IPP “Automation Systems”
Academic Year 2026– 2027

Program Studies

DIRECTION A: Manufacturing and Production Systems

ΠΙΝΑΚΑΣ ΥΠΟΧΡΕΩΤΙΚΩΝ ΜΑΘΗΜΑΤΩΝ					
Courses A΄ Semester		**ECTS**	**Courses B΄Semester**		**ECTS**
1108	Modelling and Control of Dynamical Systems	5	1106	CAM and Applications	5
1107	Design of Control Systems	5	2206	Sensors	5
TABLE OF ELECTIVE COURSES (Mandatory selection of **4 courses per semester**)					
Courses A΄ Semester		**ECTS**	**Courses B΄Semester**		**ECTS**
1101	Optimal Product and System Design	5	1201	Transportation Systems	5
1103	Intelligent Data Analysis for Mechanical Systems **	5	1202	Anti-pollution Processes and Techniques	5
1104	CAD & Applications	5	1203	Welded Structures	5
1105	CAE & Applications	5	1204	Electrical-Mechanical Installations	5
1109	Technologies and Applications of Additive Manufacturing / 3D Printing	5	1205	Polymer Technology	5
1110	Advanced Manufacturing Systems (CIM-INDUSTRY 4.0)	5	1207	Energy Systems in Buildings and Industry	5
1206	Smart Materials	5	2204	Mechatronics	5
1111	Communication Skills for Engineers *	3	2103	Measurements	5
			1222	European and Greek Technical Law*	3
Total of ECTS of Semester		30	Total of ECTS of Semester		30
Semester C			**ECTS**		
Master's Thesis Preparation			30		

DIRECTION B: Automatic Control and Robotic Systems

Courses A΄ Semester		ECTS	Courses B΄Semester		ECTS
1108	Modelling and Control of Dynamical Systems	5	2202	Nonlinear Systems and Control	5
2104	Robot Control Systems	5	2205	Robotics Laboratory	5

TABLE OF ELECTIVE COURSES

From Direction A: Mandatory Selection of **2** courses **in total**, i.e., either **1** per term, or **2** in either of the 2 semesters taken from Direction A courses as they appear in the table above and are not included in this table.

From Direction B: Mandatory Selection of **3** courses per semester.

Courses A΄ Semester		ECTS	Courses B΄Semester		ECTS
1109	Technologies and Applications of Additive Manufacturing / 3D Printing	5	2103	Measurements	5
1206	Smart Materials	5	2204	Mechatronics	5
2201	Multivariable Control systems	5	2206	Sensors	5
2203	Intelligent Control and Robotics Systems	5	2207	Adaptive, Robust and Hierarchical Control	5
2109	Seminar Course in Automatic Control and Robotics-1	5	2209	Seminar Course in Automatic Control and Robotics 2	5
1111	Communication Skills for Engineers *	3	1222	European and Greek Technical Law*	3
Total of ECTS of Semester		30	Total of ECTS of Semester		30

Semester C	ECTS
Master's Thesis Preparation	30

- Joint- courses do not count in the final degree grade.

** Previous Title name of the Course **Industrial Installations**