SYLLABUS

1. Data about the program of study

1.1 Institution	The Technical University of Cluj-Napoca
1.2 Faculty	Faculty of Automation and Computer Science
1.3 Department	Computer Science
1.4 Field of study	Computer Science and Information Technology
1.5 Cycle of study	Bachelor of Science
1.6 Program of study / Qualification	Computer science / Engineer
1.7 Form of education	Full time
1.8 Subject code	58.

2. Data about the subject

2.1 Subject name	*Practical work for the graduation project*				
2.2 Course responsible / lecturer	Diploma project supervisor				
2.3 Teachers in charge of seminars / laboratory / project	As decided by the supervisor				
2.4 Year of study	IV	2.5 Semester	2	2.6 Type of assessment (E - exam, C - colloquium, V - verification)	V
2.7 Subject category	*DF – fundamentală, DD – în domeniu, DS – de specialitate, DC – complementară*				DS
	DI – Impusă, DOp – opțională, DFac – facultativă				DI

3. Estimated total time

3.1 Number of hours per week	5	of which:	Course		Seminars		Laboratory	Project	5
3.2 Number of hours per semester	70	of which:	Course		Seminars		Laboratory	Project	70
3.3 Individual study:									
(a) Manual, lecture material and notes, bibliography									20
(b) Supplementary study in the library, online and in the field									8
(c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays									
(d) Tutoring									
(e) Exams and tests									2
(f) Other activities:									

3.4 Total hours of individual study (suma (3.3(a)…3.3(f)))	30
3.5 Total hours per semester (3.2+3.4)	100
3.6 Number of credit points	4

4. Pre-requisites (where appropriate)

4.1 Curriculum	
4.2 Competence	

5. Requirements (where appropriate)

5.1. For the course	
5.2. For the applications	

6. Specific competence

6.1 Professional competences	**C4 -** Improving the performances of the hardware, software and communication systems (2 credits) **C4.1** - Identifying and describing the defining elements of the performances of the hardware, software and communication systems **C4.2** - Explaining the interaction of the factors that determine the performances of the hardware, software and communication systems **C4.3 -** Applying the fundamental methods and principles for increasing the performances of the hardware, software and communication systems

	C4.4 - Choosing the criteria and evaluation methods of the performances of the hardware, software and communication systems
	C4.5 - Developing professional solutions for hardware, software and communication systems based on performance optimization
	C5 - Designing, managing the lifetime cycle, integrating and ensuring the integrity of hardware, software and communication systems (2 credits)
	C5.1 - Specifying the relevant criteria regarding the lifetime cycle, quality, security and the computing system's interaction with the environment and the human operator
	C5.2 - Using interdisciplinary knowledge for adapting the computing system to the specific requirements of the application field
	C5.3 - Using fundamental principles and methods for ensuring the security, the safety and ease of exploitation of the computing systems
	C5.4 - Proper utilization of the quality, safety and security standards in the field of information processing
	C5.5 - Creating a project including the problem's identification and analysis, its design and development, also proving an understanding of the basic quality requirements
6.2 Cross competences	N/A

7. Discipline objective (as results from the *key competences gained*)

7.1 General objective	Elaboration of the diploma thesis.
7.2 Specific objectives	To achieve these general objectives, students will integrate the research results in a paper to comply with the requirements of the department.

8. Contents

8.1 Lectures	Hours	Teaching methods	Notes
Bibliography			

8.2 Applications – Seminars/Laboratory/Project	Hours	Teaching methods	Notes
Bibliography			
For the diploma thesis preparation, the references are those recommended by the supervisor, as well as those obtained by studying the bibliography. For fundamental and specific knowledge assessment, the bibliography is identical to the minimal bibliography for the each of the undergraduate courses			

*Se vor preciza, după caz: tematica seminariilor, lucrările de laborator, tematica și etapele proiectului.

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

Since this topic is important for the development of a quality diploma, its content aligns the research/ design/ development topics at the European and worldwide level. The content of the course has been discussed with key actors in this area (from both the academic and industry environment)

10. Evaluation

Activity type	Assessment criteria	Assessment methods	Weight in the final grade
Course			
Seminar			
Laboratory			
Project	diploma thesis	diploma thesis	100%
Minimum standard of performance: diploma thesis			

Date of filling in: 28.06.2023	**Teachers**	**Title First name Last name**	**Signature**
	Course	Diploma project supervisor	
	Applications		

Date of approval in the department	Head of department, Prof. dr. ing. Rodica Potolea
Date of approval in the Faculty Council	Dean, Prof. dr. ing. Liviu Miclea