

Computer Engineering (COMP)

		Study Profiles:	
		I. Computer Engineering	II. Media Engineering
A) Catalogue CORE			
1.	Advanced Compiler Engineering	X	
2.	Computer Arithmetic Fundamentals	X	
3.	Digital Image Processing 1		X
4.	Digital Speech Transmission		X
5.	DSP Design Methodologies and Tools	X	
6.	Robotics and Man-Machine-Interaction 1		X
7.	Special-Purpose Operating Systems	X	
8.	Technical Acoustics		X
B) Catalogue ELECTIVE			
1.	Remaining modules of catalogue CORE	X	X
2.	Acoustic Virtual Reality		X
3.	Ad-Hoc Networks: Architectures and Protocols	X	
4.	Advanced Coding and Modulation	X	X
5.	Advanced Topics in Signal Processing and Communication		X
6.	Advanced methods of virtual reality		X
7.	Basic Techniques in Computer Graphics		X
8.	Computer Arithmetic Advanced Topics	X	
9.	Current Topics in Media Computing and HCI		X
10.	Data Mining Algorithms		X
11.	Digital Image Processing 2		X
12.	Electronic Design Automation	X	
13.	Estimation, Information Fusion and Machine Learning - Cognitive Tools for Cyber-Physical Systems		X
14.	Fundamentals of Big Data Analytics		X
15.	Functional Safety and System Dependability	X	
16.	Introduction to Artificial Intelligence		X
17.	Introduction to Embedded Systems	X	
18.	Introduction to High Performance Computing	X	
19.	Machine Learning		X
20.	Medical Acoustics 1		X
21.	Multimedia Content Analysis		X
22.	Multimedia Signal Coding		X
23.	Optimization in Engineering	X	X
24.	Parallele Programmierung	X	
25.	Psychoacoustics and Methods for Listening Experiments		X
26.	Robotics and Man-Machine-Interaction 2	X	X
27.	Virtual reality		X
28.	VLSI Architectures for Digital Signal Processing - Architectures	X	
29.	VLSI Architectures for Digital Signal Processing - Fundamentals	X	

C) Catalogue LABORATORY

1.	Advanced Network Programming – Switching and Routing	X	X
2.	Analog and Mixed Signal Design	X	X
3.	Digital Image Processing	X	X
4.	Digital Mobile Receiver Design: Synchronization and Detection	X	X
5.	Laboratory Acoustic Virtual Reality	X	X
6.	Laboratory Acoustics	X	X
7.	MATLAB Advanced – Digital Signal Processing	X	X
8.	Network Programming	X	X
9.	Network Simulators	X	X
10.	Optimization Lab for Communication and Signal Processing using MATLAB	X	X
11.	Radar Laboratory	X	X
12.	Real-Time Audio Processing	X	X
13.	SMEAGOL – Small Embedded Advanced and Generic Objects Laboratory	X	X
14.	Stochastic Networks – Analysis and Evaluation Supported Modern Simulation Tools	X	X
15.	Wireless Communications: Software Radio Implementations	X	X

D) Catalogue PROJECT

1.	Algorithms and Practice of the Signal Processing	X	X
3.	Communications and Multimedia	X	X
4.	Medical Acoustics	X	X
5.	System software for the real-time simulation of technical processes	X	X
6.	Technical Acoustics	X	X