

National Research University Higher School of Economics (HSE)

Curriculum

Field of study 11.04.02 Infocommunication Technologies and Systems

Educational Programme "Internet of Things and Cyber-physical Systems"

Trajectories: "Artficial Intelligence Software and Hardware",
"Internet of Things"

Implementing unit: Tikhonov Moscow Institute of Electronics and Mathematics, HSE - Moscow
1 st, 2023/2024 academic year

APPROVED

18.05.2023

Vice Rector

ROSHCHIN S.Y.

Signed with EDS

Length of Programme: 2 years Years of Study: 2023/2024 - 2024/2025

Mode of Study: Full Time Degree: Master's degree / MBA

	Course	Subject Department type		Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				
Block Code			Department				1	2	3	4	Additional Information
	Degree Programme			60,00	2 280	438	32	84	172	136	
	Internet of Things (Applied track) Major				2 052	370			38	40	
					1 482	352			30	30	
1	Ensuring interaction of IoT system elements, interfaces and protocols	С	School of Electronic Engineering	6,00	228	60			30	30A	
	Key Seminars			9,00	342	86			8	8	
1	Internet of Things (mentor workshop)	С	School of Electronic Engineering	3,00	114	16			8	8A	
	Magolego			6,00	228						
1	All-university Pool MAGOLEGO Courses	E		6,00	228						
	Internship Project Internship			6,00	228	2				2	
				6,00	228	2				2	
1	Project	С		6,00	228	2				2A	
	General Components			39,00	1 482	362	28	82	136	100	
	Major			33,00	1 254	292	16	64	116	80	
	Elective Courses (1 out of 2)				114	16					
1	Product management and economics of IoT/CPS	E	School of Electronic Engineering	3,00	114	30		30A			
2	IoT/CPS Development Project Management	E	School of Electronic Engineering	3,00	114	16	16A				
	Обязательные дисциплины программы				1 140	276	16	64	116	80	
1	IoT/CPS Hardware	С	School of Electronic Engineering	6,00	228	60			30	30A	_

2	Introduction to IoT/CPS	С	School of Electronic Engineering	3,00	114	16	16A				
3	Sensor Systems	С	School of Electronic Engineering	3,00	114	40		40A			
4	Cyber Security IoT/CPS	С	School of Electronic Engineering	6,00	228	60			30	30A	
5	loT/CPS software development	С	School of Electronic Engineering	6,00	228	40			20	20A	
6	Network Technologies in Machine-to-Machine (M2M) Communications	С	School of Electronic Engineering	6,00	228	60		24	36A		
	Key Seminars			6,00	228	70	12	18	20	20	
1	Project Seminar	С	School of Electronic Engineering	3,00	114	66	12	14	20	20A	
2	Mentor's Seminar	С	School of Electronic Engineering	3,00	114	4		4A			
	Auticial Intelligence Coffee and Ille		multant tuants)	= 4.00	0.050	270			38	40	
	Artficial Intelligence Software and Ha	rdware (A	пррпеа тгаск)	54,00	2 052	370					
	Major	rdware (A		39,00	1 482	352			30	30	
1		C	School of Electronic Engineering	,							
1 2	Major Programming of neurocomputer	С	School of Electronic	39,00	1 482	352				30	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition Key Seminars	С	School of Electronic Engineering School of Electronic Engineering	39,00 3,00	1 482 114 114 342	352 30 30 86			30	30 30A	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition	С	School of Electronic Engineering School of Electronic	39,00 3,00 3,00 9,00 3,00	1 482 114 114	352 30 30			30A	30 30A	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition Key Seminars Hardware and software systems for Al (mentor workshop) Magolego	С	School of Electronic Engineering School of Electronic Engineering School of Electronic	39,00 3,00 3,00 9,00	1 482 114 114 342 114 228	352 30 30 86			30A 8	30 30A	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition Key Seminars Hardware and software systems for AI (mentor workshop)	С	School of Electronic Engineering School of Electronic Engineering School of Electronic	39,00 3,00 3,00 9,00 3,00	1 482 114 114 342 114	352 30 30 86			30A 8	30 30A	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition Key Seminars Hardware and software systems for AI (mentor workshop) Magolego All-university Pool MAGOLEGO	С	School of Electronic Engineering School of Electronic Engineering School of Electronic	39,00 3,00 3,00 9,00 3,00 6,00	1 482 114 114 342 114 228	352 30 30 86 16			30A 8	30 30A	
'	Major Programming of neurocomputer systems Statistical theory of signal detection and pattern recognition Key Seminars Hardware and software systems for AI (mentor workshop) Magolego All-university Pool MAGOLEGO Courses	С	School of Electronic Engineering School of Electronic Engineering School of Electronic	39,00 3,00 3,00 9,00 3,00 6,00	1 482 114 114 342 114 228 228	352 30 30 86 16			30A 8	30 30A 8 8A	

Curriculum agreed:

Academic Supervisor IVANOV I.A. 15.05.2023

KROUK E.A. Dean 15.05.2023

Head of Centre for

Educational Model Design LEPESHKIN I.A. 18.05.2023

* Subject type:

Compulsory course

C E Elective course