

COURSE GUIDE – short form

Academic year 2018 - 2019

Course name ¹	INDUSTRIAL ROBOTIES IN MODERN TECHNOLOGIES				Discipline code		6 SITM 18		
Course type ²	DS	Category ³	DO	Year of study	2M	Semester	4	Number of credit points	6

Faculty	Material Science and Engineering				Number of teaching and learning hours ⁴					
Field	Mechanical Engineering				Total	L	T	LB	P	IS
Specialization	SITM				56	28	-	28	-	

Pre-requisites from the curriculum ⁵	Compulsory	
	Recommended	

General objective ⁶	The discipline prepares specialists in the field of advanced handling techniques and their practical industrial applications.
Specific objectives ⁷	<p style="text-align: center;">Knowledge of robot architecture Working with simple architectures Cinematics of industrial robots</p>
Course description ⁸	<p style="text-align: center;">Definitions and common notions used. Structure of serial topology robots Cinematics of industrial robots; Dynamics of industrial robots Generate motion between two points of the workspace Calculation algorithms used to model the dynamic behavior of industrial robots Planning the robot trajectory Geometric control and calibration methods Operation and command of industrial robots Parallel topology robots; Stepping robots Flexible manufacturing systems</p>

Assessment		Schedule ⁹		Percentage of the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹	Class tests along the semester	20 %	week 7	60 % (minimum 5)
	Home works	%		
	Other activities	20 %	week 14	
	Examination procedures and conditions: 1. -, working conditions -, percent %; 2. -, working conditions -, percent %; 3. -, working conditions -, percent %	%	(minimum 5)	
B. Seminar	Activity during seminar			% (minimum 5)
C. Laboratory	Activity during laboratory			% (minimum 5)
D. Project	Activity during project			% (minimum 5)
Course organizer	prof.dr.habil.ing. Alina Adriana MINEA			
Teaching assistants				

¹Course name from the curriculum

² DF – fundamental, DD – in the field, DS – specialty, DC – complementary (from the curriculum)

³ DI – imposed, DO – optional, DL – facultative (from the curriculum)

⁴ Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

⁵ According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶ According to 7.1 from the Course guide – extended form

⁷ According to 7.2 from the Course guide – extended form

⁸ Short description of the course, according to point 8 from the Course guide – extended form

⁹ For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰ A minimum grade might be imposed for some assessment stages

¹¹ Exam or colloquium