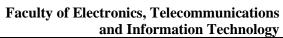


National University of Science and Technology POLITEHNICA Bucharest





MASTER PROGRAM – Multimedia Technologies in Biometrics and Information Security Applications

CURRICULUM 2023 - 2025

First year of study – 1st Semester

Course name		1st Semester (14 weeks)						
		Class hours/week				Hours/	Exam.	
		LE	S	L	P	sem.	type	
			Re	es.	(dir / indiv)	type		
Biometric Technologies. Speech and Biological	4	2	_	1	_	42 / 58	Е	
Signals Analysis	7	4 2	4 2		1		42/30	E
Artificial Intelligence I: Classical Machine Learning	4	2		2		56 / 44	Е	
Systems	-	4 2	_	2		307 44	L'	
Digital Video Analysis and Processing	5	3	_	1	_	56 / 69	Е	
Forensic Expertise Methodology	3	2	1	_	1	42 / 33	Е	
Research and Documentation Project S1	2	1	1	_	2	28 / 22	V	
Ethics and Academic Integrity	2	1		_	_	14 / 36	V	
Research Activity and Practical Work S1	10	11				0 / 250	V	
ECTS, Total hours, Assessments		10 0 4 2						
	30	10	0	4	3	238 /	4E, 3V	
		11				512	TL, 3 V	
Facultative subjects								
Design and Management of Educational Programs	5	2	1	_	_	42 / 83	Е	

First year of study – 2nd Semester

		2nd Semester (14 weeks)						
Course name	ECTS	Class hours/week				Hours/	Exam.	
		LE	S	L	P	sem.	type	
		Res.				(un / murv)		
Artificial Intelligence II: Deep Neural Networks	5	3	_	2	_	70 / 55	Е	
Personal Computer and Mobile Terminal Security	5	2	_	1	1	56 / 69	Е	
Voice Communication Interfaces with Intelligent Systems	4	2	_	1	_	42 / 58	Е	
Artificial Intelligence Applied in Speech Forensics	3	1	_	_	1	28 / 47	Е	
Research Project in Speech Technology	3	_	_	_	2	28 / 47	V	
Research Activity and Practical Work S2	10	12				0 / 250	V	
ECTS, Total hours, Assessments	30	8	0	4	4	224 /	4E 0V	
		12				526	4E, 2V	
Facultative subjects								
Psychopedagogy of Young People and Adults	5	2	1	_	_	42 / 83	Е	
Counseling and Guidance	5	1	2	_	_	42 / 83	Е	



National University of Science and Technology POLITEHNICA Bucharest



Faculty of Electronics, Telecommunications and Information Technology

Second year of study – 3rd Semester

		3rd Semester (14 weeks)							
Course name	ECTS	Class hours/week				Hours/	Exam.		
		LE	S	L	P				
		Res.				sem.	type		
Artificial Intelligence III: Advanced Techniques for	5	3		1		56 / 69	Е		
Developing Machine Learning Systems	3	5	3 3	3	_	I		30 / 09	E
Security in Computer Networks	5	2	_	2	_	56 / 69	E		
Audio-Video Forensics	4	2	_	1	_	42 / 58	Е		
Artificial Intelligence for Embedded Systems	3	1	_	1	1	42 / 33	Е		
Integrated Research Project in Computer Security	3	_	_	_	2	28 / 47	V		
Scientific Research and Practical Work S3	10					0 / 250	V		
Determine Research and Fraction (1) of the Section (1)	10	12				0 / 230	,		
ECTS Credits, Total hours, Assessments	30	8	0	5	3	224 /	4E 2M		
		12				526	4E, 2V		
Facultative subjects						•			
Field-specific and Specialization Development Didactics	5	2	1	_	_	42 / 83	Е		
Intercultural Education	5	1	2	_	_	42 / 83	Е		

Second year of study – 4th Semester

Course name	ECTC	4th Semester (14 weeks)						
	ECTS	Class hours/week Res.	Hours/ sem.	Exam. type				
Practical Work for the Elaboration of the Dissertation Thesis	30	28	0 / 750	V				
ECTS, Total hours, Assessments	30	0 0 0 0	0 / 750	1V				
Facultative subjects	·							
Teaching practice	5	3	0 / 125	V				
Graduation exam – Level II	5		0 / 125	Е				

Acronyms:

LE – Lecture, S – Seminar, L – Laboratory, P – Project

E – Examination (end-of-semester), **V** – Verification (during the semester)

Program Coordinator,
Prof. Dragos BURILEANU