SYLLABUS

1. Data about the program of study

1.1 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	Master of Science
1.6 Program of study / Qualification	Telecommunications/ Master
1.7 Form of education	Full time
1.8 Subject code	TC-E21.00

2. Data about the subject

2.1 Subject name	Dissertation Project Work						
2.2 Subject area	Theoretical area Methodological area Area of analysis						
2.3 Course responsible	-						
2.4 Teacher in charge with seminar / laboratory / project	Teachers from departments that are involved in the program						
2.5 Year of study	2	2.6 Semester	4	2.7 Assessment	C	2.8 Subject category	DS/DI

3. Estimated total time

3.1 Number of hours per week	9	of which: 3.2 course	0	3.3 project	9
3.4 To Total hours in the curriculum	126	of which: 3.5 course	0	3.6 project	126

Distribution of time	hours
Manual, lecture material and notes, bibliography	30
Supplementary study in the library, online specialized platforms and in the field	30
Preparation for seminars / laboratories, homework, reports, portfolios and essays	30
Tutoring	24
Exams and tests	10
Other activities:	0

3.7 Total hours of individual study	124
3.8 Total hours per semester	250
3.9 Number of credit points	10

4. Pre-requisites (where appropriate)

4.1 curriculum	No
4.2 competence	English language

5. Requirements (where appropriate)

5.1. for the course	Cluj-Napoca
5.2. for the seminars / laboratories / projects	Cluj-Napoca

6. Specific competences

Professional competences	C6. Solving specific problems of the broadband communications networks: propagation in different environment, circuits and equipment for high frequencies (microwaves and optical).
Cross competences	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. Discipline objectives (as results from the key competences gained)

7.1 General objective	Preparation of the dissertation project (part of the current stage, theoretical foundation and implementation of the project) for the graduation of the Telecommunications specialization
7.2 Specific objectives	1. Obtaining fundamental knowledge and designing the solution proposed in the dissertation project. 2. Preliminary capitalization of the proposed solution during the SSET Student Symposium in Electronics and Telecommunications or other conferences.

8. Contents

8.2 Project	Teaching methods	Notes
1. Research planning	Sudy	N/A
2. Bibliographic study		
3. Fundamental knownledge		
4. Solution design		
5. Theoretical evaluation of the solution		
6. Proposal of implementation / simulation methods		
7. Experiment planning		
Bibliography Virtual teaching materials, from the UTCN library and from other libraries, according to those used at the research laboratory where the activity takes place		

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9. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

The discipline content and the acquired skills agree 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).

10. Evaluation

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in the final grade
10.5 Applications	Achieving the theoretical and design objectives of the dissertation project. *Grading criteria:* • Absent = Unassigned dissertation thesis topic • 4 = assignment of dissertation but not lack of participation to any activity • 5 = the half-yearly activity plan drawn up • 6 or 7 = In addition, documentation was made for the dissertation • 8 or 9 = in addition, partial results obtained during the semester were presented • 10 = In addition, corrections were made to partial results	Colloquium	100%

10.6 Minimum standard of performance

Qualitative point of view:

Minimal theoretical knowledge:

✓ Preparation of the dissertation project (state ot the art, theoretical fundamentals and implementation) for graduation of the specialization.

Minimal practical competences:

✓ Obtaining fundamental knowledge and designing the solution proposed in the dissertation project. Preliminary capitalization of the solution during the SSET Student Symposium in Electronics and Telecommunications or other conferences.

Quantitative point of view:

✓ The mark at the verification must be at least 5

Date of filling in:	Responsible	Title First name SURNAME		Signature
20.06.2024	Applications	Advisor		

Date of approval in the Council of the Communications Department 10.07.2024	Head of Communications Department Prof. Virgil DOBROTA, Ph.D.
Date of approval in the Council of the Faculty of Electronics, Telecommunications and Information Technology 11.07.2024	Dean Prof. Ovidiu POP, Ph.D.