SYLLABUS[1]

1. Information about the program

1.1 Higher education institution	Politehnica University Timisoara
1.2 Faculty[2] / Department[3]	Electronics, Telecommunications and Information Technologies
1.3 Chair	—
1.4 Field of study (name/code[4])	Electronics and telecommunications engineering / L20202010010
1.5 Study cycle	Bachelor
1.6 Study program (name/code/qualification)	TECHNOLOGY AND TELECOMMUNICATIONS SYSTEMS / 20202010020

2. Information about the discipline

2.1 Name of discipline			Practical training				
2.2 Coordinator (holder) of course activities			Assoc. prof. dr. eng. Adrian Popovici				
2.3 Coordinator (holder) of applied activities [5]			Assoc. prof. dr. eng. Adrian Popovici				
2.4 Year of study[6]	III	**2.5** Semester	1, 2	**2.6** Type of evaluation	C	**2.7** Type of discipline	compulsory

3. Total estimated time (hours / semester of didactic activities)

3.1 No. of hrs. / week	10 , of which:	**3.2** course		**3.3** seminar/laboratory/ project/training	10
3.4 Total no. of hrs. in the education curricula	240 , of which:	**3.5** course		**3.6** applied activities	240
3.7 Distribution of time for individual activities related to the discipline					hrs.
Study using a manual, course materials, bibliography and lecture notes					
Additional documentation in the library, on specialized electronic platforms and on the field					
Preparation for seminars / laboratories, homeworks, assignments, portfolios, and essays					
Tutoring					
Examinations					
Other activities 18					
Total hrs. of individual activities					
3.8 Total hrs. / semester[7]	240				
3.9 No. of credits	8				

4. Prerequisites (where applicable)

4.1 Curriculum	• Electronic Circuits, Analog and digital Integrated Circuits, Computer Aided Design, Programming Languages, Data Bases, Radicommunications, Data Communications, Power Electronics, Mobile Communications
4.2 Competencies	• Getting familiar to the fundamentals of electronic devices, circuits, systems, instrumentation and electronic technology, as well as to the use of the most widespread programming languages

5. Conditions (where applicable)

5.1 of the course	•
5.2 to conduct practical activities	• Relevant companies in the field as UPT partners

6. Specific competencies acquired

[1] The form corresponds to the Syllabus promoted by OMECTS 5703/18.12.2011 (Annex3).
[2] The name of the faculty which manages the educational curriculum to which the discipline belongs.
[3] The name of the department entrusted with the discipline, and to which the course coordinator / holder belongs.
[4] Fill in the code provided in GD no. 493/17.07.2013.
[5] The applied activities refer to: seminar (S) / laboratory (L) / project (P) / practice/training (Pr).
[6] The year of study to which the discipline is provided in the curriculum.
[7] It is obtained by summing up the number of hrs. from 3.4 and 3.7.

Professional competencies[8]	Design and use of low and medium complexity hardware and software applications typical to the telecommunications field The use of knowledge and basic methods in radiocommunications, digital telephony, data communications, power electronics, audio and video systems The ability of solving the technological problems in telecommunications The adequate use of standard criteria and methods in order to evaluate the quality, advantages and limits of the planning, management and operation of the processes and manufacturing systems, as well as quality assurance and product inspection, including dedicated software programs. • Design, life-cycle management, integration and integrity of hardware, software and communication systems.
Transversal competencies	• Systematic analysis of the problems encountered in the activity, by identifying the elements for which there exist well established solutions • To properly define the milestones and the way the tasks are assigned, by explaining the duties the to the hierarchy below, thus ensuring the efficient exchange of information and interhuman communication • Applying the values and ethics of the engineering profession when responsibly executing the tasks in the context of restricted autonomy and qualified assistance. To promote the convergent and divergent logical reasoning, ,the practical applicability, the evaluation and self assessment in taking decisions. • Effective use of language skills and knowledge in information and communication technologies.

7. Objectives of the discipline (based on the grid of specific competencies acquired)

7.1 General objective of the discipline	• Make the students familiar to the productions processes, to the way the companies are organized, developing teamwork skills, applying the knowledge acquired during the classes to a concrete situation in a telecommunications company. Acquiring practical knowledge to carry out a project, starting from the specifications and up to the testing and documentation phase
7.2 Specific objectives	• To develop a project containing hardware and/or software elements, starting from the project specifications, interacting with teammates, possibly with the beneficiary. Troubleshooting, testing and documenting the project. Development and use of technical documentation (execution, installation, operation and services), industrial production process for electronics and telecommunications equipment, testing of electronic equipment. Troubleshooting, monitoring of complex equipment in operation, development of new subassemblies or products (hardware and software). Applied research activity.

8. Content

8.1 Course	No. of hours	Teaching methods

[8] The professional competencies and the transversal competencies will be treated according to the Methodology of OMECTS 5703/18.12.2011. The competencies listed in the National Register of Qualifications in Higher Education [Registrul Naţional al Calificărilor din Învăţământul Superior RNCIS] (http://www.rncis.ro/portal/page?_pageid=117,70218&_dad=portal&_schema=PORTAL) will be used for the field of study from 1.4 and the program of study from 1.6 of this form, involving the discipline.

Bibliography[9]		
8.2 Applied activities[10]	No. of hours	Teaching methods
Specifications study, project development and implementation, testing the project and preparing the project documentation.	240	Training within the company where the internship takes place, realization of the practical project
Bibliography [11] 1. Regulament privind cadrul general de organizare si desfasurare a practicii studentilor in UPT - http://www.upt.ro/img/files/practica/2020/Regulament-desf-practica-studenti.pdf 2. Regulamentul de practica la nivel de facultate - https://www.etc.upt.ro/attachments/article/1989/Regulamentul_practica_facultate_var4.pdf 3. Bibliografia selectiva oferita de tutorele din companie		

9. Corroboration of the content of the discipline with the expectations of the main representatives of the epistemic community, professional associations and employers in the field afferent to the program

- Our partners (Nokia, Continental, Hella, Elektrobit, Vitesco, Elster, Yazaki, Veoneer, Huf, etc.) can verify not only the theoretical and practical knowledge, but also the way of teamwork integration in an industrial environment.

10. Evaluation

Type of activity	**10.1** Evaluation criteria	**10.2** Evaluation methods	**10.3** Share of the final grade
10.4 Course			
10.5 Applied activities	**S:**		
	L:		
	P:		
	Pr: To create a file containing the technical documentation of the project Answers to questions related to the carried out activity. The quality of the knowledge gained References from the tutor	Colloquy Verification of the documents related to the practical training.. Discussions with the student on the carried out activity	40% 30% 30%

[9] At least one title must belong to the department staff teaching the discipline, and at least 3 titles must refer to national and international works relevant for the discipline, and which can be found in the Politehnica University Library.
[10] The types of applied activities are those specified in footnote 5. If the discipline contains several types of applied activities, then these will be written consecutively in the lines of the table below. The type of activity will be written in a distinct line, as „Seminar:", „Laboratory:", „Project:" and/or „Practice/Training:".
[11] At least one title must belong to the staff teaching the discipline.

10.6 Minimum performance standard (minimum amount of knowledge necessary to pass the discipline and the way in which this knowledge is verified)
• Fulfillment of at least 50% of the tasks imposed by the coordinator, in accordance with the practice theme. All documents related to practical training should be updated and correctly completed.

Date of completion	**Course coordinator (signature)**	**Coordinator of applied activities (signature)**
06.30.2019	……	……
Head of Department (signature)	**Date of approval in the Faculty Council**[12]	**Dean (signature)**
……	07.01.2019	……

[12] Avizarea este precedată de discutarea punctului de vedere al board-ului de care aparţine programul de studiu cu privire la fişa disciplinei.