

Nr. modul	Modul	Tutore	ore predare	ore eval.
0	Basics of telecommunications technologies and standards – main definitions and High Level Architectures	Marius IORDACHE	4	
1	Advanced telecommunication technologies and standard – Radio Access Networks: GSM, UMTS, LTE, WIFI & Fix Access Network: FTTx/GPON	Vlad Sorici	16	2
1.1	Site - Design and Layout	Codrut SAVULESCU - HUAWEI	10	
1.2	Power budget	Codrut SAVULESCU - HUAWEI		
1.3	Radio interface in 2G/3G/4G Access Network- description	Codrut SAVULESCU - HUAWEI		
1.4	Procedures, flows, signaling : call setup , handover intra and inter 2G/3G/4G Access Network	Codrut SAVULESCU - HUAWEI		
1.5	Capacity of the 2G/3G/4G Access Networks - voice / data	Codrut SAVULESCU - HUAWEI		
1.6	Indicatorilor de performanta si aplicatii practice in GSM si UMTS/LTE	Codrut SAVULESCU - HUAWEI		
1.7	Wi-Fi Service Provider	Vlad SORICI	4	
1.8	FTTx/GPON architectures	G.Marcu - HUAWEI	2	
1.9	Tests			2
2	Advanced telecommunication technologies and standards – Transmission Networks: PDH, SDH, MW Ethernet, FO WDM, FSO/E band	Elena Oproiu	16	2
2.1	MW&WDM technologies	Nokia	6	
2.2	Transmission Network Architectures	Elena Oproiu	1	
2.3	Design and optimization of a mw transmission network	Elena Oproiu	2	
2.4	Radio packet technology	Elena Oproiu	2	
2.5	MW transmission network performance	Elena Oproiu	2	
2.6	Optical Networks	Daniel Tichiu	3	
2.7	Tests			2
3	Advanced telecommunication technologies and standards – IP, MPLS, SDN & NFD	Horia Gunica	12	2
3.1	Networking - Routing	Horia Gunica	2	
3.2	Networking - Switching	Horia Gunica	2	
3.3	QoS	Horia Gunica	1	
3.4	IP/MPLS Networks	Cristian Custura	2	
3.5	Segment Routing – IP networks evolution	Horia Gunica	2	
3.6	IP network evolution – SDN and NFV	Nokia	3	
3.7	Tests			2
4	Advanced mobile communication technologies and standards – Core Networks	Lucian ISPAS	16	2
4.1	Circuit Switch Tehnology - Advanced description, procedures, flows, signalling	Lucian ISPAS	4	
4.2	Packet switch	Cristian Panes	4	
4.3	IMS Advanced Voice – VoLTE & VoWiFi	Ionut Liviu CIULEI	4	
4.4	Next generation HLR (SDM): description, functionalities: HLR, EPC HSS, IMS HSS.	Bogdan Alexandrescu - ZTE	4	
4.5	Tests			2
5	Advanced mobile communication technologies and standards – Multimedia & Smart services	Georgian FINICHIU	16	2
5.1	Introduction in VAS ecosystem; architecture of a VAS service	George SOARE	0.5	
5.2	mVAS : Voice Mail	George SOARE	1	
5.3	LBS : description of the service; high level arhitecture	George SOARE	1	
5.4	mVAS : Intro Multi VAS, SMSC	Marius GLOD	2	
5.5	SIM cards & SIM applications	Georgian FINICHIU	1.5	
5.6	M2M : description of the service; high level arhitecture	Georgian FINICHIU	1	
5.7	Smart Home	Georgian FINICHIU	1	
5.8	mVAS : USSD and WAP gateways evolution	Oana STANICA	1	
5.9	Mobile Device Management – Platforms & Functionalities	Alex OPREA	1	
5.10	mVAS enablers : MMS - Architecture, service flows and features	Alex IONESCU	1	
5.11	Orange TV services over DTH & OTT – technical presentation	Ana Rosu	2	
5.12	Ericsson Networked Society	Octav BALLIF - Ericsson	3	
5.13	Tests			2
6	Advanced telecommunication technologies and standards - Business Intelligent Platforms & Services	Irina APOSTOL	12	2
6.1	Business Analysis - Bridging Business Needs and IT Solutions	Gabriela PROROCIUC Florin Mihai Dina	2	
6.2	IT Systems supporting Customer Rating, Charging, Billing and Invoicing Functions	Irina APOSTOL	2	
6.3	IT Tools and Mechanism enabling the Customer Relationship Management	Catalin IORGANDA	2	
6.4	Online Technologies and Applications	Robert MIRCEA	2	
6.5	IT Technologies used in Business Reporting	Florin MANOLE	2	
6.6	Custom Developments Digitizing Processes across the Organization	Eduard Florin DUMITRU	2	
6.7	Tests			2
7	Network Planning and network resources management	Gabriel PAPUC	10	2
7.1	General Considerations Regarding Evolution Criteria of The Mobile Networks	Gabriel PAPUC	2	
7.2	Dimensioning of Radio Access Networks & Transmission Network	Gabriel PAPUC	2	
7.4	Tools. Case study	Gabriel PAPUC	4	
7.5	Dimensionarea retelei FTTx GPON	Bogdan HEBEAN - NEXANS	2	
7.6	Tests			2
8	Mobile Devices & Mobile Applications	Constantin Vilcu	10	1
8.1	Mobile devices	Constantin Vilcu	2	
8.2	IoT Applications Development	Adrian Stoicescu	2	
8.3	Android Applications Development	Eduard Popovici - ETTI	6	
8.4	Tests			1
9	CyberSecurity	Tiberiu Tabac	7	1
9.1	Network Security Attack Types and Attack Vectors	SRI/Cyberint	2	
9.2	National and International Regulations and Directives Regarding CyberSecurity	SRI/Cyberint	1	
9.3	Cyber Attack Prevention & Combat Methods of Cyber Attacks: Architecture & Recomandations	Tiberiu Tabac/ Marius iordache	2	
9.4	Cyber Attack Prevention & Combat Methods of Cyber Attacks: Functionalities, Reports and hands on	Fortinet	2	
9.5	Tests			1
10	IT&C New Trends: Technology, Architecture, Services	Cristian PATACHIA	15	2
10.1	Next Generation Emergency Services	Marius Iordache	2	
10.2	Big Data & API Monetization - Case Study	Cristian PATACHIA	2	
10.3	Internet of Things si Programabilitate	Bogdan Doinea - Cisco	2	
10.4	Internet of Things hands on based open platforms/sw	Mihai Buf	2	
10.5	Smart Territories: Smart Cities, Agritech, Retail	Catalin Brezeanu	3	
10.6	New features - 5G networks	Catalin Tasloan	4	
10.7	Tests			2
11	The Economics of Telecom Networks	Nicolae OACA - ANCOM	8	1
11.1	Telecom Market	Nicolae OACA - ANCOM	4	
11.2	European and International Regulations in The Telecom Field	Nicolae OACA - ANCOM	4	
11.3	Tests			1
12	Soft skills & Patents and Inventions	Gabriel PAPUC	8	5
12.1	Patents and Inventions / Case Studies	Gabriel PAPUC	4	
12.2	Soft skills	Carmen ANASTASESCU	4	
12.3	Test Soft skills	Carmen ANASTASESCU		4
12.4	Test brevete			1

Total ore predare 150
Total ore evaluare 22
Total Ore 172