Study plan

Name of study plan: Open Informatics - Computer Engineering

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: Open Informatics Type of study: Follow-up master full-time Required credits: 85 Elective courses credits: 35 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: 49 The role of the block: P

Code of the group: 2018_MOIDIP 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_MOIDIP Name=Diploma Thesis

BDIP25	Diploma Thesis	Z	25		
Independent final comprehensive 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, which w					
be specified by branch of	department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehen	sive final examination	ation.		

Code of the group: 2018_MOIP

Name of the group: Compulsory subjects of the programm Requirement credits in the group: In this group you have to gain 24 credits Requirement courses in the group: In this group you have to complete 4 courses Credits in the group: 24 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
B4M35KO	Combinatorial Optimization Zden k Hanzálek Zden k Hanzálek (Gar.)	Z,ZK	6	3P+2C	L	Ρ
B4M33PAL	Advanced algorithms Marko Genyk-Berezovskyj, Daniel Pr ša, Ond ej Drbohlav Daniel Pr ša Daniel Pr ša (Gar.)	Z,ZK	6	2P+2C	Z	Р
B4MSVP	Software or Research Project Ivan Jelínek, Jaroslav Sloup, Ji í Šebek, Martin Šipoš, Drahomíra Hejtmanová, Jana Zichová, Petr Pošík, Martin Hlinovský, Katarína Žmolíková, Ivan Jelínek Ivan Jelínek (Gar.)	κz	6		Z,L	Ρ
B4M01TAL	Theory of Algorithms Marie Demlová, Natalie Žukovec Marie Demlová Marie Demlová (Gar.)	Z,ZK	6	3P+2S	L	Ρ

Characteristics of the courses of this group of Study Plan: Code=2018_MOIP Name=Compulsory subjects of the programm

B4M35KO	Combinatorial Optimization				Z,ZK	6
The goal is to show the	problems and algorithms of combinatorial optimization (often called discrete optimization; the	nere is a strong ov	erlap with th	e term oper	rations researcl	h). Following
	gebra, graph theory, and basics of optimization, we show optimization techniques based o			-		
	ace search methods. We focus on application of optimization in stores, ground transportation	on, flight transpor	tation, logist	tics, plannin	g of human res	sources,
	n lines, message routing, scheduling in parallel computers.					
B4M33PAL	Advanced algorithms				Z,ZK	6
Basic graph algorithms	and graph representation. Combinatorial algorithms. Application of formal languages theorem	ry in computer scie	ence - patte	rn matching	l.	
B4MSVP	Software or Research Project				KZ	6
B4M01TAL	Theory of Algorithms			2	Z,ZK	6
The course brings theor	retical background of the theory of algorithms with the focus at first on the time and space	complexity of algo	rithms and			correctness
of algorithms. Further it	is dealt with the theory of complexity; the classes P, NP, NP-complete, PSPACE and NPSF	PACE are treated a	and properti	es of them i	investigated. Pr	obabilistic
algorithms are studied a	and the classes RP and ZZP introduced.					
Name of the h	lock: Compulsory courses of the specialization					
Minimal numb	er of credits of the block: 36					
The role of the	block: PO					
	0040 MOIDO 4					
Code of the gr	oup: 2018_MOIPO4					
Name of the a	roup: Compulsory subjects of the branch					
•		orodito				
•	credits in the group: In this group you have to gain 36					
Requirement of	courses in the group: In this group you have to compl	ete 6 cours	ses			
Credits in the	aroun: 36					
Note on the gr	•					
	Name of the course / Name of the group of courses					
Code	(in case of groups of courses the list of codes of their	Completion	Cradite	Scone	Semester	Role
Code	members)	Completion	Greans	Scope	Semester	Noie
	Tutors, authors and guarantors (gar.)					
B4M38AVS	Embedded Systems Application	Z,ZK	6	2P+2L	L	PO
DHINOOAVO	Jan Sobotka, Radek Sedlá ek Radek Sedlá ek Radek Sedlá ek (Gar.)	2,21	0			FU
B4M36ESW	Effective Software	Z,ZK	6	2P+2C	L	PO
DHNOOLOW	Michal Sojka, David Šišlák David Šišlák David Šišlák (Gar.)	2,21		21 120		10
D 11 10 10 0	Systems on Chip			0.0.01		
B4M34ISC	Tomáš Teplý, Ji í Jakovenko, Vladimír Janí ek, Jan Novák Ji í Jakovenko	Z,ZK	6	2P+2L	Z	PO
	Ji í Jakovenko (Gar.)					
B4M38KRP	Computer Interfaces	Z,ZK	6	2P+2L	Z	PO
	Ji í Novák Ji í Novák Ji í Novák (Gar.)					
B4M35PAG	Parallel algorithms Pemysl Š cha Pemysl Š cha Pemysl Š cha (Gar.)	Z,ZK	6	2P+2S	Z	PO
	Advanced Computer Architectures		-			
B4M35PAP	Pavel Píša, Karel Ko í Pavel Píša Pavel Píša (Gar.)	Z,ZK	6	2P+2C	Z	PO
		1	I		11	
Characteristics of	the courses of this group of Study Plan: Code=2018_MOIPO4 Na	me=Compuls	orv subi	ects of t	he branch	
B4M38AVS	Embedded Systems Application				Z,ZK	6
	pplications of embedded systems and their specifics. It is expected that the students have l	had a programmin	a course a		· ·	
	ng the blocks and functions of embedded systems and their use in signal processing, rathe		-			
	ability and power of available processors, and their peripherals, on the basis of which, they	-				
wide spectrum of applic			maoponao	niy doolgii t		
B4M36ESW	Effective Software				Z,ZK	6
	cient software you will get familiar with the area of software and algorithm optimization und	har limited recourse	os Tho cou			-
	tectures - multi-core and multi-processor systems with shared memory. Students will pract					-
	ation, effective data structures and processor cache usage, data structures in multi-thread				•	
B4M34ISC	Systems on Chip	loosibility study	itoria for to -	1	Z,ZK	6
	integrated circuits designer; design abstraction levels - Y chart. Specification designation, 1 egrated systems design and simulation methodologies. Main features of application specifi				-	
				-	-	-
	ects mobile and low power systems. Hardware Description languages (HDL). Logic and phy	ysical synthesis. F	ionu enu ai		a design. Floor	Janning,
	parasitic extraction, time analysis, testbenche construction and verification.			- 1	7 71/	<u> </u>
B4M38KRP	Computer Interfaces				Z,ZK	6
	d with functional principles of computers and embedded systems communication interface	-			-	
	wired and wireless computer and sensor networks as well as industrial distributed systems					ratories will
	he familiar with implementation of communication hardware and software into the real devi	ces, including thei	r support in			-
B4M35PAG	Parallel algorithms				Z,ZK	6
	res, we will focus on general approaches to design of parallel algorithms and their properti	-		-		-
-	ns. Subsequently we will talk about fundamental parallel algorithms; typically, constituting	cornerstones of al	gorithms for	real-world	problems. The l	laboratory
	thardware platform commonly used in practice.					
B4M35PAP	Advanced Computer Architectures			2	Z,ZK	6
Name of the b	lock: Elective courses					

Minimal number of credits of the block: 0 The role of the block: V 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
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_MOIH Name=Humanities subjects

B0M16FIL		Z,ZK	5
B0M16HVT	History of science and technology 2	Z,ZK	5
This subject traces h	storical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate s	tudents' interest i	n the history and
traditions of the subje	ect, 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	th 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 i	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
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	who want to get	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 <i>Ji í Drnek</i>	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

TVV	Physical education	Z	0
A003TV	Physical Education	Z	2
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_MOIVOL Name of the group: Elective subjects ~The offer of elective courses arranged by departments can be found on the website https://fel.cvut.cz/en/education/volitelne-predmety.html\\

List of courses of this pass:

Code	Name of the course Complete	on Credits
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 more than the second	sults as well a
	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
	historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in	
traditions of the sul	bject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influe	nce of technica
	engineers	
B0M16PSM	Psychology Z,ZK	5
B0M16TEO	Theology Z,ZK	5
	des to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theol	
are gone through. T	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 k	now Christianit
D (MAG (TA)	- religion from which graws our civilization up.	
B4M01TAL	Theory of Algorithms Z,ZK	6
	theoretical background of the theory of algorithms with the focus at first on the time and space complexity of algorithms and problems, secondly on	
or argorithms. Furt	her it is dealt with the theory of complexity; the classes P, NP, NP-complete, PSPACE and NPSPACE are treated and properties of them investigate algorithms are studied and the classes RP and ZZP introduced.	u. FIODADIIIStiC
B4M33PAL	Advanced algorithms Z,ZK	6
	graph algorithms and graph representation. Combinatorial algorithms. Application of formal languages theory in computer science - pattern matchi	-
B4M34ISC		- <u>19</u> .
	Systems on Chip Z,ZK ties of integrated circuits designer; design abstraction levels - Y chart. Specification designation, feasibility study, criteria for technology and design	-
	al integrated systems design and simulation methodologies. Main features of application specific ICs - full custom design, gate arrays, standard cells	
array logic. Desig	n aspects mobile and low power systems. Hardware Description languages (HDL). Logic and physical synthesis. Frond End and Back End design.	loorplanning,
	a second sector la sector de secondario estas de la secondaria de secondaria de sector de secondaria de second	
D (MOSICO	place and route, layout, parasitic extraction, time analysis, testbenche construction and verification.	
B4M35KO	Combinatorial Optimization Z,ZK	6
The goal is to show	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved) Example 1	arch). Followin
The goal is to show the courses on li	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations resented and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization techniques based on graphs, integer linear programming, heuristics, and basics of optimization (techniques based on graphs).	arch). Followin pproximation
The goal is to show the courses on li	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations resented and algorithms of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum	arch). Followin pproximation
The goal is to show the courses on li algorithms and s	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, a tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers.	arch). Followin pproximation an resources,
The goal is to show the courses on li algorithms and si B4M35PAG	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, a tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK	arch). Followin pproximation an resources, 6
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, a tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental print	arch). Followin pproximation an resources, 6 iples of paralle
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, a tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental pringorithms. Subsequently we will talk about fundamental parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems.	arch). Followin pproximation an resources, 6 iples of paralle
The goal is to show the courses on li algorithms and st B4M35PAG In the introductory I and distributed alg	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK ectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental pringorithms. Subsequently we will talk about fundamental parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems.	arch). Followin pproximation an resources, 6 iples of paralle The laboratory
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved and algorithms of combinatorial optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Advanced Computer Architectures Z,ZK	arch). Followin pproximation an resources, 6 ciples of paralle The laboratory 6
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved near algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK sectures, we will focus on general approaches to design of parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Advanced Computer Architectures Z,ZK Effective Software Z,ZK	arch). Followin pproximation an resources, 6 ciples of paralle The laboratory 6 6
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW Within the course of	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved near algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental prin gorithms. Subsequently we will talk about fundamental parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Advanced Computer Architectures Z,ZK Effective Software Z,ZK of Efficient software you will get familiar with the area of software and algorithm optimization under limited resources. The course is focused on the exercise is focused on the exercise.	arch). Followin pproximation an resources, iples of paralle The laboratory 6 ficient usage of
The goal is to show the courses on li algorithms and st B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW Within the course o modern hardware a	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved near algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hum scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK Rectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental prin gorithms. Subsequently we will talk about fundamental parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Advanced Computer Architectures Z,ZK Effective Software Z,ZK of Efficient software you will get familiar with the area of software and algorithm optimization under limited resources. The course is focused on the earchitectures - multi-core and multi-processor systems with shared memory. Students will practically implement and use presented techniques in C	arch). Followin pproximation an resources, iples of paralle The laboratory 6 ficient usage of and Java. Main
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW Within the course o modern hardware a topics are: code of	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved near algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hume scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms and their properties important for understanding the fundamental prin gorithms. Subsequently we will talk about fundamental parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Effective Software Z,ZK of Efficient software you will get familiar with the area of software and algorithm optimization under limited resources. The course is focused on the earchitectures - multi-core and multi-processor systems with shared memory. Students will practically implement and use presented techniques in C optimization, effective data structures and processor cache usage, data structures in multi-threaded applications and implementation of efficient ne distribution of efficient ne distributis and proces	arch). Followin pproximation an resources, iples of paralle The laboratory 6 ficient usage of and Java. Mair work servers.
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW Within the course of modern hardware a topics are: code of B4M38AVS	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved near algebra, graph theory, and basics of optimization, we show optimization techniques based on graphs, integer linear programming, heuristics, at tate space search methods. We focus on application of optimization in stores, ground transportation, flight transportation, logistics, planning of hume scheduling in production lines, message routing, scheduling in parallel computers. Z,ZK Parallel algorithms Z,ZK lectures, we will focus on general approaches to design of parallel algorithms; typically, constituting cornerstones of algorithms for real-world problems. exercise will be aimed at hardware platform commonly used in practice. Z,ZK Image: Computer Architectures Z,ZK Image: Comp	arch). Followin pproximation an resources, iples of paralle The laboratory 6 ficient usage of and Java. Main work servers. 6
The goal is to show the courses on li algorithms and si B4M35PAG In the introductory I and distributed alg B4M35PAP B4M36ESW Within the course of modern hardware a topics are: code of B4M38AVS This course present	Combinatorial Optimization Z,ZK the problems and algorithms of combinatorial optimization (often called discrete optimization; there is a strong overlap with the term operations reserved in the structures in a strong overlap with the term operations and implementation of efficient term operations in the structures in multi-threaded applications and implementation of efficient ne structures and receiver cache usage, data structures in multi-threaded applications and implementation of efficient ne term operations of embedded systems and their specifics. It is expected that the students have had a programming course, and thus the course is not structures in a structure in a struct	arch). Followin pproximation an resources, iples of paralle The laboratory 6 ficient usage of and Java. Main work servers. 6 ore oriented o
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