

Communications Engineering (COMM)

		Study Profiles:	
		I. Systems	II. Electronics
A) Catalogue CORE			
1.	Estimation and Detection Theory	X	X
2.	Mobile Radio Networks 1	X	X
3.	Principles and Design of Communication Systems and Networks	X	X
4.	RF Systems	X	X
B) Catalogue ELECTIVE			
1.	Ad Hoc Networks: Protocols and Principles	X	
2.	Advanced Coding and Modulation	X	
3.	Advanced Radar Systems	X	
4.	Algorithm Design for Digital Receivers	X	X
5.	Antenna Engineering		X
6.	Communications Protocols	X	
7.	Computer Arithmetic - Fundamentals		X
8.	Computer Arithmetic – Advanced Topics		X
9.	Design of Software Defined Radio Transceivers	X	
10.	Digital Speech Transmission	X	
11.	DSP Design Methodologies and Tools		X
12.	High Frequency Electronics		X
13.	Information Theory	X	
14.	Internet of Things and Sensor Networks	X	
15.	Microwave Electronics		X
16.	Mobile Radio Networks 2	X	
17.	Optical Telecommunications 2: Systems		X
18.	Optimization in Engineering	X	
19.	Power Management Integrated Circuits		X
20.	Principles and Architectures of Cognitive Radios	X	
21.	Radar Systems		X
22.	RF Technologies		X
23.	RF Techniques and Circuits		X
24.	Signal Processing in Multi-Antenna (MIMO) Communication Systems	X	X
25.	VLSI-Architecture for Digital Signal Processing - Architectures		X
26.	VLSI-Architecture for Digital Signal Processing Fundamentals		X
C) Catalogue LABORATORY			
1.	ADS Laboratory		X
2.	Advanced Network Programming – Switching and Routing	X	X
3.	Analog and Mixed Signal Electronics	X	X
4.	Digital Mobile Receiver Design: Synchronization and Detection	X	X
5.	Internet of Things	X	
6.	MATLAB Advanced – Digital Signal Processing	X	

7. Network Programming	X
8. Network Simulators (irregular)	
9. Optimization Lab for Communication and Signal Processing using MATLAB	X
10. Radar Systems Laboratory	X
11. SMEAGOL – Small Embedded Advanced and Generic Objects Laboratory	
12. VLSI Design Technology	X
13. Wireless Communications: Software Radio Implementations	

D) Catalogue PROJECT

1. Communications and Multimedia	X	X
2. Institute Project SMEAGOL –Small Embedded Advanced and Generic Objects	X	X
3. System software for the real-time simulation of technical processes	X	X