

Faculty of Electrical Engineering and Information Technology

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Code	Course Title	Study programme	ECTS	Department	Language	Year/Semester
3B00104	Algorithmisation and programming	Automation	5	DCIS	English	1./1.
3B0101	Electrical Circuits 1	All study programmes	6	DEBE	English	1./1.
3B0103	Introduction to Physics	All study programmes	5	DPh	English	1./1.
3B0A402	Theory of information and signals	Automation	7	DCIS	English	2./1.
3B0301	Electrical Circuits 3	All study programmes	7	DEBE	English	2./1.
3B0302	Electronics 1	All study programmes	5	DME	English	2./1.
3B2304	Autotronics	Autotronics	5	DME	English	2./1.
3B0E301	Communication Technologies	Communication and Information Technologies/Multimedia	6	DMICT	English	2./1.
3B00310	Programming in Java	Communication and Information Technologies/Multimedia	5	DMICT	English	2./1.
3B00309	Introduction to signals and systems	Communication and Information Technologies/Multimedia	6	DMICT	English	2./1.
3B0309	Computer Modelling of Real Processes	All study programmes	3	DPh	English	2./1.
3B00312	Creating Web Pages	Multimedia Technologies	5	DMICT	English	2./1.
3B0 D3 04	Basics of power lines' operation	Electrical Engineering	5	DPSSED	English	2./1.
3B0A302	Communication Networks	Automation	5	DCIS	English	2./1.
3B3501	Logical Circuits	Telecommunications	5	DME	English	3./1.
3B00506	Computer networks 2	Communication and Information Technologies	7	DMICT	English	3./1.
3B3504	Wave Processing in Medicine	Biomedical Engineering	5	DEBE	English	3./1.
3B0504	Power electronics	Electrical Engineering	6	DME	English	3./1.
3B0507	Electroacoustic	Communication and Information Technologies/Multimedia	5	DMICT	English	3./1.
3B00509	Wireless Systems	Communication and Information Technology	4	DMICT	English	3./1.
3B0509	Introduction to photonics	All study programmes	4	DPh	English	3./1.
3I5100	Physics of materials and structures	All study programmes	6	DPh	English	3./1.
3B0608	Introduction to fibre optics	All study programmes	5	DPh	English	3./1.
3B0 D5 06	Electrical apparatus	Electrical Engineering	5	DPSSED	English	3./1.
3B0 D5 08	Introduction to electric traction	Electrical Engineering	5	DPSSED	English	3./1.
3B0 D5 03	Electric drives 1	Electrical Engineering	5	DPSSED	English	3./1.
3B0 D5 04	Renewable energy sources	Electrical Engineering	5	DPSSED	English	3./1.
3B0A501	Control System Programming	Automation	5	DCIS	English	3./1.
3B0A503	Information systems	Automation	6	DCIS	English	3./1.
3B0A502	Theory of signal processing in process control	Automation	6	DCIS	English	3./1.
3I9105	Simulation Tools in Power Electronics	Power Electronic Systems	5	DME	English	3./1.
3I0210	Power semiconductor converters 1	Power Electronic Systems	7	DME	English	3./1.
	Microprocessor systems 2	Autotronics		DME	English	3./1.

Bc. Degree - Summer Semester

Code	Course Title	Study programme	ECTS	Department	Language	Year/Semester
3B0A201	Object-oriented Programming	Automation	4	DCIS	English	1./2.
3B0201	Electrical Circuits 2	All study programmes	5	DEBE	English	1./2.
3B0202	Physics 1	All study programmes	7	DPh	English	1./2.
3B00208	Scripting languages in ICT	Communication and Information Technologies	5	DMICT	English	1./2.
3B00209	Transmission media	Communication and Information Technologies	5	DMICT	English	1./2.
3B0A202	Computer hardware and software	Automation	5	DCIS	English	1./2.
3I9306	Control systems of EV and HEV vehicles	Power Electronic Systems	5	DME	English	2./2.
3B00403	Sensor Technology	Automation	5	DCIS	English	2./2.
3B3401	Electromagnetic Field	Biomedical Engineering	6	DEBE	English	2./2.
3B3400	Sensors and Measuring Methods in Biomedicine	Biomedical Engineering	5	DEBE	English	2./2.
3B3402	Programming Languages- MATLAB	Biomedical Engineering	5	DEBE	English	2./2.
3B0400	Electronics 2	All study programmes	5	DME	English	2./2.
3B0406	Microprocessor systems 1	Autotronics	6	DME	English	2./2.
3B00405	Multimedia Signal Processing	Communication and Information Technologies	5	DMICT	English	2./2.
3B00407	Computer networks 1	Communication and Information Technologies/Multimedia	5	DMICT	English	2./2.
3B0414	Optics for photonics	All study programmes	5	DPh	English	2./2.
3B0G 503	Studio technology	Multimedia Technologies	6	DMICT	English	2./2.
3B0 D4 03	Conventional power generation	Electrical Engineering	5	DPSSED	English	2./2.
3B0 D4 10	Introduction to electric drives	Electrical Engineering	3	DPSSED	English	2./2.

3B00305	Theory of automatic control	Automation	6	DCIS	English	2./2.
3B00605	Internet of Things	Communication and Information Technologies	5	DMICT	English	3./2.
3B1601	Control Systems Programming	Automation	5	DCIS	English	3./2.
3B1602	Information systems in process management	Automation	2	DCIS	English	3./2.
3B0611	Electronic Devices Design	Electrical Engineering	4	DME	English	3./2.
3B0605	Power semiconductor systems	Electrical Engineering	6	DME	English	3./2.
3B0 D6 06	Electric drives 2	Electrical Engineering	4	DPSED	English	3./2.
3B0A601	Automatic identification	Process Control	5	DCIS	English	3./2.

MSc. Degree - Winter Semester

Code	Course Title	Study programme	ECTS	Department	Language	Year/Semester
3I0A101	Advanced Methods of Automatic Control	Process Control	7	DCIS	English	1./1.
3I2100	Medical Electronics	Biomedical Engineering	7	DEBE	English	1./1.
3I2101	Modelling and Simulation of Electronic Circuits and Systems in Biomedicine	Biomedical Engineering	6	DEBE	English	1./1.
3I2102	Compatibility of Biological and Technical Systems	Biomedical Engineering	6	DEBE	English	1./1.
3I9105	Simulation tools in power electronics	All study programmes	4	DME	English	1./1.
3I0H106	Room acoustics	Multimedia Engineering	5	DMICT	English	1./1.
3I0108	Microprocessors, microcomputers & DSP	Power Electronic Systems	7	DME	English	1./1.
3I9103	Vehicle Motion Dynamics	Power Electronic Systems	5	DME	English	1./1.
3I6103	Room acoustics	Multimedia Engineering	5	DMICT	English	1./1.
3I5101	Photonics	All study programmes	6	DPh	English	1./1.
3I0A104	System development	Process Control	6	DCIS	English	1./1.
3I00104	Artificial intelligence	Process Control	6	DCIS	English	1./1.
3I5200	Semiconductor and semiconductor systems	All study programmes	6	DPh	English	1./1.
3I0H105	Interactive applications design	Multimedia Engineering	5	DMICT	English	1./1.
3I0 G1 12	Quality management	Power electronic systems	3	DPSED	English	1./1.
3I0 G1 03	Classical control methods of electrical power systems	Power electronic systems	5	DPSED	English	1./1.
3I0 G1 05	Principles of power system modelling	Power electronic systems	5	DPSED	English	1./1.
3I0A102	Analysis of control system safety	Process Control	6	DCIS	English	1./1.
	Power semiconductor converters 2	Power Electronic Systems	7	DME	English	1./1.
3I0219	Virtual instrumentation 1	Power Electronic Systems	6	DME	English	1./1.
3I00102	Digital signal processing	Telecommunication and Radiocommunication Engineering Multimedia Engineering	5	DMICT	English	1./1.
3I0212	Traction batteries and charging infrastructure	Power Electronic Systems	6	DME	English	1./1.
3I0A304	Information Systems Security	Process Control	5	DCIS	English	2./1.
3I2300	Biomedical Image Processing	Biomedical Engineering	6	DEBE	English	2./1.
3I2301	Signal Processing in Medicine	Biomedical Engineering	7	DEBE	English	2./1.
3I9300	Design and Construction of Power Electronic Systems	Power Electronic Systems	8	DME	English	2./1.
3I9304	Power Electronics Applications	Power Electronic Systems	5	DME	English	2./1.
3I9305	Logic circuits	Power Electronic Systems	5	DME	English	2./1.
3I0J302	Radiocommunication systems and networks 2	Telecommunication and Radiocommunication Engineering	5	DMICT	English	2./1.
3I00302	Digital image processing	Telecommunication and Radiocommunication Engineering Multimedia Engineering	6	DMICT	English	2./1.
3I0312	Laser and laser systems	All study programmes	5	DPh	English	2./1.
3I0309	Applied optics and light technique	All study programmes	6	DPh	English	2./1.
3I0 G3 07	Sensorless control of electric drives	Power electronic systems	5	DPSED	English	2./1.
3I0G308	Discrete control of power electronic systems / electric drives	Power electronic systems	5	DME/DPSED	English	2./1.
3I0 G3 05	Power system control	Power electronic systems	5	DPSED	English	2./1.
3I0 G3 10	Electric traction	Power electronic systems	5	DPSED	English	2./1.
3I0A306	Railway signalling systems	Process Control	6	DCIS	English	2./1.

MSc. Degree - Summer Semester

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3I0A201	Control systems with safety PLC	Process Control	6	DCIS	English	1./1.
3I0A203	Machine Learning	Process Control	6	DCIS	English	1./2.
3I2200	Information Systems in Medicine	Biomedical Engineering	6	DEBE	English	1./2.
3I2202	Acquisition and Analysis of Biopotentials	Biomedical Engineering	6	DEBE	English	1./2.
3I2203	Artificial Intelligence in Biomedicine	Biomedical Engineering	6	DEBE	English	1./2.
3I2204	Fundamentals of Ecology	Biomedical Engineering	5	DEBE	English	1./2.
	Virtual instrumentation 2	Power Electronic Systems	6	DME	English	1./2.
3I9200	Analyse and Synthese od Power Electronic Circuits	Power Electronic Systems	6	DME	English	1./2.
3I6203	WEB applications design	Multimedia Engineering	6	DMICT	English	1./2.
3I6200	Digital television and New Services	Multimedia Engineering	6	DMICT	English	1./2.
3I0J203	Radiocommunication systems and networks 1	Telecommunication and Radiocommunication Engineer	5	DMICT	English	1./2.
3I0J106	Higher programming languages	Telecommunication and Radiocommunication Engineering	5	DMICT	English	1./2.
3I0J205	Digital audio processing	Telecommunication and Radiocommunication Engineering Multimedia Engineering	6	DMICT	English	1./2.
3I0H206	Game design	Multimedia Engineering	6	DMICT	English	1./2.
3I0218	Optical sensors	All study programmes	4	DPh	English	1./2.
3I5202	Waveguide optics	All study programmes	5	DPh	English	1./2.
3I0A207	Robotic systems	Process Control	6	DCIS	English	1./2.
3I0A205	Railway Traffic Control	Process Control	6	DCIS	English	1./2.
3I5301	Integrated optics and optoelectronics	All study programmes	5	DPh	English	1./2.
3I00202	Signals and communication systems	Telecommunication and Radiocommunication Engineering Multimedia Engineering	6	DMICT	English	1./2.
3I0J202	High frequency technique	Telecommunication and Radiocommunication Engineering	5	DMICT	English	1./2.
3I0H201	Distribution of Multimedia Signals	Multimedia Engineering	6	DMICT	English	1./2.
3I0 G2 08	Modern electrical machines	Power electronic systems	5	DPSED	English	1./2.
3I0 G2 07	Modern control methods of electrical power systems	Power electronic systems	5	DPSED	English	1./2.
3I0 G2 04	Short circuit analysis	Power electronic systems	5	DPSED	English	1./2.
3I0407	Discrete control of power systems	Power Electronic Systems	6	DME	English	2./2.
3I9303	Electrical Power Transmission of Vehicles	Power Electronic Systems	5	DME	English	2./2.