SYLLABUS

1. Program information

1.1 Higher education institution	Technical University of Cluj-Napoca
1.2 Faculty	Faculty of Electronics, Telecommunications and information Technology
1.3 Department	Communications
1.4 Field of study	Electronic Engineering, Telecommunications and Information Technologies
1.5 Cycle of study	Bachelor of Science
1.6 Study program / Qualification	Telecommunications Technologies and Systems/ Engineer
1.7 Form of education	IF – full-time education

2. Course information

2.1 Course title	Graduation Project				Course code		TST-E58.00/
2.2 Course coordinator	-						
2.3 Seminar/ laboratory/ project/ practical activity coordinator	*Diploma Thesis Coordinator*						
2.4 Year of study	4	2.5 Semester	8	2.6 Type of assessment			E
2.7 Course status	Formative category						DS
	Optionality						DOB

3. Estimated total time

3.1 Hours per week	4	of which:	3.2 Lecture	-	3.3 Seminar	-	3.3 Laboratory	-	3.3 Project	4	3.3 Practical training	-
3.4 Hours per semester	56	of which:	3.5 Lecture	-	3.6 Seminar	-	3.6 Laboratory	-	3.6 Project	56	3.3 Practical training	-

3.7 Time distribution (hours per semester) for individual study and assessment:	
(a) Assessment	3
(b) Study using textbook, course materials, bibliography, and notes	32
(c) Additional documentation in the library, on specialized electronic platforms, and in the field	3
(d) Preparation for seminars/laboratories, assignments, reports, portfolios and essays	3
(e) Tutoring	3
(f) Other activities	-
3.8 Total hours of individual study and assessment (sum of (3.7(a)...3.7(f))	44
3.9 Total hours per semester (3.4+3.8)	100
3.10 Number of credits	4

4. Prerequisites (where applicable)

4.1 curriculum	N/A
4.2 competencies	N/A

5. Requirements (where applicable)

5.1. for the development of the lecture	Cluj-Napoca
5.2. for the development of the seminar/ laboratory/ project	Cluj-Napoca

6. Specific competencies acquired

Professional competencies	C6. Solving specific problems of the broadband communications networks: propagation in different environment, circuits and equipment for high frequencies (microwaves and optical).
Transversal competencies	CT1: Methodical analysis of the problems encountered in the activity, identifying the elements for which there are established solutions, thus ensuring the fulfillment of professional tasks. CT2: Defining the activities in each stage and distributing them to the subordinates with the complete explanation of the duties, according to the hierarchical levels. It ensures the efficient exchange of information and inter-human communication. CT3: Adaptation to new technologies, professional and personal development, through continuous training. Use of printed documentation sources, specialized software and electronic resources in Romanian and in (at least) one language of international circulation.

7. Expected learning outcomes

Knowledge	N/A
Skills	N/A
Responsibility and autonomy	N/A

8. Course objectives (based on the grid of specific competencies acquired)

8.1 General objective of the course	Development of diploma project (fundamentals and design parts) in order to obtain the degree: B.Sc. in Telecommunications Technologies and Systems

8.2 Specific objectives	1. Obtaining the fundamental knowledge and designing the proposed solution of the diploma project. 2. Preliminary presentation in a competition such as the Student Symposium in Electronics and Telecommunications SSET (optional)

9. Contents

9.3 Project	**No. of hours**	**Teaching methods**	**Remarks**
1. Research Planning. State-of-the-art Study	1	N/A	N/A
2. Fundamental Knowledge. Solution Design	1		
3. Theoretical Evaluation of the Solution	1		
4. Proposal for implementation/simulation methods. Experiments Planning	1		
References: 1. Recommended by the Diploma Thesis Coordinator **On-line references:** 2. Recommended by the Diploma Thesis Coordinator			

10. Alignment of the course contents with the expectations of the epistemic community, professional associations, and representative employers in the field related to the program

The discipline content and the acquired skills are in agreement with the expectations of the professional Competences acquired will be used in the following COR occupations (Electronics Engineer; Telecommunications Engineer; Electronics Design Engineer; System and Computer Design Engineer; Communications Design Engineer) or in the new occupations proposed to be included in COR (Sale Support Engineer; Multimedia Applications Developer; Network Engineer; Communications Systems Test Engineer; Project Manager; Traffic Engineer; Communications Systems Consultant).

11. Assessment

Activity type	**11.1 Assessment criteria**	**11.2 Assessment methods and type of assessment: continuous**	**11.3 Weight in final grade**
11.4 Course	-	-	-
11.5 Project	Level of acquired knowledge and abilities	• Absent = the student did not select a B.Sc. project • 4 = the student selected a B.Sc. project but he/she did not participate in any activities • 5 = the student prepared the semester activity plan • 6,7 = additionally the student conducted research for the project • 8,9 = additionally the student presented partial results obtained during the semester • 10 = additionally the student made corrections to the partial results	M = 1 …10 (100%)
11.6 Minimum performance standard			

Qualitative point of view

Minimal theoretical and practical knowledge:

- ✓ Development of diploma project: fundamentals parts in order to obtain the degree B.Sc. in Telecommunications Technologies and Systems.
- ✓ Development of diploma project: design parts in order to obtain the degree B.Sc. in Telecommunications Technologies and Systems.

Minimal acquired competences:

- ✓ Obtaining the fundamental knowledge and designing the proposed solution for the diploma project.

Quantitative point of view

- ✓ Mark ≥ 5

Completion date:	**Course coordinators**	**teaching rank, title First name LAST NAME**	**Signature**
16.06.2026			
	Practice	*Diploma Thesis Coordinator*	

Approval of the Head of the Department coordinating the course, only if this differs from the department organizing the study program	Head of Department

Date of approval by the Council of the Communications Department 19.06.2026	Head of Communications Department Prof. Virgil DOBROTA, Ph.D.
Date of approval by the Council of the Faculty of Electronics, Telecommunications and Information Technology 30.06.2026	Dean, Prof. Ovidiu-Aurel POP, Ph.D.