

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: Video processing techniques

Module code: 08-IN-GWK-S2-TPV

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)
TPV -K_8	Can work in team of two and properly divides work.	K_2_A_I_K03	1
TPV -U_5	Can implement basic video processing algorithms.	K_2_A_I_U01 K_2_A_I_U13 K_2_A_I_U14 K_2_A_I_U16	1 1 1 1
TPV -U_6	Can implement basic algorithms of video processing from infrared cameras.	K_2_A_I_U01 K_2_A_I_U02 K_2_A_I_U03 K_2_A_I_U04 K_2_A_I_U13 K_2_A_I_U14 K_2_A_I_U16	1 1 1 1 1 1 1
TPV -U_7	Can give a presentation of the executed project.	K_2_A_I_U04	1
TPV -W_1	Has basic knowledge about OpenCV library use.	K_2_A_I_W03 K_2_A_I_W15 K_2_A_I_W16	1 1 1
TPV -W_2	Has basic knowledge about video encoding standards.	K_2_A_I_W15 K_2_A_I_W16	1 1

TPV -W_3	Has basic knowledge about lossy and losless compression.	K_2_A_I_W15 K_2_A_I_W16	1 1
TPV -W_4	Has basic knowledge in the field of video processing, such as filtration, movement detection, object detection.	K_2_A_I_W15 K_2_A_I_W16	1 1

3. Module description

Description	Module allows the student to acquire skill of programming basic video processing algorithms.
Prerequisites	

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
TPV_w_1	Exam	Checking theoretical knowledge of the module. Final grade is constituted by arithmetic average of grades from tests and laboratory class. Both grades must be positive.	TPV -W_1, TPV -W_2, TPV -W_3, TPV -W_4
TPV_w_2	Tests	Periodical checking of theoretical knowledge during laboratory classes.	TPV -U_5, TPV -U_6, TPV -W_1, TPV -W_2, TPV -W_3, TPV -W_4
TPV_w_3	Project	Preparing a project for the given topic connected with video processing.	TPV -K_8, TPV -U_5, TPV -U_6
TPV_w_4	Presentation	Presenting the project.	TPV -K_8, TPV -U_7

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	
TPV_fs_1	lecture	Presenting educational content with use of audio-visual aids.	15	Individual studying of lectures subject matter and advised literature.	5	TPV_w_1
TPV_fs_2	laboratory classes	Computer classes focusing on video processing algorithms implementation.	45	Individual preparation for laboratory classes . Familiarizing with project subject matter and project execution individually or in teams of two. Preparing description presenting project subject matter.	25	TPV_w_2, TPV_w_3, TPV_w_4