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	57.

2. Data about the subject

2.1 Subject name				***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	4	of which:	Course		Seminars		Laboratory		Project	4
3.2 Number of hours per semester	56	of which:	Course		Seminars		Laboratory		Project	56
3.3 Individual study:										
(a) Manual, lecture material and notes, bibliography										
(b) Supplementary study in the library, online and in the field										54
(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)))	44
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 **C6 -** Designing intelligent systems (2 credit) **C6.1** - Describing the components of intelligent systems **C6.2** - Using domain-specific tools for explaining and understanding the functioning of intelligent systems **C6.3** - Applying the fundamental methods and principles for specifying solutions for typical problems using intelligent systems **C6.4** - Choosing the criteria and evaluation methods for the quality, performances and limitations of intelligent systems **C6.5** - Developing and implementing professional projects for intelligent systems
6.2 Cross competences	**CT1** Honorable, responsible, ethical behavior, in the spirit of the law, in order to ensure the professional reputation (1 credit) **CT2** Identifying, describing and conducting processes in the projects management field, assuming different roles inside the team and clearly and concisely describing, verbally or in writing, in Romanian and in an international language, the results from the activity field. (1 credit) **CT3** Demonstrating the spirit of initiative and action for updating professional, economical and organizational culture knowledge (1 credit)

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

7.1 General objective	
7.2 Specific objectives	

8. Contents

8.1 Lectures	Hours	Teaching methods	Notes
Bibliography -			
8.2 Applications – Seminars/Laboratory/Project	Hours	Teaching methods	Notes
• Establish the topic of the diploma project • Establish the main chapters of the diploma thesis • Documentation on the topic of the diploma thesis • Write a synthesis of the bibliographic study			
Bibliography To be established by the supervisor of the diploma thesis.			

* *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

10. Evaluation

Activity type	Assessment criteria	Assessment methods	Weight in the final grade
Course			
Seminar			
Laboratory			
Project		The examination consists of the verification of the preliminary contents of the diploma work and the verification of the synthesis of the bibliographic study.	100%
Minimum standard of performance: Note=5			

Date of filling in:	**Titulari**	**Titlu Prenume NUME**	**Semnătura**
	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