1.	Field of study	Computer Science
2.	Academic year of entry	2016/2017 (summer term)
3.	Level of qualifications/degree	second-cycle studies
4.	Degree profile	general academic
5.	Mode of study	full-time

Module: Basics of biometric systems development

Module code: 08-IN-S2-PPSB

1. Number of the ECTS credits: 3

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
PPSB _K_7	Student understands the need for constant education and is aware of his responsibility for his own work and the work of his team.	K_2_A_I_K01	1
		K_2_A_I_K03	1
PPSB _K_8	Student should possess the skill of individual and team solving of physical and technical problems taking advantage of the acquired knowledge and practical skills.	K_2_A_I_K03	1
PPSB _U_4	Student can implement a complete process of biometric data analysis.	K_2_A_I_U13	1
PPSB _U_5	Student can use the chosen computational tools to analyze biometric data. Student is able to use the chosen devices used in issues of biometric verification and identification.	K_2_A_I_U08	1
		K_2_A_I_U15	1
		K_2_A_I_U19	1
PPSB _U_6	Student can elaborate and present materials concerning specific biometric issues in the form of a report and presentation. Student can prepare complete project documentation.	K_2_A_I_U04	1
PPSB _W_1	Student possesses knowledge in the field of biometric identification and verification.	K_2_A_I_W08	1
		K_2_A_I_W19	1
		K_2_A_I_W20	1
PPSB _W_2	Student has knowledge in the field of biometric data acquisition and processing.	K_2_A_I_W08	1
		K_2_A_I_W15	1
PPSB _W_3	Student knows operation of the chosen methods and algorithms used for biometric verification and identification.	K_2_A_I_W03	1
		K_2_A_I_W09	1

3. Module description	
Description	Aim of the subject is introduction into biometrics. During the classes, the basics of digital image processing, biometric systems operation and the methods of acquisition, processing and classification of physical and behavioural biometrics will be discussed.
Prerequisites	brak

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
PPSB _w_1	Control tests	Checking the level of knowledge concerning the chosen biometric features, their analysis and recognition. Evaluation of biometric systems development skills.	PPSB _U_4, PPSB _U_6, PPSB _W_1, PPSB _W_2, PPSB _W_3
PPSB _w_2	Group project	Elaborating a project covering biometric system development basing on the project assumptions.	PPSB _K_7, PPSB _K_8, PPSB _U_4, PPSB _U_5, PPSB _U_6

5. Forms of teaching

code	form of teaching			required hours of student's own work		assessment of the learning outcomes of the module
	type	description (including teaching methods)	number of hours	description	number of hours	
PPSB _fs_1	lecture	Presenting educational content in verbal form, using content visualization. Focusing on conceptually complex material and indicating websites addresses and e-learning package.	15	Familiarizing with lecture content using the existing methods package: script and websites and e-learning package.	10	PPSB _w_1
PPSB _fs_2	laboratory classes	Detailed preparation of the students to solve tasks with indicating methodology and sequence of proceedings.	30	Realization of program at home or using computers made available by the Institute for their own work.	35	PPSB _w_2