SYLLABUS

1. Data about the program of study

1.1	Institution	Technical University of Cluj-Napoca
1.2	Faculty	Faculty of Electrical Engineering
1.3	Department	Electrotechnics and Measurements
1.4	Field of study	Electrical Engineering
1.5	Cycle of study	Bachelor of Science
1.6	Program of study/ Qualification	Electrical System Cluj-Napoca in English language
1.7	Form of education	Full time
1.8	Subject code	34.00

2. Data about the subject

2.1	Subject name				Domain-Specific Practical Training	
2.2	Course responsible/ lecturer				Prof. Eng. MICU Dan Doru, PhD	
2.3	Teachers in charge of Seminars/ Laboratory/ Project				Prof. Eng. MICU Dan Doru, PhD	
2.4 Year of study		II	2.5 Semester	2	2.6 Type of assessment *(E – exam, C – colloquium, V – verification)*	V
2.7 Subject category		*DF – fundamental, DD – in the field, DS – specialty, DC – complementary*				DD
		DI – compulsory, DO – elective, Dfac – optional				DI

3. Estimated total time

3.1 Number of hours per week:	30	of which	3.2 Course		3.3 Seminar		3.3 Laboratory		3.3 Practical training	30
3.2 Total hours per semester	90	of which	3.5 Course		3.6 Seminar		3.6 Laboratory		3.6 Practical training	90

3.7 Individual study:	
(a) Manual, lecture material and notes, bibliography	
(b) Supplementary study in the library, online and in the field	2
(c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays	2
(d) Tutoring	2
(e) Exams and tests	2
(f) Other activities	2

3.8 Total hours of individual study *[sum (3.7(a) to 3.7(f))]*	10
3.9 Total hours per semester *[sum of 3.4 and 3.8]*	100
3.10 Number of credit points	4

4. Prerequisites (where applicable)

4.1	Curriculum	N/A
4.2	Competences	N/A

5. Requirements (where appropriate)

5.1	For the course	
5.2	For the applications	The presence for practical training is mandatory

6. Specific competences

Professional competences	Application of core principles in electronics and electrical engineering within the context of electrical systems. Upon completion of practical training, students will be able to: Identify and interpret symbols used in electrical schematics Demonstrate fundamental knowledge of the operation and installation of measurement and control instrumentation Demonstrate fundamental knowledge of the operation and installation of electrical equipment Recognize components used in electronic schematics Read and accurately interpret electronic diagrams Be familiar with the instruments and equipment commonly used in electrical engineering
Cross competences	Define project objectives, identify available resources, establish completion conditions, plan work stages and timelines, and assess associated risks.

7. Expected learning outcomes

Knowledge	The student/graduate identifies, formulates, and analyzes the principles of electrical power circuits and the associated risks.
Abilities	The student/graduate adapts product designs or components to ensure they meet specified requirements. The student/graduate detects faults in electrical circuits and is able to repair them. The student/graduate tests and replaces electrical components and wiring using measuring instruments, soldering equipment, and hand tools. The student/graduate assembles electromechanical equipment and devices in accordance with their specifications. The student/graduate interprets electrical schematics showing connections between devices, including electrical and signal connections.
Responsibility and autonomy	The student/graduate selects and uses relevant bibliographic sources specific to the field. The student/graduate demonstrates autonomy in learning on specific engineering-related topics.

8. Discipline objectives (based on specific competencies acquired)

8.1	General objective	Conducting a comprehensive review of the assigned topic within the internship setting and establishing an appropriate methodology for addressing its practical component Undertaking in-depth research on the assigned topic Defining the objectives of the internship and implementing the prescribed activity plan
8.2	Specific objectives	Compiling a structured synthesis report of the activities performed (Practical training logbook)

9. Contents

9.1. Course (Lectures)		Number of hours	Teaching methods	Additional remarks
1				
Bibliography				

8.2. Applications - Seminar /Laboratory/Project		Number of hours	Teaching methods	Additional remarks
1	Defining the objectives of the internship activities. Study of electrical systems in operation.	75		
2	Preparation of a comprehensive report summarizing the activities carried out (Practical training logbook)	15		
Bibliography [1] Provided at the practical training location				

10. Alignment of course content with expectations of the epistemic community, professional associations, and representative employers in the field

When defining the practical training activities, the requirements and expectations of the industrial environment will be taken into account.

11. Assessment

Activity type	11.1 Assessment criteria	11.2 Assessment methods	11.3 Weight in the final grade (%)
11.4 Course			...
11.5 Aplications	Activity during the practical training (PASS / FAIL)	Continuous activity assessment and periodic evaluation Presentation/defense of the internship logbook	40% 60%
11.6 Minimum standard of performance: Preparation and presentation of the practical training logbook			

Date of completion	**Lecturers**	**Title/ Surname/ Name:**	**Signature**
January 2026	Course		
	Applications Seminar/ Laboratory/ Project	Prof. Eng. MICU Dan Doru, PhD	

Date of approval in the ETHM Department Council January 2026	**Head of Department:** Prof. Eng. MICU Dan Doru, PhD
Date of approval in the Faculty of Electrical Engineering Council February 2026	**Dean:** Assoc. Prof. Eng. CZIKER Andrei, PhD