

Field of study: **SYSTEMS ENGINEERING (INGINERIA SISTEMELOR)**
Programme of study: **AUTOMOTIVE EMBEDDED SOFTWARE (SISTEME ÎNCORPORATE PENTRU DOMENIUL AUTO)**

Form of education: **with frequency**
Length of study: **2 years**

Fundamental domain of study (DFI): **ENGINEERING SCIENCES (ŞTIINŢE INGINEREŞTI)**
Branch of science (RSI): **SYSTEMS ENGINEERING, COMPUTERS AND INFORMATION TECHNOLOGY (INGINERIA SISTEMELOR, CALCULATOARE ŞI TEHNOLOGIA INFORMAŢIEI)**
Domain of study of master (DSU_M): **SYSTEMS ENGINEERING (INGINERIA SISTEMELOR)**

Cod DFI	Cod RSI	Cod DSU_M
20	60	20

level	c1c2c3	a1a2
M	024	19

CURRICULUM
Academic year 2019 - 2020
1st YEAR

		SEMESTER 1										SEMESTER 2									
1	Embedded Systems I										Embedded Systems II										
	M024.19.01.A1	6	E	28	0	28	0		DA	28	M024.19.02.V1	6	E	42	0	28	0		DCAV	28	
2	Software Project Management										Communications Skills										
	M024.19.01.S2	5	E	28	0	14	0		DS	28	M024.19.02.S2	4	E	0	28	0	0		DS	28	
3	Software Engineering I										Embedded Systems Testing										
	M024.19.01.A3	5	E	28	0	14	0		DA	28	M024.19.02.S3	5	E	21	0	0	21		DS	28	
4	Networks for Embedded Systems										Dynamic Systems and Stability in Automotive Control										
	M024.19.01.V4	6	E	28	0	28	0		DCAV	28	M024.19.02.V4	6	E	28	0	14	14		DCAV	28	
5	Research Activity 1										Academic Ethics and Integrity										
	M024.19.01.V5	8	D	0	0	0	0	168	DCAV	84	M024.19.02.C5	2	D	14	7	0	0		DC	21	
6											Research Activity 2										
											M024.19.02.V6	7	D	0	0	0	0	147	DCAV	63	
7																					
total / semester	VAi:	196				VPI:	196				VAi:	217				VPI:	196				
	VA (VAi+VAp):	364				VCA (VA+VPI):	560				VA (VAi+VAp):	364				VCA (VA+VPI):	560				
	credits	30				evaluations:	4E, 1D				credits	30				evaluations:	4E, 1D				
total / week	VAi:	14.0				VPI:	14.0				VAi:	15.5				VPI:	14.0				
	VA (VAi+VAp):	26.0				VCA (VA+VPI):	40.0				VA (VAi+VAp):	26.0				VCA (VA+VPI):	40.0				
	distribution	8.0 0.0 6.0 0.0 12.0				(c, s, l, p, VAp)					distribution	7.5 2.5 3.0 2.5 10.5				(c, s, l, p, VAp)					

Academic year 2019 - 2020
2nd YEAR

		SEMESTER 3										SEMESTER 4									
1	Independent optional course 1										Research/Applied activities										
	M024.19.03.A1-ij	5	E	28	0	21	0		DA	28	M024.19.04.V1	10	D	0	0	0	0	168	DCAV	98	
2	Independent optional course 2										Preparation of dissertation thesis										
	M024.19.03.V2-ij	5	E	28	0	21	0		DCAV	28	M024.19.04.V2	10	D	0	0	0	0	196	DCAV	98	
3	Independent optional course 3										Defending dissertation thesis										
	M024.19.03.V3-ij	6	E	28	0	0	21		DCAV	28	M024.19.04.S3	10	E						DS		
4	Independent optional course 4																				
	M024.19.03.V4-ij	6	E	28	0	0	21		DCAV	28											
5	Research Activity 3																				
	M024.19.03.V5	8	D	0	0	0	0	168	DCAV	84											
6																					
7																					
total / semester	VAi:	196				VPI:	196				VAi:	0				VPI:	196				
	VA (VAi+VAp):	364				VCA (VA+VPI):	560				VA (VAi+VAp):	364				VCA (VA+VPI):	560				
	credits	30				evaluations:	4E, 1D				credits	30				evaluations:	1E, 2D				
total / week	VAi:	14.0				VPI:	14.0				VAi:	0.0				VPI:	14.0				
	VA (VAi+VAp):	26.0				VCA (VA+VPI):	40.0				VA (VAi+VAp):	26.0				VCA (VA+VPI):	40.0				
	distribution	8.0 0.0 3.0 3.0 12.0				(c, s, l, p, VAp)					distribution	0.0 0.0 0.0 0.0 26.0				(c, s, l, p, VAp)					

Competences:

1. Problem definition, solution identification and project management of embedded systems.
 2. Application of testing and diagnosis models and of quality engineering principles to software applications implemented on embedded systems.
 3. Development of hardware and software applications for automotive systems using up-to-date informatics technologies.
 4. Innovating solving of core problems in inter-disciplinary co-operation and team-working.
- CT1. Carry out principles of ethics, professional values and responsible execution for professional tasks related to research abilities under autonomous decision making based on fair judgment and self-evaluation.
- CT2. Completing activities and executing roles that are intrinsic to team-work on different hierarchical levels, proving leadership and entrepreneurship skills, promoting dialogue, cooperation, positive attitudes, respect to others, promoting diversity, multiculturalism and self-improvement.
- CT3. Correct self-evaluation for continuous professional improvement to enter the work market, adapt to its needs and self-development for efficient use of language and knowledge in information technology and communication.

OPTIONAL COURSES NAMES
Academic year 2019 - 2020
2nd YEAR

SEMESTER 3													SEMESTER 3												
01	Independent optional course 1 Fault detection and diagnosis												Independent optional course 3 Embedded Systems Security												
	M024.19.03.A1-01	5	E	28	0	21	0		DA	28	M024.19.03.V3-01	6	E	28	0	0	21		DCAV	28					
02	Independent optional course 1 Multi-agent systems												Independent optional course 3 Software Engineering II												
	M024.19.03.A1-02	5	E	28	0	21	0		DA	28	M024.19.03.V3-02	6	E	28	0	0	21		DCAV	28					
03	Independent optional course 2 Control of electrical drives												Independent optional course 4 Java Technologies												
	M024.19.03.V2-03	5	E	28	0	21	0		DCAV	28	M024.19.03.V4-03	6	E	28	0	0	21		DCAV	28					
04	Independent optional course 2 Actuators in automotive systems												Independent optional course 4 Embedded Software Testing												
	M024.19.03.V2-04	5	E	28	0	21	0		DCAV	28	M024.19.03.V4-04	6	E	28	0	0	21		DCAV	28					
05																									
06																									

Legenda

Title of discipline										
Code	nc	FE	c	s	l	p	VAp	CF	VPI	

Code = code of discipline
nc = no. of the subject transferable credits
FE = forma de evaluare
FE ∈ {E, D, C}
 E=exam
 D=distributive assessment
 C=colloquy
c=no. of course hours/semester
s=no. of seminar hours
l=no. of laboratory hours
p=no. of project hours
VAp = no. of hours needed for partially assisted activities

(*) - optional courses names activated during the academic year 2019 / 2020

Example										
Advanced measuring technologies										
Code	nc	FE	c	s	l	p	VAp	CF	VPI	

CF=the category the discipline belongs to
 CF={DA, DCAV, DS, DC}
DA - thoroughgoing study discipline
DCAV - advanced knowledge discipline
DS - synthesis discipline
DC - complementary discipline
VPI =no. of unattended hours during a 14 weeks semester plus 4 weeks of examination session
VAI - no. of hours needed for entirely assisted activities=c+s+l+p
VA - no. of hours needed for entirely assisted activities and partially assisted activities=VAi+Vap
VCA - cumulated no. of hours for all activities= VA+VPI

RECTOR,
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