

Course code																																	
Type and description	Elective Course																																
ECTS credit	1																																
Course name	Advanced Modeling of Dynamical Systems																																
Course name in Polish	Zaawansowane modelowanie systemów dynamicznych																																
Language of instruction	English																																
Course level	8 PRK																																
Course coordinator	prof. dr hab. inż. Andrzej Bartoszewicz																																
Course instructors	prof. dr hab. inż. Andrzej Bartoszewicz																																
Delivery methods and course duration	<table border="1"> <thead> <tr> <th></th> <th>Lecture</th> <th>Tutorials</th> <th>Laboratory</th> <th>Project</th> <th>Seminar</th> <th>Other</th> <th>Total of teaching hours during semester</th> </tr> </thead> <tbody> <tr> <td>Contact hours</td> <td>0</td> <td>0</td> <td>0</td> <td>15</td> <td>0</td> <td>0</td> <td>15</td> </tr> <tr> <td>E-learning</td> <td>No</td> <td>No</td> <td>No</td> <td>No</td> <td>No</td> <td>No</td> <td></td> </tr> <tr> <td>Assessment criteria (weightage)</td> <td></td> <td></td> <td></td> <td>1,00</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Lecture	Tutorials	Laboratory	Project	Seminar	Other	Total of teaching hours during semester	Contact hours	0	0	0	15	0	0	15	E-learning	No	No	No	No	No	No		Assessment criteria (weightage)				1,00			
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Course objective	<p>1. The course aims at developing skills for modeling of dynamical systems, effectively perform simulations and critically evaluate their results.</p> <p>2. The secondary aim of the course is to give students a practical grounding in dissemination of their ideas and results among peers and professionals.</p>																																
Learning outcomes	<p>After completing the course the student:</p> <p>1. knows and understands the methodology of modeling and simulation, - W4</p> <p>2. is able to choose a proper numerical solver and its parameters for effective simulation of a given problem, - U4</p> <p>3. can disseminate research results among professionals and general public, - U4, K1</p> <p>4. is prepared to critically assess his/her own contribution to the field of modeling and simulation of electric, electronic and electromechanical, dynamical systems – U4, K1.</p>																																
Assessment methods	Outcomes 1 – 4 – oral presentation																																
Prerequisites	Modeling of Dynamical Systems																																
Course content with delivery methods	1. Presentation of modeling and simulation results obtained by the students for selected electric, electronic and electromechanical systems.																																
Basic reference materials	1. P. P. J. van den Bosch, A. C. van der Klauw, Modeling, Identification and Simulation of Dynamical Systems, CRC Press.																																
Other reference materials	1. Selected internet sources.																																
Average student workload outside classroom	10h																																
Comments																																	
Last update	20.04.2023																																