UNDERGRADUATE DEGREE PROGRAMME IN TELEMATICS ENGINEERING
(CODE 59TL)

ACADEMIC YEAR 2019-2020

FIRST YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000201	LINEAR ALGEBRA	6	Elem	1st	D540
595000203	CIRCUITS ANALYSIS I	6	Elem	1st	D250
595000202	CALCULUS I	6	Elem	1st	D540
595000205	INTRODUCTION TO TELECOMMUNICATIONS	3	Comp	1st	D250
595000204	PROGRAMMING I	6	Elem	1st	D230
595000200	INTRODUCTORY WORKSHOP ON ENGINEERING	3	Comp	1st	D250
595000207	CIRCUITS ANALYSIS II	6	Elem	1st and 2nd	D250
595000209	CALCULUS II	6	Elem	1st and 2nd	D540
595000206	PROFESSIONAL COMMUNICATION SKILLS	3	Comp	2nd	D240
595000208	ELECTRONICS I	6	Elem	1st and 2nd	D230
595000210	PROGRAMMING II	6	Elem	1st and 2nd	D230
595000211	SEARCH TECHNIQUES AND INFORMATION SYSTEMS	3	Comp	2nd	D230

SECOND YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000212	ELECTROMAGNETISM AND WAVES	6	Elem	1st and 2nd	D510
595000214	ELECTRONICS II	6	Comp	1st and 2nd	D230
595000213	STATISTICS AND STOCHASTIC PROCESSES	6	Elem	1st and 2nd	D540
595000215	TELECOMMUNICATIONS NETWORKS AND SERVICES	6	Comp	1st and 2nd	D230
595000216	SIGNALS AND SYSTEMS	6	Comp	1st and 2nd	D250
595000217	SCIENCE. TECHNOLOGY AND SOCIETY	3	Comp	1st and 2nd	D230
595000220	MICROPROCESSORS	6	Comp	1st and 2nd	D230
595000222	ADVANCED APPLICATION PROGRAMMING	6	Comp	2nd	D230
595000218	WAVE TRANSMISSION AND PROPAGATION	4.5	Comp	1st and 2nd	D510
595000219	COMPUTER NETWORKS	4.5	Comp	2nd	D230
595000221	COMMUNICATION THEORY	6	Comp	1st and 2nd	D250

THIRD YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000223	ECONOMICS AND BUSINESS MANAGEMENT	4.5	Comp	1st	D400
595000226	MODELLING LANGUAGES	4.5	Comp	1st	D230
595000227	SIGNALLING AND SWITCHING	6	Comp	1st	D230
595000229	AUDIOVISUAL SYSTEMS	4.5	Comp	1st	D250
595000228	TRANSMISSION SYSTEMS	6	Comp	1st	D230
595000225	OPERATING SYSTEMS	4.5	Comp	1st	D230
595000224	DIGITAL SIGNAL PROCESSING	4.5	Comp	1st and 2nd	D250
595000232	INFORMATION PROCESSING IN TELEMATIC APPLICATIONS	4.5	Comp	2nd	D230
595000230	ADVANCED NETWORKS AND SERVICES	6	Comp	2nd	D230
595000231	NETWORKS AND SERVICES SECURITY	6	Comp	2nd	D230
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	9	Elec		

FORTH YEAR

CODE	COURSES	ECTS	TYPE	SEMESTER	DEPARTMENT CODE
595000233	ENGLISH FOR PROFESSIONAL AND ACADEMIC COMMUNICATION (*)	6	Comp	1st and 2nd	D240
595000234	MOBILE COMMUNICATIONS NETWORKS	6	Comp	1st	D230
595000235	COMMUNICATIONS SOFTWARE	4.5	Comp	1st	D230
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	13.5	Elec	1st	
595000236	PROJECT MANAGEMENT	4.5	Comp	2nd	D400
595000237	ADVANCED TELEMATIC APPLICATIONS	4.5	Comp	2nd	D230
595000240	FINAL DEGREE PROJECT *	12	Comp	1st and 2nd	ALL
	ELECTIVE SUBJECTS/INTERNSHIP CREDITS	9	Elec	2nd	

(*) A B2 English certificate is required for the enrolment.

TYPE OF COURSES:
- *"Elem"* – Elementary.
- *"Comp"* – Compulsory.
- *"Elec"* – Elective.

ELECTIVE COURSES

TYPE	SPEC	SEMESTER	YEAR	CODE	COURSES	ECTS	REQUIREMENTS	DEPT. CODE
A	TL	1st	4th	595010247	APPLICATIONS DESIGN USING RASPBERRY PI	4.5	--	D230
			4th	595010248	INTERACTION SYSTEMS FOR SOCIAL ROBOTICS	4.5	222	D230 D250
			4th	595010241	WEB BASED TELEMATIC APPLICATIONS	4.5	222/232	D230
		2nd	3th	595010243	MOBILE COMMUNICATIONS NETWORKS	4.5	232/234	D230
			4th	595010242	NETWORK AND SYSTEM ADMINISTRATION	4.5	--	D230
			4th	595010250	DRONES FUNDAMENTALS AND APPLICATIONS	4.5	--	D230
			4th	595010251	DIGITAL FORENSIC ANALYSIS IN INFORMATION SYSTEMS	4.5	--	D230
B	EC	1st		595022027	DIGITAL DESIGN I	4.5	214	D230
				595022028	MICROPROCESSOR-BASED SYSTEMS	6	220	D230
		2nd		595022023	ANALOG ELECTRONICS I	6	208	D230
				595022033	PRODUCTION TECHNOLOGIES OF ELECTRONICS SYSTEMS	4.5	--	D510
	SC	1st		595022327	WAVE TRANSMISSION AND PROPAGATION	6	218	D250
				595022328	COMMUNICATIONS ELECTRONICS I	6	22322/22023	D250
		2nd		595022322	ANALOG ELECTRONICS	6	208/214	D250
				595022331	COMMUNICATIONS ELECTRONICS II	6	22328	D250
	SO	1st		595022126	AUDIO ENGINEERING I	4.5	22122	D250
				595022128	IMAGE AND VIDEO TECHNOLOGIES	6	22122	D250
		2nd		595022122	SOUND AND IMAGES FUNDAMENTALS	6	--	D250
				595022131	AUDIO ENGINEERING II	6	22126/22122	D250
C	-	1st		595030260	RENEWABLE ENERGY	3	--	D510
				595030261	SMART HOME	3	215	D230
				595030262	TELECOMUNNICATION COMMON INFRASTRUCTURES	3	--	D250
				595030271	INTRODUCTION TO PROFESSIONAL AND ACADEMIC COMMUNICATION II	3	30263	D240
		2nd		595030263	INTRODUCTION TO PROFESSIONAL AND ACADEMIC COMMUNICATION I	3	--	D240
				595030270	MANAGEMENT OF TECHNOLOGICAL INNOVATION	3	--	D230
				595030272	DISCRETE MATHEMATICS	3	--	D540
				595030273	DYNAMICAL SYSTEMS	3	201/202/209	D540
				595030274	CIS TO DEFENCE	3	--	D250
PE		1st and 2nd		595030275	P1 INTERNSHIP CREDITS	3	*	
				595030276	P2 INTERNSHIP CREDITS	4.5	*	
				595030277	P3 INTERNSHIP CREDITS	6	*	
				595030278	P4 INTERNSHIP CREDITS	9	*	
				595030279	P5 INTERNSHIP CREDITS	12	*	

ELECTIVE COURSES

- Each student must pass at least 31.5 elective ECTS to complete the degree.

TYPES OF ELECTIVE COURSES
Each academic year, the School Board will establish the range of optional courses.
A **Type -** Elective courses to strengthen the specialty.
B **Type -** Elective courses to strengthen other specialties.
C **Type -** Elective courses for the four degrees.
PE - Internship credits.

ADMISSION REQUIREMENTS FOR ELECTIVE COURSES
To enroll on an elective course, every student must have taken or passed the course(s) shown in the **REQUIREMENTS** box.

SPEC.:
EC: Electronics for Communications.
SC: Telecommunications Systems.
SO: Image and Sound.
TL: Telematics.

DEPARTMENT CODES
D230: Telematics and Electronic Engineering.
D240: Linguistics Applied to Science and Technology.
D250: Audiovisual and Communications Engineering.
D400: Organization Engineering, Business Management and Statistics.
D510: Physical Electronics, Electrical Engineering and Applied Physics.
D540: Mathematics Applied to Information and Communication Technologies.