

Full time training
Curriculum "F"

with weekly hours: lectures (lc), practices (pr), laboratory (lb); with requirements (re); with credits (cr)

Nr	Subject code	Subject name	Mj	Weekl y hours	Credit	Semesters																				Prerequisites					
						1.					2.					3.					4.										
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	Mj	Nr	Subject code	Mj
Natural science knowledge total:				23	22	6	7			11	7	2	1		11																
1.	KTXAM1EMNF	Applied mathematics		4	3	2	2	0	e	3																					
2.	KTXEF1EMNF	Electrophysics		4	3	2	2	0	a	3																					
3.	KAXEV1EMNF	Theoretical electricity		4	4	2	2	0	e	4																					
4.	OTTESI1MNF	Physical training I.		1	1	0	1	0	t	1																					
5.	OTTESI2MNF	Physical training II.		1	1						0	1	0	t	1											4.	OTTESI1MNF				
6.	KEXAT1EMNF	Material sciences		3	3						3	0	0	a	3																
7.	KHXJF1EMNF	Signal analysis and signal processing		3	3						2	0	1	e	3																
8.	KVXEP1EMNF	Modelling of systems with distributed parameters		3	4						2	1	0	e	4																
Economic and humanities knowledge total:				8	10	2	2			5	2	2			5																
9.	KMXMM1EMNF	Engineering management		4	5						2	2	0	e	5																
10.	KMXGT1EMNF	Business economics		4	5	2	2	0	e	5																					
Electronical engineering professional knowledge total:				22	22	4	2	5		11	4		7		11																
11.	KIXBA1EMNF	Architectures of embedded systems		4	4	2	0	2	e	4																					
12.	KVXEN1EMNF	Energy networks		4	4	2	2	0	a	4																					
13.	KEXIT1EMNF	Basics of infocommunication technologies		4	4						2	0	2	e	4																
14.	KAXIE1EMNF	Control theory		4	4						2	0	2	a	4																
15.	KVPPM1EMNF	Project I.		3	3	0	0	3	a	3																					
16.	KVPPM2EMNF	Project II.		3	3						0	0	3	a	3											15.	KVPPM1HMNF				
Subjects of optional specialisation total:				36	30											11		7		15	11		7		15						
Automatics specialisation (5)				36	30											11		7		15	11		7		15						
17.	KAXAR1EMNF	System components of automatics		5	4											3	0	2	e	4						14.	KAXIE1HMNF				
18.	KAXRB1EMNF	Robotization		5	4											3	0	2	e	4						14.	KAXIE1HMNF				
19.	KAXVE1EMNF	Electric and hybrid drivetrain systems		5	4											3	0	2	e	4						3.	KAXEV1HMNF				
20.	KAXES1EMNF	Electronic converters		5	4																3	0	2	e	4	3.	KAXEV1HMNF				
21.	KAXEA1EMNF	Intelligent building automation and BIM systems		5	4																3	0	2	e	4						
22.	KAXJE1EMNF	Vehicle electronics		5	4																3	0	2	e	4						
23.		Obligatory optional professional subject 1	(4)	3	3											2	0	1	e	3											
24.		Obligatory optional professional subject 2	(4)	3	3																2	0	1	e	3						
Embedded systems specialisation (5)				36	30											11		7		15					15						
25.	KIXBO1EMNF	Embedded- and operating systems		5	4											3	0	2	e	4						11.	KIXBA1HMNF				
26.	KMXBR1EMNF	Security-critical systems		5	4											3	0	2	e	4											
27.	KMXSF1EMNF	Software development and testing		5	4											3	0	2	e	4											
28.	KMXAR1EMNF	Security of autonomous systems		5	4																0	0	0	e	4						
29.	KMXOP1EMNF	Object-oriented programming		5	4																0	0	0	e	4						
30.	KIXI41EMNF	Industry 4.0 technologies		5	4																0	0	0	e	4	6.	KEXAT1HMNF				
31.		Obligatory optional professional subject 1	(4)	3	3											2	0	1	e	3											
32.		Obligatory optional professional subject 2	(4)	3	3																0	0	0	e	3						

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						1.					2.					3.					4.								
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	Mj	Nr
Power Engineering specialisation			(5)	36	30										11		2		15	11		7		15					
33.	KVXEA1EMNF	Tools of electrical transmission and distribution		5	4										3	0	2	e	4						3.	KAXEV1HMNF			
34.	KTXNT1EMNF	Basics of nuclear technologies		5	4										3	0	0	e	4						2.	KTXEF1HMNF			
35.	KVXVE1EMNF	Electrical network computing		5	4										3	0	0	e	4						3.	KAXEV1HMNF			
36.	KIXET1EMNF	Hydrogen technologies		5	4															3	0	2	e	4	12.	KVXEN1HMNF			
37.	KVXVT1EMNF	Electrical network planning		5	4															3	0	2	e	4					
38.	KVXME1EMNF	Renewable energy		5	4															3	0	2	e	4	12.	KVXEN1HMNF			
39.		Obligatory optional professional subject 1	(4)	3	3										2	0	0	e	3										
40.		Obligatory optional professional subject 2	(4)	3	3															2	0	1	e	3					
Infocommunication technolo­gies specialisation			(5)	36	30										11		7		15	11		7		15					
41.	KEXMT1EMNF	Media technology		5	4										3	0	2	e	4						13.	KHXIT1HMNF			
42.	KEXME1EMNF	Mobile communication networks		5	4										3	0	2	e	4						13.	KHXIT1HMNF			
43.	KEXO1EMNF	Optical networks		5	4										3	0	2	e	4						13.	KHXIT1HMNF			
44.	KEXIP1EMNF	Infocommunication protocols		5	4															3	0	2	e	4	13.	KHXIT1HMNF			
45.	KEXUT1EMNF	Space communication		5	4															3	0	2	e	4					
46.	KEXII1EMNF	Infocommunication networks as basic infrastructure		5	4															3	0	2	e	4					
47.		Obligatory optional professional subject 1	(4)	3	3										2	0	1	e	3										
48.		Obligatory optional professional subject 2	(4)	3	3															2	0	1	e	3					
Integrated Automation and Power Engineering specialisation			(5)	36	30										11		7		15	11		7		15					
49.	KAXAR1EMNF	System components of automatics		5	4										3	0	2	e	4						14.	KAXIE1HMNF			
50.	KAXVE1EMNF	Electric and hybrid drivetrain systems		5	4										3	0	2	e	4						3.	KAXEV1HMNF			
51.	KVXVE1EMNF	Electrical network computing		5	4										3	0	2	e	4						3.	KAXEV1HMNF			
52.	KVXEA1EMNF	Tools of electrical transmission and distribution		5	4															3	0	2	e	4	3.	KAXEV1HMNF			
53.	KAXRB1EMNF	Robotization		5	4															3	0	2	e	4	14.	KAXIE1HMNF			
54.	KVXME1EMNF	Renewable energy		5	4															3	0	2	e	4	12.	KVXEN1HMNF			
55.		Obligatory optional professional subject 1	(4)	3	3										2	0	1	e	3										
56.		Obligatory optional professional subject 2	(4)	3	3															2	0	1	e	3					
Integrated Embedded Systems and Infocommunication Technologies specialisation			(5)	36	30										11		7		15	11		7		15					
57.	KIXBO1EMNF	Embedded- and operating systems		5	4										3	0	2	e	4						11.	KIXBA1HMNF			
58.	KEXMT1EMNF	Media technology		5	4										3	0	2	e	4						13.	KHXIT1HMNF			
59.	KEXME1EMNF	Mobile communication networks		5	4										3	0	2	e	4						13.	KHXIT1HMNF			
60.	KEXIP1EMNF	Infocommunication protocols		5	4															3	0	2	e	4	13.	KHXIT1HMNF			
61.	KMXSF1EMNF	Software development and testing		5	4															3	0	2	e	4					
62.	KMXAJ1EMNF	Autonomous vehicles		5	4															3	0	2	e	4	8.	KVXEP1HMNF			
63.		Obligatory optional professional subject 1	(4)	3	3										2	0	1	e	3										
64.		Obligatory optional professional subject 2	(4)	3	3															2	0	1	e	3					
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						1.					2.					3.					4.								
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	Mj	Nr
Free optional subjects total:				4	6	2				3	2				3														
65.		Free optional subject 1	(4)	2	3	2	0	0	a	3																			
66.		Free optional subject 2	(4)	2	3						2	0	0	a	3														

The training total hours::	1 722 h	
lectures from this:	714 h	41,46%
practices, laboratory:	1 008 h	58,54%

The condition for admission to the final exam - in addition to obtaining the above credit value - is the completion of an obligatory external internship during the training, the minimum total time of which is: 4 weeks

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						1.					2.					3.											4.	
						lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	lc	pr	lb	re	cr	Nr	Subject code	Mj
Obligatory optional professional subjects 1																												
69.	KAWAP1EMNF	Diagnostics and monitoring		3	3										2	0	1	e	3									
70.	KIWEI1EMNF	Drive control		3	3										2	0	1	e	3									
71.	KEWSJ1EMNF	Sensors and transducers in infocommunication systems		3	3										2	0	1	e	3									
72.	KEWVR1EMNF	Lighting systems		3	3										2	0	1	e	3									
Obligatory optional professional subjects 2																												
73.	KAWEK1EMNF	Electronom transport solutions		3	3															2	0	1	e	3				
74.	KVXEF1EMNF	Energy sources		3	3															2	0	1	e	3				
75.	KIWFP1EMNF	FPGA		3	3															2	0	1	e	3				
76.	KAWII1EMNF	Industrial control systems		3	3															2	0	1	e	3				
77.	KEWKB1EMNF	Cyber security		3	3															2	0	1	e	3				
78.	KVWKE1EMNF	Small scale power plants		3	3															2	0	1	e	3				
79.	KEWKI1EMNF	Communication interfaces		3	3															2	0	1	e	3				
80.	KMWLB1EMNF	Linux in embedded systems		3	3															2	0	1	e	3				
81.	KVWNR1EMNF	Photovoltaic systems		3	3															2	0	1	e	3				

