Study plan

Name of study plan: Electronics and Communications - Audiovisual Technology and Signal Processing

Faculty/Institute/Others: Faculty of Electrical Engineering Department: Branch of study guaranteed by the department: Welcome page Garantor of the study branch: Program of study: Electronics and Communications Type of study: Follow-up master full-time Required credits: 109 Elective courses credits: 11 Sum of credits in the plan: 120 Note on the plan:

Name of the block: Compulsory courses in the program Minimal number of credits of the block: 79 The role of the block: P

Code of the group: 2018 MEKDIP Name of the group: Diploma Thesis Requirement credits in the group: In this group you have to gain 25 credits Requirement courses in the group: In this group you have to complete 1 course Credits in the group: 25 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BDIP25	Diploma Thesis	Z	25	22s	L	Р

Characteristics of the courses of this group of Study Plan: Code=2018_MEKDIP Name=Diploma Thesis

BDIP25	Diploma Thesis	Z	25
Independent final comp	rehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his of	or her branch of s	tudy, which will
be specified by branch	department or branch departments. The diploma thesis will be defended in front of the board of examiners for the compreher	sive final examination	ation.

Code of the group: 2018_MEKP2

Name of the group: Compulsory subjects of the programme Requirement credits in the group: In this group you have to gain 54 credits Requirement courses in the group: In this group you have to complete 9 courses Credits in the group: 54 Note on the group:

Specializace audiovizuální technika a zpracování signálů

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
B2M32BTSA	Wireless Technologies Zden k Be vá , Lukáš Vojt ch, Zbyn k Kocur, Pavel Mach Ján Ku erák Zden k Be vá (Gar.)	Z,ZK	6	2P + 2L	L	Ρ
B2M37KASA	Compression of images and signals Karel Fliegel, Stanislav Vítek, František Rund, Václav Vencovský Karel Fliegel Stanislav Vítek (Gar.)	Z,ZK	6	2P+2C	L	Ρ
B2M37MAM	Microprocessors Stanislav Vítek, Petr Skalický Stanislav Vítek Stanislav Vítek (Gar.)	Z,ZK	6	2P+2L	Z	Ρ
B2M37OBT	Image Technology Petr Páta, Miloš Klíma Petr Páta Petr Páta (Gar.)	Z,ZK	6	2p+2l	Z	Ρ
B2M31DSP	Advanced DSP methods Pavel Sovka, Petr Pollák Pavel Sovka Pavel Sovka (Gar.)	Z,ZK	6	2P+2C	Z,L	Ρ

	l, Ji í Jakovenko, Pavel Máša, Ivan Pravda, Jan Šístek, Lubor Zeman, Ladislav Oppl František Rund František Rund(Gar.)	Z	6	0p+6s	Z,L	Р
	of Audio Signals	Z,ZK	6	2P+2C	Z	Р
B2M31ZRE Speech Pro Petr Pollák Pe	cessing tr Pollák Petr Pollák (Gar.)	Z,ZK	6	2P+2C	L	Р
B2M99ZVT Audio techr František Rund (Gar.)	n ology 1 I, Ond ej Ji í ek, Libor Husník František Rund Ond ej Ji í ek	Z,ZK	6	2P+2L	Z	Р
Characteristics of the courses of t	this group of Study Plan: Code=2018_MEKP2 Name	e=Compulso	ory subje	ects of the	e progra	mme
B2M32BTSA Wireless Techno					,ZK	6
	nciples of wireless networks in various areas of their application. Stude	ents will understa	and archite	1	·	
	these technologies can be exploited in real world applications. The goa				-	
of wireless networks, their operation or develo				•		
· · ·	images and signals			7	,ZK	6
1 1	and techniques. Main goal is to introduce basic concepts of lossless and	d lossy compresi	on of audio	1	·	-
	es students will work with implementations of particular algorithms, inc					
B2M37MAM Microprocessors		sidding objective			.ZK	6
	the properties of microprocessor systems, make students familiar with	on-chin nerinhe	rale conne	1	, ,	-
-	space address extension. Next, taught the students to make simple p					-
	should be able to design and implement simpler microprocessor system					
design.		in morading com		00000a.) poi	ipitoralo ai	a connaro
B2M37OBT Image Technolog	a) /			7	,ZK	6
0					, 212	0
This course deals with multimedia technology	and it is focused mainly on acquisition processing and reproduction of	f image informati	on It cover	s area of mes	suramente	in photometr
	and it is focused mainly on acquisition, processing and reproduction of e lenses image sensors and displays including their parameters. Furth	•				
radiometry and colorimetry; design of objective	e lenses, image sensors and displays including their parameters. Furth	her the course d	eals with ci	nematograph	iy, photogra	aphy and with
radiometry and colorimetry; design of objective other special methods of image reproduction, e	e lenses, image sensors and displays including their parameters. Furthe.g. polygraphy and digital printing techniques. Studied problems are con	her the course d	eals with ci	nematograph	iy, photogra	aphy and with
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con uction, etc.).	her the course d	eals with ci	nematograph advanced me	iy, photogra thods of im	aphy and with age processin
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru B2M31DSP Advanced DSP r	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con uction, etc.). methods	her the course dompleted with expl	eals with ci lanation of	nematograph advanced me	y, photogra thods of im ,ZK	aphy and with age processin
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstrue B2M31DSP Advanced DSP r The course follows the basic course in signal p	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con uction, etc.). methods processing and introduces advanced methods of analysis and digital sig	her the course dempleted with expl	eals with ci lanation of Graduates	nematograph advanced me Z will learn the	y, photogra thods of im ,ZK	aphy and with age processin 6 of digital signa
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- rhey learn to know the conditions of use of correlation, spectral and co	her the course d mpleted with expl gnal processing. pherent analysis	eals with ci lanation of Graduates of random	nematograph advanced me Z will learn the signals. They	, photogra thods of im ,ZK methods of will becam	aphy and with age processin 6 of digital signal ne familiar with
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con uction, etc.). methods processing and introduces advanced methods of analysis and digital sig	her the course d mpleted with expl gnal processing. pherent analysis	eals with ci lanation of Graduates of random	nematograph advanced me Z will learn the signals. They	, photogra thods of im ,ZK methods of will becam	aphy and with age processin 6 of digital signal ne familiar with
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses.	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- rhey learn to know the conditions of use of correlation, spectral and co	her the course d mpleted with expl gnal processing. pherent analysis	eals with ci lanation of Graduates of random	nematograph advanced me Z will learn the signals. They ability to inte	, photogra thods of im , ZK methods of will becam erpret the n	aphy and with age processin 6 of digital signal ne familiar with esults of signa
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital si "hey learn to know the conditions of use of correlation, spectral and co indent component analysis and the time-frequency transformations. Em	her the course d mpleted with exp gnal processing. oherent analysis uphasis will be pl	eals with ci lanation of Graduates of random aced on ar	nematograph advanced me Z will learn the signals. They ability to inte	y, photogra thods of im ,ZK methods of will becam erpret the re Z	appy and with age processin 6 of digital signa ne familiar with esults of signa 6
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- hey learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b	her the course d mpleted with expl gnal processing. oherent analysis iphasis will be pl	eals with ci lanation of Graduates of random aced on ar which will b	nematograph advanced me Z will learn the signals. They ability to inte	y, photogra thods of im ,ZK methods of will becam erpret the re Z	aphy and with age processin 6 of digital signal ne familiar with esults of signa 6
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defended	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- "hey learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c	her the course d mpleted with expl gnal processing. oherent analysis iphasis will be pl	eals with ci lanation of Graduates of random aced on ar which will b	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html	y, photogra thods of im ,ZK methods of will became erpret the methods z y branch de	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- They learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals	her the course d mpleted with exp gnal processing. wherent analysis phasis will be pl pranch of study, v z/en/education/s	eals with ci lanation of Graduates of random aced on ar which will b emestral-p	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z	y, photogra thods of im ,ZK methods of will becam erpret the re Z / branch de	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A si branch departments. The project will be defended B2M31SYN Synthesis of Auc This course introduces the fundamentals of so	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- "hey learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals und synthesis algorithms (everyday, music and speech), digital audio e	her the course d mpleted with exp gnal processing. wherent analysis mphasis will be pl pranch of study, v z/en/education/s	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s	y, photogra thods of im ,ZK methods of will became erpret the re z branch de ,ZK ignals are	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defended B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- They learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals	her the course d mpleted with exp gnal processing. wherent analysis mphasis will be pl pranch of study, v z/en/education/s	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s	y, photogra thods of im ,ZK methods of will became erpret the re z branch de ,ZK ignals are	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A sis branch departments. The project will be defended B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab.	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- "hey learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals und synthesis algorithms (everyday, music and speech), digital audio e- ter animations, games and film. Understanding of theoretical concepts	her the course d mpleted with exp gnal processing. wherent analysis mphasis will be pl pranch of study, v z/en/education/s	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p	y, photogra thods of im ,ZK methods of will becam erpret the re z branch de ,ZK ignals are i rogrammin	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignment
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- iney learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts	her the course d mpleted with expl gnal processing. wherent analysis uphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Aud lated throug	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z so synthetic s gh practical p	y, photogra thods of im ,ZK emethods of will becam erpret the re z branch de ,ZK ignals are e rogrammin ,ZK	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignment 6
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process The subject is devoted to basis of speech process	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- iney learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.cc dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts sing cessing addressed to students of master program. Discussed speech	her the course d mpleted with expl gnal processing. wherent analysis iphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s	y, photogra thods of im ,ZK emethods of will becam erpret the re z branch de ,ZK ignals are e rogrammin ,ZK systems in	aphy and with age processin of digital signal he familiar with esults of signal 6 epartment or 6 used in moder g assignments 6 different fields
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Mattab. B2M31ZRE Speech Process The subject is devoted to basis of speech process the subject is	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- iney learn to know the conditions of use of correlation, spectral and co- indent component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.cc dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts sing cessing addressed to students of master program. Discussed speech rolled devices, dictation systems or transcription of audio-video record	her the course d mpleted with expl gnal processing. wherent analysis iphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc.	y, photogra thods of im ,ZK will becam erpret the re z branch de ,ZK ignals are i rogrammin ,ZK systems in). Students	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignments 6 different fields will learn bas
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process The subject is devoted to basis of speech process the subject is	e lenses, image sensors and displays including their parameters. Furth a.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- "hey learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts sing cessing addressed to students of master program. Discussed speech rolled devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech	her the course d mpleted with expl gnal processing. wherent analysis phasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrrently app language t IM-HMM, A	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys	y, photogra thods of im ,ZK e methods of will became or pret the re- z / branch de ,ZK ignals are (rogrammin ,ZK systems in). Students stems, sma	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignments 6 different fields will learn bas
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process The subject is devoted to basis of speech proc (e.g. information dialogue systems, voice contra algorithms for speech analysis (spectral analy vocabulary recognizers), speaker recognition of	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- rhey learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.cc dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts for a did devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech (based on VQ and GMM), speech synthesis or speech enhancement.	her the course d mpleted with expl gnal processing. wherent analysis uphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM Further informat	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t IM-HMM, A ion can be	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys found at <a< td=""><td>y, photogra thods of im ,ZK will becam erpret the re z branch de ,ZK ignals are programmin ,ZK systems in). Students stems, sma</td><td>apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignment 6 different fields will learn bas all and large</td></a<>	y, photogra thods of im ,ZK will becam erpret the re z branch de ,ZK ignals are programmin ,ZK systems in). Students stems, sma	apply and with age processin 6 of digital signa he familiar with esults of signa 6 epartment or 6 used in moder g assignment 6 different fields will learn bas all and large
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Mattab. B2M31ZRE Speech Process The subject is devoted to basis of speech proc (e.g. information dialogue systems, voice contra algorithms for speech analysis (spectral analy vocabulary recognizers), speaker recognition of href=http://noel.feld.cvut.cz/vyu/ae2m31zre&g	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- iney learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.cc dio Signals und synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts ing cessing addressed to students of master program. Discussed speech rolled devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech (based on VQ and GMM), speech synthesis or speech enhancement. t;t;http://noel.feld.cvut.cz/vyu/ae2m31zre. Pro zapsané student	her the course d mpleted with expl gnal processing. wherent analysis uphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM Further informat	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t IM-HMM, A ion can be	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys found at <a< td=""><td>y, photogra thods of im ,ZK will becam erpret the re z branch de ,ZK ignals are programmin ,ZK systems in). Students stems, sma</td><td>aphy and with age processin 6 of digital signa is familiar with esults of signa 6 apartment or 6 used in model g assignment 6 different fields will learn bas all and large</td></a<>	y, photogra thods of im ,ZK will becam erpret the re z branch de ,ZK ignals are programmin ,ZK systems in). Students stems, sma	aphy and with age processin 6 of digital signa is familiar with esults of signa 6 apartment or 6 used in model g assignment 6 different fields will learn bas all and large
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process The subject is devoted to basis of speech proc (e.g. information dialogue systems, voice contru algorithms for speech analysis (spectral analy- vocabulary recognizers), speaker recognition (href=http://moel.feld.cvut.cz/vyu/ae2m31zre&g href=https://moodle.fel.cvut.cz>Moodle FEL	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- inely learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals rund synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts for a subject. Program. Discussed speech rolled devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech (based on VQ and GMM), speech synthesis or speech enhancement. tt;http://noel.feld.cvut.cz/vyu/ae2m31zre. Pro zapsané studen _.	her the course d mpleted with expl gnal processing. wherent analysis uphasis will be pl rranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM Further informat	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t IM-HMM, A ion can be	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys found at <a a výukovém j</a 	y, photogra thods of im ,ZK emethods of will becam erpret the re z / branch de ,ZK ignals are (rogrammin ,ZK bystems in). Students stems, sma a portálu <	aphy and with age processin 6 of digital signa ite familiar with esults of signa 6 apartment or 6 used in model g assignment 6 different fields will learn bas all and large a
radiometry and colorimetry; design of objective other special methods of image reproduction, e (preprocessing, compression, image reconstru- B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and indepen analyses. B2MPROJ6 Project Independent work in the form of a project. A st branch departments. The project will be defend B2M31SYN Synthesis of Auc This course introduces the fundamentals of so digital systems, virtual reality systems, compu in Matlab. B2M31ZRE Speech Process The subject is devoted to basis of speech proc (e.g. information dialogue systems, voice contri algorithms for speech analysis (spectral analy- vocabulary recognizers), speaker recognition of href=http://noel.feld.cvut.cz/vyu/ae2m31zre&g href=https://moodle.fel.cvut.cz>Moodle FEL B2M92VT Audio technology	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- inely learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals rund synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts for a subject. Program. Discussed speech rolled devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech (based on VQ and GMM), speech synthesis or speech enhancement. tt;http://noel.feld.cvut.cz/vyu/ae2m31zre. Pro zapsané studen _. y 1	her the course d mpleted with expl gnal processing. wherent analysis aphasis will be pl aranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM Further informat aty jsou detailní in	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t IM-HMM, A ion can be nformace n	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys found at <a a výukovém j</a 	y, photogra thods of im ,ZK methods of will becam erpret the re z z z z z z z z z z	aphy and with age processin 6 of digital signa- ite familiar with esults of signa 6 apartment or 6 used in mode g assignment 6 different field will learn bas all and large a 6
adiometry and colorimetry; design of objective bother special methods of image reproduction, e (preprocessing, compression, image reconstruction, e B2M31DSP Advanced DSP r The course follows the basic course in signal p analysis and be able to practically use them. T methods of signal decomposition and independ analyses. B2MPROJ6 Project ndependent work in the form of a project. A state or anch departments. The project will be defended B2M31SYN Synthesis of Aucor B2M31ZRE Speech Process The subject is devoted to basis of speech proce ferended algorithms for speech analysis (spectral analy: vocabulary recognizers), speaker recognition or pref=http://noel.feld.cvut.cz/yu/ae2m31zre&g mef=https://moodle.fel.cvut.cz>Moodle FEL B2M99ZVT Audio technology The course provides fundamentals of physical	e lenses, image sensors and displays including their parameters. Furth e.g. polygraphy and digital printing techniques. Studied problems are con- uction, etc.). methods processing and introduces advanced methods of analysis and digital sig- iney learn to know the conditions of use of correlation, spectral and co- ident component analysis and the time-frequency transformations. Em- tudent will choose a topic from a range of topics related to his or her b ded within the framework of a subject. Project list http://www.fel.cvut.c dio Signals rund synthesis algorithms (everyday, music and speech), digital audio e ter animations, games and film. Understanding of theoretical concepts for a subject. Program. Discussed speech rolled devices, dictation systems or transcription of audio-video record sis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech (based on VQ and GMM), speech synthesis or speech enhancement. t;t,http://noel.feld.cvut.cz/vyu/ae2m31zre. Pro zapsané studen _.	her the course d mpleted with expl gnal processing. wherent analysis aphasis will be pl aranch of study, v z/en/education/s effects and sonifi s will be consolid technology is cu ings, support for recognition (GM Further informat aty jsou detailní in	eals with ci lanation of Graduates of random aced on ar which will b emestral-p cation. Auc lated throug rrently app language t IM-HMM, A ion can be nformace n	nematograph advanced me Z will learn the signals. They ability to inte e specified by rojects.html Z io synthetic s gh practical p Z ied in many s eaching, etc. NN-HMM sys found at <a a výukovém j Z al point of vie</a 	y, photogra thods of im ,ZK methods of will becam erpret the re z / branch de ,ZK ignals are rogrammin ,ZK bystems in). Students stems, sma a portálu < ,ZK ww. In the s	aphy and with age processi 6 of digital signa e familiar wit esults of sign 6 apartment or 6 used in mode g assignmen 6 different field will learn bas all and large a 6 econd part

Name of the block: Compulsory elective courses Minimal number of credits of the block: 30 The role of the block: PV

Code of the group: 2018_MEKPV2

Name of the group: Compulsory subjects of the programme

Requirement credits in the group: In this group you have to gain 30 credits

Requirement courses in the group: In this group you have to complete 5 courses

Credits in the group: 30 Note on the group:

Specializace audiovizuální technika a zpracování signálů

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
B2M31ADAA	Adaptive signal processing Pavel Sovka, Radoslav Bortel Radoslav Bortel (Gar.)	Z,ZK	6	2P+2C	Z	PV

B2M31AEDA	Experimental Data Analysis Jan Rusz Jan Rusz Jan Rusz (Gar.)	Z,ZK	6	2P+2C	Z	PV
BAM31BSG	Biological signals Roman mejla Roman mejla Roman mejla (Gar.)	Z,ZK	6	2P+2L	L	PV
B2M37DTRA	Digital Video and Audio Broadcasting Karel Ulovec, Martin Bernas Karel Ulovec Karel Ulovec (Gar.)	Z,ZK	6	2P+2L	Z	PV
B0M37FAV	Physiology and modeling of hearing and vision Karel Fliegel, Václav Vencovský, Miloš Klíma, Petr Maršálek Karel Fliegel Václav Vencovský (Gar.)	Z,ZK	6	2P+2C+4D	Z	PV
B2M37MOTA	Advanced areas in image and video technology Karel Fliegel Karel Fliegel Karel Fliegel (Gar.)	Z,ZK	6	2P+2L	Z	PV
B2M37OBFA	Image Photonics Petr Páta, Lukáš Krauz Petr Páta Petr Páta (Gar.)	Z,ZK	6	2P+2L	Z	PV
B2M37SSPA	Statistical Signal Processing Pavel Sovka, Jan Sýkora Jan Sýkora Jan Sýkora (Gar.)	Z,ZK	6	4P+0C	L	PV
B2M37TAV	Technology of Audiovisual Production František Rund, Miloš Klíma, Martin Bernas, Jan Bedná Jan Bedná Miloš Klíma (Gar.)	Z,ZK	6	2P+2L+2D	L	PV
B2M31ZASA	Analog Signal Processing Ji í Hospodka Ji í Hospodka Ji í Hospodka (Gar.)	Z,ZK	6	2P+2L	L	PV
B2M37ZV2A	Audio Technology 2 František Rund, Libor Husník František Rund František Rund (Gar.)	Z,ZK	6	2P+2L	L	PV
Characteristics of th	e courses of this group of Study Plan: Code=2018_MEKPV2 Na	me=Compuls	ory sub	ects of t	he proq	ramme
B2M31ADAA A	daptive signal processing				"ZK	6
	ic discourse on adaptive algorithms for filtering, decorrelation, separation and beamform	ning.				
In the course of subject "Ex interpretation of data. In the project, student will solve co	xperimental Data Analysis cperimental Data Analysis", students will acquire knowledge regarding fundamental met a course of practical lectures, students will solve individual tasks using real data from sig omplex task and present obtained results. The aim of the subject is to introduce practica king and to acquire additional knowledge in solution of practical tasks.	nal processing in	neuroscieno	achine learr ce research.	In the cou	rse of semestral
	iological signals			7	"ZK	6
	igital Video and Audio Broadcasting				"ZK	6
	s familiar with topics related to video and audio transmission. Described are methods of	data stream creat	tion, metho		·	nel coding, error
	odulation formats. Attention is paid to transmission systems standards with regard to tran	smission channel	properties.	The subject	also deals	with multimedia
	asurement in transmission systems.					
	hysiology and modeling of hearing and vision rse is to study the physiology of sensors and processes of perception of audio and visua	l information by h	uman cubi		,ZK	6 most important
	e., Human Auditory System (HAS) and Human Visual System (HVS). The course summ					
	e time, presents their description using mathematical models using the latest computation					
Learning (DL) and Artificial	Intelligence (AI). Emphasis is also placed on current and prospective applications of the	mentioned knowl	edge. The n	nain applica	tion area is	the audiovisual
	in perception, but the direct employment of the acquired knowledge also includes the are					
	ogy, bioinspired systems, etc. At the same time, students gain a general overview of info al information perceived quality, i.e., Quality of Experience (QoE). The course is intender		• •		•	•
	at mormation perceived quality, i.e., Quality of Experience (QOE). The course is intended ntal experiments to determine the most important characteristics of HAS and HVS, inclu					
processes.						and nouring
B2M37MOTA A	dvanced areas in image and video technology			Z	,ZK	6
	state-of-the-art techniques for digital image and video technology. These techniques an	d their applicatior	ns cover alm		·	
dealing with human interact	tion. A significant part of the course is focused on the methods of image signal processi	ng and main hard	ware and s	oftware fund	tional bloc	ks of related
	of the laboratory exercises is to familiarize with advanced methods for capturing, process	sing and reproduc	tion of imag	e informatio	n. Due to t	ne fast progress
	the lectures and exercises is being continuously updated.				71/	
	nage Photonics d overview of applied imaging photonic elements and systems. The subject deals with fu	indamentals of or	tics Fourie		,ZK	6 mouting Fourier
-	e, CCD, CMOS. Image displays. Image converters and amplifiers. Photography and hologi	-		-	-	· -
	essing in biosystems. Image processing for photonics.			, .	ν- F.	, i . J.
B2M37SSPA St	tatistical Signal Processing			Z	,ZK	6
	mentals in three main domains of the statistical signal processing: 1) estimation theory,			-	-	
	theory with many applications ranging from digital communications, audio and video pro	ocessing, radar ar	nd radio nav	igation, mea	asurement	and experiment
evaluation, etc.					71/	
	echnology of Audiovisual Production				"ZK	6
	nalog Signal Processing og input-output blocks for signal transmission and processing. They discussed circuit solut	ion of omplifiers	nd filtore in		,ZK	6
	is learn the circuit concepts and possibilities for solving the contemporary analogue stru					
	Iters, including discrete-time circuits. The conclusion is devoted to the possibilities of co		-			
	udio Technology 2				"ZK	6
	anced topics related to audio technology in recording studios, namely room acoustics, n	nultichannel signa	I recording			-
	uditory perception, audio signal optimization from the psychoacoustic point of view.					
Name of the bloc	ale Elective courses					
	CK. Elective courses					

The role of the block: V

Code of the group: 2018_MEKH Name of the group: Humanities subjects Requirement credits in the group: Requirement courses in the group: Credits in the group: 0 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
B0M16FIL	Peter Zamarovský Peter Zamarovský Peter Zamarovský (Gar.)	Z,ZK	5	2P+2S	Z,L	V
B0M16HVT	History of science and technology 2 Marcela Efmertová, Jan Mikeš Marcela Efmertová Marcela Efmertová (Gar.)	Z,ZK	5	2P+2S	Z,L	V
B0M16HSD1	History of economy and social studies Marcela Efmertová	Z,ZK	5	2P+2S	Z,L	V
B0M16PSM	Psychology Jan Fiala Jan Fiala Jan Fiala (Gar.)	Z,ZK	5	2P+2S	Z,L	V
A003TV	Physical Education	Z	2	0+2	L,Z	V
B0M16TEO	Theology Vladimír Sláme ka Vladimír Sláme ka Vladimír Sláme ka (Gar.)	Z,ZK	5	2P+2S	Z,L	V

Characteristics of the courses of this group of Study Plan: Code=2018_MEKH Name=Humanities subjects

B0M16FIL		Z,ZK	5
B0M16HVT	History of science and technology 2	Z,ZK	5
This subject traces hi	storical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate s	tudents' interest i	h the history and
traditions of the subje	ct, while highlighting the developments in technical education and professional organizations, the process of shaping scientific	life and the influe	nce of technical
engineers			
B0M16HSD1	History of economy and social studies	Z,ZK	5
This subject deals wi	h the history of the Czech society in the 19th - 21th centuries. It follows the forming of the Czech political representation, its air	ns and achieved r	esults as well as
the social and cultura	I development and coexistence of the various ethnical groups in the Czech countries.		
B0M16PSM	Psychology	Z,ZK	5
A003TV	Physical Education	Z	2
B0M16TEO	Theology	Z,ZK	5
This subject provides	to students the basic orientation in christian theology and requires no special previous education. After short philosophic lectu	re the basic theol	ogic disciplines
are gone through. The	e subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones	s who want to get l	know Christianity

- religion from which graws our civilization up.

Code of the group: MTV

Name of the group: Physical education

Requirement credits in the group:

Requirement courses in the group:

Credits in the group: 0

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
TVV	Physical education	Z	0	0+2	Z,L	V
A003TV	Physical Education	Z	2	0+2	L,Z	V
TV-V1	Physical education	Z	1	0+2	Z,L	V
TVV0	Physical education	Z	0	0+2	Z,L	V
TVKLV	Physical Education Course	Z	0	7dní	L	V
TVKZV	Physical Education Course	Z	0	7dní	Z	V

Characteristics of the courses of this group of Study Plan: Code=MTV Name=Physical education

A003TV	Physical Education	Z	2
TVV	Physical education	Z	0
TV-V1	Physical education	Z	1
TVV0	Physical education	Z	0
TVKLV	Physical Education Course	Z	0
TVKZV	Physical Education Course	Z	0

Code of the group: 2018_MEKVOL Name of the group: Elective subjects ~Nabídku volitelných předmětů uspořádaných podle kateder najdete na webových stránkách http://www.fel.cvut.cz/cz/education/volitelne-predmety.html\\

List of courses of this pass:

A003TV Physical Education Z 2 B0M16FIL Z,ZK 5 B0M16HSD1 History of economy and social studies Z,ZK 5 This subject deals with the history of the Czech society in the 19th - 21th centuries. It follows the forming of the Czech political representation, its aims and achieved results as well as the social and cultural development and coexistence of the various ethnical groups in the Czech countries. Z,ZK 5 B0M16HVT History of science and technology 2 Z,ZK 5 This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers B0M16PSM Psychology Z,ZK 5 B0M16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV
B0M16HSD1History of economy and social studiesZ,ZK5This subject deals with the history of the Czech society in the 19th - 21th centuries. It follows the forming of the Czech political representation, its aims and achieved results as well as the social and cultural development and coexistence of the various ethnical groups in the Czech countries.Z,ZK5B0M16HVTHistory of science and technology 2Z,ZK5This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers5B0M16PSMPsychologyZ,ZK5B0M16TEOTheologyZ,ZK5This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up.Z,ZK6B0M37FAVPhysiology and modeling of hearing and visionZ,ZK6
This subject deals with the history of the Czech society in the 19th - 21th centuries. It follows the forming of the Czech political representation, its aims and achieved results as well as the social and cultural development and coexistence of the various ethnical groups in the Czech countries. B0M16HVT History of science and technology 2 Z,ZK 5 This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers B0M16PSM Psychology Z,ZK 5 B0M16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
This subject deals with the history of the Czech society in the 19th - 21th centuries. It follows the forming of the Czech political representation, its aims and achieved results as well as the social and cultural development and coexistence of the various ethnical groups in the Czech countries. B0M16HVT History of science and technology 2 Z,ZK 5 This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers B0M16PSM Psychology Z,ZK 5 B0M16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
BOM16HVT History of science and technology 2 Z,ZK 5 This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers BOM16PSM Psychology Z,ZK 5 BOM16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 BOM37FAV Physiology and modeling of hearing and vision Z,ZK 6
This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers B0M16PSM Z,ZK 5 B0M16TEO Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who are to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers BOM16PSM Z,ZK 5 BOM16TEO Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who are to get know Christianity - religion from which graws our civilization up. Z,ZK 6 BOM37FAV Physiology and modeling of hearing and vision Z,ZK 6
engineers BOM16PSM Z,ZK 5 BOM16PSO Z,ZK 5 BOM16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who they even to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
B0M16PSM Z,ZK 5 B0M16FSO Theology Z,ZK 5 B0M16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
BOM16TEO Theology Z,ZK 5 This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. Z,ZK 6 B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. BOM37FAV Physiology and modeling of hearing and vision Z,ZK 6
are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up. BOM37FAV Physiology and modeling of hearing and vision Z,ZK 6
Bold and the religion from which graws our civilization up. Z,ZK 6
B0M37FAV Physiology and modeling of hearing and vision Z,ZK 6
The primary and or the course is to study the physiology of sensors and processes of perception of addio and visual mornation by numan subjects as two central and most important
communication channels, i.e., Human Auditory System (HAS) and Human Visual System (HVS). The course summarizes current knowledge in the field of human vision and hearing
physiology and, at the same time, presents their description using mathematical models using the latest computational tools and procedures, including Machine Learning (ML), Deep
Learning (DL) and Artificial Intelligence (AI). Emphasis is also placed on current and prospective applications of the mentioned knowledge. The main application area is the audiovisual
technology related to human perception, but the direct employment of the acquired knowledge also includes the areas of multimedia technology, control systems, automation, robotics,
safety and security technology, bioinspired systems, etc. At the same time, students gain a general overview of information processing in biological systems. A separate part is the
objectification of audiovisual information perceived quality, i.e., Quality of Experience (QoE). The course is intended for students of master's degree in technical fields. The exercises
will be devoted to fundamental experiments to determine the most important characteristics of HAS and HVS, including computational models and simulation of vision and hearing
processes.
B2M31ADAA Adaptive signal processing Z,ZK 6 This course provides a basic discourse on adaptive algorithms for filtering, decorrelation, separation and beamforming.
B2M31AEDA Experimental Data Analysis Z,ZK 6 In the course of subject "Experimental Data Analysis", students will acquire knowledge regarding fundamental methods for data analysis and machine learning for evaluation and
interpretation of data. In the course of practical lectures, students will solve individual tasks using real data from signal processing in neuroscience research. In the course of semestral
project, student will solve complex task and present obtained results. The aim of the subject is to introduce practical application of fundamental statistical methods as well as to teach
students to use critical thinking and to acquire additional knowledge in solution of practical tasks.
B2M31DSP Advanced DSP methods Z,ZK 6
The course follows the basic course in signal processing and introduces advanced methods of analysis and digital signal processing. Graduates will learn the methods of digital signals
analysis and be able to practically use them. They learn to know the conditions of use of correlation, spectral and coherent analysis of random signals. They will became familiar with
methods of signal decomposition and independent component analysis and the time-frequency transformations. Emphasis will be placed on an ability to interpret the results of signal
B2M31SYN Synthesis of Audio Signals Z,ZK 6
This course introduces the fundamentals of sound synthesis algorithms (everyday, music and speech), digital audio effects and sonification. Audio synthetic signals are used in modern digital systems, virtual reality systems, computer animations, games and film. Understanding of theoretical concepts will be consolidated through practical programming assignments
in Matlab.
B2M31ZASA Analog Signal Processing Z,ZK 6
The course deals with analog input-output blocks for signal transmission and processing. They discussed circuit solution of amplifiers and filters, including their design process, simulation
and measurement. Students learn the circuit concepts and possibilities for solving the contemporary analogue structures. The second part of the course describes the design and
implementation of analog filters, including discrete-time circuits. The conclusion is devoted to the possibilities of computer optimization of electronic circuits and filters.
B2M31ZRE Speech Processing Z,ZK 6
The subject is devoted to basis of speech processing addressed to students of master program. Discussed speech technology is currently applied in many systems in different fields
(e.g. information dialogue systems, voice controlled devices, dictation systems or transcription of audio-video recordings, support for language teaching, etc.). Students will learn basic
algorithms for speech analysis (spectral analysis, LPC, cepstral analysis, pitch, formants, etc.), principles of speech recognition (GMM-HMM, ANN-HMM systems, small and large
vocabulary recognizers), speaker recognition (based on VQ and GMM), speech synthesis or speech enhancement. Further information can be found at <a< td=""></a<>
href=http://noel.feld.cvut.cz/vyu/ae2m31zre>http://noel.feld.cvut.cz/vyu/ae2m31zre. Pro zapsané studenty jsou detailní informace na výukovém portálu Moodle FEL.</a
B2M32BTSA Wireless Technologies Z,ZK 6
The lectures give overview of fundamental principles of wireless networks in various areas of their application. Students will understand architecture, principles and protocols used in
different wireless technologies and learn how these technologies can be exploited in real world applications. The goal is to teach students how to solve problems related to deployment
of wireless networks, their operation or development of wireless networks components.

	Digital Video and Audio Broadcasting Z,ZK	6
The subject makes studer	nts familiar with topics related to video and audio transmission. Described are methods of data stream creation, methods of source and channel	coding, error
correction principles and r	nodulation formats. Attention is paid to transmission systems standards with regard to transmission channel properties. The subject also deals wi	th multimedia
	data services and with measurement in transmission systems.	
B2M37KASA	Compression of images and signals Z,ZK	6
The subject deals with cor	npression methods and techniques. Main goal is to introduce basic concepts of lossless and lossy compresion of audiovisual information (entropy	/, redundancy
and irrelevancy). Within	the laboratory exercises students will work with implementations of particular algorithms, including objective and subjective methods of quality	evaluation.
B2M37MAM	Microprocessors Z,ZK	6
	nts acquainted with the properties of microprocessor systems, make students familiar with on-chip peripherals, connect external circuit to the p	rocessor bus,
and with implementation of	of the memory or I/O space address extension. Next, taught the students to make simple program in the assembly language, C language and c	ombination of
both. After completion of	of this subject student should be able to design and implement simpler microprocessor system including connection of necessary peripherals a	nd software
	design.	
B2M37MOTA	Advanced areas in image and video technology Z,ZK	6
This course focuses on the	ne state-of-the-art techniques for digital image and video technology. These techniques and their applications cover almost all areas of technica	l professions
dealing with human inte	raction. A significant part of the course is focused on the methods of image signal processing and main hardware and software functional block	s of related
imaging systems. The aim	of the laboratory exercises is to familiarize with advanced methods for capturing, processing and reproduction of image information. Due to the	fast progress
	in this area, the content of the lectures and exercises is being continuously updated.	
B2M37OBFA	Image Photonics Z,ZK	6
· · · · · · · · · · · · · · · · · · ·	led overview of applied imaging photonic elements and systems. The subject deals with fundamentals of optics, Fourier optics and optical comp	uting. Fourie
-	be, CCD, CMOS. Image displays. Image converters and amplifiers. Photography and holography - sensitometry and densitometry. Photonic (optic	-
	Electron optics. Image processing in biosystems. Image processing for photonics.	,
B2M37OBT	Image Technology Z,ZK	6
1	Itimedia technology and it is focused mainly on acquisition, processing and reproduction of image information. It covers area of measurements i	-
	try; design of objective lenses, image sensors and displays including their parameters. Further the course deals with cinematography, photogra	
-	nage reproduction, e.g. polygraphy and digital printing techniques. Studied problems are completed with explanation of advanced methods of image	-
	(preprocessing, compression, image reconstruction, etc.).	
B2M37SSPA		
	Statistical Signal Processing	6
	Statistical Signal Processing Z,ZK damentals in three main domains of the statistical signal processing: 1) estimation theory. 2) detection theory. 3) optimal and adaptive filtering. T	6 The statistical
The course provides fund	amentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T	he statistical
The course provides fund		he statistical
The course provides functions signal processing is a con	amentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc.	he statistical
The course provides functions and processing is a constant of B2M37TAV	Aamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK	The statistical ad experiment
The course provides functions is a consignal processing is a consistent of the second strength of the second stren	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK	The statistical ad experiment
The course provides functions is a consignal processing is a consistent of the second strength of the second stren	Iteration is a statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital	The statistical ad experiment
The course provides functions functions in the course provides function of the signal processing is a consistence of the signal processing is a consistence of the signal processing is a construct of the sig	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view.	he statistical d experimen 6 6 audio signal
The course provides functions functions is a consistent of the second signal processing is a consistent of the second sec	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK	he statistical d experimen 6 audio signal 6
The course provides functions for the course provides functions is a consistent of the second	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK Audio technology 1 Z,ZK	he statistical d experimen 6 6 audio signal 6 second part
The course provides functions for the course provides functions is a consistent of the second	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound processing systems	he statistical d experiment 6 6 audio signal 6 second part
The course provides functions is a consistent of the course of the course deals with a course deals with a course deals with a course provides function of the course provides function of the course	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro- also treated.	he statistical d experiment 6 6 audio signal 6 second part ccessing are
The course provides functions is a consignal processing is a consignal processing is a consignal processing is a consignal processing is a consignation of the set of	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro- also treated. Z	he statistical d experimen 6 6 audio signal 6 second part pcessing are 6
The course provides functions is a consignal processing is a consequence of the second	damentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound proalso treated. Project Z of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de	he statistical d experiment 6 6 audio signal 6 second part poessing are 6
The course provides functions is a consignal processing is a consignal processing is a consignal processing is a consignal processing is a consignation of the second seco	Itementals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK Nation the psychoacoustic point of view. Description Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound prove also treated. Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html	he statistical d experimen 6 audio signal 6 second part partment or 6
The course provides functions is a consignal processing is a consignal processing is a consignal processing is a consignal processing is a consequence of the second secon	Itementals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK Indamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound prograted. Z Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Z,ZK	he statistical d experiment 6 audio signal 6 beecond part beessing are 6 partment or 6
The course provides functions is a consignal processing is a consect of the second seco	Itementals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Z,ZK Audio technology 1 Z,ZK Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound provales the audio technology also treated. Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis Z	he statistical d experiment 6 audio signal 6 eccond part occessing are 6 partment or 6 25
The course provides functions is a consignal processing is a consequence of the second	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustice and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound proalso treated. Project form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis Z	he statistical d experiment 6 audio signal 6 eccond part bocessing are 6 partment or 6 25 dy, which will
The course provides functions is a consignal processing is a consignation of the second	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro also treated. Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis Z ehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or her branch of study for the comprehensive final examined to branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examiners for the comprehensive final examiners.	he statistical d experiment 6 audio signal 6 second part occessing are 6 partment or 6 y, which will ination.
The course provides functions is a consignal processing is a consignation of the second	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK twanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 X,ZK Audio technology 1 X,ZK audio technology 1 X,ZK form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals X,ZK Diploma Thesis Z Physical education X	he statistical d experimen 6 audio signal 6 eccond part partment or 6 partment or 6 dy, which will
The course provides functions is a consignal processing is a consignation of the service of the servi	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro also treated. Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis Z ehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or her branch of study of the comprehensive final examiners of the department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examiners of the department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examiners Physical Education Z Physical Education Course Z	he statistical d experiment 6 audio signal 6 second part bocessing are 6 partment or 6 y, which will ination.
The course provides functions is a consignal processing is a consignation of the second	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. The theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement arevaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK twanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 X,ZK Audio technology 1 X,ZK audio technology 1 X,ZK form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals X,ZK Diploma Thesis Z Physical education X	he statistical d experimen 6 audio signal 6 second part bccessing are 6 partment or 6 y, which will hination. 1
The course provides functions is a consignal processing is a consignation of the course deals with a consignation of the course deals with a consignation of the course provides function of the course provid	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T e theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Z,ZK Audio Technology 2 Z,ZK dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Z,ZK ndamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sustic and electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro also treated. Project Z form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis Z ehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or her branch of study of the comprehensive final examiners of the department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examiners of the department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final examiners Physical Education Z Physical Education Course Z	The statistical dexperiment of the statistical dexperiment of the second part occessing are constructed of the second part of t
The course provides functions is a consignal processing is a consignation of the course provides with a consignation of the course provides function of the course of	tamentals in three main domains of the statistical signal processing: 1) estimation theory, 2) detection theory, 3) optimal and adaptive filtering. T a theory with many applications ranging from digital communications, audio and video processing, radar and radio navigation, measurement ar evaluation, etc. Technology of Audiovisual Production Audio Technology 2 dvanced topics related to audio technology in recording studios, namely room acoustics, multichannel signal recording and reproduction, digital processing, its impact on auditory perception, audio signal optimization from the psychoacoustic point of view. Audio technology 1 Audio technology 1 Audio technology 1 Audio technology 2 Audio technology 2 Audio technology 1 Audio technology 1 C,ZK hdamentals of physical acoustics and acoustic measurement, including problems of noise from technical and perceptional point of view. In the sust cand electromechanical transducers are explaind along with their analysis. Principles of sound compressing systems and spacial sound pro- also treated. Project form of a project. A student will choose a topic from a range of topics related to his or her branch of study, which will be specified by branch de artments. The project will be defended within the framework of a subject. Project list http://www.fel.cvut.cz/en/education/semestral-projects.html Biological signals Z,ZK Diploma Thesis ehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or her branch of studend of examiners for the comprehensive final exam chance the department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehensive final exam Physical education Course Z Physical Education Course Z	he statistical d experiment 6 audio signal 6 second part partment or 6 partment or 6 25 dy, which will sination. 1 0 0

For updated information see <u>http://bilakniha.cvut.cz/en/f3.html</u> Generated: day 2024-07-27, time 09:35.