



National Research University Higher School of Economics (HSE)

Curriculum  
 Field of study 09.03.01 Information Science and Computation  
 Technology  
 Educational Programme "Information Science and Computation  
 Technology"  
 Specializations: "Automated systems", "Computer Systems and  
 Networks", "Elements and devices of embedded systems"  
 Implementing unit: Tikhonov Moscow Institute of Electronics and  
 Mathematics, HSE - Moscow  
 3 rd, 2022/2023 academic year

APPROVED  
 04.05.2022  
 Vice Rector  
 ROSHCHIN S.Y.  
 Signed with EDS

Length of Programme: 4 years  
 Years of Study: 2020/2021 - 2023/2024  
 Mode of Study: Full Time  
 Degree: Bachelor's degree

Block Code	Course	Subject type	Department	Credits	Total Academic Hours	Contact Hours	Allocation of Contact Hours				Additional Information
							1	2	3	4	
<b>Degree Programme</b>				<b>60,00</b>	<b>2 280</b>	<b>787</b>	<b>188</b>	<b>218</b>	<b>357</b>	<b>360</b>	
<b>Data Culture</b>				<b>3,00</b>	<b>114</b>	<b>6</b>			<b>12</b>		
1	Programming of Web Services and Embedded Systems	C	School of Computer Engineering	3,00	114	6			6A		Online Course, Foreign language
<b>Major</b>				<b>35,00</b>	<b>1 330</b>	<b>594</b>	<b>142</b>	<b>158</b>	<b>310</b>	<b>320</b>	
<b>Core Professional Block (Major)</b>				<b>16,00</b>	<b>608</b>	<b>284</b>	<b>134</b>	<b>150</b>			
<b>Subject Areas</b>				<b>16,00</b>	<b>608</b>	<b>284</b>	<b>134</b>	<b>150</b>			
<b>Computing Systems and Computer Networks</b>				<b>3,00</b>	<b>114</b>	<b>76</b>	<b>36</b>	<b>40</b>			
1	Computer Systems and Computer Networks	C	School of Computer Engineering	3,00	114	76	36A	40A			
<b>Metrology</b>				<b>3,00</b>	<b>114</b>	<b>30</b>		<b>30</b>			
1	Basics of metrology	C	School of Electronic Engineering	3,00	114	30		30A			
<b>Operating Systems</b>				<b>3,00</b>	<b>114</b>	<b>60</b>	<b>30</b>	<b>30</b>			
1	Operating Systems	C	School of Computer Engineering	3,00	114	60	30	30A			Online Course
<b>Theory of Automata and Circuitry</b>				<b>4,00</b>	<b>152</b>	<b>92</b>	<b>42</b>	<b>50</b>			
1	Circuit Engineering	C	School of Computer Engineering	4,00	152	92	42A	50A			Online Course
<b>Electronics</b>				<b>3,00</b>	<b>114</b>	<b>26</b>	<b>26</b>				
1	Electronics	C	School of Electronic Engineering	3,00	114	26	26A				
<b>Elective Professional Block (Major)</b>				<b>19,00</b>	<b>722</b>	<b>310</b>	<b>8</b>	<b>8</b>	<b>310</b>	<b>320</b>	
<b>Блоки дисциплин по выбору</b>				<b>10,00</b>	<b>380</b>	<b>168</b>			<b>246</b>	<b>258</b>	

	<b>Автоматизированные системы</b>			<b>10,00</b>	<b>380</b>	<b>168</b>			<b>82</b>	<b>86</b>	
1	Intelligent Data Processing	C	School of Computer Engineering	5,00	190	82			40	42A	
2	Design of the Systems on a Chip	C	School of Computer Engineering	5,00	190	86			42	44A	
	<b>Вычислительные системы и компьютерные сети</b>			<b>10,00</b>	<b>380</b>	<b>168</b>			<b>82</b>	<b>86</b>	
1	Computer Network Design	C	School of Computer Engineering	5,00	190	86			42	44A	
2	Network Video Technologies	C	School of Computer Engineering	5,00	190	82			40	42A	
	<b>Элементы и устройства встраиваемых систем</b>			<b>10,00</b>	<b>380</b>	<b>168</b>			<b>82</b>	<b>86</b>	
1	Microcontroller Systems	C	School of Computer Engineering	5,00	190	86			42	44A	
2	Functional Units of Control Systems and Components	C	School of Computer Engineering	5,00	190	82			40	42A	
	<b>Вариативные дисциплины по выбору ОП</b>			<b>3,00</b>	<b>114</b>	<b>70</b>			<b>36</b>	<b>34</b>	
1	Automation of Design Works	C	School of Computer Engineering	3,00	114	70			36	34A	
	<b>Научно-исследовательский/Проектный семинар</b>			<b>6,00</b>	<b>228</b>	<b>72</b>	<b>8</b>	<b>8</b>	<b>28</b>	<b>28</b>	
1	Project Seminar "Programming Tools and Technologies"	C	School of Computer Engineering	3,00	114	40			20	20A	
2	Project Seminar "Fundamentals of Production Technology and Machine Learning"	C	School of Computer Engineering	3,00	114	32	8	8A	8	8A	
	<b>Minor</b>			<b>10,00</b>	<b>380</b>	<b>152</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	
1	Minor	C		10,00	380	152	38	38A	38	38A	
	<b>English</b>					<b>3</b>			<b>3</b>		
	<b>Examinations</b>					<b>3</b>			<b>3</b>		
1	Independent English Exam	C	School of Foreign Languages			3			3A		Foreign language
	<b>General Courses</b>			<b>4,00</b>	<b>152</b>	<b>30</b>	<b>8</b>	<b>22</b>			
	<b>Optional General Courses</b>			<b>4,00</b>	<b>152</b>	<b>30</b>	<b>8</b>	<b>22</b>			
1	Legal Literacy	C	департамент права цифровых технологий и биоправа	4,00	152	30	8	22A			Online Course
	<b>Internship</b>			<b>8,00</b>	<b>304</b>	<b>2</b>				<b>2</b>	
	<b>Project Internship</b>			<b>5,00</b>	<b>190</b>	<b>2</b>				<b>2</b>	
1	Исследовательский или прикладной проект	E		5,00	190	2				2A	
	<b>Professional Internship</b>			<b>3,00</b>	<b>114</b>						
1	Work Experience Internship	C		3,00	114						

**Curriculum agreed:**

Academic Supervisor

POLESSKIY S.N.

30.04.2022

Dean

KROUK E.A.

30.04.2022

Head of Degree Programmes  
Development Office

LEPESHKIN I.A.

04.05.2022

\* Subject type:

Compulsory course

C

Elective course

E

Optional course

O