



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering in Nis

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Ubiquitous computing		
Level of Study	Bachelor	<input type="checkbox"/> Master's	x Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	Miroslav D. Trajanovic		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	x Project work	x Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

To enable students to perform the independent, methodologically founded research in the field of ubiquitous computing. Students will be capable to independently analyse a case study, related to application of the ubiquitous computing technologies in the selected domain, including development of relevant domain and application models.

Syllabus (brief outline and summary of topics, max. 10 sentences)

- Basic concepts and principles of ubiquitous computing
- Paradigms of Internet-of-Services and Internet-of-Things: technologies, business models, architectures and models, standards, domain applications
- Cyber Physical Systems
- Basic concepts and principles of Wireless Sensor Networks: technologies, interoperability in Wireless Sensor Networks, models and ontologies of Wireless Sensor Networks
- Domain applications of Wireless Sensor Networks: environment, manufacturing and logistics, healthcare and prevention, clinical applications, agriculture, military, etc.

Defining requirements, business models and modelling the architectures of ubiquitous computing in the selected domain

Language of Instruction

- Serbian (complete course) English (complete course) Other _____ (complete course)
- Serbian with English mentoring Serbian with other mentoring _____

Assessment Methods and Criteria

Pre exam Duties	Points	Final Exam	Points
Activity During Lectures		Written Examination	
Practical Teaching	70	Oral Examination	30
Teaching Colloquia		Overall Sum	100

***Final examination mark is formed in accordance with the Institutional documents**