



UNIVERSITY OF NOVI SAD

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

Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation



STUDY PROGRAMME ACCREDITATION MATERIAL:

ENGINEERING ANIMATION

MASTER ACADEMIC STUDIES

Novi Sad

2012.

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Content

<u>00. Introduction</u>	3
<u>01. Programme Structure</u>	4
<u>02. Programme Objectives</u>	6
<u>03. Programme Goals</u>	7
<u>04. Graduates` Competencies</u>	8
<u>05. Curriculum</u>	9
<u>Table 5.2 Course specification</u>	10
<u>Multimedia Systems</u>	10
<u>Interdisciplinary Scientific Visualization</u>	11
<u>Software Configuration Management</u>	12
<u>Professional Practice</u>	13
<u>Digital Audio Signal Processing</u>	14
<u>Computer Vision (Digital Image Processing 2)</u>	15
<u>History of Animation</u>	16
<u>Presentation Techniques of Architectural and Urban Space</u>	17
<u>Elements of Artistic Expression</u>	18
<u>Numerical Optimization</u>	19
<u>Computer Geometry</u>	20
<u>Mathematical Game Theory</u>	21
<u>Study Research on Theoretical Background of the Master Thesis</u>	22
<u>Writing and Defence of the Master Thesis</u>	23
<u>06. Programme Quality, Contemporaneity and International Compliance</u>	24
<u>07. Student Enrollment</u>	27
<u>08. Student Evaluation and Progress</u>	28
<u>09. Teaching Staff</u>	29
<u>Crnojević S. Vladimir</u>	29
<u>9.1. Science, arts and professional qualifications</u>	29
<u>Crnojević S. Vladimir</u>	30
<u>Dejanović R. Igor</u>	32
<u>Delić D. Vlado</u>	34
<u>Ivetić V. Dragan</u>	36
<u>Janev B. Jelena</u>	38



Content

<u>Lukić J. Tibor</u>	40
<u>Mihajlović R. Dragan</u>	42
<u>Obradović M. Ratko</u>	44
<u>Popkonstantinović D. Branislav</u>	46
<u>Sečujski S. Milan</u>	47
<u>Sladoje Matić I. Nataša</u>	49
<u>Stojaković M. Mila</u>	51
<u>Stojaković Z. Vesna</u>	53
<u>Suvajdžin Rakić B. Zorica</u>	55
<u>Šiđanin S. Predrag</u>	57
<u>Teofanov Đ. Ljiljana</u>	59
<u>Tepavčević B. Bojan</u>	61
<u>Uzelac S. Zorica</u>	63
<u>Zlokolica M. Vladimir</u>	65
<u>10. Organizational and Material Resources</u>	67
<u>11. Quality Control</u>	68
<u>12. Distance Education</u>	69



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Programme name	Engineering Animation
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, professional or art field	Computer Graphics: Technical Sciences; Mathematical Sciences
Type of studies	Master Academic Studies
Study scope, expressed in ECTS	60-62
Academic degree, abbreviation	Master in Computer Graphic Engineering, M.Comp.Graph.Eng.
Study length	1
Programme implementation starting year	2011
Future course implementation starting year (for new programme)	
Number of students attending this programme	1
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	2010
Web address containing programme information	http://www.ftn.uns.ac.rs



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 00. Introduction

The study programme of the graduate academic studies in Engineering Animation is designed at the Faculty of Technical Sciences of the University of Novi Sad, as an interdisciplinary programme which, besides professional and applied disciplines studied at the Department of general disciplines in technical sciences, also includes disciplines studied at the following departments of the Faculty of Technical Sciences in Novi Sad:

Department of Computing and Control Engineering;
Department of Architecture and Urban Planning;
Department of Mechanization and Construction Engineering;
Department of Industrial Engineering and Management; as well as at the Faculty of Mechanical Engineering of the University of Belgrade.

The knowledge and skills in the field of Engineering Animation are used in different technical disciplines, such as mechanical engineering, architecture, civil engineering, traffic, electrical engineering and electronics, geodesy etc. as well as in the wide range of non-technical disciplines.

The application of knowledge and skills in engineering animation and computer graphics finds its place in the art, medicine and pharmacy, physics, biology, chemistry, mathematics, applied mathematics and informatics.

Contemporary movie industry, especially after introducing 3D technologies in the computer supported movie design, is almost unimaginable without computer graphics and engineering animation. The game industry (computer and non-computer) as well as the WEB design discipline owe their popularity and attractiveness to the sophisticated application of computer aided animation in the graphic environment. It also takes an important place in education not only in the above stated fields, but also as a framework for electronic learning in general.

Engineering Animation is often used for the simulation of production processes, unavailable or insufficiently visible elements (underground and underwater installations, geological mapping, mechanical elements, anatomic parts etc.), risk simulations (earthquakes, floods, fire, etc.) but also for the visualization of different types of data/information.

All this gives a significant social importance and justifies investments both in the development of the required technology and in training professionals to be able to ``professionally cover`` this widespread and necessary profession today and in the future.

Everyone needs visualization because it is the most natural way in which people view the world and it represents an excellent choice for presentation – visual presentation in studying and teaching, as well as in information transfer, since the saying ``pictures speak louder than 1000 words`` is well known.

Studies of this profile don't exist in Serbia, but similar studies under the name of Computer Graphics or Engineering Animation are held at the American and European Universities for over forty years.

During the studies, and especially in the professional courses, independent work is especially valued, participation in the professional and development projects are encouraged, and abilities to solve specific problems are emphasized and developed.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 01. Programme Structure

The name of the study programme is Engineering Animation. Academic title acquired is Master in Computer Graphic Engineering.

The outcome of the studying process is the knowledge which enables students to use professional literature, apply knowledge to solve the problems which occur in the professional field, and enables the continuation of the studies through the specialist or doctoral academic studies if students decide so.

The study programme prerequisites for the enrollment are completed undergraduate studies of Engineering Animation with at least 240 ECTS and the passed entrance examination.

In accordance with Regulations of Student Enrollment to the Study Programmes a candidate may score up to 100 points based on grade point average earned during the undergraduate studies and the result achieved through the entrance examination. Grade point average earned during the undergraduate studies is worth a maximum of 40 points.

The entrance examination includes testing of the acquired knowledge and skills in the undergraduate academic studies of Engineering Animation and is worth a maximum of 60 points.

It is valued on the scale of maximum 60 to 100 points. The entrance examination is considered passed if the candidate wins at least 14 out of maximum 60 points.

After the examination a Student Service publishes the final candidate rankings based on their total score by which candidates are then enrolled to the study programme.

Study programme of master academic studies in Engineering Animation lasts one year and is worth 60 ECTS. It includes mandatory and elective courses, professional practice and a graduate – master thesis. This study programme accepts one study group.

The study programme of each course is designed so that students are given the opportunity to concretize the specific problems in the certain field of computer graphics.

Courses in this study programme last for one semester, and are worth a certain number of ECTS. By standards, one ECTS credit is matches approximately 30 hours of student activities (lectures, practice, examination preparation, etc.).

Practice may be auditory, laboratory, computer or computing. Part of the Practice may be carried out in the companies or other institutions in the form of field research.

The group size is determined based on the practice character. Practice may consist of: writing the term papers and homework assignments, project work, term and graphic papers, where each student activity during the teaching process is monitored and valued according to the adopted rules at the Faculty level. The number of won points is presented in accordance with the unique methodology and represents the student load.

Upon enrollment, each student is assigned a counselor, providing guidance according to student's interests, including the choices of elective courses, practical work and graduate thesis topic. The joined proposal of student and his/her respective counselor is approved by the Evaluation Committee. Counselor's task is to monitor the respective students' activities and improvement during further education at the Faculty.

The course consists of lectures and practice. During the lectures theory is presented using the adequate didactic tools accompanied by necessary explanations which contribute to the better understanding of the lectured material.

During the practice, which accompanies lectures, specific problems are solved and examples which additionally illustrate theory are presented. Practice gives additional explanation of the matter being taught during the lectures.

The study programme proposes that students attend practical work in professional animation studios according to their affinities.

Instead of providing classroom training, the Department organizes field trips, where students are presented with material in the form of practical training. Animated films festivals, computer-animated films and short films festivals are also attended.

Each course is worth certain number of ECTS credits, and the studies are completed when the student fulfils all obligations predicted by the study programme and collects at least 60 ECTS in the process.



UNIVERSITY OF NOVI SAD

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

Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation





UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 02. Programme Objectives

The purpose of the Study Programme is the education of students for the profession of Master in Computer Graphic Engineering in accordance with the needs of society.

The graduate academic studies in Engineering Animation are designed to provide the acquisition of competences and qualifications that are socially justified and useful. Faculty of Technical Sciences defined tasks and goals for educating highly competent personnel in the field technical sciences. The purpose of the Study Programme of Engineering Animation is completely in accordance with the graduate objectives and goals of the Faculty of Technical Sciences.

Graduated engineers of Engineering Animation– Masters are educated by realization of the study programme designed in this way and possess competences in the European and worldwide circles.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 03. Programme Goals

The objective of the study programme is to achieve student's scientific competencies and academic skills in the field of Engineering Animation. Besides others it includes the development of creative abilities and the ability of critical thinking, especially the development of teamwork skills and the mastering of specific practical skills necessary for the profession.

The objective of the study programme is to educate an expert who possesses necessary knowledge in the field of Engineering Animation which can be applied in the practice and can be continuously improved by personal practical experience.

One of the specific objectives in accordance with educational objectives of experts at the Faculty of Technical Sciences is to develop students' awareness of the need for permanent education, the sustainable development and the environmental protection. The objective of the study programme is to introduce students to the challenges and advantages of the teamwork, which is very important for the field of engineering animation, since the professional activities are based on teamwork and are multidisciplinary. Besides, students develop the ability to present and coherently demonstrate their ideas, project concepts, research results through the educational process, thus studying the forms of quality communications with the professional and wider public.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 04. Graduates` Competencies

Graduated students of the graduate academic studies in Engineering Animation are competent and qualified to solve real problems in the practice, to do research, as well as to continue education.

The competences include, above all, the development of the ability for critical thinking, ability of problem analysis, solution synthesis, behaviour prediction of the chosen solution with the clear idea of good and bad sides of the chosen solution.

When it comes to the specific capabilities of students, mastering the study programme of the graduate studies in Engineering Animation, the student acquires detailed knowledge and understanding of all disciplines of the corresponding professions, as well as the ability for solving specific problems using engineering methods and procedures. Considering the interdisciplinary character of the study programme, it is especially important to be able to connect and apply basic knowledge in different fields. Graduated students of Engineering Animation are able to adequately do research, write and present their work results. Modern computer and programming systems are used intensively during the studies because of the profession nature.

Graduated students from this level of study possess competences for the application of knowledge in the practice, research, monitoring and application of the novelties in practice, as well as for the cooperation with local, social and international surrounding.

Students are enabled to do research, develop, design, organize, and manage Engineering Animation.

During the studies students acquire capabilities and independency. Special emphasis is placed on the development of the teamwork ability and the development of professional ethics.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 05. Curriculum

The curriculum of graduate academic studies in Engineering Animation is designed to satisfy all defined goals.

Structure of the study programme provides around 15% of academical and general education courses, around 20% of theoretical and methodological courses, around 35% of scientific and professional courses and around 30% of professional and applicative courses. Elective courses are present with at least 20% ECTS credits.

Besides this classification, courses which make up the structure of this study programme can be divided into following groups: Professional courses, Electrical and Computer Engineering, Mathematics, General educational courses, Art courses.

Graduate academic studies in Engineering Animation – Master last one year.

Elective courses additionally enable satisfaction of student's personal affiliations.

All courses last one semester and carry a certain number of points where one point corresponds to about 30 hours of student activities. The order of the courses in the study programme is such that the knowledge necessary for the advanced courses is previously acquired in the already lectured courses.

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 Engineering Animation is a professional practice and practical work of 30 hours, which can be done 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 of the graduate - 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 the mentor. The final assessment of the Master thesis is based on the passed theoretical and methodological preparation as well as evaluation of elaboration and defence of the paper itself. Final paper is defended before a committee consisting of at least three professors.

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

Table 5.2 Course specification

Course:		Multimedia Systems				
Course id:	E2505					
Number of ECTS:	6					
Teachers:	Ivetić V. Dragan, Suvajdžin Rakić B. Zorica, Mihajlović R. Dragan					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	0	3	0	0		
Precondition courses		None				
1. Educational goal: Enabling students to collect, handle, archive, programme, synchronize and present multimedia data flow in the network environment.						
2. Educational outcomes (acquired knowledge): Acquired knowledge and skills are used for development/use of software/systems of expressed multimedia.						
3. Course content/structure: Multimedia (concepts, characteristics and media data flow). Characteristics of audio/video/image-graphic media (music-MIDI; speech; video-TV and HDTV / 3D). An overview of standards for compression and optical storage (standard algorithms; JPEG2000 and MPEG 1, 2, 4, 7 and 21; CD DA-ROM-WO-RW; DVD; holograph). MM communication systems (timer-user-control space and CSCW; requirements and limitations of the protocol on presentation-application and network-transportation ISO-OSI levels) and videoconference. MM data base (structures and operations). Synchronization of MM data (four-layer reference model and distributed systems). Program abstraction, tools and applications (programme and script languages; authoring systems and MM kiosk).						
4. Teaching methods: Lectures, Computer Practice, Consultations. The course is organized in 2 wholes which are checked in the form of 2 tests during the lectures. During Practice, multimedia contents are presented and manipulated on programs (DirectX or OpenGL) or authoring (Flash) levels, creating simple systems for exchange of multimedia contents in real time. The quality of the Practice work is evaluated. Successfully solved exercises are the examination prerequisites. The examination is taken in the written form. Points won at the examination, tests and prerequisites are added to form the final grade.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Complex exercises		Yes	50.00	Theoretical part of the exam	Yes	30.00
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	D. Ivetić	Osnovi interaktivnih sistema sa elementima računarske grafike i multimedije, u pripremi			2012	
2,	R. Steinmetz, K. Nahrstedt	Multimedia: Computing, Communications & Applications		Pretince Hall	1995	

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Interdisciplinary Scientific Visualization</h2>				
Course id:	IA017					
Number of ECTS:	4					
Teacher:	Popkonstantinović D. Branislav					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	0	2	0	0		
Precondition courses		None				
1. Educational goal:						
Enabling students to creatively and practically use all ways, methods and techniques of visualization (video/movie, multimedia, internet, computer graphic and VR (virtual reality) in clarifying, solving and presenting different logical, scientific and engineering problems.						
2. Educational outcomes (acquired knowledge):						
To use acquired knowledge in the further educational process as well as in the future professional work.						
3. Course content/structure:						
The concept, definitions and importance of visual perception and visual communications in comprehension, understanding and solving different abstract and specific problems. Identification of engineering and scientific problems. The problem of concepts and abstraction. Symbolic visual-graphical interpretation and concretization of abstraction; Introduction to object methodology and IML. Basic techniques of visualization: sketching, elements of constructive geometry, theory of sets and Boolean algebra, UML methodology; computer visualization and 3D modeling of abstract and specific engineering and scientific object, structures and problems; introduction to animation, basic and advanced modeling techniques, generation and simulation of motion; problems and methods of visual-graphic presentation; movie and animation: movie language, frame, lighting, editing; sound music and movie: sound effects, sound synthesis, music and narration with animation.						
4. Teaching methods:						
Lectures and Practice in the computer laboratory. Consultations.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Computer exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance		Yes	5.00			
Project		Yes	30.00			
Project task		Yes	15.00			
Project task		Yes	15.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Branislav Popkonstantinović	Interdisciplinarna naučna vizualizacija - skripta		Fakultet tehničkih nauka	2010	

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

Table 5.2 Course specification

Course:		Software Configuration Management				
Course id:	E2510					
Number of ECTS:	6					
Teacher:	Dejanović R. Igor					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	0	3	0	0		
Precondition courses		None				
1. Educational goal:						
To make students capable of applying best practice, methods, techniques and tools in the domain of Software Configuration Management (SCM) with the emphasis on the SCM process introduction and improvement.						
2. Educational outcomes (acquired knowledge):						
At the end of the course students are capable of: introducing SCM best practice, methods and tools in the software development process, improve existing SCM process, analyze available tools and identify advantages and disadvantages of each, understand pros and cons of different version control systems, change management systems, build and release management systems, systems for managing alternative lines of development etc.						
By using modern SCM tools and by the development and documentation of SCM process and the development of supporting application, students acquire a broad range of practical skills.						
3. Course content/structure:						
Theoretical lectures: Basic definitions and historical development of Configuration Management - CM. Traditional notion of CM; Identification of configuration, change control, status accounting, audit and verification. Configuration management in the context of software development (Software Configuration Management - SCM). Source code management; Version Control System - VCS; architectures, advantages and disadvantages : social coding; repository models; concurrent change management models; alternative development courses. Dependency management. Build management, automation, tools. Change Management; Events; Requests for change tracking; support systems. Issue management; identification; traceability; automation. Deployment: identification, authentication, security, planning. Industrial standards and frameworks. Models of maturity. Practical classes: file compare tool patch and diff. Centralized version control systems (Subversion). Distributed version control systems (Git, Mercurial). Tools to support issue tracking (Trac). Code review (ReviewBoard, Rietveld, Gerrit, barkeep). Tools for automated build (Apache Ant + Ivy, Maven). Systems for continuous integration (Jenkins). The design and documentation of the SCM process in accordance with the recommended practice. Creating Web applications to support the proposed SCM process.						
4. Teaching methods:						
Lectures, Computer exercises; Consultation. Design and implementation of project assignment by working within project teams. At the end of the semester, public presentations of the most successful teams are organized with the discussion of the obtained results. The defense of project assignment is oral. The final exam is oral. Final grade is based on the score from the final exam and project defense.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam		
Project		Yes	50.00	Theoretical part of the exam		
				Mandatory	Points	
				Yes	50.00	
Literature						
Ord.	Author	Title		Publisher	Year	
1,	A. Mette, J. Hass	Configuration Management Principles and Practice		Addison Wesley	2003	
2,	Aiello, R. & Sachs, L.	Configuration Management Best Practices: Practical Methods that Work in the Real World		Addison-Wesley Professional	2010	
3,	Berczuk, S. & Appleton, B.	Software configuration management patterns: effective teamwork, practical integration		Addison-Wesley Professional	2003	
4,	DoD USA	Configuration management guidance		Department of Defense--United States of America	2001	
5,	Chacon, S.; Hamano, J. & Pearce, S.	Pro Git		APress	2009	
6,	Reelsen, A.	Play Framework Cookbook		Packt Pub Limited	2011	

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

Table 5.2 Course specification

Course:		Professional Practice					
Course id:	IGASPO						
Number of ECTS:	2						
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: Extending the practical knowledge in the field of engineering animation.							
2. Educational outcomes (acquired knowledge): Acquired knowledge can be used in solving specific engineering problems.							
3. Course content/structure: Solving specific engineering problems in practice.							
4. Teaching methods: Lectures are held in the enterprises or scientific educational institutions through independent work.							
Knowledge evaluation (maximum 100 points)							
Pre-examination obligations		Mandatory	Points	Final exam		Mandatory	Points
Homework		Yes	70.00	Theoretical part of the exam		Yes	30.00
Literature							
Ord.	Author	Title			Publisher	Year	

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

Table 5.2 Course specification

Course:		<h2>Digital Audio Signal Processing</h2>				
Course id:	EK422L					
Number of ECTS:	5					
Teachers:	Delić D. Vlado, Sečujski S. Milan					
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:						
<p>The course objective is to deepen the knowledge of students about audio signals, especially about speech and music. In order to work with audio signal digital processing professionally, electrical engineers should have good understanding of spoken and music signal characteristics, as well as the knowledge of their processing and transmission possibilities.</p>						
2. Educational outcomes (acquired knowledge):						
<p>In the lectures students gain fundamental knowledge about both speech and music signals. Based on that, they are able to work on audio processing and analysis, as well as compression, coding and transmission of audio signals in a competent way. They will learn to make processing of music signals and apply audio effects. They also get basic knowledge necessary for working on speech technologies and audio forensics. They will be able to assess acoustic environment and measure the intelligibility of speech and music quality professionally. They gain practical experience with audio equipment, music instruments and software for digital audio signal processing.</p>						
3. Course content/structure:						
<p>•Voice production, transmission, and perception. Modelling of speech production and perception. •Speech signal analysis in time and frequency domains. Digital analysis and coding of speech signal (PCM, LPC, CELP). •Coding and transmission of speech signal (G.711(64kbps), ADPCM(32), G.728(16), GSM(13), CELP(4), LPC(2.4)). •Speech quality evaluation and speech intelligibility measurements (objective measurements and subjective assessment of acoustical characteristics of voice). •Introduction to speech technologies: automatic speech recognition, speaker and emotion recognition, text-to-speech synthesis. •Introduction to audio forensics. Forensic speaker recognition. •Characteristics of music signals. Music instruments, placement of microphones for recording of orchestra. •Studio equipment and audio signal processing (multi-channel recording (5.1, 7.1, 10.2,...), audio-visual controls, mixing, level regulation, filters, regulation of dynamics and reverberation, echo, panorama, monitoring and sound editing, sound analysis and synthesis). •Acoustical quality of both professional rooms and systems for sound recording and reproduction (objective measurements and subjective assessments of sound area features, optimal conditions for sound recording and reproduction). •Audio systems for recording of voice and music program and audio effects (selection and placement of microphones, sound for film and video). •Formats for recording, transmission and storing of audio information in multimedia environment on a computer (MIDI, MPEG, HD and 3D sound). •Standards for coding/compression and transmission of audio signals (Dolby, AAC, MPEG). •Audio signal broadcasting (FM stereo, RDS) and digital audio transmission (GSM, VoIP, DAB - digital radio).</p>						
4. Teaching methods:						
<p>Lectures are conducted using Power Point presentations available to students in .pdf format. Presentations with specially created audio and video clips and animations demonstrate and illustrate key details in the lectures. The first part of the course (speech signals) is followed by auditory exercises in the Laboratory of Acoustics and Speech Technologies at FTN. The second part of the course (music signals) is followed by exercises either in a sound studio at UNS or visits to either Studio Berar or Radio Novi Sad, where students will learn about practical audio engineering in music and speech studios, anechoic rooms and audio-theater complexes. The students will write a midterm paper, whose defense is one of the exam prerequisites. Independent student work is supported through the web portal of the Chair of Telecommunications and Signal Processing - www.ktios.net.</p>						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Presentation		Yes	10.00	Written part of the exam - tasks and theory	Yes	50.00
Term paper		Yes	20.00		Coloquium exam	No
Test		Yes	10.00			
Test		Yes	10.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Slobodan Jovičić	"Govorna komunikacija - fiziologija, psihoakustika i percepcija"		Nauka, Beograd	1999	
2,	B. Gold and N. Morgan	Speech and Audio Signal Proc. - Proc. and Perception of Speech and Music		JW&S	2000	
3,	Vlado Delić	Skripta sa predavanja		www.ktios.net	2012	

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Computer Vision (Digital Image Processing 2)</h2>			
Course id:	EK522				
Number of ECTS:	5				
Teachers:	Crnojević S. Vladimir, Sečujski S. Milan				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
3	0	2	0	0	
Precondition courses		None			
1. Educational goal:					
Becoming familiar with the basic principles in the field of computer vision and with advanced techniques of digital image processing; Becoming familiar with up-to-date methods in this field by working on several projects.					
2. Educational outcomes (acquired knowledge):					
The overview of principles of modern computer vision methods. Student is able to understand the basic principles and methods used in computer vision, and can broaden their knowledge by working on a specific problem.					
3. Course content/structure:					
Visual system components: Image processing systems, computer vision signal processing, computer vision shape recognition, algorithm performance evaluation, types of tasks in computer vision. Sensors and image: radiation and illumination, optics, radiometry, sensors, geometric calibration, tridimensional vision. Signal processing and shape recognition: representation of multidimensional signals, environment operators, Movement, 3D algorithms, non-linear filter design, adaptive filtering and segmentation, morphological operators, probability models in computer vision, fuzzy signal processing, neural networks in signal processing. Computer vision projects: Object recognition using intelligent cameras, quality control in shipyards, topological maps of microstructures, fast 3D object mapping, 3D plane reconstruction from the image sequence, movement mapping.					
4. Teaching methods:					
Lectures, computer practice, projects.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Project defence		Yes	50.00	Practical part of the exam - tasks	
				Mandatory	Points
				Yes	50.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	Rafael Gonzalez, Richard Woods	Digital Image Processing		Prentice Hall	2002
2,	E.R.Davies	Machine vision, 3rd edition		Elsevier	2005

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">History of Animation</h2>				
Course id:	IA005					
Number of ECTS:	3					
Teachers:	Janev B. Jelena, Obradović M. Ratko					
Course status:	Elective					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
3	0	0	0	0		
Precondition courses		None				
1. Educational goal:						
Learning about key points in history of animation and most influence works. Training in critical and analytics approaches to history circumstances, technical-technological development and visualizations in animation. Training in analysis of visual elements, directing and montage, animation principles and technological solutions.						
2. Educational outcomes (acquired knowledge):						
Making of a solid base for greater quality in work of computer animator, knowing key points in history of animation. Development of critical approaches to animation. Apply animation techniques in further education and professional work.						
3. Course content/structure:						
The program contain lectures in history of animation. History of animation is represented with key points which changed standards and expectations in modern animation, development of technical-technological solutions, development of visual communication and themes, and correlation of this paradigms with history circumstances and progress of technology. Except pure animation, in this lessons of the history of animation are also included and examples of animation in motion pictures. Last lectures are about tendencies of the future of animations.						
4. Teaching methods:						
Lectures and exercises. Consultations. Exam grade is summary of lessons attendance, seminar works and final exam results.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Project		Yes	30.00	Written part of the exam - tasks and theory	Yes	30.00
Project		Yes	30.00		No	
Test		Yes	10.00		No	
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Howard Beckerman	Animation: The Whole Story		Allword Press	2003	

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Presentation Techniques of Architectural and Urban Space</h2>			
Course id:	IA254				
Number of ECTS:	3				
Teachers:	Šiđanin S. Predrag, Tepavčević B. Bojan				
Course status:	Elective				
Number of active teaching classes (weekly)					
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:	
2	0	1	0	0	
Precondition courses None					
1. Educational goal:					
Enabling students to use different, verbal, and computer presentation techniques for their work.					
2. Educational outcomes (acquired knowledge):					
To apply acquired knowledge in the further educational process as well as in the future professional work.					
3. Course content/structure:					
Introduction and definition of the basic concept – presentation. Presentation techniques: verbal, multi-medial and special. Classification of presentation: by target groups, by purpose, by the desired effect, by the method, by the applied techniques and the media. Application of computer and multimedia technology in presentations. Specific types of presentation: verbal, visual, computer, Internet and video presentations. Application of programmes for the preparation of presentation: PowerPoint, Photoshop, Illustrator, InDesign, HTML, Dream-weaver, Flash, Sound Forge, Premiere and others. Examples of different types of presentations.					
4. Teaching methods:					
Lectures and Practice in the computer laboratory. Consultations. Part of the course which represents a logical whole is passed through three colloquiums. They are done in the computer laboratory. The student may take the next colloquium only if he/she won at least 30% of the points at the previous colloquium. The first two colloquiums are done on the computer and are graded as such. The last colloquium is taken through verbal presentation of the previous two colloquiums – personal presentation. In order for the student to pass the examination, besides other prerequisites, he/she has to win at least 30% of the points in each of the three colloquiums. The course grade is formed based on the lecture and practice attendance and success at the colloquiums.					
Knowledge evaluation (maximum 100 points)					
Pre-examination obligations		Mandatory	Points	Final exam	
Complex exercises		Yes	70.00	Oral part of the exam	
Computer exercise attendance		Yes	0.00	Mandatory	Points
Lecture attendance		Yes	0.00	Yes	30.00
Literature					
Ord.	Author	Title		Publisher	Year
1,	grupa autora	Tehnika prezentacije arhitektonskog i urbanističkog dela - Skripta		Novi Sad	2007
2,	Romanielo, S.	Photoshop CS2		Kompjuterska biblioteka, Čačak	2006
3,	Aleksić, Z.	Illustrator CS2		Kompjuterska biblioteka, Čačak	2006
4,	Aleksić, Z.	Illustrator CS		Kompjuterska biblioteka, Čačak	2005
5,	Desimirović, N.; Randelović, M.	Web dizajn		PC knjiga, Beograd	2006
6,	Holšlag, E.	HTML i CSS		Kompjuterska biblioteka, Čačak	2006
7,	Igić, D.	Sound Forge		Sinkopa, Beograd	2002

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Elements of Artistic Expression</h2>				
Course id:	IA021					
Number of ECTS:	4					
Teacher:	Janev B. Jelena					
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:						
Adopting the concepts of the art form theory and practical application of artistic elements through creative art practice.						
2. Educational outcomes (acquired knowledge):						
Enabling application of theoretical knowledge in the creative, practical student work. Understanding the XX century art and contemporary artistic tendencies. Enabling students to notice artistic and aesthetical values of the art pieces in classical and new media (including animation).						
3. Course content/structure:						
(through studying representative artistic pieces and practical student work)						
- LINE: line origin; contour and texture line; types of lines according to character, Emotional action of the line character, creative gesture, handwriting of the artist						
- SURFACE or character						
- TEXTURE: properties, types of texture (matte, glossy, rough, smooth); texture as the element of shape and plastic expression						
- COLOR: color classification, Oswald circle; color contrast; color harmony; color symbols						
- LIGHTING: lighting keys, application of light to achieve volume, space presentation and atmosphere; ``chiaro-scuro`` and ``notan``						
- DIRECTION, direction, position						
- SIZE: size relationships, proportion, ``golden section``						
- COMPOSING PRINCIPLES: repetition, gradation, harmony, contrast, balance						
4. Teaching methods:						
Lectures and Practice in the drawing classroom. Consultations.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance		Yes	5.00			
Project		Yes	30.00			
Project		Yes	30.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Kosta Bogdanović	Teorija forme		Zavod za udžbenike i nastavna sredstva, Beograd	1999	
2,	Mišević Radenko	Izbor tekstova za izučavanje predmeta teorije forme		U.U. Beograd	1989	
3,	Pavle Vasić	Uvod u likovne elemente		Univerzitet umetnosti, Beograd	1959	
4,	Johannes Itten	Umetnost boje		Univerzitet umetnosti, Beograd	1973	

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

Table 5.2 Course specification

Course:		Numerical Optimization				
Course id:	IA022					
Number of ECTS:	5					
Teachers:	Lukić J. Tibor, Teofanov Đ. Ljiljana, Uzelac S. Zorica					
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:						
Acquisition of basic knowledge in numerical optimization. Developing ability for independent analysis and solving of various optimization problems. Student is trained for independent creation of numerical models of optimization problems. Special attention is dedicated to optimization problems in the field of digital image processing.						
2. Educational outcomes (acquired knowledge):						
Basic knowledge in theory of numerical optimization. Enable students to develop and analyze numerical models.						
3. Course content/structure:						
Mathematical formulation of the optimization problem. Rate of convergence. Global and local optimization. Constrained and unconstrained optimization. Stochastic and deterministic optimization. Continuous and discrete optimization. Line search methods: Wolf conditions, Steepest descent method, Newton's method, Quasi-Newton methods. Trust-region methods. Cauchy point. Conjugate Gradient (CG) methods: linear CG method, nonlinear CG method. Least-squares (LS) problems: linear LS problems, nonlinear LS problems, Gauss-Newton method, Levenberg-Marquardt method. Introduction to constrained optimization. Penalty function. Quadratic programming.						
4. Teaching methods:						
Lectures and practical exercises on the computer. During lectures theoretical part of the course is presented and followed by typical examples from optimization theory. During practice, which accompanies lectures, typical problems are solved applying certain computer software. Special attention is dedicated to optimization problems in the field of digital image processing.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Presentation		Yes	30.00	Written part of the exam - tasks and theory	Yes	70.00
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Jorge Nocedal, Stephen J. Wright	Numerical Optimization		Springer	2006	
2,	Reiner Horst, Hoang Tuy	Global Optimization		Springer	1996	
3,	Jan A. Snyman	Practical Mathematical Optimization		Springer	2005	
4,	Slanjo Zobec, Jovan Petrić	Nelinearno programiranje		Naučna knjiga	1989	

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

Table 5.2 Course specification

Course:		Computer Geometry				
Course id:	IA018					
Number of ECTS:	5					
Teachers:	Obradović M. Ratko, Sladoje Matić I. Nataša, Zlokolica M. Vladimir					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	0	2	0	0		
Precondition courses		None				
1. Educational goal: Enabling students to solve complex problems in computer graphics and geometry.						
2. Educational outcomes (acquired knowledge): To apply acquired knowledge in the further educational process as well as in the future professional work.						
3. Course content/structure: Algorithms and procedures for solving fundamental geometry problems, which are set in two dimensions or three dimensions. Dynamic computer geometry. Point location. Convex Hull visualization: two-dimensional, dynamic, three-dimensional. Drawing the graphs. Visualization of visibility. Fractals. Voronoi diagrams, Delaunay triangulation. Geometry of rectangle.						
4. Teaching methods: Lecture and Practice in the computer laboratory. Consultations.						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Computer exercise attendance		Yes	5.00	Written part of the exam - tasks and theory	Yes	30.00
Lecture attendance		Yes	5.00			
Project		Yes	30.00			
Project task		Yes	15.00			
Project task		Yes	15.00			
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Franco P. Preparata, Michael Ian Shamos	Computational Geometry: an Introduction		Springer-Verlag	1988	
2,	Giuseppe Di Battista, Peter Eades, Roberto Tamassia, Ioannis G. Tollis	Drawing: Algorithms for the Visualization of Graphs		Prentice-Hall	1999	
3,	Mark de Berg, Marc van Kreveld, Mark Overmars, Otfried Schwarzkopf	Computational Geometry: Algorithms and Applications		Springer-Verlag	2000	

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Mathematical Game Theory</h2>				
Course id:	IAM005					
Number of ECTS:	4					
Teacher:	Stojaković M. Mila					
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
2	2	0	0	0		
Precondition courses		None				
1. Educational goal:						
<p>The educational objective of the course is to introduce basic concept of combinatorial game theory, with a special emphasis on the positional game theory. Suggested topics have both theoretical and practical importance. The knowledge of mathematical game theory contributes to the full understanding of the designing process, implementation and game design within computer animation.</p>						
2. Educational outcomes (acquired knowledge):						
<p>Acquisition of basic knowledge in the field of mathematical (combinatorial) games. Introduction to tools and techniques used in this field, as well as to possibilities and methods of their application.</p>						
3. Course content/structure:						
<p>1. Introduction concepts. Types of combinatorial games. Strategy. Game tree. Total min-max game tree search. Stealing the strategy. Probability approach. 2. Some combinatorial games. 3. Positional games. Definition. X and O. Pairing strategy. Strong and weak games. Maker-Breaker games. Basic concepts in the graph theory 5. Graphs games</p> <p>Part of the lectures consists of numerical simulation and possible writing of the term paper.</p>						
4. Teaching methods:						
<p>Lectures, Audio Practice and Consultations. During the Audio-Practice, the contents from the lectures are applied and exercised. During the semester, each student has to write the term paper worth 30% of the points.</p> <p>Parts of the course which represent a logical whole may be passed through two colloquiums. If the student wins at least 30% of possible points at each colloquium, it is considered that he passed the examination. At the examination the student may win up to 30% of the points. The course grade is formed based on the points won at the term paper, colloquiums and the knowledge demonstrated at the examination.</p>						
Knowledge evaluation (maximum 100 points)						
Pre-examination obligations		Mandatory	Points	Final exam	Mandatory	Points
Project		Yes	30.00	Coloquium exam	No	20.00
				Coloquium exam	No	20.00
				Practical part of the exam - tasks	Yes	70.00
Literature						
Ord.	Author	Title		Publisher	Year	
1,	Tatjana Grbić	Skripta iz matematičke teorije igara			2011	
2,	D. Cvetković, S. Simić	Diskretna matematika-matematika za kompjuterske nauke		Naučna knjiga	1987	
3,	J. Beck	Foundations of positional games			1996	
4,	E.R. Berlekamp, J.H.Conway, R.K. Guy	Winning Ways		Academic Press, London	1982	

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

Table 5.2 Course specification

Course:		Study Research on Theoretical Background of the Master Thesis				
Course id:	IGAS10					
Number of ECTS:	7					
Teachers:						
Course status:	Mandatory					
Number of active teaching classes (weekly)						
Lectures:	Practical classes:	Other teaching types:	Study research work:	Other classes:		
0	0	0	8	0		
Precondition courses		None				
1. Educational goal:						
<p>Use of basic, theoretical and methodological, scientific, technical and professional knowledge and application of methods for solving specific problems in the selected areas. In this part of the master thesis, a student studies the problem, its structure and complexity and on the basis of performed analysis, he draws conclusions about possible ways to solve it. By studying literature, a student becomes familiar with methods that are intended to solve similar tasks, using engineering practices in their solution. The aim of students' activities in this part of the research is to acquire the necessary experience in solving complex problems and tasks and recognize possibilities for the application of the previously acquired knowledge into practice.</p>						
2. Educational outcomes (acquired knowledge):						
<p>Enabling students to independently apply previously acquired knowledge in different areas that were formerly studied, in order to review the structure of a given problem and its system analysis and for the purpose of drawing conclusions about possible directions regarding its resolution. Through the individual use of literature, students expand knowledge in selected areas and study various methods and papers relating to similar issues. In this way, the students develop ability to conduct analysis and identify problems within an assigned topic. By practical application of acquired knowledge in different areas, a student develops the ability to consider the place and role of an engineer in the selected area, as well as the need to cooperate with other disciplines, developing team work.</p>						
3. Course content/structure:						
<p>It is formed separately in accordance with the needs of a master thesis elaboration, its complexity and structure. A student examines the scientific literature and papers of graduate and master students that deal with similar topics, in order to perform specific task analysis for finding a solution which is defined by the task of the master thesis. Teaching is partially conducted through independent study research. Study includes active monitoring of the primary findings from this particular topic, organizing and conducting experiments, numerical simulations and statistical data processing, writing and / or presenting papers at conferences out of the specific scientific and teaching fields relating to issues of master thesis.</p>						
4. Teaching methods:						
<p>A mentor of a master thesis assigns a task of the master thesis and submits it to the student. The student is required to develop a given topic defined by the task of master thesis, using literature proposed by the mentor. During the elaboration of a master thesis, a mentor may provide additional guidance to the student regarding literature and further instruct him how to make a high quality Master thesis. During the study research, a student makes consultations with the mentor, and if necessary with other teachers who deal with issues related to theme of the thesis. Within the assigned topic, the student, if necessary, performs adequate measuring, testing, counting, questionnaires and other research, statistical data processing, if it is foreseen by the task of the master thesis.</p>						
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	

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

Table 5.2 Course specification

Course:		<h2 style="margin: 0;">Writing and Defence of the Master Thesis</h2>				
Course id:	IGA0ZR					
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:						
<p>The objective of writing and defending the Master thesis is that the student shows independent and creative approach in applying acquired practical and theoretical knowledge in the adequate field in the practice and in the field of computing and control engineering. Enabling students to study literature and scientific research.</p>						
2. Educational outcomes (acquired knowledge):						
<p>By writing and defending the Master thesis, students who completed the studies should be competent to solve real problems in the practice as well as to continue education if they decide to. Graduated students acquire thorough knowledge and understanding of all disciplines of the chosen study group, as well as the ability to solve specific problems by using scientific methods and procedures. Graduated students are able to write and present their work results in an adequate manner. Graduated students of this level of studies have the competence to monitor and apply innovations in the profession, as well as to cooperate with local, social and international surrounding.</p>						
3. Course content/structure:						
<p>Engineering Animation in technical disciplines, application in simulations and mechanical engineering, civil engineering, architecture, traffic... Application of animation in medicine. Making short animated movies.</p>						
4. Teaching methods:						
<p>A mentor chooses one of the given modules for writing and defence of the Master thesis (the same module as for theoretical background) in which the student will write the Master thesis and formulate the topic with the tasks for elaboration of the Master thesis. The candidate works independently on the given problem with consultations with the mentor. After the Master thesis is written and the mentor consent is given, the candidate defends the thesis in front of the Committee consisting of at least three members where at least one of them is from the different Faculty.</p>						
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	

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 06. Programme Quality, Contemporaneity and International Compliance

The study programme is in accordance with the contemporary world scientific trends and with the state of the profession, and it can be compared to the similar programmes at higher educational institutions abroad. The study programme of the master academic studies in Engineering Animation designed in this way is complete, comprehensive and offers students the latest scientific and professional knowledge in this field. The study programme is comparable and in accordance with the following universities:

1. Brown University <http://www.cs.brown.edu/courses/>

Courses:

Introduction to Scientific Computing and Problem Solving

<http://www.cs.brown.edu/courses/csci0040.html>

Introduction to Computer Graphics

<http://www.cs.brown.edu/courses/csci1230.html>

Introduction to Computer Animation

<http://www.cs.brown.edu/courses/csci1250.html>

Intermediate 3D Computer Animation

<http://www.cs.brown.edu/courses/csci1280.html>

Innovating Game Development

<http://www.cs.brown.edu/courses/csci1340.html>

Virtual Reality Design for Science

<http://www.cs.brown.edu/courses/csci1370.html>

Introduction to Computer Vision

<http://www.cs.brown.edu/courses/csci1430.html>

Software System Design

<http://www.cs.brown.edu/courses/csci1900.html>

Introduction to Computational Geometry

<http://www.cs.brown.edu/courses/csci1950-j.html>

Interactive Computer Graphics

<http://www.cs.brown.edu/courses/csci2240.html>

Interdisciplinary Scientific Visualization

<http://www.cs.brown.edu/courses/csci2370.html>

Computational Geometry

<http://www.cs.brown.edu/courses/csci2520.html>

Programming Language Theory

<http://www.cs.brown.edu/courses/csci2730.html>

Special Topics in Machine Learning

<http://www.cs.brown.edu/courses/csci2950-p.html>

Human and Machine Learning

http://www.cs.brown.edu/courses/xlist_cogs1680.html

3D Photography and Geometry Processing

http://www.cs.brown.edu/courses/xlist_engn2911-i.html

Annexes:

Fax16_http___www.cs.brown.pdf

2. The Media School Bournemouth University

Link

<http://ncca.bournemouth.ac.uk/>

Annexes:

FAX_1_bournemouth.ac.uk.pdf

FAX_1B_ncca.bournemouth.ac.uk_courses_sub=43.pdf

FAX_1C_ncca.bournemouth.ac.uk_courses_sub=42.pdf

3. California State University, Chico

Link:

<http://graphics.ecst.csuchico.edu/>

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Engineering Animation

Annexes:

FAX_14A_graphics.ecst.csuchico.edu.pdf

FAX_14B_graphics.ecst.csuchico.edu_Program.html.pdf

4. University of California - Berkeley

Link:

<http://graphics.berkeley.edu/>

Annexes:

FAX_2A_graphics.berkeley.edu.pdf

FAX_2B_graphics.cs.berkeley.edu_papers_Wang-EBW-2010-07_index.h.pdf

FAX_2C_graphics.cs.berkeley.edu_papers_Huang-SPL-2010-06_index..pdf

FAX_2d_graphics.cs.berkeley.edu_papers_Gu-RIA-2009-12_index.htm.pdf

FAX_2E_graphics.cs.berkeley.edu_papers_Overbeck-AWR-2009-12_ind.pdf

FAX_2F_graphics.cs.berkeley.edu_papers_Chentanez-Isn-2009-08_in.pdf

FAX_2G_graphics.cs.berkeley.edu_papers_Parker-RTD-2009-08_index.pdf

FAX_2H_graphics.cs.berkeley.edu_papers_Li-3CF-2009-08_index.htm.pdf

FAX_2I_graphics.cs.berkeley.edu_papers_Mahajan-MGP-2009-07_inde.pdf

5. Purdue University, College of Technology, Computer Graphics TECHNOLOGY

Link:

<http://www.tech.purdue.edu/cg/>

Annexes:

FAX_12A_www.tech.purdue.edu_cg.pdf

FAX_12B_www.tech.purdue.edu_cgt_academics_coursepages.cfm.pdf

FAX_12C_www2.tech.purdue.edu_cgt_Courses_cgt241.pdf

FAX_12D_www2.tech.purdue.edu_cgt_Courses_cgt340.pdf

FAX_12E_www2.tech.purdue.edu_cgt_Courses_cgt346.pdf

FAX_12F_www2.tech.purdue.edu_cgt_Courses_cgt442_Ctopics.htm.pdf

6. Computer Graphics @ Columbia University

Link:

<http://graphics.cs.columbia.edu/>

Annexes:

FAX_7_graphics.cs.columbia.edu.pdf

FAX_7B_www.cs.columbia.edu_cg.pdf

7. Stanford University. Stanford, California

Link:

<http://www-graphics.stanford.edu>

Annex:

FAX_10_www-graphics.stanford.edu.pdf

8. University of Bristol, Computer Graphics Group, UK

Link:

<http://www.cs.bris.ac.uk/Research/Graphics/>

Annexes:

FAX_11A_www.cs.bris.ac.uk_Research_Graphics.pdf

FAX_11B_www.cs.bris.ac.uk_Research_Graphics_projects.htm.pdf

FAX_11C_www.cs.bris.ac.uk_Research_Graphics_resources.htm.pdf

We believe that such study programme will bring new quality in the higher education since it includes and unites fields that are seldom and random studied in Serbia. We believe that the suggested Study programme in Engineering Animation is attractive, modern and needed in our society.



UNIVERSITY OF NOVI SAD

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

Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation





Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 07. Student Enrollment

Each year a certain number of students are enrolled at the Faculty of Technical Sciences on the master academic studies of Engineering Animation, in accordance with social needs, faculty infrastructure resources and number of students approved in Accreditation process.

Number of students at the budget financing or self-financing is annually defined by special decision of Scientific Educational Council of the Faculty of Technical Sciences.

Persons who have completed required four-year studies may be enrolled to this study program, if they collected 240 ECTS points during studies. These conditions are defined by the Regulations of Student Enrollment to the Study Programmes.

Evaluation Committee on the master academic studies of Engineering Animation evaluates all passed activities of all candidates for enrollment and determines if they fulfill requirements for enrollment.

All candidates which fulfill requirements may enroll to master academic studies of Engineering Animation. Evaluation Committee determines if candidates which fulfill requirements had to take the Entrance Examination. If Evaluation Committee determined the Entrance Examination as a requirement, than candidates had to take Entrance Examination: Knowledge Exam in field of studies.

The selection of students and enrollment is carried out based on the success in the prior education and achieved success at the entrance examination, defined by the Regulations of Student Enrollment to the Study Programmes.

According the Regulations of Student Enrollment to the Study Programmes, Evaluation Committee can allow enrollment for students from other academic programs, if they collected minimum of 240 ECTS points during studies, but only if there are empty spaces available after all candidates which fulfilled enrollment requirements are enrolled (required basic four-year academic studies and Entrance Examination passed). Students from other academic programs as well as persons who have completed studies may be enrolled to this study program, if they pass Entrance Examination. In that case, Evaluation Committee evaluates all passed activities of each candidate and determines difference in activities for which candidate has to take examination. Summary of ECTS points for difference activities cannot exceed the number of 30 points.

According the Regulations of Student Enrollment to the Study Programmes, Evaluation Committee comprising of the head of the master academic studies of Engineering Animation and the heads of all departments involved in realization of the study programme, or the professors which the heads of departments selected.



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 08. Student Evaluation and Progress

The final grade in each course included in this programme is formed by continual monitoring of students' accomplishments throughout the academic year and by passing the final examination.

Students master the study programme by taking examinations and thus obtaining a certain number of ECTS credits, in accordance with the study programme. Each course within the programme is worth a certain number of ECTS credits which students obtain by successfully passing the course examination. The number of ECTS credits is based on the quantity and quality of work students are required to submit during a certain course and on the Faculty of Technical Sciences' unique methodology for all study programmes. Students' success in mastering a certain course is constantly monitored during classes and is expressed in points. Maximum number of points obtained in a course is 100.

Students obtain points from a course through their work during classes, completion of the prerequisites and taking the examination. The minimum number of points a student can obtain by fulfilling the course prerequisites during classes is 30, and the maximum 70.

Each course at the study programme has a clear and transparent mode of obtaining points. There are several ways students can obtain points: by participating in different activities during classes, by fulfilling the course prerequisites and by passing the course examination.

The final success of students at a course is presented with a grade 5 (failed) to 10 (excellent). The student's grade is based on the overall number of points obtained on fulfilling prerequisites and taking the examination, and in accordance with the quality of acquired knowledge and skills.

In order to take the final examination in the certain course, it is necessary that the student obtains at least 55% of the points in the examination prerequisites. Additional conditions for taking the examinations are defined individually for each course.

Advancement of students during education is defined by the Rules of Studying at the Graduate Academic Studies - Master.

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 09. Teaching Staff

For the realization of the study programme in Engineering Animation, there is teaching staff with necessary professional and scientific qualifications.

The number of teachers corresponds to the needs of the study programme and depends on the number of courses and hours in the courses.

The total number of teachers is sufficient to cover the total number of hours on the study program, so that the teacher has about 180 hours of active lecturing (Lectures, consultations, exercises, practical work, ...) annually, or 6 times a week. Out of the total number of necessary teachers, all 100% of the teachers are full-time employed.

The number of associates meets the requirements of the study program. The total number of associates on the study program is sufficient to cover the total number of hours in the study programme, so that the associates make an average of 300 hours of Practice per year, that is, 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 in the specific scientific or technical field, which is related to his teaching activities at the particular study program.

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

None of the teachers has the workload of over 12 hours per week. All data on teachers and associates (CV, elections for the position, references) are available to the public.

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



Science, arts and professional qualifications

Name and last name:	Crnojević S. Vladimir		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 10.11.1995		
Scientific or art field:	Telecommunications and Signal Processing		
Academic career	Year	Institution	Field
Academic title election:	2010		Telecommunications and Signal Processing
PhD thesis	2004	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
Magister thesis	1999	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
Bachelor's thesis	1995	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing

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

	ID	Course name	Study programme name, study type
1.	EK412	Shape Recognition	(BM0) Biomedical Engineering, Undergraduate Academic Studies
2.	EK421	Digital Image Processing	(F10) Engineering Animation, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	URZP32	Systems for Detection, Alarm and Warning	(ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies
4.	BM129A	Digital Image Processing	(BM0) Biomedical Engineering, Undergraduate Academic Studies
5.	E137	Basics of Telecommunications	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
6.	EK463	Pattern Recognition	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
7.	DE311S	Selected topics in Pattern Recognition	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
8.	DE412S	Digital image processing algorithms	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
9.	DE511S	Wireless sensor networks	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
10.	EK520	Medical Image Processing	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
11.	EK522	Computer Vision (Digital Image Processing 2)	(F20) Engineering Animation, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
12.	H1420	Fundamentals in Mechanical Vision	(H00) Mechatronics, Master Academic Studies
13.	IMDS54	Computer Vision in Industrial Engineering and Management	(I12) Industrial Engineering, Specialised Academic Studies (I22) Engineering Management, Specialised Academic Studies
14.	ZP508	Design and Maintenance of the Fire Detection Systems	(ZP1) Disaster Risk Management and Fire Safety, Master Academic Studies
15.	DE311	Selected Chapters in Pattern Recognition	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
16.	DE412	Digital Image Processing Algorithms	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies
17.	DE511	Wireless Sensor Networks	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies
18.	IMDR54	Computer Vision in Industrial Engineering and Management	(I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6		
	Study Programme Accreditation MASTER ACADEMIC STUDIES Engineering Animation		
Representative references (minimum 5, not more than 10)			
1.	Dejan Vukobratovic, Cedimir Stefanovic, Vladimir Crnojevic, Francesco Chiti, Romano Fantacci: "Rateless Packet Approach for Data Gathering in Wireless Sensor Networks", IEEE Journal on Selected Areas in Communications, Vol. 28, No. 7, pp. 1169-1179, September 2010.		
2.	Petrovic, N.I.; Crnojevic, V.: Universal Impulse Noise Filter Based on Genetic Programming, IEEE Transactions on Image Processing, 2008, Vol. 17, No. 7, str. 1109- 1120, ISSN 1057-7149		
3.	D. Culibrk, M. Mirkovic, V.Zlokolica, M. Pokric, V. crnojevic, D. Kukolj, "Salient Motion Features for Video Quality Assessment", IEEE Trans. on Image Processing, Volume: 20 Issue:4, pp(s): 948 - 958, ISSN: 1057-7149		
4.	Cedimir Stefanovic, Dejan Vukobratovic, Francesco Chiti, Lorenzo Niccolai, Vladimir Crnojevic, Romano Fantacci: "Urban Infrastructure-to-Vehicle Traffic Data Dissemination Using UEP Rateless Codes", IEEE Journal on Selected Areas in Communications, Vol. 29, No. 1, pp. 94-102, January 2011.		
5.	Vladimir Crnojević, Nemanja Petrović, „Impulse Noise Filtering Using Robust Pixel-Wise S-estimate of Variance“, EURASIP Journal on Advances in Signal Processing, vol. 2010, Article ID 830702, 10 pages, 2010,		
6.	V. Crnojević, V. Šenk, Ž. Trpovski, "Advanced Impulse Detection Based on Pixel-Wise MAD", IEEE Signal Processing Letters, vol.11, No. 7, 2004, str. 589-593. Crnojević, V. Šenk, Ž. Trpovski, "Advanced Impulse Detection Based on Pixel-Wise MAD", IEEE Signal Processing Letters, vol.11, No. 7, 2004, str. 589-593.		
7.	B. Antić, V. Crnojević, „Joint Domain-Range Modeling of Dynamic Scenes with Adaptive Kernel Bandwidth“, pp.777-788, LNCS 4678, Springer-Verlag, Berlin Heidelberg 2007.		
8.	N. Petrović, V. Crnojević, „Evolutionary Tree-Structured Filter for Impulse Noise Removal“, pp.103-113, LNCS 4179, Springer-Verlag, Berlin Heidelberg 2006.		
9.	N. Petrović, V. Crnojević, „Impulse Noise Detection Based on Robust Statistics and Genetic Programming“, pp.643-649, LNCS 3708, Springer-Verlag, Berlin Heidelberg 2005.		
10.	V. Crnojević, „Impulse Noise Filter With Adaptive Mad-Based Threshold“, International Conference on Image Processing, Genoa, Italy, 11-14. September, 2005.		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		135	
Total of SCI(SSCI) list papers :		10	
Current projects :		Domestic :	3
		International :	10



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

Science, arts and professional qualifications

Name and last name:	Dejanović R. Igor		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 16.10.2000		
Scientific or art field:	Applied Computer Science and Informatics		
Academic carieer	Year	Institution	Field
Academic title election:	2012		Applied Computer Science and Informatics
PhD thesis	2012	Faculty of Technical Sciences - Novi Sad	Computer Science
Magister thesis	2008	Faculty of Technical Sciences - Novi Sad	Computer Science
Bachelor's thesis	2000	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics

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

	ID	Course name	Study programme name, study type
1.	E235	Fundamentals of Information Systems and Software Engineering	(E20) Computing and Control Engineering, Undergraduate Academic Studies (F10) Engineering Animation, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
2.	E2S40	Software Patterns and Components	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
3.	ISIT08	Object oriented programming fundamentals	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
4.	ISIT26	Upravljanje projektima	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
5.	ISIT27	Osnove softverskih arhitektura	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
6.	ISIT36	Software Development Tools	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
7.	ISIT3A	Metodologije i sistemi za upravljanje IT resursima	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
8.	ISIT48	Tehnologije i sistemi za podršku korisnicima	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
9.	SES202	Model Driven Software Development	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
10.	SES204	Advanced Programming Tecnics	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
11.	SES40	Software patterns and components	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
12.	E2510	Software Configuration Management	(E20) Computing and Control Engineering, Master Academic Studies (F20) Engineering Animation, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies

		UNIVERSITY OF NOVI SAD			
		FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6			
Study Programme Accreditation					
MASTER ACADEMIC STUDIES			Engineering Animation		
List of courses being held by the teacher in the accredited study programmes					
ID	Course name	Study programme name, study type			
13.	E2519 Domain-Specific Languages	(E20) Computing and Control Engineering, Master Academic Studies (MR0) Measurement and Control Engineering, Master Academic Studies (PM0) Production Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies			
14.	DRNI12 Selected Topics in Contemporary Software Development Methods	(E20) Computing and Control Engineering, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies			
Representative references (minimum 5, not more than 10)					
1.	Gordana Milosavljević, Igor Dejanović, Branko Perišić: Brz razvoj adaptivnih poslovnih informacionih sistema, Yu Info, Kopaonik: 11-14 mart, 2007				
2.	*****Dejanović I., Perišić B., Milosavljević G.: Implementacija XText DSL-a uz oslonac na arpeggio parser, YU Info 2011 (CD), 6 pages				
3.	Dejanović I., Tumbas Živanov M., Milosavljević G., Perišić B.: Comparison of Textual and Visual Notations of DOMMLite Domain-Specific Language, 14. Advances in Databases and Information Systems, Novi Sad, 20-24 Septembar, 2010, pp. 20-24				
4.	Milosavljević G., Dejanović I., Perišić B., Milosavljević B.: UML Profile for Specifying User Interfaces of Business Applications, 14. Advances in Databases and Information Systems, Novi Sad, 20-24 Septembar, 2010, pp. 77-94				
5.	*****Milosavljević G., Dejanović I., Perišić B.: Ready for the industry: A practical approach to teaching mde. In 7th Educators Symposium@MODELS 2011: Software Modeling in Education, pages 31-40, Wellington, New Zealand, www.se.uni-oldenburg.de/documents/olnse-2-2011-EduSymp.pdf				
6.	Dejanović I., Perišić B., Milosavljević G.: Arpeggio: pakrat parser interpreter, 16. YU INFO, Kopaonik, 1-8 Mart, 2010				
7.	Dejanović I., Milosavljević G., Tumbas Živanov M., Perišić B.: Primena savremenih tehnika razvoja softvera u izradi studentskih projekata, 15. YU INFO, Kopaonik, 1-8 Mart, 2009				
8.	Dejanović I., Milosavljević G., Perišić B.: Uopredni prikaz dva popularna MDSD/MDA alata otvorenog koda , 13. YU INFO, Kopaonik, 1-8 Mart, 2005				
9.	Perišić B., Milosavljević G., Dejanović I., Milosavljević B.: UML Profile for Specifying User Interfaces of Business Applications, Computer Science and Information Systems (ComSIS), 2011, Vol. 8, No 2, pp. 405-426, ISSN 1820-0214				
10.	Dejanović I., Milosavljević G., Tumbas Živanov M., Perišić B.: A Domain-Specific Language for Defining Static Structure of Database Applications, Computer Science and Information Systems (ComSIS), 2010, Vol. 7, No 3, pp. 409-440, ISSN 1820-0214				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :		0			
Total of SCI(SSCI) list papers :		0			
Current projects :		Domestic :	0	International :	0



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

Science, arts and professional qualifications

Name and last name:	Delić D. Vlado		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.09.1989		
Scientific or art field:	Telecommunications and Signal Processing		
Academic career	Year	Institution	Field
Academic title election:	2008	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
PhD thesis	1997	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
Magister thesis	1993	School of Electrical Engineering - Beograd	Telecommunications and Signal Processing
Bachelor's thesis	1989	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing

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

	ID	Course name	Study programme name, study type
1.	EK411	Digital Filters	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
2.	Z413A	Acoustics and Noise Protection	(Z20) Environmental Engineering, Undergraduate Academic Studies
3.	BM118B	Acoustics and Audio Engineering in Medicine	(BM0) Biomedical Engineering, Undergraduate Academic Studies
4.	EK312	Acoustics and Audio Engineering	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
5.	EK312L	Acoustics and Audio Engineering in Multimedia	(F10) Engineering Animation, Undergraduate Academic Studies
6.	EK422	Digital Audio Signal Processing	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
7.	EK451	Audio and Video Technologies	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
8.	EK452	Monitoring and Noise Protection	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
9.	ETI27	Audio Engineering	(E02) Electronics and Telecommunications, Undergraduate Professional Studies
10.	ETI29	Monitoring and Noise Protection	(E02) Electronics and Telecommunications, Undergraduate Professional Studies
11.	ETI35	Digital Sound Processing	(E02) Electronics and Telecommunications, Undergraduate Professional Studies
12.	DE111S	Algorithms for Digital Signal Processing	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
13.	DE212S	Selected Chapters in Acoustics and Audio Engineering	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
14.	DE512S	Human-Machine Speech Communication	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies
15.	S0151	Application of Digital Signal Processing in Telecommunications	(S01) Postal Traffic and Telecommunications, Master Academic Studies
16.	SI037	Telecommunication Infrastructure of E-Business	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
17.	BMIM2A	Assistive Information and Communications Technologies	(BM0) Biomedical Engineering, Master Academic Studies
18.	EK422L	Digital Audio Signal Processing	(F20) Engineering Animation, Master Academic Studies
19.	EK550	Speech Technologies	(E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
20.	S1596	Acoustics and Audio Engineering in Traffic	(S01) Postal Traffic and Telecommunications, Master Academic Studies
21.	DE111	Algorithms for Digital Signal Processing	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies
22.	DE212	Selected Chapters in Acoustics and Audio Engineering	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies

		UNIVERSITY OF NOVI SAD			
		FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6			
Study Programme Accreditation					
MASTER ACADEMIC STUDIES			Engineering Animation		
List of courses being held by the teacher in the accredited study programmes					
	ID	Course name	Study programme name, study type		
23.	DE512	Human-Machine Speech Communication	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies		
Representative references (minimum 5, not more than 10)					
1.	"Discrimination Capability of Prosodic and Spectral Features for Emotional Speech Recognition", V. Delić, M. Bojanić, M. Gnjatović, M. Sečujski, S.T. Jovičić; Electronics and Electrical Engineering, ISSN 1392-1215, Vol. 18, No. 9, November of 2012, pp. 51-54, DOI:10.5755/j01.eee.18.9.2806				
2.	"Influence of the Number of Principal Components used to the Automatic Speaker Recognition Accuracy", I. Jokić, S. Jokić, Z. Perić, M. Gnjatović, V. Delić; Electronics and Electrical Engineering, ISSN 1392-1215, No. 7(123), September of 2012, pp. 83-86, DOI:10.5755/j01.eee.123.7.2379				
3.	"Focus Tree: Modeling Attentional Information in Task-Oriented Human-Machine Interaction", M. Gnjatović, M. Janev, V. Delić; Applied Intelligence, Springer-Verlag New York, Inc., ISSN 0924-669X, Volume 37, Issue 3, Page 305-320, (2012) DOI: 10.1007/s10489-011-0329-5				
4.	"A Novel Split-and-Merge Algorithm for Hierarchical Clustering of Gaussian Mixture Models", B. Popović, M. Janev, D. Pekar, N. Jakovljević, M. Gnjatović, M. Sečujski, V. Delić; Applied Intelligence, Springer-Verlag N. York, Inc., ISSN 0924-669X, Volume 37, Number 3, Page 377-389, (2012) DOI: 10.1007/s10489-011-0333-9				
5.	"Automatska konverzija tekstualnih informacija u govor", M. Sečujski, V. Delić; - kumulativna naučnotehnička informacija - Monografska serija ISSN 1820-3418, Naučnotehničke informacije, ISBN 978-86-81123-25-6, Vol. XLVI, No. 4, Vojnotehnički institut, Beograd, 2011, 56 strana				
6.	"Stereo Presentation and Binaural Localization in a Memory Game for the Visually Impaired", V. Delić, N. Vujnović Sedlar; 2nd COST 2102 International Training School, Dublin, Ireland, 23 27.03.2009, Revised Selected Papers in Development of Multimodal Interfaces: Active Listening and Synchrony, Lecture Notes in Artificial Intelligence, LNAI; A. Esposito et al. (Eds.) , Springer, Heidelberg, ISBN 978-3-642-12396-2, LNCS 5967, ISSN: 0302-9743, April 2010, pp. 354-363, DOI: 10.1007/978-3-642-12397-9				
7.	"Efficient ECG Modeling using Polynomial Functions", S. Jokić, V. Delić, Z. Perić, S. Krčo, D. Sakač; Electronics and Electrical Engineering, ISSN 1392-1215, No. 4(110), April of 2011, pp. 121-124				
8.	"Pattern Evaluation Tests of Software-Based Acoustic Measuring Systems", M. Stojiljković, V. Delić; 6th Forum Acusticum 2011, 27. June - 1 July, Aalborg, Denmark, European Acoustic Association, pp. 391 396, (Acta Acustica United with Acustica – Addendum, Vol. 97, No. 3, May/June 2011, ISBN: 978-84-694-1520-7, ISSN 1610-1928, European Acoustic Association				
9.	"Zbirka zadataka iz digitalnih telekomunikacija", V. Milošević, V. Delić, FTN&Stylos, 1996, p.189 i FTN, 2005, p.282				
10.	"Zbirka zadataka iz digitalne obrade signala", V. Delić, M. Sečujski, I. Radić, FTN, 2007, str. 176, (ISBN 978-86-7892-082-0)				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :			52		
Total of SCI(SSCI) list papers :			14		
Current projects :			Domestic :	4	International : 0

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

Science, arts and professional qualifications

Name and last name:	Ivetić V. Dragan		
Academic title:	Full Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 22.10.1990		
Scientific or art field:	Applied Computer Science and Informatics		
Academic carier	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
PhD thesis	1999	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
Magister thesis	1994	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
Bachelor's thesis	1990	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics

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

	ID	Course name	Study programme name, study type
1.	E243	Human Computer Interaction	(E20) Computing and Control Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
2.	H207	Programming and Programming Languages	(F10) Engineering Animation, Undergraduate Academic Studies (H00) Mechatronics, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
3.	RI4A	Computer Graphics	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies (F10) Engineering Animation, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
4.	E0243	Human-Computer Interaction	(ES0) Power Software Engineering, Undergraduate Academic Studies (F10) Engineering Animation, Undergraduate Academic Studies
5.	E2505	Multimedia Systems	(E20) Computing and Control Engineering, Master Academic Studies (ES0) Power Software Engineering, Master Academic Studies (F20) Engineering Animation, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
6.	E2516	Virtual Reality Systems	(E20) Computing and Control Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
7.	E2528	Computer game development	(E20) Computing and Control Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
8.	E2534	Data Compression	(E20) Computing and Control Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies



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

ID	Course name	Study programme name, study type
9. ESI035	Computer graphic algorithms for smart grid systems	(ESO) Power Software Engineering, Master Academic Studies
10. ESI036	Visualization techniques in power systems	(ESO) Power Software Engineering, Master Academic Studies
11. DRNI09	Selected Topics in Human Centered Computing	(E20) Computing and Control Engineering, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies
12. FDS151	Selected Chapters in Multimedia	(F00) Graphic Engineering and Design, Doctoral Academic Studies
13. FDS152	Selected Topics in Computer Graphics	(F00) Graphic Engineering and Design, Doctoral Academic Studies
14. DRNI15	Selected Topics in Advanced Computer Graphics	(E20) Computing and Control Engineering, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies
15. DRNI18	Selected Topics in Distributed/Mobile computing	(E20) Computing and Control Engineering, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Dinu Dragan, Dragan Ivetic, "Request Redirection Paradigm in Medical Image Archive Implementation", Computer methods and programs in biomedicine, Elsevier, Vol. 107, No. 2, p.111-121, ISSN 0169-2607, Aug 2012
2.	Dragan Ivetic, Dinu Dragan, "Medical Image on the go!", Journal of Medical Systems, Springer, Vol. 35, No. 4, pp. 499-516, ISSN 0148-5598, August 2011.
3.	Dragan Ivetic, Srdjan Mihic, Branko Markoski, "Augmented AVI video file for road surveying", Computers and Electrical Engineering, Elsevier, Vol. 36, No. 1, pp. 169-179, ISSN 0045-7906, January 2010.
4.	Dinu Dragan, Dragan Ivetic, "Architectures of DICOM based PACS for JPEG2000 Medical Image Streaming", Computer Science and Information Systems Journal (ComSIS), vol. 6(1), ISSN: 1820-0214, pp. 185-203, ComSIS Consortium, Serbia, June 2009.
5.	Dragan Ivetic, Dusan Malbaski, "A dichotomous software life-cycle model", Journal of Applied Systems Studies, Nikitas. A. Assimakopoulos, Ed., Cambridge International Science Publishing, Cambridge, England, vol. 2, No. 2, 2001
6.	Dinu Dragan, Dragan Ivetic, "A Comprehensive Quality Evaluation System for PACS", Ubiquitous Computing and Communication Journal, Special Issue on ICIT 2009 Conference - Bioinformatics and Image, Vol. 4(3), ISSN: 1992-8424, pp. 642-650, UBICC Publisher, July 2009.
7.	Veljko Petrovic, Dragan Ivetic, "Education and out of the box thinking – linearization of Graham’s scan algorithm complexity as fruit of education policy", Ubiquitous Computing and Communications Journal, Special Issue on ICIT 2011 conference, ISSN: 1992-8424, pp. 43-51, UBICC Publisher, 2011.
8.	Dusan Malbaski, Dragan Ivetic, "Some notes on the formal definition of streams", Byron Papathanassiou, Ed., Yugoslav Journal of Operations Research, vol. 6, no. 2, 1996., 277-284.
9.	Ivetic Dragan, Dinu Dragan, "JPEG2000 Aims To Make Medical Image Ubiquitous", Egyptian Computer Science Journal, Vol. 31, No. 5, pp. 1-13, ISSN 1110-2586, Sept. 2009.
10.	Dragan D., Ivetic D.: Chapter 28: Tools for Ubiquitous PACS System, in "Proceedings of the International Conference on Human-centric Computing 2011 and Embedded Multimedia Computing 2011", Lecture Notes in Electrical Engineering, J.J. Park et al. (eds.), Berlin, Springer, 2011, str. 297-308, ISBN 978-94-007-2104-3

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

Quotation total :	55		
Total of SCI(SSCI) list papers :	4		
Current projects :	Domestic :	2	International : 0

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

Science, arts and professional qualifications

Name and last name:	Janev B. Jelena		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.03.2012		
Scientific or art field:	Art Applied to Architecture, Technics and Design		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Art Applied to Architecture, Technics and Design
Magister thesis	2004	Academy of Arts - Novi Sad	Sculpting
Bachelor's thesis	1998	Academy of Arts - Novi Sad	Sculpting

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

	ID	Course name	Study programme name, study type
1.	IA008	Drawing for Animation and Visual Effects	(F10) Engineering Animation, Undergraduate Academic Studies
2.	IA012	Storyboard	(F10) Engineering Animation, Undergraduate Academic Studies
3.	IGA002	Free Hand Drawing	(F10) Engineering Animation, Undergraduate Academic Studies
4.	IGA013	Character Animation	(F10) Engineering Animation, Undergraduate Academic Studies
5.	ASI17B	Sculpture and Art of Installation	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
6.	ASO25	Scene Technique 3	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
7.	ASO30	Scene Technique 4	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
8.	ASO41	Artistic and curatorial practices of scene design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
9.	IA004	Classical Animation	(F10) Engineering Animation, Undergraduate Academic Studies
10.	IA021	Elements of Artistic Expression	(F20) Engineering Animation, Master Academic Studies
11.	IA005	History of Animation	(F20) Engineering Animation, Master Academic Studies
12.	SDO1	Scenic phenomena in contemporary arts	(A00) Architecture, Doctoral Academic Studies (AS0) Scenic Design, Doctoral Academic Studies
13.	SDO7	Artistic practice of scene design	(AS0) Scenic Design, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Magistarski rad na temu 'Dodir', na Akademiji umetnosti u Novom Sadu na likovnom odseku, smer vajarstvo, pod mentorstvom redovnog profesora Ljubomira Denkovića, 2004
2.	MoNGeometrija 2012, „Practice in Applying Fine Arts Subjects at Computer Graphic - Engineering Animation Studies”
3.	Žirirana izložba 2007. Izložba skulptura u gvožđu 'Iron Tribe', New Mexico Highlands University, Burris Hall, Las Vegas, New Mexico, U.S.A.
4.	Žirirana izložba 2003.7. međunarodni bijenale umetnosti minijature, Kulturni centar – Moderna galerija, Gornji Milanovac
5.	Žirirana izložba 2002. Ukrštanja – 10. bijenale vizuelnih umetnosti, galerija "Dvorište", Pančevo
6.	Žirirana izložba 1999. Izložba kandidata predloženih za članove SULUV-a, Galerija SULUV-a, Novi Sad
7.	Žirirana izložba 1999. Prolećna izložba u Umetničkom paviljonu "Cvijeta Zuzorić"
8.	Žirirana izložba nagrada Oktobarskog salona grada Novog Sada za skulpturu 1997.26. Novosadski salon, Velika galerija Radničkog univerziteta, Novi Sad
9.	samostalna izložba 2003. Izložba crteža "Prvo skoči pa reci hop" u okviru projekta "Istraga" Muzeja savremene likovne umetnosti u Novom Sadu, fasade zgrada u Jevrejskoj 10 - 12, na uglu Miletićeve i Trifkovićevo trga, na uglu Pašičeve i Zlatnih greda, u Žarka Vasiljevića 6, Novi sad
10.	samostalna izložba 2002. Izložba skulptura "Dodir", Muzej savremene likovne umetnosti, Novi Sad



UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

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

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

Science, arts and professional qualifications

Name and last name:	Lukić J. Tibor		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.07.2012		
Scientific or art field:	Mathematics		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Mathematics
PhD thesis	2011	Faculty of Technical Sciences - Novi Sad	Mathematics
Magister thesis	2004	Faculty of Sciences - Novi Sad	Mathematical Sciences
Bachelor's thesis	1998	Faculty of Sciences - Novi Sad	Mathematical Sciences

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

	ID	Course name	Study programme name, study type
1.	E212	Mathematical Analysis 1	(E20) Computing and Control Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
2.	E213	Discrete Mathematics and Linear Algebra	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
3.	E221A	Mathematical Analysis 2	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
4.	IAM004	Geometry of Discrete Space	(F10) Engineering Animation, Undergraduate Academic Studies
5.	M106	Mathematics 2	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M30) Energy and Process Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies (P00) Production Engineering, Undergraduate Academic Studies
6.	M4201	Mathematics 3	(M30) Energy and Process Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
7.	M4202	Applied Mathematical Analysis	(M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies
8.	Z104	Mathematics 1	(Z01) Safety at Work, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies (ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

ID	Course name	Study programme name, study type
9.	Z106 Mathematics 2	(Z01) Safety at Work, Undergraduate Academic Studies (ZC0) Clean Energy Technologies, Undergraduate Academic Studies (ZP0) Disaster Risk Management and Fire Safety, Undergraduate Academic Studies (Z20) Environmental Engineering, Undergraduate Academic Studies
10.	E101 Discrete Mathematics	(ES0) Power Software Engineering, Undergraduate Academic Studies
11.	ISIT02 Mathematics 1	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
12.	Z104 Matematika 1(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
13.	Z106 Matematika 2(uneti naziv na engleskom)	(Z20) Environmental Engineering, Undergraduate Academic Studies
14.	OML503 Combinatorics and Graph Theory	(OM1) Mathematics in Engineering, Master Academic Studies
15.	OML507 Logic in computer science	(OM1) Mathematics in Engineering, Master Academic Studies
16.	IA022 Numerical Optimization	(F20) Engineering Animation, Master Academic Studies

Representative references (minimum 5, not more than 10)

1.	Tibor Lukic, Nebojsa M. Ralevic, Geometric Mean Newton"s Method for Simple and Multiple Roots, Elsevier, Applied Mathematics Letters 21, pp. 30-36, 2008.
2.	Joakim Lindblad, Nata sa Sladoje, and Tibor Lukic, Feature Based Defuzzication in Z2 and Z3 Using a Scale Space Approach, Springer-Verlag, Volume 4245,of Lecture Notes in Computer Science, pp. 378-389, 2006.
3.	Tibor Lukic, Natasa Sladoje, and Joakim Lindblad, Deterministic Defuzzication based on Spectral Projected Gradient Optimization, Springer-Verlag, Volume 5096 of Lecture Notes in Computer Science, pp. 476-485, 2008.
4.	Zorana Lu zanin and Tibor Lukic, Convergence of the MRV method at singular points, Volume 35 of Novi Sad Journal of Mathematics, pp. 71-79, 2005.
5.	Tibor Lukic, Neboj sa M. Ralevic and Aniko Lukity, Application of Aggregation Operators in Solution of Nonlinear Equations, Proceedings of 4th Serbian-Hungarian Joint Symposium on Intelligent Systems, pp. 329-339, Subotica, 2006.
6.	Tibor Lukic and Neboj sa M. Ralevic, Newton"s Method with Accelerated Convergence Modified by an Aggregation Operator, Proceedings of 3rd Serbian-Hungarian Joint Symposium on Intelligent Systems, pp. 121-128, Subotica, 2005.
7.	Tibor Lukic, Joakim Lindblad, and Natasa Sladoje, Regularized Image Denois- ing Based on Spectral Gradient Optimization, Inverse Problems, Vol. 27:085010, IOP Publishing, 2011.
8.	Lukić T.: Energy-minimization based Discrete Tomography Reconstruction Method for Images on Triangular Grid, Lecture Notes in Computer Science, LNCS, 2012
9.	Tibor Lukic, Benedek Nagy, Energy-minimization based Discrete Tomography Reconstruction Method for Images on Triangular Grid, Proceedings of Combinatorial Image Analysis - 15th International Workshop (IWCI A), Austin (TX), USA, LNCS, Vol. 7655, Springer-Verlag, pp. 274-284, 2012.
10.	Zorana Luzanin and Tibor Lukic, Convergence of the MRV method at singular points, Novi Sad Journal of Mathematics, Vol. 35, pp. 71{79, 2005.

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

Quotation total :	0
Total of SCI(SSCI) list papers :	8
Current projects :	Domestic : 2 International : 0

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

Science, arts and professional qualifications

Name and last name:	Mihajlović R. Dragan		
Academic title:	Associate Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 24.09.1990		
Scientific or art field:	Applied Computer Science and Informatics		
Academic career	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
PhD thesis	1988	Faculty of Electrical Engineering - Sarajevo	Applied Computer Science and Informatics
Bachelor's thesis	1973	Faculty of Electrical Engineering - Sarajevo	Applied Computer Science and Informatics
Magister thesis	1070	Faculty of Electrical Engineering - Sarajevo	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.	AU54	Geoinformation Systems	(E20) Computing and Control Engineering, Undergraduate Academic Studies (GI0) Geodesy and Geomatics, Undergraduate Academic Studies
2.	E243	Human Computer Interaction	(E20) Computing and Control Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
3.	GI029	Utility Information Systems and their Application	(GI0) Geodesy and Geomatics, Undergraduate Academic Studies
4.	GI205	Information Systems and Databases	(GI0) Geodesy and Geomatics, Undergraduate Academic Studies
5.	RI43A	Databases 1	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
6.	RI43B	Databases 2	(E20) Computing and Control Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies
7.	RI4A	Computer Graphics	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies (F10) Engineering Animation, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
8.	0RI43B	Databases 2	(ES0) Power Software Engineering, Undergraduate Academic Studies
9.	BM118E	Databases	(BM0) Biomedical Engineering, Undergraduate Academic Studies
10.	E0243	Human-Computer Interaction	(ES0) Power Software Engineering, Undergraduate Academic Studies (F10) Engineering Animation, Undergraduate Academic Studies
11.	EE417A	Databases	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

ID	Course name	Study programme name, study type
12. E2505	Multimedia Systems	(E20) Computing and Control Engineering, Master Academic Studies (ES0) Power Software Engineering, Master Academic Studies (F20) Engineering Animation, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
13. E2516	Virtual Reality Systems	(E20) Computing and Control Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
14. FDS151	Selected Chapters in Multimedia	(F00) Graphic Engineering and Design, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Mihajlović D., Informacioni sistemi i projektovanje baza podataka, FTN Novi Sad, 1998
2.	Mihajlović D, Obradović D, Jedan algoritam sažimanja srpskohrvatskih reči, Informatika br 4, pp45-47, 1982
3.	Mihajlović D, Obradović D, An evaluation of textual documents indexing methods, Yujor, 1992, pp107-112.
4.	Mihajlović D i ostali, Softversko rešenje za farmaceutski informacioni sistem, Diskobolos 97.
5.	Mihajlović D, Kecman Ž, Farmaceutski informacioni sistem, I kongres farmaceuta Jugoslavije, Vrnjačka Banja, 1994
6.	Mihajlović D, Izbor parova leksičkih jedinica iz poznatog rečnika za automatizovano postavljanje relacija u tezaurusu
7.	Mihajlović D, Odredjivanje vrsta reči iz srpskohrvatskog jezika primenom računara, Informatica, br 1, pp52-54, 1988
8.	Perišić B, Obradović D, Mihajlović D, Standardizacija metodologije projektovanja informacionih sistema software-inženjerski aspekti, Standardizacija i kvalitet u informacionim tehnologijama, beograd 1995.
9.	Mihajlović D, Nićin V, Prilog razvoju automastke obrade informacija u INDOK-delatnosti u organima uprave, Dani informatike 80, pp73-83, Novi Sad
10.	Obradović D, Perišić B, Mihajlović D, Konjović Z, Stanje i trendovi u projektovanju informacionih sistema, IPME, Beograd, 1992

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

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

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

Science, arts and professional qualifications



Name and last name:		Obradović M. Ratko	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 02.09.1993	
Scientific or art field:		Computer Graphics	
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Computer Graphics
PhD thesis	2000	Faculty of Sciences - Novi Sad	Computer Graphics
Magister thesis	1997	Faculty of Sciences - Novi Sad	Computer Graphics
Bachelor's thesis	1993	Faculty of Technical Sciences - Novi Sad	Machine Elements, Construction Principles, Machine and Mechanism Theory, Power and Motion Transfer and Eng. Communication

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

	ID	Course name	Study programme name, study type
1.	IA020	Advanced Display Technologies	(F10) Engineering Animation, Undergraduate Academic Studies
2.	M108	Engineering Graphic Communications	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M30) Energy and Process Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies (P00) Production Engineering, Undergraduate Academic Studies
3.	S012	Descriptive Geometry and Engineering Drawing	(S00) Traffic and Transport Engineering, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
4.	IA006	Spatial Shape Design	(F10) Engineering Animation, Undergraduate Academic Studies
5.	IA009	3D Modeling	(F10) Engineering Animation, Undergraduate Academic Studies
6.	IA014	Advanced Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
7.	IGA013	Character Animation	(F10) Engineering Animation, Undergraduate Academic Studies
8.	IGA055	Special Visual Effects	(F10) Engineering Animation, Undergraduate Academic Studies
9.	IGB034	Video in Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
10.	IGB340	Fundamentals of Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
11.	ZC007	Engineering Graphic Communications	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
12.	IA018	Computer Geometry	(F20) Engineering Animation, Master Academic Studies
13.	AD0010	Advanced Animation and Video Post Techniques in Architecture	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
14.	E2528	Computer game development	(E20) Computing and Control Engineering, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
15.	IA005	History of Animation	(F20) Engineering Animation, Master Academic Studies
16.	AID08	Advanced Interdisciplinary Scientific Visualization	(F20) Engineering Animation, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Milojević Z., Navalušić S., Milankov M., Obradović R., Harhaji V., Desnica E.: System for femoral tunnel position determination based on the X - ray, HealthMED, 2011, Vol. 5, No 4, pp. 894-900, ISSN 1840-2991
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	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6		
	Study Programme Accreditation MASTER ACADEMIC STUDIES Engineering Animation		
Representative references (minimum 5, not more than 10)			
2.	Milojević Z., Navalušić S., Milankov M., Obradović R., Desnica E., Harhaji V.: Methodology for 3D femur approximate model generation, HealthMED, 2011, Vol. 5, No 5, pp. 1211-1217, ISSN 1840-2991		
3.	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		
4.	Obradović R., Popkonstantinović B., Beljin B.: Algorithm for Approximation Transitional Developable Surfaces Between two Polygons, rad je u štampi, Technics Technologies Education Management / TTEM, 2012, Vol. 7, No 4, ISSN 1840-1503		
5.	Obradović R., Petter O., Vidaković M., Popkonstantinović B., Popović B., Milojević Z.: Using Contemporary 3D Web Technologies in the Process of CAD Model Design (prihvaćen za objavljivanje u 2013), Technics Technologies Education Management, 2013, Vol. 8, No 1, 2/3, ISSN 1840-1503		
6.	Obradović R., Vujanović M., Popkonstantinović B., Šiđanin P., Beljin B., Kekeljević I.: Fine Arts Subjects at Computer Graphics Studies at the Faculty of Technical Sciences in Novi Sad, rad je u štampi, Technics Technologies Education Management / TTEM, 2013, Vol. 8, No 1, ISSN 1840-1503		
7.	Obradović R., Obradović M., Mišić S., Popkonstantinović B., Petrović M., Malešević B.: Investigation of Concave Cupolae Based Polyhedral Structures and Their Potential Application in Architecture, rad je u štampi, Technics Technologies Education Management / TTEM, 2013, Vol. 8, No 3, ISSN 1840-1503		
8.	Milojević Z., Navalušić S., Obradović R., Milankov M., Dragoi M., Beju L.: System for 3D Approximate Model Generation of the Femur and Screw Built into Human Knee, Academic Journal of Manufacturing Engineering – AJME, 2010, Vol. 8, No 1, pp. 73-78, ISSN 1583-7904		
9.	Obradović R.: The Plane Section of the Surface of Revolution, Facta universitatis - series: Architecture and Civil Engineering, 2005, Vol. 3, No 2, pp. 235-242, ISSN 0354-4605, UDK: 514.752.2:681.3.06(045)=20		
10.	Obradović R., Milojević Z.: Plane section of cone and cylinder in computer geometry, Facta universitatis - series: Architecture and Civil Engineering, 2005, Vol. 2, No 3, pp. 195-207, ISSN 0354-4605		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		50	
Total of SCI(SSCI) list papers :		7	
Current projects :		Domestic :	0
		International :	1

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

Science, arts and professional qualifications

Name and last name:		Popkonstantinović D. Branislav	
Academic title:		Associate Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Mechanical Engineering - Beograd 01.01.2005	
Scientific or art field:		Engineering Drawing and Descriptive geometry	
Academic carieer	Year	Institution	Field
Academic title election:	2008	Faculty of Mechanical Engineering - Beograd	Engineering Drawing and Descriptive geometry
PhD thesis	2002	Faculty of Architecture - Beograd	Geometric Space Theory and Interpretation in Architecture and Urbanism
Magister thesis	1994	Faculty of Architecture - Beograd	Geometric Space Theory and Interpretation in Architecture and Urbanism
Bachelor's thesis	1989	Faculty of Mechanical Engineering - Beograd	Mechanizm and Machine Theory
List of courses being held by the teacher in the accredited study programmes			
ID	Course name	Study programme name, study type	
1.	IGA031 Aesthetics of Visual Communications	(F10) Engineering Animation, Undergraduate Academic Studies	
2.	IA017 Interdisciplinary Scientific Visualization	(F20) Engineering Animation, Master Academic Studies	
3.	AIDO8 Advanced Interdisciplinary Scientific Visualization	(F20) Engineering Animation, Doctoral Academic Studies	
Representative references (minimum 5, not more than 10)			
1.	Miladinović, Lj., Popkonstantinović, B., Stoimenov, M., Petrović, D., Ostojić, G., Stankovski, S.: LASER INSPECTION OF RUBBER PROFILES, Scientific Research and Essays, Vol. 6 (16), str. 3431-3436, 19 August, 2011, ISSN 1992-2248, IF 2010 = 0,445		
2.	Popkonstantinović, B., Miladinović, Lj., Stoimenov, M., Petrović, D., Ostojić, G., Stankovski, S.: DESIGN, MODELLING AND MOTION SIMULATION OF THE REMONTOIRE MECHANISM, Transactions of Famena, XXXV-2, str. 79 - 93, 2011, ISSN 1333-1124, IF 2010 = 0,143		
3.	Popkonstantinović, B., Miladinović, Lj., Stoimenov, M., Petrović, D., Petrović, N., Ostojić, G., Stankovski, S.: The Practical Method for Thermal Compensation of Long-Period Compound Pendulum, Indian Journal of Pure & Applied Phisics, Vol. 49(10), str.657 - 664, October 2011, ISSN 0019-5596, IF 2010 = 0,511		
4.	Janković, J., Petrović, N., Miladinović, Lj., Popkonstantinović, B., Stoimenov, M., Petrović, D., Ostojić, G., Stankovski, S.: Computer Simulation of Fast Hydraulic Actuators, Iranian Journal of Science and Technology, ISSN 1028-6284, IF 2010 = 0,283		
5.	Branislav Popkonstantinović, Aleksandar Čučaković, On a Possible Constructive Geometrical Derivation of Mercator's Conformal Cylindrical Map Projection Based on Some Historical Facts, Journal for Geometry and Graphics 10 (2006), No. 1, 063—071, Copyright Helderemann Verlag, 2006. ISSN: 1433-8157		
6.	Branislav Popkonstantinović, Dragan Petrovic, A Geometrical Approach to the Numerical Stability Analysis of Some Projective Collinear Mapping Methods, Journal for Geometry and Graphics 11 (2007), No. 2 187-198, Copyright Helderemann Verlag, 2008, ISSN: 1433-8157		
7.	Obradović R., Popkonstantinović B., Beljin B.: Algorithm for Approximation Transitional Developable Surfaces Between two Polygons, Technics Technologies Education Management / TTEM, 2012, Vol. 7, No 4, ISSN 1840-1503, rad je u štampi		
8.	Obradović R., Petter O., Vidaković M., Popkonstantinović B., Popović B., Milojević Z.: Using Contemporary 3D Web Technologies in the Process of CAD Model Design (prihvaćen za objavljivanje u 2013), Technics Technologies Education Management, 2013, Vol. 8, No 1, 2/3, ISSN 1840-1503		
9.	Obradović R., Vujanović M., Popkonstantinović B., Šiđanin P., Beljin B., Kekeljević I.: Fine Arts Subjects at Computer Graphics Studies at the Faculty of Technical Sciences in Novi Sad, Technics Technologies Education Management / TTEM, 2013, Vol. 8, No 1, ISSN 1840-1503, rad je u štampi		
10.	Obradović R., Obradović M., Mišić S., Popkonstantinović B., Petrović M., Malešević B.: Investigation of Concave Cupolae Based Polyhedral Structures and Their Potential Application in Architecture, rad je u štampi, Technics Technologies Education Management / TTEM, 2013, Vol. 8, No 3, ISSN 1840-1503		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		0	
Total of SCI(SSCI) list papers :		8	
Current projects :		Domestic :	International :
		1	0

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



Science, arts and professional qualifications

Name and last name:	Sečujski S. Milan		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 15.06.2000		
Scientific or art field:	Telecommunications and Signal Processing		
Academic carieer	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
PhD thesis	2009	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
Magister thesis	2002	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing
Bachelor's thesis	1999	Faculty of Technical Sciences - Novi Sad	Telecommunications and Signal Processing

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

	ID	Course name	Study programme name, study type
1.	EK314	Digital Signal Processing	(MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
2.	EK411	Digital Filters	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	EK421	Digital Image Processing	(F10) Engineering Animation, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
4.	Z413A	Acoustics and Noise Protection	(Z20) Environmental Engineering, Undergraduate Academic Studies
5.	BM118B	Acoustics and Audio Engineering in Medicine	(BM0) Biomedical Engineering, Undergraduate Academic Studies
6.	E137	Basics of Telecommunications	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
7.	EK312	Acoustics and Audio Engineering	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
8.	EK312L	Acoustics and Audio Engineering in Multimedia	(F10) Engineering Animation, Undergraduate Academic Studies
9.	EK422	Digital Audio Signal Processing	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
10.	ETI27	Audio Engineering	(E02) Electronics and Telecommunications, Undergraduate Professional Studies
11.	ETI35	Digital Sound Processing	(E02) Electronics and Telecommunications, Undergraduate Professional Studies
12.	EK521	Information and Communication Theory	(S01) Postal Traffic and Telecommunications, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
13.	EK522	Computer Vision (Digital Image Processing 2)	(F20) Engineering Animation, Master Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Master Academic Studies
14.	S0151	Application of Digital Signal Processing in Telecommunications	(S01) Postal Traffic and Telecommunications, Master Academic Studies
15.	SI036	Computer-Telephony Integration	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
16.	SI037	Telecommunication Infrastructure of E-Business	(E00) Power, Electronic and Telecommunication Engineering, Specialised Professional Studies
17.	BMIM2A	Assistive Information and Communications Technologies	(BM0) Biomedical Engineering, Master Academic Studies
18.	EK422L	Digital Audio Signal Processing	(F20) Engineering Animation, Master Academic Studies

Representative references (minimum 5, not more than 10)

	UNIVERSITY OF NOVI SAD FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6		
	Study Programme Accreditation MASTER ACADEMIC STUDIES Engineering Animation		
Representative references (minimum 5, not more than 10)			
1.	Milan Sečujski, Radovan Obradović, Darko Pekar, Ljubomir Jovanov, Vlado Delić: "AlfaNum System for Speech Synthesis in Serbian Language", Lecture Notes in Artificial Intelligence – Subseries of Lecture Notes in Computer Science, 2002, pp. 237- 244, ISSN 0302-9743.		
2.	Bojović Ž., Perić Z., Delić V., Šečerov E., Sečujski M., Šenk V.: "Comparative Analysis of the Performance of Different Codecs in a live VoIP network using SIP protocol", Electronics and electrical engineering, 2012, Vol. 117, No 1, pp. 37-42, ISSN 1392-1215		
3.	Popović B., Janev M., Pekar D., Jakovljević N., Gnjatović M., Sečujski M., Delić V.: A Novel Split-and-Merge Algorithm for Hierarchical Clustering of Gaussian Mixture Models, DOI:10.1007/s10489-011-0333-9, Applied Intelligence, 2012, Vol. 37, No 3 (2012), pp. 377-389, ISSN 0924-669X		
4.	Delić V., Bojanić M., Gnjatović M., Sečujski M., Jovičić S.: Discrimination capability of prosodic and spectral features for emotional speech recognition DOI: http://dx.doi.org/10.5755/j01.eee.18.9.2806 , Electronics and electrical engineering, 2012, Vol. 18, No 9, pp. 51-54, ISSN 1392-1215		
5.	Delić V., Sečujski M., Jakovljević N., Janev M., Obradović R., Pekar D.: "Speech Technologies for Serbian and Kindred South Slavic Languages", 9th Chapter in the book Advances in Speech Recognition, Noam R. Shabtai (Ed.) Available from: http://www.intechopen.com/articles/show/title/speech-technologies-for-serbian-and-kindred-south-slavic-languages , SCIYO, 2010, str. 141-164, ISBN 978-953-307-097-1		
6.	Pekar D., Mišković D., Knežević D., Vujnović Sedlar N., Sečujski M., Delić V.: "Applications of Speech Technologies in Western Balkan Countries", 7th Chapter in the book Advances in Speech Recognition, Noam R. Shabtai (Ed.) Available from: http://www.intechopen.com/articles/show/title/applications-of-speech-technologies-in-western-balkan-countries , SCIYO, 2010, str. 105-122, ISBN 978-953-307-097-1		
7.	Sečujski M.: "Development of language resources for the Serbian language required for part-of-speech tagging", Chapter in book: „Speech and Language: Interdisciplinary Research III“, Eds.: S. T. Jovičić, M. Sovilj, Beograd, LAAC and IEPPS, 2009, str. 125-139, UDK: ISBN 978-86-81879-27-6		
8.	Milan Sečujski: A Software Tool for Automatic Part-of Speech Tagging in Serbian Language, Primenjena lingvistika, 2008, No. 9, pp. 97- 103, UDK: 004.934 : 004.4, ISSN 1451-7124.		
9.	Vlado Delić, Darko Pekar, Radovan Obradović, Milan Sečujski: "Speech Signal Processing in ASR&TTS Algorithms", Facta Universitatis (Niš), Series: Electronics and Energetics, 2003, Vol. 16, No. 3, pp. 355- 364, ISSN 0353-3670.		
10.	Jakovljević N., Sečujski M., Delić V.: Vocal Tract Length normalization strategy based on maximum likelihood criterion, 8. EUROCON, Sankt Peterburg: IEEE, 18-23 Maj, 2009, pp. 417-420, ISBN 978-1-4244-3861-7		
Summary data for teacher's scientific or art and professional activity:			
Quotation total :		0	
Total of SCI(SSCI) list papers :		4	
Current projects :		Domestic :	2
		International :	0

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

Science, arts and professional qualifications

Name and last name:		Sladoje Matić I. Nataša	
Academic title:		Associate Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 14.03.1994	
Scientific or art field:		Mathematics	
Academic career	Year	Institution	Field
Academic title election:	2011		Mathematics
PhD thesis	2005	University of Novi Sad - Novi Sad	Mathematical Sciences
Magister thesis	1998	Faculty of Sciences - Novi Sad	Mathematical Sciences
Bachelor's thesis	1992	Faculty of Sciences - Novi Sad	Mathematical Sciences
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	A101	Mathematics	(A00) Architecture, Undergraduate Academic Studies
2.	E135B	Mathematical Analysis 2	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
3.	GI107	Mathematical Analysis 1	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
4.	IAM001	Mathematical Shape Modeling for Computer Animation	(F10) Engineering Animation, Undergraduate Academic Studies
5.	IAM004	Geometry of Discrete Space	(F10) Engineering Animation, Undergraduate Academic Studies
6.	IGA008	Mathematics for Engineering Graphics	(F10) Engineering Animation, Undergraduate Academic Studies
7.	BMI91	Mathematics 1	(BM0) Biomedical Engineering, Undergraduate Academic Studies
8.	BMI92	Mathematics 2	(BM0) Biomedical Engineering, Undergraduate Academic Studies
9.	E101A	Discrete Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
10.	DZ01MS	Selected Chapters in Mathematics	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies (I12) Industrial Engineering, Specialised Academic Studies (I22) Engineering Management, Specialised Academic Studies (Z00) Environmental Engineering, Specialised Academic Studies
11.	Z506	20BAdvanced Course in Mathematics 1	(ZP1) Disaster Risk Management and Fire Safety, Master Academic Studies (Z20) Environmental Engineering, Master Academic Studies
12.	IA018	Computer Geometry	(F20) Engineering Animation, Master Academic Studies
13.	D0M28	Digital Geometry	(OM1) Mathematics in Engineering, Doctoral Academic Studies
14.	D0M29	Image Processing 1	(OM1) Mathematics in Engineering, Doctoral Academic Studies
15.	D0M30	Image Processing 2	(OM1) Mathematics in Engineering, Doctoral Academic Studies
16.	D0M31	Applied Algorithms	(OM1) Mathematics in Engineering, Doctoral Academic Studies
17.	D0M32	Combinatorial and Geometric Algorithms	(OM1) Mathematics in Engineering, Doctoral Academic Studies
18.	D0M33	Positional Games	(OM1) Mathematics in Engineering, Doctoral Academic Studies



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

ID	Course name	Study programme name, study type
19. DZ01M	Selected Chapters in Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (E20) Computing and Control Engineering, Doctoral Academic Studies (F00) Graphic Engineering and Design, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies (G00) Civil Engineering, Doctoral Academic Studies (G10) Geodesy and Geomatics, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies (M40) Technical Mechanics, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies (S00) Traffic Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies
20. AID07	Digital geometry	(F20) Engineering Animation, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Sladoje N., Lindblad J., Nystrom I.: Defuzzification of spatial fuzzy sets by feature distance minimization. , Image and Vision Computing, 2011, Vol. 29, No 2-3, pp. 127-141, ISSN 0262-8856
2.	Lukić T., Lindblad J., Sladoje N.: Regularized Image Denoising Based on Spectral Gradient Optimization, Inverse Problems, 2011, Vol. 27, No 8, pp. 8501-1, ISSN 0266-5611
3.	Sladoje N., Lindblad J.: High precision boundary length estimation by utilizing grey-level information , IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, Vol. 31, No 2, pp. 357-363, ISSN 0162-8828
4.	N. Sladoje and J. Lindblad, "Representation and Reconstruction of Fuzzy Disks by Moments", Fuzzy Sets and Systems, Vol. 158, No. 5, pp. 517-534, 2007.<leng>
5.	N. Sladoje, I. Nyström, and P.K. Saha, "Measurements of digitized objects with fuzzy borders in 2D and 3D", Image and Vision Computing, vol. 23, pp 123-132, 2005.<leng>
6.	J. Zunic and N. Sladoje, "Efficiency of Characterizing Ellipses and Ellipsoids by Discrete Moments", IEEE Trans. Pattern Analysis and Machine Intelligence, vol.22, No.4, pp 407-414, 2000.<leng>
7.	J. Chanussot, I. Nyström and N. Sladoje, "Shape signatures of fuzzy star-shaped sets based on distance from the centroid", Pattern Recognition Letters, vol. 26(6), pp. 735-746, 2005.<leng>
8.	Čurić,V., Lindblad, J., Sladoje, N., Sarve, H., Borgefors, B. A new set distance and its application to shape registration. Accepted for Pattern Analysis and Applications, 2012.
9.	Lindblad L., Sladoje N. Coverage Segmentation based on Linear Unmixing and Minimization of Perimeter and Boundary Thickness. Pattern Recognition Letters, Vol. 33, No.6, pp. 728-738, 2012.
10.	Malmberg F., Lindblad J., Sladoje N., Nystrom I.: A graph-based framework for sub-pixel image segmentation, Theoretical Computer Science, 2011, Vol. 412, No 15, pp. 1338-1349

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

Quotation total :	71
Total of SCI(SSCI) list papers :	21
Current projects :	Domestic : 2 International : 3

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

Science, arts and professional qualifications

Name and last name:		Stojaković M. Mila	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.12.1975	
Scientific or art field:		Mathematics	
Academic carier	Year	Institution	Field
Academic title election:	1993	Faculty of Technical Sciences - Novi Sad	Mathematics
PhD thesis	1980	Faculty of Sciences - Novi Sad	Mathematical Sciences
Magister thesis	1978	Faculty of Mathematics - Beograd	Mathematical Sciences
Bachelor's thesis	1975	Faculty of Sciences - Novi Sad	Mathematical Sciences
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	E121	Mathematical Analysis 2	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
2.	E135	Probability, Statistics and Stochastic Processes	(MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	E221A	Mathematical Analysis 2	(E20) Computing and Control Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
4.	E224A	Probability and Stochastic Processes	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies (SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
5.	ZC006	Probability, Statistics and Random Processes	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
6.	0M504	Operational Research	(OM1) Mathematics in Engineering, Master Academic Studies
7.	0M505	Stochastic Processes	(OM1) Mathematics in Engineering, Master Academic Studies
8.	0ML504	Operational Research	(OM1) Mathematics in Engineering, Master Academic Studies
9.	0ML505	Stochastic Processes	(OM1) Mathematics in Engineering, Master Academic Studies
10.	DZ01MS	Selected Chapters in Mathematics	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies (I12) Industrial Engineering, Specialised Academic Studies (I22) Engineering Management, Specialised Academic Studies (Z00) Environmental Engineering, Specialised Academic Studies
11.	IAM005	Mathematical Game Theory	(F20) Engineering Animation, Master Academic Studies (OM1) Mathematics in Engineering, Master Academic Studies
12.	SD0M03	Operational Research	(GI0) Geodesy and Geomatics, Specialised Academic Studies
13.	SD0M15	Statistics	(GI0) Geodesy and Geomatics, Specialised Academic Studies
14.	ZR503	Statistical Advanced Models	(Z01) Safety at Work, Master Academic Studies
15.	D0M03	Operational Research	(OM1) Mathematics in Engineering, Doctoral Academic Studies



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

ID	Course name	Study programme name, study type
16. D0M04	Random Processes	(OM1) Mathematics in Engineering, Doctoral Academic Studies
17. D0M15	Statistics	(OM1) Mathematics in Engineering, Doctoral Academic Studies
18. D0M27	StatisticsApplied in Engineering	(OM1) Mathematics in Engineering, Doctoral Academic Studies
19. DAU004	Selected Chapters in Mathematics 2	(E20) Computing and Control Engineering, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies
20. DOM59	Fixed point theory	(OM1) Mathematics in Engineering, Doctoral Academic Studies
21. DZ01M	Selected Chapters in Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (E20) Computing and Control Engineering, Doctoral Academic Studies (F00) Graphic Engineering and Design, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies (G00) Civil Engineering, Doctoral Academic Studies (G10) Geodesy and Geomatics, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies (M40) Technical Mechanics, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies (S00) Traffic Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Mila Stojaković, Decomposition and representation of fuzzy valued measure, Fuzzy Sets and Systems, 112(2000) 251-256
2.	Mila Stojaković, Fuzzy conditional expectation, Fuzzy Sets and Systems, 52(1992) 49-54
3.	Mila Stojaković, Fuzzy random variable, expectation, martingales, J.Math.Anal.Appl., 184(1994) 594-606.
4.	Mila Stojaković, Fuzzy martingales, Stochastic Analysis and Applications, 14(1996), 355-368.
5.	Mila Stojaković, Zoran Stojaković, Support function for fuzzy set, Proceedings of Royal Society, London A, 452(1996), 421-438.
6.	Mila Stojaković, Zoran Stojaković, Addition and series of fuzzy sets, Fuzzy Sets and Systems, 83(1996) 341-346.
7.	Mila Stojaković, Representation of fuzzy valued mappings, Fuzzy Sets and Systems, 98(1998) 375-381.
8.	Mila Stojaković, Fuzzy valued measure, Fuzzy Sets and Systems, 65(1994) 95-104 .
9.	Mila Stojaković, Common fixed point theorems in complete metric and probabilistic spaces, Bull. Australian Math. Soc., 36(1987)73-88.
10.	Mila Stojaković, Zoran Ovcin, Fixed point theorems and variational principle..., Fuzzy Sets and Systems, 66(1994)353-356.

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

Quotation total :	71			
Total of SCI(SSCI) list papers :	16			
Current projects :	Domestic :	1	International :	1





Science, arts and professional qualifications

Name and last name:	Stojaković Z. Vesna		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.06.2005		
Scientific or art field:	Geometric Space Theory and Interpretation in Architecture and Urbanism		
Academic career	Year	Institution	Field
Academic title election:	2011		Geometric Space Theory and Interpretation in Architecture and Urbanism
PhD thesis	2011	Faculty of Technical Sciences - Novi Sad	Architecture
Bachelor's thesis	2004	Faculty of Technical Sciences - Novi Sad	Architecture
Magister thesis	-		Architecture

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

	ID	Course name	Study programme name, study type
1.	A555	Perspective	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
2.	GG03	Descriptive Geometry	(G00) Civil Engineering, Undergraduate Academic Studies
3.	IA017	Image Based Modeling	(F10) Engineering Animation, Undergraduate Academic Studies
4.	IGA003	Computer Image Processing in Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
5.	Z418	Geometry of Eco-spatial Visualization	(Z20) Environmental Engineering, Undergraduate Academic Studies
6.	IA006	Spatial Shape Design	(F10) Engineering Animation, Undergraduate Academic Studies
7.	IA007	Geometry and Visualization of 3D Space	(F10) Engineering Animation, Undergraduate Academic Studies
8.	A210	Art techniques of drawing and architectural presentations	(A00) Architecture, Undergraduate Academic Studies
9.	A210S	Art techniques of drawing and architectural presentations	(A00) Architecture, Undergraduate Academic Studies
10.	A342	Architectural representations 1 - basic level	(A00) Architecture, Undergraduate Academic Studies
11.	A342S	Architectural representations 1 - Advanced level	(A00) Architecture, Undergraduate Academic Studies
12.	A377	Architectural representations 3	(A00) Architecture, Undergraduate Academic Studies
13.	A555	Perspective	(A00) Architecture, Undergraduate Academic Studies
14.	IA003	Perspective	(F10) Engineering Animation, Undergraduate Academic Studies
15.	ZC007	Engineering Graphic Communications	(ZC0) Clean Energy Technologies, Undergraduate Academic Studies
16.	A291	Representation of a Wider Physical Environment	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
17.	IA254	Presentation Techniques of Architectural and Urban Space	(F20) Engineering Animation, Master Academic Studies
18.	A116DS	Modern techniques of the geometric space representation	(A00) Architecture, Specialised Academic Studies (G10) Geodesy and Geomatics, Specialised Academic Studies
19.	A118SB	Geometric theories in architectural structures' generation	(A00) Architecture, Specialised Academic Studies
20.	AD0001	Digital Design in Architecture and Urban Planning	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
21.	AD0002	Architectural Visualization	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
22.	AD0004	Generative design in architecture and urbanism	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
23.	AD0011	Modeling Based on Perspective Images	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
24.	AD0012	Dynamic Analysis and Simulation in Architecture	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
25.	A116B	Geometric Theories in Architectural Structures' Generation	(A00) Architecture, Doctoral Academic Studies

		UNIVERSITY OF NOVI SAD			
		FACULTY OF TECHNICAL SCIENCES 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 6			
Study Programme Accreditation					
MASTER ACADEMIC STUDIES			Engineering Animation		
List of courses being held by the teacher in the accredited study programmes					
ID	Course name	Study programme name, study type			
26.	A116E	Modern techniques of the geometric space representation	(A00) Architecture, Doctoral Academic Studies (AS0) Scenic Design, Doctoral Academic Studies		
27.	AID03	3D representation of the real world environment	(F20) Engineering Animation, Doctoral Academic Studies		
Representative references (minimum 5, not more than 10)					
1.	V. Stojaković, B. Tepavčević, Image-based modeling approach in creating 3D morphogenetic reconstruction of Liberty Square in Novi Sad, Journal of Cultural Heritage, 12, ISSN: 1296-2074, doi:10.1016/j.culher.2010.06.001, 2011, str. 105-110. (M22)				
2.	V. Stojaković, R. Štulić, Virtual Reconstruction of Kljajcevo Chapel, Journal for Geometry and Graphic, Vol. 14, No 10, ISSN 1433-8157, 2010, str.81-91.				
3.	V. Stojaković, Terrestrial Photogrammetry and Application to Modeling Architectural Objects, Facta Univesitatis, Series architecture and civil engineering, Vol. 6, No 1, ISSN 0354 – 4605, UDC 528.711:72.01+721(045)=111, Univerzitet u Nišu, Niš, 2008, str. 113-125				
4.	V. Stojaković, 3D Modeling Based on Photographic data, Novi Sad Journal of Mathematic, ISSN 1450-5444, Vol. 38, No.3, 2008, str. 65- 72.				
5.	Nedučin D., Stojaković V., Štulić R.: On reform of structure and content of the course of descriptive geometry, Pollack Periodica, Akademiai Kiado, ISSN 1788-1994) www.akademiai.com (SCOPUS), 2012, Vol. 7, pp. 85-93, ISSN 1788-1994				
6.	Marcijuš I., Stojaković V., Štulić R.: Linear geometric perspective in architectural curricula and spatial skills development, Pollack Periodica, Akademiai Kiado, ISSN 1788-1994) www.akademiai.com (SCOPUS), 2012, Vol. 7, pp. 77-84, ISSN 1788-1994				
7.	Stojaković V.: Virtuelne trodimenzionalne reprezentacije arhitektonskih objekata kreirane na osnovu perspektivnih slika, NAUKA PRAKSA, 2009, Vol. 12, No 1, pp. 208-211, ISSN 1451-8341				
8.	Stojaković V., Tepavčević B.: GENERATION AND APPLICATION OF DYNAMIC VIRTUAL RECONSTRUCTIONS OF URBAN PUBLIC SPACES, UNAPREĐENJE STRATEGIJE OBNOVE I KORIŠĆENJA JAVNIH PROSTORA U PROSTORNOM I URBANISTIČKOM PLANIRANJU I PROJEKTOVANJU, Novi Sad, Faculty of Technical Sciences, 2011, str. 69-86, ISBN 978-86-7892-254-1				
9.	V. Stojaković, Importance of Restitution in Cultural Heritage Research and Visualisation, S.A.V.E. Heritage - Safeguard of Architectural, Visual, Environmental Heritage, Capri, Italy, 2011, pp. 1-7.				
10.	V. Stojaković, B. Tepavčević, Single Image Ambiguity and Adjustment of Cultural Heritage Modeling Approach, Education and Research in Computer Aided Architectural Design in Europe - eCAADe, Ljubljana, 2011, pp. 99-106.				
Summary data for teacher's scientific or art and professional activity:					
Quotation total :		0			
Total of SCI(SSCI) list papers :		2			
Current projects :		Domestic :	2	International :	0

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

Science, arts and professional qualifications

Name and last name:	Suvajdžin Rakić B. Zorica		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.12.1998		
Scientific or art field:	Applied Computer Science and Informatics		
Academic career	Year	Institution	Field
Academic title election:	2008	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
PhD thesis	2008	Faculty of Technical Sciences - Novi Sad	Computer Science
Magister thesis	2000	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics
Bachelor's thesis	1998	Faculty of Technical Sciences - Novi Sad	Applied Computer Science and Informatics

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

	ID	Course name	Study programme name, study type
1.	E225	Operating Systems	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies
2.	E234	Compilers	(E20) Computing and Control Engineering, Undergraduate Academic Studies (ES0) Power Software Engineering, Undergraduate Academic Studies (MR0) Measurement and Control Engineering, Undergraduate Academic Studies
3.	EE301	Operating Systems and Competitive Programming	(MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
4.	H207	Programming and Programming Languages	(F10) Engineering Animation, Undergraduate Academic Studies (H00) Mechatronics, Undergraduate Academic Studies (S01) Postal Traffic and Telecommunications, Undergraduate Academic Studies
5.	ISIT12	Osnove informacionih sistema	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
6.	ISIT22	Osnove baza podataka	(SII) Software and Information Technologies (Indija), Undergraduate Professional Studies
7.	SE0034	Compilers	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies
8.	E2505	Multimedia Systems	(E20) Computing and Control Engineering, Master Academic Studies (ES0) Power Software Engineering, Master Academic Studies (F20) Engineering Animation, Master Academic Studies (SE0) Software Engineering and Information Technologies, Master Academic Studies
9.	F402	Electronic Publishing	(F00) Graphic Engineering and Design, Master Academic Studies
10.	DRNI08	Selected Topics in Information Systems	(E20) Computing and Control Engineering, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Rakić P., Milašinović D., Živanov Ž., Suvajdžin Rakić Z., Nikolić M., Hajduković M.: MPI-CUDA parallelization of a finite-strip program for geometric nonlinear analysis: A hybrid approach, <i>Advances in Engineering Software</i> , 2011, Vol. 42, No 5, pp. 273-285, ISSN 0965-9978
2.	Zorica Suvajdžin, Miroslav Hajduković, A Structure Editor for the Program Composing Assistant, <i>Computer Science and Information Systems</i> , Volume 3, Number 1, Beograd, jun 2006., pp 65-76
3.	Miroslav Hajduković, Zorica Suvajdžin, Žarko Živanov, Character oriented program editing - habit or necessity, <i>Novi Sad Journal of mathematics</i> , vol. 33, no. 1, Novi Sad, 2003., pp 53-65



UNIVERSITY OF NOVI SAD

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

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Engineering Animation

Representative references (minimum 5, not more than 10)

4.	Hajduković M., Suvajdžin Z., Živanov Ž. Naziv: A problem of program execution time measurement Naziv časopisa: Novi Sad Journal of mathematics , Novi Sad Journal of Mathematics, 2003, Vol. 33, No 1, pp. 67-73, ISSN 1450-5444, UDK: 51
5.	Rakić P., Stričević L., Suvajdžin Rakić Z.: Statically Typed Matrix: in C library, 5. Balkan Conference in Informatics, Novi Sad: ACM, 16-20 Septembar, 2012, pp. 217-222
6.	Milašinović D., Živanov Ž., Rakić P., Suvajdžin Rakić Z., Nikolić M., Hajduković M., Borković A., Milaković I.: A Finite-Strip Analysis of Nonlinear Shear-Lag Effect Supported by Automatic Visualization
7.	Suvajdžin Rakić Z., Rakić P.: Computers and Education, 1. VIPSI, Nepoznato, 3-4 April, 2009, ISBN 86-7466-117-3
8.	Zorica Suvajdžin, Miroslav Hajduković, Program Composing Assistant For Novice Programmers, The ASEE Mid-Atlantic Spring Conference 2006, Brooklyn NY, April 2006, abstract+5 pages (CD-ROM)
9.	Zorica Suvajdžin, Miroslav Hajduković, Towards Program Composing Assistants, Proceedings of the 2005 International Conference on Programming Languages and Compilers, PLC'05, Las Vegas, Nevada, USA, jun 2005, pp 142-147
10.	Rakić P., Živanov Ž., Suvajdžin Rakić Z., Stričević L., Hajduković M.: Characteristics of Operating System for Wireless Sensor Network Applications, 9. International Symposium Interdisciplinary Regional Research - ISIRR, Novi Sad, , pp. 50-50

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

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

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

Science, arts and professional qualifications

Name and last name:		Šiđanin S. Predrag	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.10.2006	
Scientific or art field:		Geometric Space Theory and Interpretation in Architecture and Urbanism	
Academic carier	Year	Institution	Field
Academic title election:	2010	Faculty of Technical Sciences - Novi Sad	Geometric Space Theory and Interpretation in Architecture and Urbanism
PhD thesis	2001	Faculty of Architecture, Delft University of Technology - Delft	Architecture
Magister thesis	1995	Faculty of Architecture, Delft University of Technology - Delft	Architecture
Bachelor's thesis	1981	Faculty of Architecture - Beograd	Architecture
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	A254	Presentation Techniques of Architectural and Urban Space	(A00) Architecture, Undergraduate Academic Studies
2.	A332	Modeling	(A00) Architecture, Undergraduate Academic Studies
3.	IA015	Application of Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
4.	IGB052	Engineering Animation and Other Media	(F10) Engineering Animation, Undergraduate Academic Studies
5.	A342	Architectural representations 1 - basic level	(A00) Architecture, Undergraduate Academic Studies
6.	A342S	Architectural representations 1 - Advanced level	(A00) Architecture, Undergraduate Academic Studies
7.	A365	Architectural representations 2	(A00) Architecture, Undergraduate Academic Studies
8.	A701	Introduction to Performance Studies	(A00) Architecture, Undergraduate Academic Studies
9.	ASI23B	Multimedia	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
10.	ASI272	Performance	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
11.	ASI273	New Media	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
12.	ASI283	Graphic design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
13.	ASI332	Arts Management and Cultural Policy	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
14.	ASI333	New technologies in art and culture	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
15.	ASO1	Introduction to Scene Architecture, Technique and Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
16.	ASO16	Scale Modeling in Stage Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
17.	ASO22	Presentation Techniques in Stage Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
18.	ASO30	Scene Technique 4	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
19.	ASO31	Scenography 4	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
20.	ASO40	Phenomenology of Scene Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
21.	A291	Representation of a Wider Physical Environment	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
22.	IA254	Presentation Techniques of Architectural and Urban Space	(F20) Engineering Animation, Master Academic Studies
23.	RPR009	GIS and Regional Development	(RPR) Regional Development Planning and Management, Master Academic Studies
24.	A116CS	Scenic function of architecture and a city - selected chapters	(A00) Architecture, Specialised Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

ID	Course name	Study programme name, study type
25. AD0001	Digital Design in Architecture and Urban Planning	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
26. AD0002	Architectural Visualization	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
27. AD0004	Generative design in architecture and urbanism	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
28. ASM1	Scene architecture	(AS0) Scenic Architecture and Design, Master Academic Studies
29. ASM4	Project Management in scene architecture and design	(AS0) Scenic Architecture and Design, Master Academic Studies
30. AUP071	Representation of a Wider Physical Environment	(AH0) Architecture, Master Academic Studies
31. A116D	Scenic function of architecture and a city - selected chapters	(A00) Architecture, Doctoral Academic Studies (AS0) Scenic Design, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	"A Cognitive Framework for an Urban Environment Design Tool", DKS group, TU Delft, Delft, The Netherlands - 405 str. ISBN 90-9014862/0 R11
2.	"The role of the new computer visualization in architecture - a change of paradigm in architectural practice", "La carre bleu"- Revue Internationale d'Architecture, Numéro3/4, 2000. Paris, France - ISSN 0008 6878 str. 25-43 R52
3.	"Electronic culture in Yugoslavia", zbornik radova - UNESCO-v simpozij "Synthesis", Ofenbah, Zapadna Nemačka, 1987. R54
4.	"Technoculture in Yugoslavia", knjiga radova sa kongresa "Technoculture in Europe", Documents of the Council of Europe, Strazbur, Francuska, 1989. R54
5.	"Historical overview of computer art in Yugoslavia", knjiga apstrakata Second Symposia of Electronic Art, SISEA, Hroningen, Holandija, 1990. R54
6.	"The Delft University of Technologys Campus Information System accessed by GIS and Virtual Reality technology", P. Šidanin, M. J. Kraak i G. J. F. Smets, knjiga radova sa JEC, Hag, Holandija, 1995. R54
7.	"Virtual Reality, the new 3D interface for Geographical Information System", M. J. Kraak, G. Smets i P. Šidanin, su knjizi radova sa 1st Conference on Spatial Multimedia and Virtual Reality, Lisabon, Portugal, 1995. R54
8.	"A computer simulation model of TU district of Delft with use of the GIS and VR", knjiga radova sa 3re International Conference on Design and Decision Support Systems in Architecture and Urban Planning, Spa, Belgija, 1996. R54
9.	"GIS and VR - an integration", knjiga radova sa EUROMEDIA 96 kongresa, London, Engleska, 1996. R54
10.	"A design tool for analysis and visual quality control of urban environments supported by object database", P. Šidanin i W. Gerhardt, su knjizi radova sa 4th International Conference on Design and Decision Support Systems in Architecture and Urban Planning, Matriht, Holandija, 1998. R54

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

Quotation total :	48
Total of SCI(SSCI) list papers :	5
Current projects :	Domestic : 1 International : 0

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

Science, arts and professional qualifications

Name and last name:		Teofanov Đ. Ljiljana	
Academic title:		Assistant Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 18.12.1995	
Scientific or art field:		Mathematics	
Academic carieer	Year	Institution	Field
Academic title election:	2009	Faculty of Technical Sciences - Novi Sad	Mathematics
PhD thesis	2008	Faculty of Sciences - Novi Sad	Mathematical Sciences
Magister thesis	2000	Faculty of Sciences - Novi Sad	Mathematical Sciences
Bachelor's thesis	1994	Faculty of Sciences - Novi Sad	Mathematical Sciences
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	A101	Mathematics	(A00) Architecture, Undergraduate Academic Studies
2.	EE204	Selected Chapters in Mathematics	(MR0) Measurement and Control Engineering, Undergraduate Academic Studies (E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
3.	GG00	Mathematical Methods 1	(G00) Civil Engineering, Undergraduate Academic Studies
4.	G1101	Algebra	(G10) Geodesy and Geomatics, Undergraduate Academic Studies
5.	IAM001	Mathematical Shape Modeling for Computer Animation	(F10) Engineering Animation, Undergraduate Academic Studies
6.	M102	Mathematics 1	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M30) Energy and Process Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies (P00) Production Engineering, Undergraduate Academic Studies
7.	M106	Mathematics 2	(M20) Mechanization and Construction Engineering, Undergraduate Academic Studies (M30) Energy and Process Engineering, Undergraduate Academic Studies (M40) Technical Mechanics and Technical Design, Undergraduate Academic Studies (P00) Production Engineering, Undergraduate Academic Studies
8.	E101A	Discrete Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Undergraduate Academic Studies
9.	IM1523	Discrete Mathematics	(M30) Energy and Process Engineering, Undergraduate Academic Studies (I20) Engineering Management, Undergraduate Academic Studies
10.	P216	Numerical Analysis	(P00) Production Engineering, Undergraduate Academic Studies
11.	SE0009	Discrete Mathematics	(SE0) Software Engineering and Information Technologies, Undergraduate Academic Studies (SEL) Software Engineering and Information Technologies - Loznica, Undergraduate Academic Studies
12.	DZ01MS	Selected Chapters in Mathematics	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies (I12) Industrial Engineering, Specialised Academic Studies (I22) Engineering Management, Specialised Academic Studies (Z00) Environmental Engineering, Specialised Academic Studies



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

ID	Course name	Study programme name, study type
13. IA022	Numerical Optimization	(F20) Engineering Animation, Master Academic Studies
14. D0M48	Numerical Methods for Solving Differential Equations	(OM1) Mathematics in Engineering, Doctoral Academic Studies
15. DZ01M	Selected Chapters in Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (E20) Computing and Control Engineering, Doctoral Academic Studies (F00) Graphic Engineering and Design, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies (G00) Civil Engineering, Doctoral Academic Studies (G10) Geodesy and Geomatics, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies (M40) Technical Mechanics, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies (S00) Traffic Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Surla, K., Teofanov, Lj., Uzelac, Z., A Robust Layer-Resolving Spline Collocation Method for a Convection-Diffusion Problem, Applied Mathematics and Computation, (2009), 208(1): 76-89
2.	Teofanov, Lj., Roos, H. -G, An elliptic singularly perturbed problem with two parameters II: robust finite element solution, J. Comput. Appl. Math. Vol. 212, 2008, 374-389
3.	Teofanov, Lj., Roos, H. -G, An elliptic singularly perturbed problem with two parameters I: solution decomposition, J. Comput. Appl. Math. Vol. 206, 2007, 1082-1097
4.	Surla, K., Uzelac, Z., Teofanov, Lj., The discrete minimum principle for quadratic spline discretization of a singularly perturbed problem, Math. Comput. Simul. 2009, Vol. 79, No 8, pp.2490-2505
5.	Teofanov, Lj., Zarin, H., Superconvergence for two-parameter singularly perturbed problem, BIT Numerical Mathematics, Vol. 49, No. 4, 2009, 743-765
6.	Vulanović, R., Teofanov, Lj., A uniform numerical method for semilinear reaction-diffusion problems with a boundary turning point, Numer. Algor. 54, 2010, 431-444
7.	Teofanov, Lj., Uzelac, Z., Family of Quadratic Spline Difference Schemes for a Convection-Diffusion Problem, Int. J. Comput. Math., Vol. 84, No. 1, 2007, 33-50
8.	Surla, K., Uzelac, Z., Teofanov, Lj., On collocation methods for singular perturbation problems of convection-diffusion type, Novi Sad J. Math, Vol. 31, No. 1, 2001, 125-132
9.	Surla, K., Uzelac, Z., Pavlović, Lj., On collocation methods for singular perturbation problems, Novi Sad J. Math., Vol. 30, No. 3, 2000, 173-183
10.	Čomić, I., Pavlović, Lj., Funkcije više promenljivih, Fakultet tehničkih nauka, Novi Sad, 2000, 95 str.

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

Quotation total :	12
Total of SCI(SSCI) list papers :	7
Current projects :	Domestic : 1 International : 0

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

Science, arts and professional qualifications

Name and last name:	Tepavčević B. Bojan		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.01.2004		
Scientific or art field:	Geometric Space Theory and Interpretation in Architecture and Urbanism		
Academic carieer	Year	Institution	Field
Academic title election:	2011	Faculty of Technical Sciences - Novi Sad	Geometric Space Theory and Interpretation in Architecture and Urbanism
PhD thesis	2010	Faculty of Technical Sciences - Novi Sad	Geometric Space Theory and Interpretation in Architecture and Urbanism
Magister thesis	2007	Faculty of Technical Sciences - Novi Sad	Architectural-Urbanistic Planning, Design and Theory
Bachelor's thesis	2003	Faculty of Technical Sciences - Novi Sad	Architectural-Urbanistic Planning, Design and Theory

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

	ID	Course name	Study programme name, study type
1.	A254	Presentation Techniques of Architectural and Urban Space	(A00) Architecture, Undergraduate Academic Studies
2.	A332	Modeling	(A00) Architecture, Undergraduate Academic Studies
3.	IA007	Geometry and Visualization of 3D Space	(F10) Engineering Animation, Undergraduate Academic Studies
4.	IA015	Application of Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
5.	IGB052	Engineering Animation and Other Media	(F10) Engineering Animation, Undergraduate Academic Studies
6.	A342	Architectural representations 1 - basic level	(A00) Architecture, Undergraduate Academic Studies
7.	A365	Architectural representations 2	(A00) Architecture, Undergraduate Academic Studies
8.	A377	Architectural representations 3	(A00) Architecture, Undergraduate Academic Studies
9.	ASI23A	Digital Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
10.	ASO12	Scene Architecture 1	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
11.	ASO16	Scale Modeling in Stage Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
12.	ASO22	Presentation Techniques in Stage Design	(AS0) Scenic Architecture, Technique and Design, Undergraduate Academic Studies
13.	A291	Representation of a Wider Physical Environment	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
14.	IA254	Presentation Techniques of Architectural and Urban Space	(F20) Engineering Animation, Master Academic Studies
15.	RPR009	GIS and Regional Development	(RPR) Regional Development Planning and Management, Master Academic Studies
16.	AD0001	Digital Design in Architecture and Urban Planning	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
17.	AD0002	Architectural Visualization	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
18.	AD0003	Digital fabrication in Architecture	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
19.	AD0005	Parametric Design in Architecture and Urbanism	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
20.	AD0007	Interactive systems in architecture	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
21.	AD0011	Modeling Based on Perspective Images	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
22.	AD0012	Dynamic Analysis and Simulation in Architecture	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies
23.	AD0013	Theory of curves and surfaces	(AD0) Digital Techniques, Design and Production in Architecture and Urban Planning, Master Academic Studies



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

ID	Course name	Study programme name, study type
24.	ASMI5B Digital and Media Design	(AS0) Scenic Architecture and Design, Master Academic Studies
25.	ASMI7C Design of Virtual Space	(AS0) Scenic Architecture and Design, Master Academic Studies
26.	AUP071 Representation of a Wider Physical Environment	(AH0) Architecture, Master Academic Studies
Representative references (minimum 5, not more than 10)		
1.	Stojaković V., Tepavčević B., Image-based modeling approach in creating 3D morphogenetic reconstruction of Liberty Square in Novi Opis Sad, Journal of Cultural Heritage (ISDN 1296-2074) ISSN: 1296-2074, Vol. 12, str. 105-110	
2.	Stojaković V., Tepavčević B., Optimal Methods for 3D Modeling of Devastated Architectural Objects", International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XXXVIII-5/W1, ISSN 1682-1777, ISPRS, Trento, Italija, 2009. pp. 1-6;	
3.	Jovanović M., Tepavčević B., Škrinjar L., 2012 Influence of Origami Folding Patterns and Spatial Developability in Contemporary Architectural Design, International Scientific Conference moNGeometrija, str.517-529. Novi Sad, Srbija	
4.	Trgovi u Vojvodini: Morfogeneza fizička struktura i funkcije, FTN, Novi Sad, 2008.	
5.	Tepavčević B., Stojaković V., Digital Morphogenetic Reconstruction of Liberty Square in Novi Sad, Proceedings of the 5th international meeting of planning, design, construction and building renewal iNDiS 2009, Novi Sad, Srbija, 25-27. novembar, 2009. 451-456 str.	
6.	Radović Ranko; Atanacković Teodor; Spasić Dragan; Novaković Branislava: New Challenges and Opportunities for the City of Novi Sad, Novi Sad: Danube Commission and University of Novi Sad, 2004, str. 1- 157.	
7.	Šiđanin P., Tepavčević B., Maketarstvo za studente arhitekture, 2010, Fakultet tehničkih nauka, Novi Sad 2010., FTN Novi Sad, str. 190.	
8.	Stojaković V., Tepavčević B., 2011. Single Image Ambiguity and Adjustment of Cultural Heritage Modeling Approach, Education and Research in Computer Aided Architectural Design in Europe – eCAADe, str.99-106. Ljubljana, Slovenija	
9.	Tepavčević B., Stojaković V., 2012. Mathematical Concepts of Space in Contemporary Architecture, Nexus 2012 Relationship between Architecture and Mathematics, Milano, Italija	
10.	Šijakov M., Tepavčević B., Štulić R., 2011. Geometry and visualisations of free forms in architectural education, Mathematics in architecture and civil engineering design and education, University of Pécs Pollack Mihály Faculty of Engineering, pp.1-6. Pečuj, Mađarska	
Summary data for teacher's scientific or art and professional activity:		
Quotation total :	3	
Total of SCI(SSCI) list papers :	1	
Current projects :	Domestic :	1 International : 0

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

Science, arts and professional qualifications

Name and last name:		Uzelac S. Zorica	
Academic title:		Full Professor	
Name of the institution where the teacher works full time and starting date:		Faculty of Technical Sciences - Novi Sad 01.10.1975	
Scientific or art field:		Mathematics	
Academic carier	Year	Institution	Field
Academic title election:	2000	Faculty of Technical Sciences - Novi Sad	Mathematics
PhD thesis	1989	Faculty of Sciences - Novi Sad	Mathematical Sciences
Magister thesis	1980	Faculty of Mathematics - Beograd	Mathematical Sciences
Bachelor's thesis	1974	Faculty of Sciences - Novi Sad	Mathematical Sciences
List of courses being held by the teacher in the accredited study programmes			
	ID	Course name	Study programme name, study type
1.	GG00	Mathematical Methods 1	(G00) Civil Engineering, Undergraduate Academic Studies
2.	GG05	Mathematical Methods 2	(G00) Civil Engineering, Undergraduate Academic Studies
3.	II1052	Mathematics 2	(I10) Industrial Engineering, Undergraduate Academic Studies
4.	IM1002	Mathematics 1	(I10) Industrial Engineering, Undergraduate Academic Studies (I20) Engineering Management, Undergraduate Academic Studies
5.	IM1006	Mathematics 2	(I20) Engineering Management, Undergraduate Academic Studies
6.	IM1120	Knowledge management	(I20) Engineering Management, Undergraduate Academic Studies
7.	OM518	Numerical Solutions of Differential Equations	(OM1) Mathematics in Engineering, Master Academic Studies
8.	OML518	Numerical Solution of Differential Equations	(OM1) Mathematics in Engineering, Master Academic Studies
9.	DZ01MS	Selected Chapters in Mathematics	(E11) Power, Electronic and Telecommunication Engineering, Specialised Academic Studies (I12) Industrial Engineering, Specialised Academic Studies (I22) Engineering Management, Specialised Academic Studies (Z00) Environmental Engineering, Specialised Academic Studies
10.	HR013	Knowledge Economy	(I20) Engineering Management, Specialised Professional Studies (IB0) Engineering Management - MBA, Specialised Professional Studies
11.	MBA309	Human Resource Management in Knowledge Economy	(IB0) Engineering Management - MBA, Specialised Professional Studies
12.	OIR010	Mathematics for Business and Finance	(I20) Engineering Management, Specialised Professional Studies
13.	IA022	Numerical Optimization	(F20) Engineering Animation, Master Academic Studies
14.	D0M16	Differential Equations	(OM1) Mathematics in Engineering, Doctoral Academic Studies
15.	D0M18	Numerical Analysis	(OM1) Mathematics in Engineering, Doctoral Academic Studies
16.	DM322	Numeric Methods in Power Machines and Plants	(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
17. DZ01M	Selected Chapters in Mathematics	(E10) Power, Electronic and Telecommunication Engineering, Doctoral Academic Studies (E20) Computing and Control Engineering, Doctoral Academic Studies (F00) Graphic Engineering and Design, Doctoral Academic Studies (F20) Engineering Animation, Doctoral Academic Studies (G00) Civil Engineering, Doctoral Academic Studies (G10) Geodesy and Geomatics, Doctoral Academic Studies (H00) Mechatronics, Doctoral Academic Studies (I20) Industrial Engineering / Engineering Management, Doctoral Academic Studies (M00) Mechanical Engineering, Doctoral Academic Studies (M40) Technical Mechanics, Doctoral Academic Studies (OM1) Mathematics in Engineering, Doctoral Academic Studies (S00) Traffic Engineering, Doctoral Academic Studies (Z00) Environmental Engineering, Doctoral Academic Studies (Z01) Safety at Work, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	Surla K., Teofanov Lj., Uzelac Z.: A robust layer-resolving spline collocation method for a convection-diffusion problem, Applied Mathematics and Computation, 2009, Vol. 208, No 1, pp. 76-89, ISSN 0096-3003
2.	Surla K., Uzelac Z., Teofanov Lj.: The discrete minimum principle for quadratic spline discretization of a singularly perturbed problem, Math. Comput. Simul, 2009, Vol. 79, No 8, pp. 2490-2505, ISSN 0378-4754
3.	Surla, K., Uzelac, Z., Some uniformly convergent spline difference schemes for singularly perturbed boundary value problems, IMA J. Numer. Anal.10(1990) 209-222
4.	Sekulić, D., Edeskuty, F.J.,Uzelac, Z., Heat Transfer Through a High Temperature Superconducting Current Lead at Criogenic temperatures, Int.J. Heat Mass Transfer, Vol. 40,No 16, 1997, 3917-3926,
5.	Uzelac, Z., Surla, K., Discretization of the Semilinear Singularly Perturbed Problem, Nonlinear Analysis: Theory, Methods and Applications, Vol.30, No.8, (1997), 4741-4747
6.	Sekulic, D., Uzelac, Z., Edeskuty, F., J., Entropy generation in a high temperaturesuperconducting current lead, Cryogenics, Vol 32(1992) 1154-1161
7.	Cvetičanin, L., Uzelac, Z., Longitudinal Vibration of Rod with Non-Linear Constitutive Equation, Journal of Vibration and Control,5, (1999), 827-849
8.	Teofanov, Lj., Uzelac, Z., Family of Quadratic Spline Difference Schemes for a Convection-Diffusion Problem, International Journal of Computer Mathematics, Vol. 84, No. 1, 2007, 33-50
9.	Z. Uzelac, L. Nešić, D. Hrstić, A Contribution to Research the Characteristics of Women Managers and a New Style of Leadership, Proceedings of IC-Congress, Haarlem, The Netherlands, 3-4. May 2007
10.	Dj. Čelić, Z. Uzelac, Vrednosne mreže, Zborniki radova XIII Medjunarodna konferencija industrijski sistemi-IS05, Herceg Novi, 07-09. septembar, 2005, 921-931

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

Quotation total :	52
Total of SCI(SSCI) list papers :	26
Current projects :	Domestic : 1 International : 0

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

Science, arts and professional qualifications

Name and last name:	Zlokolica M. Vladimir		
Academic title:	Assistant Professor		
Name of the institution where the teacher works full time and starting date:	Faculty of Technical Sciences - Novi Sad 01.03.2007		
Scientific or art field:	Computer Graphics		
Academic career	Year	Institution	Field
Academic title election:	2012	Faculty of Technical Sciences - Novi Sad	Computer Graphics
PhD thesis	2007	Ghent University - Gent	Electronics and Telecommunications
Bachelor's thesis	2001	Faculty of Technical Sciences - Novi Sad	Computer Engineering and Computer Communication
Magister thesis	-		Computer Engineering and Computer Communication

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

	ID	Course name	Study programme name, study type
1.	IA020	Advanced Display Technologies	(F10) Engineering Animation, Undergraduate Academic Studies
2.	IA006	Spatial Shape Design	(F10) Engineering Animation, Undergraduate Academic Studies
3.	IA009	3D Modeling	(F10) Engineering Animation, Undergraduate Academic Studies
4.	IA014	Advanced Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
5.	IGA013	Character Animation	(F10) Engineering Animation, Undergraduate Academic Studies
6.	IGA055	Special Visual Effects	(F10) Engineering Animation, Undergraduate Academic Studies
7.	IGB034	Video in Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
8.	IGB340	Fundamentals of Engineering Animation	(F10) Engineering Animation, Undergraduate Academic Studies
9.	IA017	Interdisciplinary Scientific Visualization	(F20) Engineering Animation, Master Academic Studies
10.	IA018	Computer Geometry	(F20) Engineering Animation, Master Academic Studies
11.	AID01	Computer Vision and Graphics in Automotive Industry	(F20) Engineering Animation, Doctoral Academic Studies
12.	AID02	Advanced Technologies for Modelling and Visual Perception of Video and 3D Signals in Computer Graphics	(F20) Engineering Animation, Doctoral Academic Studies

Representative references (minimum 5, not more than 10)

1.	V. Zlokolica, S. Schulte, A. Pizurica, W. Philips, "Fuzzy logic recursive motion detection and denoising of video sequences", Journal of Electronic Imaging, 2006, Vol. 15, No. 2, ISSN 023008.
2.	V. Zlokolica, A. Pizurica, W. Philips, "Noise estimation for video based on spatial-temporal gradient histograms", IEEE Transactions on Signal Processing Letters, 2006, Vol. 13, No. 6, str. 337- 340, ISSN 1070-9908
3.	Napredni nelinearni algoritmi za otklanjanje suma u video signalu, Doktorska disertacija, Univerzitet u Gentu, Gent, Belgija, 2006,
4.	V. Zlokolica, A. Pizurica, W. Philips. "Wavelet-domain video denoising based on reliability measures", IEEE Trans. on Circuits and Systems for Video Technology, Vol. 16, No. 8, August, 2006, pp. 993-1007 , ISSN: 1051-8215
5.	A. Pizurica, Lj. Jovanov, B. Huysmans, V. Zlokolica, P. De Keyser, F. Dhaenens and W. Philips, "Multiresolution Denoising for Optical Coherence Tomography: A Review and Evaluation", Current Medical Imaging Reviews, Vol. 4, No. 4, September 2008. <leng>
6.	T. Melange, M. Nachtgeael, E. E. Kerre, V. Zlokolica, S. Schulte, V. De Witte, A. Pizurica, W. Philips, "Video denoising by fuzzy motion and detail adaptive averaging", Journal of Electronic Imaging, Vol. 17, No. 043005, October, 2008.<leng>
7.	D. Marijan, V. Zlokolica, N. Teslic, V. Pekovic, T. Tekcan, "Automatic Functional TV Set Failure Detection System", IEEE Transactions on Consumer Electronics, Volume 56, Issue 1, February 2010, pp. 125-133.<leng>
8.	N. Teslic, V. Zlokolica, V. Pekovic, T. Tekcan, M. Temerinac, "Packet-Loss Error Detection system for DTV and set-top box functional testing", IEEE Transactions on Consumer Electronics, Volume 56, Issue 3, August 2010.<leng>
9.	D. Culibrk, M. Mirkovic, V. Zlokolica, M. Pokric, V. Crnojevic, D. Kukolj, "Salient Motion Features for Video Quality Assessment", IEEE Transactions on Image Processing, Volume 20, Issue 4, April 2011. <leng>
10.	V. I. Ponomaryov, T. Herfet, V. V. Lukin, B. Smolka, V. Zlokolica: Image and video quality improvement techniques for emerging applications. EURASIP Journal on Advances in Signal Processing, 2012: 33 (2012). <leng>



UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

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

Quotation total :	0			
Total of SCI(SSCI) list papers :	13			
Current projects :	Domestic :	1	International :	0



UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 10. Organizational and Material Resources

To perform the study programme, the adequate human, spatial, technical and technological, library and other resources suitable to the study programme features and predicted students` number are provided. Classes on the graduate academic studies Engineering Animation are held in two shifts so the minimum of 2 m2 of space is provided per student.

Lectures are held in amphitheatres, classrooms, computer and specialized laboratories. The library has over 1000 bibliographical units relevant for the study programme Engineering Animation. There is also adequate equipment for all courses with the appropriate textbook literature, devices and supplementary equipment available on time and in a sufficient number for normal performance of the teaching process. Thereby, the adequate information technology is also provided.

Faculty has the library and the study room and provides a seat for each student in amphitheatres, classrooms and specialized laboratories.

**Study Programme Accreditation**

MASTER ACADEMIC STUDIES

Engineering Animation

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 are 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.



UNIVERSITY OF NOVI SAD

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



Study Programme Accreditation

MASTER ACADEMIC STUDIES

Engineering Animation

Standard 12. Distance Education

Distance learning is not provided for.