the master thesis. A student makes a master thesis and upon the approval by the Commission for Assessment and Defense, submits the bound copies to the Commission. The Defense of the master thesis is performed publically, and after the presentation the student is obliged to orally answer the questions and comments.

Knowledge evaluation (maximum 100 points)					
Pre-examination obligations	Mandatory	Points	Final exam	Mandatory	Points
			Master thesis defence	Yes	50.00
			Writing the master thesis	Yes	50.00

Standard 06. Programme Quality, Contemporaneity and International Compliance

The study program of Clean energy technologies formed and defined the programme of multidisciplinary and interdisciplinary studies of clean energy, keeping in mind the specifics of the profession of the clean energy in Serbia and respecting the experience from the relevant university institutions in the world dealing with the education of the experts in this field. This study profile is recognized as a sublimation of the study programmes of the following universities:

1.Electrical Technology for Sustainable and Renewable Energy Systems Masters (MSc), The University of Nottingham
http://www.nottingham.ac.uk/pgstudy/courses/electrical-and-electronic-engineering/electrical-technology-for-sustainable-and-renewable-energy-systems-msc.aspx

2.Renewable Energy And Distributed Generation MSc, Heriot-Watt University
http://www.postgraduate.hw.ac.uk/courses/view/255/

3.Sustainable Energy, Master of Engineering Courses, University of Maryland
http://advancedengineering.umd.edu/programs/sustainable-energy/masters/courses

Standard 07. Student Enrollment

The Faculty of Technical Sciences, in accordance with social demands and its resources and approved number of students in the accreditation process, enrolls to master academic studies-Master of clean energy technologies on budget funded and self funded studies a certain number of students defined each year by the special decision of the Educational and Scientific Council of the Faculty of Technical Sciences. Students from other study programmes and persons who have completed studies which are worth at least 240 ETCS can enroll into this study programme, as defined by the Regulations on Enrolment of Students to Study Programmes.

The committee for evaluation (formed by all department heads participating in the realization of the study programme) evaluate all the passed examinations of the candidates and based on the accepted number of points determine the year of studies the candidate can enroll to.

Candidates who have compleated appropriate study programe gain right for enrollment at Master academic studies. Committee for quality control decides whether the candidates who gained right for enrollment are obligated to take entering exam. If Committee for quality control decides that examination has to be taken, candidates take the entering exam: tests in the field of study programme.

The selection and enrolment of the applied candidates is based on their success during the previous education, duration of their studies and entrance examination as defined by the Regulations on Enrolment of Students to Study Programmes.

Commitee, in accordance with the Regulations on Enrolment of Students to Study Programmes, has the right to aprove enrollment of candidates who have not compleeted appropriate academic studies which are worth minimum 240 ETCS, if vacancies remain after enrollment of all candidates who meet the requirements. Candidates who have not compleeted appropriate graduate study programme can be approved to enroll if they successfully pass entering examination. Committee, in that case, determines courses from the graduate studies that student must aditionaly take and successfully pass. Total number of ETCS credits of those aditional courses determined by Committee can not exceed 30 (thirty).

Committee for quality control members are Head of the study programme and Heads of all departments to which the courses from the study programme belong, or teachers who Heads of those departments determine, in acordance with the Regulations on Enrolment of Students to Study Programmes.

Standard 08. Student Evaluation and Progress

The final grade for each course of study program is formed by continuous monitoring of students` work and results during the academic year and the final exam.
A student masters the study program by taking exams, which result in acquiring a certain number of points. Each individual course in the program carries a certain number of points, which is achieved when a student successfully pass the exam.

The number of points is established on the basis of student`s workload in mastering a particular course and using a uniform methodology of the Faculty of Technical Sciences for all study programs. The student`s success in mastering a particular course is continuously monitored during the teaching, and is expressed in points. The maximum number of points a student can achieve on the course is 100.
A student is obtaining the points on the course through involvement in the teaching process and fulfillment of pre-examination obligations. The minimum number of points which a student can obtain by fulfilling the pre-examination obligations during the teaching process is 30 and the maximum number is 70.
Each course from the curriculum has a clear way of gaining points. The way of gaining points during the teaching process includes a number of points that a student can obtain on the basis of a particular type of activities during the teaching process or through performing the pre-examination obligations and taking exams.
The complete student`s success on the course is expressed by grades from 5 (failed) to 10 (excellent). Assessment of student is based on the total number of points obtained by the student`s fulfillment of obligations and taking exams, including the quality of acquired knowledge and skills.
In order to be allowed to pass the exam in the particular course, a student has to obtain at least 15 points based on the pre-examination obligations during the semester. Additional requirements for the exam are separately defined for each course.
The student`s progress during education is defined in the rulebook of studying intended for the master academic studies.

Standard 09. Teaching Staff

For the realization of the study program of Clean energy technologies, there is the teaching staff with necessary professional and academic qualifications.

The number of teachers engaged in the realization of the study programs of graduate and master academic studies meets the requirements of the study program and depends on the number of courses and number of hours on these courses. The total number of teachers is sufficient to cover the total number of hours on the study program, so that a teacher realizes about 180 hours (lectures, consultations, exercises, practical work, ...) annually, or 6 times a week.

Number of collaborators meets the requirements of the study program. The total number of collaborators on the study program is sufficient to cover the total number of hours on exercises. The collaborators are realizing an average of 300 hours of exercises per year, or 10 hours per week.

Scientific and professional qualifications of the teaching staff match the educational and scientific field and level of their assignments. Each teacher has at least five references from specific scientific or technical field, which is related to his teaching activities at the particular study program.

The group size for the lecture is up to 180 students, the group for exercises up to 60 students and groups for labs up to 20 students.

All data on teachers and collaborators (CV, elections for the position, references) are available to the public.

Science, arts and professional qualifications

Name and last name:	Čelanović L. Nikola
Academic title:	Associate Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.12.2008
Scientific or art field:	Power Electronics, Machines and Facilities

Academic carieer	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
PhD thesis	2000	Virginia Polytechnic Institute and State University - Tennessee	Power Electronics, Machines and Facilities
Magister thesis	1996	Virginia Polytechnic Institute and State University - Tennessee	Mechatronics, Robotics and Automation and Intelligent Systems
Bachelor's thesis	1994	Faculty of Technical Sciences - Novi Sad	Electronics

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.	EE308	Power Electronics 2	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	EE425	Energy Converter Control	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
4.	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
5.	EOS13	Electric Power Distribution System for Industrial Plants	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
6.	EOS16	Software tool is power systems	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
7.	EOS22	Electrical installations of residential buildings	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
8.	EOS30	Electrical Design Calculation Software	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
9.	EOS27	Power electronics converters control	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
10.	DE108S	FACTs devices and power quality	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
11.	DE113S	Power Electronics Applications in Power Systems	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
12.	DE309S	Selected chapters in electrical machines transients	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
13.	E1SO01	Modern technologies in electrical engineering	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
14.	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
15.	EE545	Power Electronics with Distribution and Transmission Networks	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
16.	ZCM11	Modern software tools for clean energy technologies	(ZC0) Clean Energy Technologies, Master Academic Studies
17.	DE309	Selected Chapters in Transient Phenomena in Electrical Machines	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	S. Grabić, N. Celanović, V. Katić, “Permanent Magnet Synchronous Generator Cascade for Wind Turbine Application,” IEEE Transactions on Power Electronics, vol. 23, no. 3, pp. 1136-1142, May 2008.
2.	M. Vekić, S. Grabić, D. Majstorović, I. Celanović, N. Celanović, V. Katić, “Ultra Low Latency HIL Platform for Rapid Development of Complex Power Electronics Systems”, IEEE Transaction on Power Electronics, USA, ISSN 0885-8993,[Online]. Available: TPEL-Reg—2011-09-08.R1

Representative refferences (minimum 5, not more than 10)

3.	N. Celanović, I. Celanović, Z. Ivanović: Cyber Physical Systems: A New Approach to Power Electronics Simulation, Control and Testing, Advances in Electrical and Computer Engineering, Faculty of electrical engineering and computer sciences, University of Suceava, Romania, vol.12, Issue 1, pp. 33-38, Feb. 2012.
4.	D. Majstorović, I. Celanović, N. Teslić, N. Čelanović, V. A. Katić, „Ultra-Low Latency Hardware-in-the-Loop Platform for Rapid Validation of Power Electronics Designs”, IEEE Transactions on Industrial Electronics, USA, ISSN: 0278-0046, Vol. 58, No.10, pp.4708-4716, Oct.2011.
5.	Z. Ivanović, E. Adzić, M. Vekić, S. Grabić, N. Celanović, V. Katić, “HIL Evaluation of Power Flow Control Strategies for Energy Storage Connected to Smart Grid Under Unbalanced Conditions”, IEEE Transaction on Power Electronics, USA, ISSN 0885-8993, Available: 10.1109/TPEL.2012.2184772
6.	N. Čelanović, D. Boroyevic, "A fast space-vector modulation algorithm for multilevel three-phase converters", IEEE Transactioncs on Industry Applications, vol. 37, no. 2, March/April 2001.
7.	N. Čelanovic, D. Boroyevich, "A comprehensive sudy of neutral-point balancing problem in three-level neutral-point-clamped voltage source PWM inverters", IEEE Transactions on Power Electronics, vo. 5, no. 2, March 2000.
8.	M. Goldfarb, N. Čelanović, "A flexure-based gripper for small-scale manipulation", Robotica, Cambridge University Press, vol. 17, March 1999, pp. 181-187.
9.	M. Goldfarb, N. Čelanović, "A Lumped-Parameter electromechanical model for descibing the nonlinear behaviour of piezoelelctric actuators" ASME Journal of Dynamic Systems, Measurement and Control, vol. 119, no. 3, 1997, pp. 478-485.
10.	M. Goldfarb, N. Čelanović, "Modeling piezoelectric stack actuators for control of micromanipulation", IEEE Control systems magazine, vol. 17, no. 3, 1997, pp. 67-79.

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

Quotation total :	17			
Total of SCI(SSCI) list papers :	5			
Current projects :	Domestic :	0	International :	2

Science, arts and professional qualifications

Name and last name:	Gvozdenac D. Dušan
Academic title:	Full Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.06.1973
Scientific or art field:	Thermal Energetics and Thermotechnics

Academic carieer	Year	Institution	Field
Academic title election:	1993	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics
PhD thesis	1981	Faculty of Mechanical Engineering - Beograd	Thermal Energetics and Thermotechnics
Magister thesis	1978	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics
Bachelor's thesis	1973	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.	EOS38	Energetski menadžment	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
2.	M119	Energy Transformations	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
3.	M222A	Energy System Engineering	(M30) Energy and Process Engineering, Undergraduate Academic Studies
4.	M3311	Renewable Energy Sources	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
5.	M3501	Refrigeration Devices	(M30) Energy and Process Engineering, Undergraduate Academic Studies
6.	Z206	Alternative Power Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	Z206A	Alternative Energy Sources	(Z01) Safety at Work, Undergraduate Academic Studies
8.	Z206	Alternativna energetika(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	E2313	Fundamentals of Process and Energy Engineering	(E20) Computing and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
10.	II1044	Energy flows and energy efficiency	(I10) Industrial Engineering, Undergraduate Academic Studies
11.	M211	Measurement and Regulation	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
12.	M3031	Engineering Calculations of Energy Technologies Apparatus and Equipment	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
13.	M3494	Energy efficiency	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
14.	I939	Merenje, nadzor i upravljanje	(M50) Energy Management, Master Academic Studies
15.	IMDS78	Odabrana poglavlja iz energetskog menadžmenta(uneti naziv na engleskom)	(I22) Engineering Management, Specialised Academic Studies
16.	M3503	Dinamika i modeliranje termoenergetskih postrojenja(uneti naziv na engleskom)	(M30) Energy and Process Engineering, Master Academic Studies
17.	M3M07	Energy storage	(ZC0) Clean Energy Technologies, Master Academic Studies
18.	M5022	Renewable energy sources	(M50) Energy Management, Master Academic Studies
19.	SZSP24	Savremeni principi energetskog menadžmenta	(Z00) Environmental Engineering, Specialised Academic Studies
20.	DM216	Energy Systems	(M00) Mechanical Engineering, Doctoral Academic Studies
21.	DM217	Energy Management in Idustry	(M00) Mechanical Engineering, Doctoral Academic Studies

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

	ID	Course name	Study programme name, study type
22.	DM218	Contemporary Energy Technologies	(M00) Mechanical Engineering, Doctoral Academic Studies
23.	DM219	Energy Politics	(M00) Mechanical Engineering, Doctoral Academic Studies
24.	DM302	Engineering Experimental Methods	(H00) Mechatronics, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies
25.	DM309	Energy Management Methods	(M00) Mechanical Engineering, Doctoral Academic Studies
26.	DM332	Energy Management in Buildings	(M00) Mechanical Engineering, Doctoral Academic Studies
27.	DM333	Renewable Energy Resoruces	(M00) Mechanical Engineering, Doctoral Academic Studies
28.	ZSP24	Modern Principles of Energy Management	(Z00) Environmental Engineering, Doctoral Academic Studies
29.	IMDR78	Odabrana poglavlja iz energetskog menadžmenta(uneti naziv na engleskom)	(I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	Energy Efficiency in Food Processing Industry – East European Experience, edited by D. Gvozdenac, UNDP/UNIDO Project DP/RER/83/003, Novi Sad, pp. 123, 1991.
2.	Conterporary problems in Power Engineering (monograph), Novi Sad/Thesaloniki, Gvozdenac D, Xypteras J, Dimić M. 1996.
3.	Measurement and regulation (Selected chapters for operators of large power plants), Institute of energy and process engineering, Novi Sad, Gvozdenac, D, Pešenjanski, I,1980. (in Serbian).
4.	Measurement and Regulation in Thermal Engineering, Faculty of Technical Sciences, Gvozdenac, D, Novi Sad, 2000. (in Serbian).
5.	Bilansiranje energetskih tokova, Pokrajinski centar za energetku efikasnost, Gvozdenac, D., Marić, M., Petrović, J., Novi Sad, 2006.
6.	Gvozdenac D, Menke C, Vallikul P, Petrovic J, Gvozdenac B: Assessment of potential for natural gas-based cogeneration in Thailand, Energy, Volume 34, Issue 4, 2009, pp 465-475
7.	A Mathematical Model for Heat Transfer in Combustion Chambers of Steam Generators, Gulič, M, Gvozdenac, D, Transactions of the ASME Journal of Engineering for Power, Vol. 103, 1981, pp. 545 – 551.
8.	Somcharoenwattana W, Menke C, Kamolpus D, Gvozdenac D: Study of Operational Parameters Improvement of Natural-Gas Cogeneration Plant in Public Buildings in Thailand, Energy and Buildings, Vol. 43, Issue 4, April, 2011. p. 925-934
9.	Two-pass counter cross-flow heat exchangers with both fluids unmixed throughout, Gvozdenac, D, Waerme - und Stoffuebertragung, Vol. 20, 1986, pp. 151 – 161.
10.	Analytical Solution of the Transient Response of Gas-to-Gas Cross-flow Heat Exchanger With Both Fluids Unmixed, Gvozdenac, D.D, ASME Journal of Heat Transfer, Vol. 108, 1986, pp. 722-727.

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

Quotation total :	71			
Total of SCI(SSCI) list papers :	26			
Current projects :	Domestic :	2	International :	1

Science, arts and professional qualifications

Name and last name:	Hadžistević J. Miodrag
Academic title:	Associate Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.02.1993
Scientific or art field:	Metrology, Quality, Fixtures and Ecological-Engineering Aspects

Academic carieer	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
PhD thesis	2004	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Magister thesis	1999	Faculty of Technical Sciences - Novi Sad	Metrology, Quality, Fixtures and Ecological-Engineering Aspects
Bachelor's thesis	1992	Faculty of Technical Sciences - Novi Sad	Cutting Processing Tools and Tribology

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

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

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

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

Representative refferences (minimum 5, not more than 10)

1. Matin I., Hadžistević M., Hodolič J., Vukelić Đ., Lukić D.: A CAD/CAE Integrated Injection Mold Design System for Plastic Products, International Journal of Advanced Manufacturing Technology, 2012, Vol. 63, No 5-8, pp. 595-607, ISSN 0268-3768
2. Brajlih T., Tasić T., Drštvenček I., Valentan B., Hadžistević M., Pogačar V., Balić J., Ačko B.: Possibilities of Using Three-Dimensional Optical Scanning in Complex Geometrical Inspection, Strojniski vestnik = Journal of Mechanical Engineering, 2011, Vol. 57, No 11, pp. 826-833, ISSN 0039-2480
3. Sekulić M., Jurković Z., Hadžistević M., Gostimirović M.: The influence of mechanical properties of workpiece material on the main cutting force in face milling, Metalurgija, 2010, Vol. 49, No 4, pp. 339-342, ISSN 0543-5846, UDK: 669.14/15:620.171.70/178:620.18 = 111
4. Morača S., Hadžistević M., Drstvenšek I., Radaković N.: Application of Group Technology in Complex Cluster type Organizational Systems, Strojniski vestnik = Journal of Mechanical Engineering, 2010, Vol. 56, No 10, pp. 663-675, ISSN 0039-2480
5. Radlovački V., Kamberović B., Delić M., Hadžistević M., Pečujlija M.: ARE QUALITY MANAGEMENT SYSTEM AND INFORMATION TECHNOLOGIES MANAGEMENT TOOLS - ESTIMATES OF SERBIAN QUALITY MANAGERS, INTERNATIONAL JOURNAL ADVANCED QUALITY, 2012, Vol. 40, No 1, pp. 33-36, ISSN 2217-8155, UDK: 658.5
6. Stević, M.: Povećanje tačnosti merenja numerički upravljanih mernih mašina, edicija tehničke nauke - monografija, FTN izdavaštvo, ISBN 86-7892-028-9, Novi Sad, 2006.
7. Hadžistević M., Morača S.: Networks and Quality Improvement, International Journal for Quality Research, 2009, Vol. 3, No 4, pp. 353-361, ISSN 1800-6450
8. Lomen, I., Cvetićanin, L., Hodolič, J., Stević, M.: Softwarova aplikacia na určenie hladiny hluku v priemyselnych podnikoch, Časopis Acta Mechanica Slovaca, 2/2002, Ročnik 6., pp. 165-168, Košice, Slovačka, 2002.
9. Hodolič J., Budak I., Vukelić Đ., Agarski B., Hadžistević M.: Less Formal Tools for Environmental Management in Production Industry, 2. International Symposium on Environmental and Material Flow Management - EMFM, Zenica: Faculty of Mechanical Engineering in Zenica, University of Zenica, 7-9 Jun, 2012, pp. 1-15, ISBN 978-9958-617-46-1
10. Agarski B., Budak I., Puškar T., Vukelić Đ., Marković D., Hadžistević M., Hodolič J.: Multi-criteria assessment of environmental and occupational safety measures in dental prosthetics laboratories, Journal of Production Engineering, 2012, Vol. 15, No 1, pp. 53-56, ISSN 1821-4932

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

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

Science, arts and professional qualifications

Name and last name:	Jovanović S. Aleksandar
Academic title:	Full Professor
Name of the institution where the teacher works full time and starting date:	-
Scientific or art field:	Thermal Energetics and Thermotechnics

Academic carieer	Year	Institution	Field
Academic title election:	2001	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics
PhD thesis	1986	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering
Education Specialist Thesis	1983	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering
Magister thesis	1982	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering
Bachelor's thesis	1977	Faculty of Mechanical Engineering - Beograd	Mechanical Engineering

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

	ID	Course name	Study programme name, study type
1.	I079	Modern Energy Technologies	(M50) Energy Management, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
2.	M3302	Thermoenergy Plants	(M30) Energy and Process Engineering, Undergraduate Academic Studies
3.	M3405	Thermal Turbines 1	(M30) Energy and Process Engineering, Undergraduate Academic Studies
4.	M3409A	Modern Energy Technologies	(M30) Energy and Process Engineering, Undergraduate Academic Studies
5.	M3045	Life cycle optimisation of the energy and process equipment	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
6.	M3495	Therma Energy Ekuipment	(M30) Energy and Process Engineering, Undergraduate Academic Studies
7.	I079	Modern Energy Technologies	(M50) Energy Management, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
8.	I916	Energy Management in Industry	(M50) Energy Management, Master Academic Studies
9.	I939	Merenje, nadzor i upravljanje	(M50) Energy Management, Master Academic Studies
10.	M3M04	Risk Management	(ZC0) Clean Energy Technologies, Master Academic Studies
11.	DM218	Contemporary Energy Technologies	(M00) Mechanical Engineering, Doctoral Academic Studies
12.	DM308	Optimization of Operation Life of Energy and Process Equipment	(M00) Mechanical Engineering, Doctoral Academic Studies
13.	DM315	Expert Systems	(M00) Mechanical Engineering, Doctoral Academic Studies
14.	DM316	Risk Technologies	(M00) Mechanical Engineering, Doctoral Academic Studies
15.	DM332	Energy Management in Buildings	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1. Jovanovic, A., Kussmaul, K. F., Lucia; A. C., Bonissone, P.: Expert Systems in Structural Safety Assessment: Proceedings of an International Course October 2-4, 1989, Stuttgart, FRG (Lecture Notes in Engineering), vol. 53, Springer-Verlag, 1989, p. 493, ISBN: 978-3-540-51823-5.
2. Jovanovic, A., Renn, O., Schröter, R.: Social Unrest, OECD Reviews of Risk Management Policies, OECD Publishing, Paris, France, 2012, ISBN: 978-92-64-17345-3.
3. Filipovic, N., Jovanovic, A., Petrovic, D., Obradovic, M., Jovanovic, S., Balos, D., Kojic, M.: Modelling of self-healing materials using discrete and continuum methods, Surface Coatings International, 2012, Vol. 95, No. 2, pp. 74-79, ISSN: 1754-0925.
4. Jovanovic, A., Balos, D.: iNTeg-Risk project: concept and first results, Journal of Risk Research, 2012, DOI: 10.1080/13669877.2012.729516, ISSN: 1366-9877.
5. Jovanovic, A. Renn, O.: Search for the 'European way' of taming the risks of new technologies: the EU research project iNTeg-Risk, Journal of Risk Research, 2012, DOI:10.1080/13669877.2012.743162., ISSN: 1366-9877.
6. Jovanović, A. Pilić, V.: Dealing with risk-risk interdependencies and tradeoffs in relation to development and use of new technologies, Journal of Risk Research, 2012, DOI:10.1080/13669877.2012.729528., ISSN: 1366-9877.
7. Jovanovic, A.: Overview of RIMAP project and its deliverables in the area of power plants, International Journal of Pressure Vessels and Piping, 2004, Vol. 81, No. 10-11, pp. 815-824, ISSN: 0308-0161.

Representative refferences (minimum 5, not more than 10)	
8.	Bareiß, J., Buck, P., Matschecko, B, Jovanovic, A., Balos, D., Perunicic, M.: RIMAP demonstration project. Risk-based life management of piping system in power plant Heilbronn, International Journal of Pressure Vessels and Piping, 2004, Vol. 81, No.10-11, pp. 807-813, ISSN: 0308-0161.
9.	Jovanovic, A., Maile, K., Wagemann, G., Le Mat-Hamata, N., Gampe, U., Andersson, P., Segle, S., Gelineau, O.: Assessment of cracks in power plant components by means of the HIDA knowledge-based system (KBS), International Journal of Pressure Vessels and Piping, 2001, Vol. 78, No. 11-12, pp. 1053-1069, ISSN: 0308-0161.
10.	Jovanovic, A.: Risk-based inspection and maintenance in power and process plants in Europe, Nuclear Engineering and Design, 2003, Vol. 226, No. 2, pp. 165-182, ISSN: 0029-5493.

Summary data for teacher's scientific or art and professional activity:				
Quotation total :	59			
Total of SCI(SSCI) list papers :	18			
Current projects :	Domestic :	2	International :	5

Science, arts and professional qualifications

Name and last name:	Katić A. Vladimir
Academic title:	Full Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.10.1978
Scientific or art field:	Power Electronics, Machines and Facilities

Academic carieer	Year	Institution	Field
Academic title election:	2002	Faculty of Technical Sciences - Novi Sad	Power Electronics, Machines and Facilities
PhD thesis	1991	School of Electrical Engineering - Beograd	Electrical and Computer Engineering
Magister thesis	1981	School of Electrical Engineering - Beograd	Electrical and Computer Engineering
Bachelor's thesis	1978	Faculty of Technical Sciences - Novi Sad	Electrical and Computer Engineering

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.	EE308	Power Electronics 2	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	Z107	Electrical Engineering, Environment and Protection	(Z01) Safety at Work, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
4.	EE0406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
5.	EE431	Renewable Sources and Small Power Plants	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
6.	EZ300	Clean Electrical Energy Sources	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
7.	EZ400	Clean Energy Sources Design	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
8.	DE209S	Energy Converters in Renewable Energy Sources	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
9.	DE413S	Integration of Distributed Energy Resources	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
10.	DE505S	Power Quality in Distribution Networks	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
11.	DE506S	Renewable Electrical Energy Sources	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
12.	DE509S	Effects of Power Converters on Network and Environment	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
13.	EE406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
14.	EE509	Market and Deregulation in Electric Power Industry	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
15.	S0I51Ž	Electrical Substation and Electric Traction	(S00) Traffic and Transport Engineering, Master Academic Studies
16.	EE544	Renewable energy sources	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
17.	EE564	Distributed Energy Resources	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
18.	ZCM02	Clean technologies for electrical vehicles	(ZC0) Clean Energy Technologies, Master Academic Studies
19.	ZCM08	Renewable and Distributed Electrical Energy Sources	(ZC0) Clean Energy Technologies, Master Academic Studies
20.	DE108	FACTS Devices and Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
21.	DE113	Application of Power Electronics in Power Systems	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
22.	DE209	Energy Converters in Renewable Power Sources	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies

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

	ID	Course name	Study programme name, study type
23.	DE413	Integration of Distributed Energy Resources	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
24.	DE505	Power Quality in Distribution Networks	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
25.	DE506	Renewable Electrical Energy Sources	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
26.	DE509	Effects of Power Converters on Network and Environment	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
27.	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 (GI0) 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
28.	MSID04	Present State in the Field	(M40) Technical Mechanics, Doctoral Academic Studies
29.	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 refferences (minimum 5, not more than 10)

1. Vladimir Katić: "Kvalitet električne energije – viši harmonici", Univerzitet u Novom Sadu - Fakultet tehničkih nauka, Edicija Tehničke nauke - Monografije, Br. 6, Novi Sad, 2002., ISBN 86-80249-57-2.
2. Vladimir Katić: "Energetska elektronika - Zbirka rešenih zadataka", Univerzitet u Novom Sadu-Fakultet tehničkih nauka, Edicija Univerzitetski udžbenik, Broj 66, Novi Sad, 1998, tiraž 500 primeraka, strana 430, Pomoćni udžbenik, ISBN 86-499-0017-8.
3. Vladimir Katić, Darko Marčetić, Dušan Graovac: "Energetska elektronika – Praktikum laboratorijskih vežbi", Univerzitet u Novom Sadu-Fakultet tehničkih nauka, Edicija Univerzitetski udžbenik, Broj 124, Novi Sad, 2000, tiraž 300 primeraka, strana 85, Pomoćni udžbenik, ISBN 86-499-0081-X.
4. Vladimir Katić, Vlado Porobić, Darko Marčetić: “Primena mikroprocesora u energetici – Praktikum laboratorijskih vežbi“, Univerzitet u Novom Sadu-Fakultet tehničkih nauka, Edicija: Tehničke nauke - Udžbenici, Broj 149, Novi Sad, Dec. 2006, tiraž 300 primeraka, strana 122, Pomoćni udžbenik, ISBN 86-7892-013-0.
5. Vladimir Katić: „Upravljanje energetskim pretvaračima“, Fakultet tehničkih nauka – WUS, Novi Sad, 2006, tiraž 20 primeraka, str.175, Skripta.
6. Dušan Graovac, Vladimir Katić, Alfred Rufer: "Power Quality Problems Compensation with Universal Power Quality Conditioning System", IEEE Transaction on Power Delivery, USA, ISSN 0885-8977, Vol.22, No.2, April 2007, pp.968-976.
7. Vladimir Katić, Jovan Knežević, Dušan Graovac: "Application-Oriented Comparison of the Methods for AC/DC Converter Harmonics Analysis", IEEE Transaction on Industrial Electronics, USA, ISSN 0278-0046, Vol.50, No.6, December 2003, pp.1100-1108.
8. Vladimir Katić, Dušan Graovac: “A Method for PWM Rectifier Line Side Filter Optimization in Transient and Steady States”, IEEE Transaction on Power Electronics, USA, ISSN 0885-8993, Vol.17, No.3, May 2002, pp.342-352.
9. Dušan Graovac, Vladimir Katić: “On-Line Control Of Current Source Type Active Rectifier Using Transfer Function Approach”, IEEE Transaction on Industrial Electronics, USA, ISSN 0278-0046, Vol.48, No.3, June 2001, pp.526-535.
10. Vladimir Katić: ”Modern Power Electronics Technologies for Wind Power Plants”, Invited Paper, Electronics/Elektronika, Banja Luka (BIH-R.Srpska), Vol.10, No.2, Dec.2006, YU ISSN 1450-5843, pp.3-9.

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

Quotation total :	122
Total of SCI(SSCI) list papers :	19

Current projects :	Domestic :	5	International :	1

Science, arts and professional qualifications

Name and last name:	Katić A. Nenad
Academic title:	Assistant Professor
Name of the institution where the teacher works full time and starting date:	-
Scientific or art field:	Electroenergetics

Academic carieer	Year	Institution	Field
Academic title election:	2008	Faculty of Technical Sciences - Novi Sad	Electroenergetics
PhD thesis	2002	Faculty of Technical Sciences - Novi Sad	Electroenergetics
Magister thesis	1991	School of Electrical Engineering - Beograd	Electroenergetics
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.	EOS35	Tržište električne energije	(E01) Power Engineering - Renewble Sources of Electrical Energy, Undergraduate Professional Studies
2.	EE0406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	ESI006	Introduction to critical mission software for power grids	(ES0) Power Software Engineering, Undergraduate Academic Studies
4.	ESI012	Smart Grid Networks	(ES0) Power Software Engineering, Undergraduate Academic Studies
5.	EZ301	Cost-effective and energy-efficient electrical systems	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
6.	DE107S	Decision-Making Optimization	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
7.	DE312S	Power Market and Regulation	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
8.	DE405S	Smart Grid Networks	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
9.	DE406S	Electric Power Industry in the Free Market Economy	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
10.	DE508S	Power System Economics	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
11.	EE406	Electric Power Quality	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
12.	EE509	Market and Deregulation in Electric Power Industry	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
13.	EE510	Economic Methods in Electric Power Industry	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
14.	EE544	Renewable energy sources	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
15.	ZCM02	Clean technologies for electrical vehicles	(ZC0) Clean Energy Technologies, Master Academic Studies
16.	ZCM05	Electric Power Market	(ZC0) Clean Energy Technologies, Master Academic Studies
17.	ZCM08	Renewable and Distributed Electrical Energy Sources	(ZC0) Clean Energy Technologies, Master Academic Studies
18.	DE107	Decision-Making and Optimization	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies
19.	DE312	Electricity Markets and Regulation	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
20.	DE405	Smart Grid Networks	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
21.	DE406	Electric Power Industry in the Free Market Economy	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
22.	DE508	Power System Economics	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	Katić N., Savić M.: Autori: Nenad Katic, Milan Savic Naziv: Technical and economical optimisation of overhead power distribution line lightning protection , IEE Proc.-Gener.Transm.Distrib, 1998, No 3, pp. 239-244
2.	Katić V., Dumnić B., Katić N., Milićević D., Grabić S.: Potentials and Market Prospective of Wind Energy in Vojvodina, Thermal Science - International Scientific Journal, 2012, Vol. 16, ISSN 0354-9836, UDK: 621
3.	Strezoski V., Katić N., Janjić D.: Voltage Control Integrated in Distribution Management System, Electrical Power System Research, 2001, No 60, pp. 85-97
4.	Katić N.: Yugoslavia Develops a New Distribution Management System , Utility Automation, USA, a PennWell Publication, 1996, pp. 30-35
5.	Katić V., Dumnić B., Čorba Z., Milićević D., Katić N.: Potentials of Renewable Energy Market in Serbia – Case of Wind and Solar Energy, 8. IEEE International Conference on European Energy Market – EEM, Zagreb, 25-27 Maj, 2011, pp. 785-790, ISBN 978-1-61284-284-4
6.	Katić N., Marijanović V., Stefani I.: Smart Grid Solutions in Distribution Networks - Cost Benefit Analysis, 4. China International Conference on Electricity Distribution ICED, Nanjing, 12-16 Septembar, 2010, pp. 1-6
7.	Katić N.: PROFITABILITY OF SMART GRID SOLUTION APPLICATION IN DISTRIBUTION NETWORK, 7. Mediterranean Conference and Exibition on Power Generation, Transmission, Distribution and Energy Conversion, Agia Napa, 7-10 Novembar, 2010, pp. 1-6
8.	Katić N., Strezoski V., Popović D.: Business Benefits of DMS Software Application in Competitive Distribution, 17th International Conference on Electricity Distribution CIRED
9.	Katić N., Strezoski V., Popović D.: DMS Software Applications a Powerful Tool for the New Challenges in Deregulated Power Distribution, Balkan Power Conference
10.	Katić N., Strezoski V., Katić V.: Introducing the Management and ECTS in Electrical Power Engineering Education, ISIRR

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

Quotation total :	16			
Total of SCI(SSCI) list papers :	4			
Current projects :	Domestic :	3	International :	14

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 carieer	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 enery 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

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 refferences (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 (Cucurbita pepo L.) in a medium scale batch dryer with different modes of air circulation., Zeitschrift für Arznei- und Gewürzpflanzen, 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, Renewable energy, 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, Computer and Electronics in Agriculture, 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, Waste Management, 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, Fuel, 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 Hypericum perforatum L. Zeitschrift für Arznei- und Gewürzpflanzen, 12(3): 124-128.
7.	Martinov M., Veselinov B., Bojić S., Đatkov Đ.: Investigation of maize cobs crushing – preparation for use as a fuel, Thermal Science - International Scientific Journal, 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 Czech Journal of Food Sciences 27(3): 171-177.
9.	Oztekin, S, Martinov, M. 2007. Medicinal and Aromatic Crops, Harvesting, Drying and Processing, 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

Science, arts and professional qualifications

Name and last name:	Petrović R. Jovan
Academic title:	Associate Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.01.1982
Scientific or art field:	Thermal Energetics

Academic carieer	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Thermal Energetics
PhD thesis	2007	Faculty of Technical Sciences - Novi Sad	Thermal Energetics and Thermotechnics
Magister thesis	2002	Faculty of Agriculture - Novi Sad	Process Technics
Bachelor's thesis	1978	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.	I079	Modern Energy Technologies	(M50) Energy Management, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
2.	M3304	Boiler Plants	(M30) Energy and Process Engineering, Undergraduate Academic Studies
3.	M3406	Heat Apparatus	(M30) Energy and Process Engineering, Undergraduate Academic Studies
4.	M3409A	Modern Energy Technologies	(M30) Energy and Process Engineering, Undergraduate Academic Studies
5.	Z306	Process Engineering	(Z20) Environmental Engineering, Undergraduate Academic Studies
6.	Z306A	Process Engineering	(Z01) Safety at Work, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
7.	Z412A	Process apparatus for protecting the environment	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z412	Procesni aparati za zaštitu okoline(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
9.	M211	Measurement and Regulation	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
10.	M3041	Cogeneration facilities	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
11.	M3494	Energy efficiency	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
12.	M3497	Energy audits	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
13.	M3518	Energy Management	(M30) Energy and Process Engineering, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
14.	I079	Modern Energy Technologies	(M50) Energy Management, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
15.	I916	Energy Management in Industry	(M50) Energy Management, Master Academic Studies
16.	I917	Energy Management in Buildings	(M50) Energy Management, Master Academic Studies
17.	I078	Energetska politika	(M50) Energy Management, Master Academic Studies

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

	ID	Course name	Study programme name, study type
18.	M3515	Energy Systems	(M30) Energy and Process Engineering, Master Academic Studies (M50) Energy Management, Master Academic Studies
19.	M3518	Energy Management	(M30) Energy and Process Engineering, Master Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
20.	M3M01	Implementation of Energy Management in Industry and Buildings	(ZC0) Clean Energy Technologies, Master Academic Studies
21.	M5025	Energy audits	(M50) Energy Management, Master Academic Studies
22.	DM216	Energy Systems	(M00) Mechanical Engineering, Doctoral Academic Studies
23.	DM217	Energy Management in Idustry	(M00) Mechanical Engineering, Doctoral Academic Studies
24.	DM218	Contemporary Energy Technologies	(M00) Mechanical Engineering, Doctoral Academic Studies
25.	DM219	Energy Politics	(M00) Mechanical Engineering, Doctoral Academic Studies
26.	DM332	Energy Management in Buildings	(M00) Mechanical Engineering, Doctoral Academic Studies
27.	DM333	Renewable Energy Resoruces	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1. Bojić M. at al: 24th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems - ECOSS 2011, Novi Sad, 2011, pages 3958, ISBN 978-86-6055-016-5 (member of editorial team)
2. Ćosić I. at al: 4th Internationa Conference on Engineering Technologies ICET 2009, Novi Sad, 2009, pages 523, ISBN 978-86-7892-227-5 (member of editorial team)
3. Gvozdenac, D., Menke, C., Vallikul, P., Petrović, J., Gvozdenac, B.: Assessment of potential for natural gas/based cogeneration in Thailand, Energy, Vol. 34, No.4, pp. 465–475.
4. JOVAN R. PETROVIĆ, BRANKA GVOZDENAC – UROŠEVIĆ, JOSIP J. POLC: Reasons for heat demand changes and effects on planning and development of heating systems, Thermal Sciences, Year 2112, Vol. 16, Suppl. 1, pp S63-S77, ISSN 0354-9836, UDC 621
5. MIROSLAV V. KLJAJIĆ, JOVAN R. PETROVIĆ: Applicability assessment of central and solar hot water system integration in Serbia, Thermal Sciences, Year 2012, Vol. 16, Suppl. 1, pp S63-S77, ISSN 0354-9836, UDC 621
6. GVOZDENAC D, PETROVIC J, GVOZDENAC B.: Industrial Gas Turbine Operation Procedure Improvement, Thermal Science, Vol. 15 (2011), pages 17-28, UDC: 662.76.035/.036, DOI: 10.2298/TSCI100516012G
7. GVOZDENAC D., PETROVIC J.: Survey of Activities in the Subnetwork in Food Processing Industry; ENCONET NEWSLETTER, Prague, Czechoslovakia, 1989, No 2, pp. 32-35.
8. PETROVIĆ Lj., MANOJLOVIĆ D., PETROVIĆ M., GVOZDENAC D., PETROVIĆ J.: Uticaj brzine hlađenja na kvalitet svinjskog mesa; "Tehnologija mesa", Beorad, 1990., br. 4, str. 128-135
9. GRKOVIĆ V., PETROVIĆ J.: Pokazatelji energetske efikasnosti kod postrojenja za spregnutu proizvodnju električne i toplotne energije (SPETE), "Termotehnika", Beograd, 1991., br. 1-2, str. 27-39
10. PETROVIC J., GVOZDENAC D., PERUNOVIC P.: Monitoring of the Operating Thermal Performances in a Water Heating Boiler - Case Study; ENCONET NEWSLETTER, Prague, Czechoslovakia, No. 4, 1991

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

Quotation total :	7			
Total of SCI(SSCI) list papers :	4			
Current projects :	Domestic :	3	International :	0

Science, arts and professional qualifications

Name and last name:	Sakulski M. Dušan
Academic title:	Assistant Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.10.2007
Scientific or art field:	Environment Protection Engineering

Academic carieer	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
PhD thesis	2002	WITS University - Johannesburg	Environment Protection Engineering
Bachelor's thesis	1982	Faculty of Civil Engineering - Beograd	Civil Engineering
Magister thesis	-		Civil Engineering

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

	ID	Course name	Study programme name, study type
1.	URZP23	Applied Information Technologies	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
2.	URZP36	Risks in Manipulating Hazardous Substances	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
3.	URZP41	Disasters and Vulnerability	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
4.	URZP44	Application of geoinformation technology in risk management	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
5.	URZP46	Cycle Elements of Catastrophic Events	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
6.	URZP56	Fundamentals of Risk and Fire Protection Management	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
7.	Z415	Accidental Risks Management	(Z20) Environmental Engineering, Undergraduate Academic Studies
8.	Z511P	Institutional Framework in Risk Management	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
9.	Z307	Modelovanje i simulacija u IZŽS(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
10.	Z409A	Upravljanje opasnim otpadom(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
11.	Z415	Upravljanje akcidentalnim rizicima(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
12.	ZC047	Waste to energy tehnologies	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
13.	ZP515	Qualitative and quantitative methods of risk management	(ZP1) Disaster Risk Management and Fire Safety, Master Academic Studies
14.	Z510	Upravljanje akcidentalnim rizicima i životna sredina(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
15.	Z511	Institucionalni okviri upravljanja akcidentnim rizicima(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
16.	ZP501	Integrated Natural Disaster Risk Management	(ZP1) Disaster Risk Management and Fire Safety, Master Academic Studies
17.	IM2707	Methods for the analysis of insurance risk	(I20) Engineering Management, Master Academic Studies
18.	IM2714	Disaster risk management cycle	(I20) Engineering Management, Master Academic Studies
19.	IM2715	Modeling and simulation in risk management	(OM1) Mathematics in Engineering, Master Academic Studies (I20) Engineering Management, Master Academic Studies
20.	IMDS72	Advanced risk assessment methods	(I22) Engineering Management, Specialised Academic Studies
21.	MPK009	Enviromental hazards	(MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engledskom), Master Academic Studies
22.	MPK012	Solid waste management	(MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engledskom), Master Academic Studies
23.	MPK014	Monitoring and system control	(MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engledskom), Master Academic Studies

Study Programme Accreditation

MASTER ACADEMIC STUDIES — Clean Energy Technologies

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

	ID	Course name	Study programme name, study type
24.	MPK019	Disaster risk management	(MPK) Inženjerstvo tretmana i zaštite voda - TEMPUS(uneti naziv na engledskom), Master Academic Studies
25.	ZCM06	Security of strategic energy facilities	(ZC0) Clean Energy Technologies, Master Academic Studies
26.	IMDR72	Advanced risk assessment methods	(I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies
27.	ZRD233	Selected topics in the field of insurance from the standpoint of safety and health at work	(Z01) Safety at Work, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	Marjanovic P., Miloradov M., Cukic Z., Sakulski D., Bogdanovic S.: "Integrated cadastre (Inventory System) for pollution sources in the Danube Basin in Yugoslavia", Water Science and Technology, Vol. 32 No 5-6 pp 265-275, IWA Publishing 1995
2.	Sakulski D.: "Web-enabled GIS in Disaster Management", The Global Magazine for Geomatics, May 2005, Volume 19, Number 5
3.	Sakulski D.: "Implementation of the multi-software solution for the on-the-fly calculation of the Standardized Precipitation Index (SPI) as a drought indicator for South African environment" ENVIROSOFT 2000, 2000, Bilbao, Spain
4.	Sakulski D., "Development and implementation of a database driven web-enabled integrated system for air quality observation and analysis", International Conference on Air Pollution, 2001, Ancona, Italy
5.	Sakulski D. Stephenson D, Marjanovic P.: "WebMathematica as a Core Service for the Calculation of the Drought Indicator for South Africa", The 5th International Mathematica Symposium, 2003, London, UK
6.	Sakulski D.: "South African National Disaster Hazard and Vulnerability ATLAS", International Conference on Disasters and Society – From Hazard Assessment to Risk Reduction, 2004, Karlsruhe, Germany
7.	Sakulski D.: "Geo-Information as an Integral Component of the National Disaster Hazard and Vulnerability ATLAS", First International Symposium on Geo-Information for Disaster Management, 2005, Delft, Netherlands
8.	Sakulski D.: "Analiza zaustavnog puta u funkciji merodavnog vozila", Put i saobraćaj, 1984
9.	Sakulski D.: "Ojačanje kolovoza upotrebom FW deflektometra", Put i saobraćaj, 1986
10.	Sakulski D., Katic Z.: "Klasifikacija oštećenja kolovoza", Put i saobraćaj, 1986

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

Science, arts and professional qualifications

Name and last name:	Štrbac D. Dragana
Academic title:	Assistant Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.04.2002
Scientific or art field:	Environment Protection Engineering

Academic carieer	Year	Institution	Field
Academic title election:	2011	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
PhD thesis	2011	Faculty of Sciences - Novi Sad	Physics
Magister thesis	2006	Faculty of Sciences - Novi Sad	Physics
Bachelor's thesis	2001	Faculty of Sciences - Novi Sad	Physics

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

	ID	Course name	Study programme name, study type
1.	Z101	Introduction and Principles of Environmental Protection	(Z20) Environmental Engineering, Undergraduate Academic Studies
2.	Z105	Energy and Environment	(Z20) Environmental Engineering, Undergraduate Academic Studies
3.	Z105A	Energy and the environment	(Z01) Safety at Work, Undergraduate Academic Studies
4.	ZR101	Introduction and Principles of Occupational Safety	(Z01) Safety at Work, Undergraduate Academic Studies
5.	ZR440	Influence of radiation on health and occupational safety	(Z01) Safety at Work, Undergraduate Academic Studies
6.	Z105	Energija i okruženje(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
7.	ZC047	Waste to energy tehnologies	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
8.	Z477	Sustainable Agriculture Engineering	(Z20) Environmental Engineering, Master Academic Studies
9.	Z508	Specific Design Conditions in Environment Protection	(Z20) Environmental Engineering, Master Academic Studies
10.	Z510	Accidental Risk Management and the Environment	(OM1) Mathematics in Engineering, Master Academic Studies (Z01) Safety at Work, Master Academic Studies (Z20) Environmental Engineering, Master Academic Studies
11.	ZR501	Hazardous Materials and Hazardous Waste	(Z01) Safety at Work, Master Academic Studies
12.	Z510	Upravljanje akcidentalnim rizicima i životna sredina(uneti naziv na engleskom)	(Z20) Environmental Engineering, Master Academic Studies
13.	SZD017	Solid Materials in the Environment	(Z00) Environmental Engineering, Specialised Academic Studies
14.	ZCM03	Novel materials in energetics	(ZC0) Clean Energy Technologies, Master Academic Studies
15.	ZCM06	Security of strategic energy facilities	(ZC0) Clean Energy Technologies, Master Academic Studies
16.	ZD017	Solid Materials in the Environment	(Z00) Environmental Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	S. R. Lukić, D. M. Petrović, G. R. Štrbac, D. D. Štrbac, Chalcogenide films on glass substrate as attenuattors of X-ray radiatio, Zeitschrift fur Kristallographie, 23 (2006)
2.	D.D. Strbac, S.R. Lukic, D.M. Petrovic, J.M. Gonzalez-Leal, A. Srinivasan, Single oscillator energy and dispersion energy of uniform, Journal of Non-Crystalline Solids, 353 (2007)
3.	A.F. Kozmidis-Petrovic, G.R. Strbac, D.D. Strbac, Kinetics of non-isothermal crystallization of chalcogenide, Journal of Non-Crystalline Solids 353 (2007)
4.	D. D. Štrbac, S. Lukić, D. Petrović , J. M. Gonzalez-Leal, A. Srinivasan , G. Štrbac, Influence of substrate absorption on accuracy of determination of refractive index and thickness of uniform thin chalcogenide Cu1[As2(S0.5Se0.5)3]99 film, Thin Solid Films, 518 (2010)
5.	G., Štrbac, S. Lukić-Petrović, D. Štrbac, D. Petrović, Effect of arsenic atom substitute with antimony on crystallization processes and thermal stability of the (Sb, As)-S-I system, Journal of Non Crystalline Solids, 358 (2012)
6.	Bašić Đorđe; Petrović Jovan; Marić M.; Dragutinović Gordan; Gvozdenac Urošević Branka; Štrbac Dragana; Mogućnosti korišćenja energetskog potencijala geotermalnih voda u Vojvodini, ISBN 978-86-815-0341-5,Prometej; 2009
7.	A.F.Petrović, S.R. Lukić, D.D.Štrbac, Critical rate of cooling glassy melts under conditions of continuous nucleation. The application to some chalcogenide glasses, Journal of Optoelectronics and Advanced Materials, 44 (2004)

Representative refferences (minimum 5, not more than 10)	
8.	S. R. Lukić, D. M. Petrović, D. D: Štrbac, V. B. Petrović, F. Skuban, Dependence of thermal stability and thermomechanical characteristics of non-crystaline chalcogenides in the Cu-As-Se system on copper content, Journal of Thermal Analysis and Calorymetry, 82 (2005)
9.	A. Djordjevic, M. Vojinovic-Miloradov, A. Kapor, D. Lazar, D. Petrovic, V. Djordjevic Milic, Crucial role of alkyl –supstituted benzenes in the formation of intercalate drivatives of C60; Materials Science Forum, 453-454 (2004)
10.	S. Lukić, D. Petrović, V. Petrović, D. D. Petrović, Dispersion of refractive index of the non-crystalline chalcogenides in Cu-As-Se system, Material Science Forum, 453-454 (2004)

Summary data for teacher's scientific or art and professional activity:				
Quotation total :	13			
Total of SCI(SSCI) list papers :	11			
Current projects :	Domestic :	3	International :	0

Science, arts and professional qualifications

Name and last name:	Vićević D. Marija
Academic title:	Assistant Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	01.09.2009
Scientific or art field:	Gas and Petroleum Technics

Academic carieer	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Gas and Petroleum Technics
PhD thesis	2004	Essex university - Nepoznato	Technological Engineering
Bachelor's thesis	1997	Faculty of Technology and Metallurgy - Beograd	Technological Engineering
Magister thesis	-		Technological Engineering

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

	ID	Course name	Study programme name, study type
1.	M3451	Natural Gas and Oil Preparation Equipment	(M30) Energy and Process Engineering, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies
2.	M3507	Combustion Technology	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
3.	M3201	Fuels and lubricants	(M30) Energy and Process Engineering, Undergraduate Academic Studies
4.	M3507	Combustion technology	(M30) Energy and Process Engineering, Undergraduate Academic Studies
5.	M3555	Bioenergy Fuels and Alternative Processes	(ZC0) Clean Energy Technologies, Master Academic Studies
6.	M3512	Combustion	(M30) Energy and Process Engineering, Master Academic Studies
7.	M3514	Engineering application programmes	(M30) Energy and Process Engineering, Master Academic Studies
8.	M3555	Bioenergy Fuels and Alternative Processes	(M30) Energy and Process Engineering, Master Academic Studies
9.	DM313	Process Kinetics	(M00) Mechanical Engineering, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	Boodhoo K., Cartwright C., Vićević M., Prieto M., Tortajada M.: Development of a Higee bioreactor (HBR) for production of polyhydroxyalkanoate: Hydrodynamics, gas–liquid mass transfer and fermentation studies, CHEMICAL ENGINEERING AND PROCESSING, 2010, Vol. 49, No 7, pp. 748-758, ISSN 0255-2701
2.	Vićević M., Novaković K., Boodhoo K., Morris J.: Kinetics of Styrene Free Radical Polymerisation in the Spinning Disc Reactor , Chem. Eng. J., 2008, Vol. 135, No 1-2, pp. 78-82, ISSN 1385-8947
3.	Boodhoo K., Vićević M., Boodhoo C., Ndlovu T., Toogood E.: Intensification of gas–liquid mass transfer using a rotating bed of porous packings for application to an E. coli batch fermentation process, Chem. Eng. J., 2008, Vol. 135, No 1-2, pp. 141-150, ISSN 1385-8947
4.	Vićević M., Boodhoo K., Scott K.: Catalytic Isomerisation of alpha-pinene oxide to campholenic aldehyde using silica supported zinc triflate catalysts: II. Performance of immobilised catalysts in a continuous Spinning Disc Reactor, Chem. Eng. J., 2007, Vol. 133, pp. 43-57, ISSN 1385-8947
5.	Vićević M., Boodhoo K., Scott K.: Catalytic isomerisation of alpha-pinene oxide to campholenic aldehyde using silica supported zinc triflate catalysts: I. Kinetic and thermodynamic studies , Chem. Eng. J., 2007, Vol. 133, pp. 31-41, ISSN 1385-8947
6.	Boodhoo K., Dunk W., Vićević M., Jachuck R., Sage V., Macquarrie D., Clark J.: Classical cationic polymerization of styrene in a spinning disc reactor using silica-supported BF3 catalyst , Journal of Applied Polymer Science, 2006, Vol. 101, No 1, pp. 8-19
7.	Vićević M., Jachuck R., Scott K., Clark J., Wilson K.: Rearrangement of alpha-pinene oxide using supported catalyst in a spinning disc reactor, Green Chem., 2004, Vol. 6, No 10, pp. 533-537, ISSN 1463-9262
8.	Milojević Z., Navalušić S., Zeljković M., Vićević M., Beju L.: Haptic interaction program systems development as a part of virtual environment, Academic Journal of Manufacturing Engineering – AJME, 2011, Vol. 9, No 2/2011, pp. 61-66, ISSN 1583-7904
9.	Milojević Z., Navalušić S., Zeljković M., Vićević M., Beju L.: EXAMPLES OF DEVELOPMENT OF PROGRAM SYSTEMS WITH HAPTIC INTERACTION, 5. International Conference on Manufacturing Science and Education - MSE, Sibiu, 2-5 Jun, 2011
10.	Vićević M., Novaković K., Boodhoo K., Morris J.: Autori: M. Vicevic, K. Novakovic, K.V.K. Boodhoo and J. Morris Naziv: Kinetics of Styrene Free Radical Polymerisation in the Spinning Disc Reactor Naziv skupa: Process Intensification and Innovation Process (PI)2 Conference II, Christchurch, New Zealand

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

Quotation total :	14

Total of SCI(SSCI) list papers :	7			
Current projects :	Domestic :	1	International :	0

Science, arts and professional qualifications

Name and last name:	Vujić V. Goran
Academic title:	Associate Professor
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad
	20.02.1999
Scientific or art field:	Environment Protection Engineering

Academic carieer	Year	Institution	Field
Academic title election:	2012		Environment Protection Engineering
PhD thesis	2007	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Magister thesis	2003	Faculty of Technical Sciences - Novi Sad	Environment Protection Engineering
Bachelor's thesis	1998	Faculty of Technical Sciences - Novi Sad	Mechanical Engineering

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

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

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

	ID	Course name	Study programme name, study type
24.	SZD042	Models of economic evaluation of environmental projects	(Z00) Environmental Engineering, Specialised Academic Studies
25.	SZD051	Applications of optimal control theory in living environment protection	(Z00) Environmental Engineering, Specialised Academic Studies
26.	SZDI23	Material Flow Analysis in Urban Systems	(Z00) Environmental Engineering, Specialised Academic Studies
27.	SZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	(Z00) Environmental Engineering, Specialised Academic Studies
28.	ZCM06	Security of strategic energy facilities	(ZC0) Clean Energy Technologies, Master Academic Studies
29.	ZD051	Applications of optimal control theory in living environment protection	(Z00) Environmental Engineering, Doctoral Academic Studies
30.	ZDI23	Material Flow Analysis in Urban Systems	(Z00) Environmental Engineering, Doctoral Academic Studies
31.	ZDO42	Models of Economic Evaluation of Projects for Environment Protection	(OM1) Mathematics in Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies
32.	ZSP20	Systemic Regulation of Environment	(G00) Civil Engineering, Doctoral Academic Studies
33.	ZSP21	Design and Planning Processes to Minimize Waste and Hazardous Materials	(OM1) Mathematics in Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies

Representative refferences (minimum 5, not more than 10)

1.	Vujić, G., Pešenjanski, I.: Combustion chamber for stawn bals, Fifth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2000.
2.	Vujić, G., Marinić, I., Bašić, Đ.: Waste Separation and Recicling Methods, Which Are The Most Suitable For City of Novi Sad, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.
3.	Vujić, B., Vujić, G.: Environmental due diligence and its appliance in specific national environmental condition in Serbia&Montenegro, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.
4.	Jezdimirovic.I.A., Vujic,G., Mudric, J.: Special Conditions of Raw and Drinking Water management, Sixth International Symposium and Exhibition on Environmental Contamination in central and Eastern Europe, Prague 2003.
5.	Vujić, G., Bašić, Đ. Mihajlov, A.: Process of privatisation and environment in Serbia and Montenegro, PSU-UNS conference, HAT-YAI, Thailand, 16-18 december. 2003.
6.	Vujić, G., Vojinović-Miloradov M., Bašić, Đ., Vujić,B., Čabradi, G., Tomašević, B.: Landfill gas modelling and risk assessment in the purpose of the good managing in municipal landfill of Novi Sad, CHISA 2004, 22-26,08.2004.Prague, Czech Republic.
7.	Ubavin, D., Vujić, G., Bašić, Đ.:Landfill gas extraction and collection systems; PSU-UNS International Conference On Engineering And Environment - ICEE-2005, Novi Sad 19-21 May, 2005.
8.	Ubavin, D., Vujić, G., Mihajlov, A., Bašić, Đ.: Gas to energy opportunity on landfill in city of Novi Sad – Serbia and Montenegro D. Faculty of Technical Sciences, Novi Sad, Serbia and Montenegro, World Congress and Exhibition "ISWA 2005", November 6.-10. 2005. Buenos Aires, Argentina Ref No 194, Proceedings p.82
9.	Marjanović, D., Vujić, G , Mihajlović, V., Ubavin, D.: Selection of Technology and Public Opinion as Key Factors in Regional Landfill Location Selection, PSU-UNS International Conference on Engineering and Environment - ICEE-2007, Phuket May10-11, 2007. Proceedings CD ICCEE2007149
10.	Vujić, G , Mihajlović, V., Ubavin, D.: Possibilities for Landfill Gas Usage at Novi Sad Landfill, PSU-UNS International Conference on Engineering and Environment - ICEE-2007, Phuket May10-11, 2007. Proceedings CD ICEE2007150

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

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

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 and at least 2 m2 of space per student are provided.
Classes are held in the amphitheater, classrooms and specialized laboratories. Library owns more than 100 library units that are relevant for the performance of the Pure power technologies study program. All courses of Pure power technologies study program are covered by the appropriate textbooks, computer software and have other tools for optimum teaching process with the provided appropriate information support, material from the lectures and exercises and the use of teaching material that is presented on the web site of the Faculty http://www.ftn.ns.ac.yu/_data/nastava).
The Faculty has a library and a reading room and provides a place for each student in the amphitheater, classrooms and specialized laboratories.

Standard 11. Quality Control

The quality control of the study programme is performed regularly and systematically through self-evaluation and external quality control. The Faculty of Technical Sciences has experience in making students` questionnaires for several decades.
Quality checks of curriculum is being implemented through:
- students`questionnaires at the end of the teaching process in respect of the given course.
- graduates`questionnaires on the occasion of receiving diplomas , regarding the quality of curriculum and logistic support of studies, place of studies (cleanness and tidiness of classrooms, hygiene nodes, ...)
- Students`questionnaires during the academic year validation .
- Students`questionnaires when enrolling the academic year . The students then assess the degree program which they ended in the previous year .
- questionnaires of the teaching and administrative staff on the quality of curriculum and logistics that are supporting the studies. In this questionnaire , the Dean, student services, libraries, and other departments of the Faculty are evaluated.

Study program quality monitoring is done through a Commission consisting of the department heads who participate in the implementation of a program, and one student representing each year of the study.

Standard 12. Distance Education

Distance learning is not provided for.