

<b>Study program:</b> Road Traffic Engineering			
<b>Course title:</b> Intelligent Systems in Traffic and Transportation			
<b>Professor/assistant:</b> Ivan Petrović, Tatjana Miladinović			
<b>Type of course:</b> Compulsory			
<b>ECTS credits:</b> 6			
<b>Prerequisites:</b> none			
<b>Aims of the course:</b> The students acquire knowledge about modern information and communication technologies and models and how to implement them in traffic systems.			
<b>Learning outcomes:</b> After passing the exam, the student will have theoretical and practical knowledge about intelligent systems in traffic and transportation. Students will know how to apply intelligent systems in different conditions.			
<b>Syllabus:</b> Traffic and transport and information & communication technologies. The use of artificial intelligence in road traffic. Intelligent systems in traffic modeled on modern technologies (GIS, GPS, GSM, RFID). Knowledge-based systems and expert systems as an important factor of intelligent systems in traffic. Designing expert systems for specific environment. Fuzzy logic. Characteristics of different intelligent systems in traffic (systems for positioning transport means, control and management systems, systems of signaling devices, robotic systems). Implementation of intelligent systems in traffic and transport. The effects of implementation of intelligent systems on the realization of processes and system management in traffic. The approach to the problems of managing based on fuzzy logic. European and global projects.			
<b>Literature:</b> <ol style="list-style-type: none"> <li>1. Pavle Gladović, Vladimir Popović: Savremene informacione tehnologije u drumskom transportu, Fakultet tehničkih nauka, Novi Sad, 2010.</li> <li>2. Pavle Gladović, Milan Simeunović: Sistemi javnog autotransporta robe, Fakultet tehničkih nauka, Novi Sad, 2004.</li> <li>3. Teodorović D, Šelmić M: Računarska inteligencija u saobraćaju, Saobraćajni fakultet Beograd, 2012.</li> </ol>			
<b>Total number of active classes:</b> 5		<b>Lectures:</b> 3	<b>Practical classes:</b> 2
<b>Teaching methods:</b> Lectures: interactive approach Practical training: term papers, research paper, experimental work. Consultations.			
<b>Grading system</b> (maximum 100 points) grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.			
<b>Pre-exam obligations:</b>	<b>Points:</b>	<b>Final exam:</b>	<b>Points:</b>
Activity during classes	max 10	Oral exam	50
Written test (2)	max 20		
Term papers	max 20		
Minimum requirement for the final exam	30		