Computer Engineering (COMP) Study Profiles*

		Digital Hardware Engineering	Data Sensing and Processing	ML and AI Systems	Digital Energy Systems	Autonomous and Cyber-Physical Systems	Systems for Human-Machine Interaction
Catalogue CORE							
1	Computer Arithmetic – Fundamentals	X					
2	Data Analytics	(X)	X	X	X	X	X
3	Digital Image Processing		X	X			X
4	Digital Speech Transmission		X	X			X
5	DSP Design Methodologies and Tools	X			X	X	
6	Microprocessor Architectures	X		X	X	X	
7	Robotics and Man-Machine-Interaction 1					X	X
8	Special-Purpose Operating Systems	X	X	X	X	X	
Catalogue ELECTIVE							
1	Acoustic Virtual Reality						X
2	Ad-Hoc Networks: Architectures and Protocols		X		X	X	
3	Advanced Coding and Modulation		X			X	
4	Advanced Compiler Engineering	X					
5	Audio Signal Enhancement						X
6	Building a Quantum Computer						
7	Computer Arithmetic - Advanced Topics	X	X				
8	Current Topics in Media Computing and HCI						X
9	Electronic Design Automation	X				X	
10	Estimation, Information Fusion and Machine Learning		X	X		X	
11	Advanced Topics of Virtual Reality						X
12	Functional Safety and System Dependability		X		X		
13	Computer Graphics						X
14	Hearing Technology, Audiology, and Voice						X
15	High-Performance Computing	X					
16	Image Data Analysis			X		X	X
17	Industry 4.0 for Engineers				X	X	
18	Artificial Intelligence			X	(X)	X	

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19	Linux Kernel Programming	X	X				
20	Machine Learning			X	(X)	X	
21	Machine Learning for Speech and Audio Processing			X			X
22	Advanced Microcontroller Programming and Debugging	X	X				
23	Optimization in Engineering			X	X		
24	Principles and Design of Communication Systems and Networks		X		X	X	
25	Psychoacoustics and Methods for Listening Experiments						X
26	Robotics and Man-Machine Interaction 2					X	
27	Signal Processing for Mobile Communications		X				
28	Simulation of Robotic Systems, Sensors and Environment		X			X	
29	Unobtrusive Monitoring of Vital Signs					X	X
30	Virtual Reality						X
31	Visual Media Communication						X
32	VLSI Design for Digital Signal Processing: Architectures	X	X	X			
33	VLSI Design for Digital Signal Processing – Fundamentals	X	X				

*Shown subject combinations are only recommendations. In principle, any individual module combination from the CORE/ELECTIVE catalogues may be chosen, provided they meet the conditions specified in the examination regulations (minimum credits per catalogue).