UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION	
Study program	Mechatronics and Control
Study Module (if applicable)	-
Course title	Compliant Mechanisms
Level of study	☐Bachelor ☒Master's ☐Doctoral
Type of course	☐Obligatory ☒Elective
Semester	☐Autumn ☒Spring
Year of study	I
Number of ECTS allocated	6
Name of lecturer/lecturers	Nenad D. Pavlović, Nenad T. Pavlović
Teaching mode	☒Lectures ☒Group tutorials ☐Individual tutorials ☒Laboratory work ☒Project work ☐Seminar ☐Distance learning ☐Blended learning ☐Other

PURPOSE AND OVERVIEW (max. 5 sentences)

The purpose of this course is to gain some basic knowledge in the field of analysis, synthesis and application of compliant mechanisms. Students should gain the ability to use and calculate the compliant mechanisms for realization of certain functions in mechatronic devices.

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

- Types and characteristics of flexure hinges (compliant joints)
- Synthesis of compliant mechanisms with concentrated compliance
- Continuum synthesis approach for synthesis of compliant mechanisms
- Synthesis of compliant bistable mechanisms
- Compliant positioning systems
- Compliant grippers and manipulators
- Flexible fluidic actuators
- Adaptive compliant controllable systems

LANGUAGE OF INSTRUCTION			
☒Serbian (complete course) ☐English (complete course) ☐ Other _____ (complete course) ☒Serbian with English mentoring ☒Serbian with German mentoring			
ASSESSMENT METHODS AND CRITERIA			
Pre exam duties	**Points**	**Final exam**	**points**
Activity during lectures	**10**	**Written examination**	
Homework	**40**	**Oral examination**	**Max. 50**
		OVERALL SUM	**100**
***Final examination mark is formed in accordance with the Institutional documents**			