



SYM-OP-IS

2021

Program rada

XLVIII simpozijum o operacionim istraživanjima

Banja Koviljača, 20–23. septembar 2021.

Programme

XLVIII Symposium on Operational Research

Banja Koviljača, September 20–23, 2021

MATΦ

Univerzitet u Beogradu
Matematički fakultet



MATEMATIČKI INSTITUT
SRPSKE AKADEMJE NAUKA I
UMETNOSTI

PREGLED PROGRAMA / PROGRAM OVERVIEW

Ponedjeljak, 20. septembar 2021 / Monday, September 20, 2021			
12.00 – 16.00	SYM-OP-IS 2021 registracija i smeštaj / Registration and accommodation		
16.00 – 16.30	Sala A / Room A: Svečano otvaranje / Opening ceremony		
16.30 – 17.00	Koktel dobrodošlice / Welcome cocktail		
17.00 – 19.00	Sala A/Room A: Plenarna predavanja 1 / Plenary session 1		
Utorak, 21. septembar 2021 / Tuesday, September 21, 2021			
09.00 – 10.00	Sala A / Room A: Plenarna predavanja 2 / Plenary session 2		
10.00 – 11.30	Sala A / Room A	Sala B / Room B	Sala C / Room C
	Paralelne sekcije/Parallel sessions		
	HEU-1 (VNS) ¹	MEN	IIR, PAN
11.30 – 12.00	Pauza za kafu / Coffee break		
12.00 – 19.00	Izlet i ručak / Excursion and lunch		
Sreda, 22. septembar 2021 / Wednesday, September 22, 2021			
09.00 – 11.00	Sala A / Room A	Sala B / Room B	Sala C / Room C
	Paralelne sekcije/Parallel sessions		
	LLS	HEU-2, MER	FIB
11.00 – 11.30	Pauza za kafu / Coffee break		
11.30 – 13.00	Paralelne sekcije / Parallel sessions		
	PUO	KOP, MPR	SSM
13.00 – 15.30	Pauza za ručak / Lunch break		
15.30 – 17.00	Paralelne sekcije / Parallel sessions		
	STK-1	EMU-1	NOB, STM
17.00 – 17.30	Pauza za kafu / Coffee break		
17.30 – 19.00	Paralelne sekcije / Parallel sessions		
	STK-2, GIM	EMU-2, ANP	PUG, RGE
20.00	Svečana večera / Gala dinner		
Četvrtak, 23. septembar 2021 / Thursday, September 23, 2021			
09.00 – 11.00	Sala A / Room A	Sala B / Room B	Sala C / Room C
	Paralelne sekcije / Parallel sessions		
	IST	GIS	VAO, EME
11.00 – 11.30	Svečano zatvaranje / Closing ceremony		
12.00	Povratak za Beograd / Return to Belgrade		

Session language

Srpski

English

Srpski/English

* Organizator može da izvrši manje promene u programu. Sve izmene će biti objavljene na oglasnim tablama.

* The organizer keeps the right to make small changes on the program. All changes will be announced on the board.

¹ VNS metoda i primene (specijalna sekcija u čast prof. Nenada Mladenovića)/VNS Method and Applications (special session in honour to Prof. Nenad Mladenović)

PROGRAMSKE OBLASTI / TOPICS

ANP	Analiza performansi / Performance Analysis	MIB	Meka i bihevioralna OI / Soft and Behavioral OR
EMU	Ekološki menadžment i upravljanje prirodnim resursima / Environmental Management and Natural Resources Management	MER	Meko računarstvo / Soft Computing
EME	Ekonomski modeli i ekonometrija / Economic Models and Econometrics	MEN	Menadžment / Management
ELP	Elektronsko poslovanje / Electronic Business	NOP	Nauka o podacima / Data Science
FIB	Finansije i bankarstvo / Finance and Banking	PAN	Poslovna analitika / Business Analytics
GIS	Geoinformacioni sistemi / Geoinformation systems	PUR	Pouzdanost i upravljanje rizikom / Reliability and Risk Management
GIM	Grafovi i mreže / Graphs and networks	PUG	Primene OI u građevinarstvu / OR Applications in Civil Engineering
HEU	Heuristike / Heuristics	PUO	Primene OI u odbrani / OR Applications in Military Defence
IST	Informacioni sistemi i tehnologije / Information Systems and Technologies	RGE	Rudarstvo, geologija i energetika / Mining, Geology and Energetics
IIR	Istraživanje i razvoj / Research and Development	STK	Saobraćaj, transport i komunikacije / Traffic, Transportation and Communication
KOP	Kombinatorna optimizacija / Combinatorial Optimization	SSM	Simulacija i stohastički modeli / Simulation and Stochastic Models
LLS	Logistika i lanci snadbevanja / Logistics Management and Supply Chains	SOI	Softver za OI / OR Software
MPR	Matematičko programiranje / Mathematical Programming	STM	Statistički modeli / Statistical Models
		TIG	Teorija igara / Game Theory
		UPR	Upravljanje proizvodnjom / Production Management
		VAO	Višekriterijumska analiza i optimizacija / Multicriteria Analysis and Optimization

Plenarna predavanja 1 / Plenary session 1

Natasha Shakhlevich, School of Computing, University of Leeds (UK)

Optimization under Uncertainty: a New Take on an Old Problem

Nikolaos Matsatsinis, School of Production Engineering and Management of the Technical University of Crete (Greece)

Intelligent Multi-Criteria Decision Support Systems and their Applications

Plenarna predavanja 2 / Plenary session 2

Nenad Mladenović, Department of Industrial and Systems Engineering, Khalifa University, Abu Dhabi (UAE)

Less is more approach in Optimization - possible road to Artificial Intelligence



PARELELNE SEKCIJE/PARALLEL SESSIONS

UTORAK, 21. septembar

TUESDAY, September 21

10.00–11.30 Sala A / Room A

VNS metoda i primene / VNS Method and Applications

(specijalna sekcija u čast prof. Nenada Mladenovića / special session in honour to Prof. Nenad Mladenović)

HEU-1 Heuristike / Heuristics

RASPODELE SA TEŠKIM REPOVIMA ZA KONTINUALNI VNS (FAT-TAILED DISTRIBUTIONS FOR CONTINUOUS VNS)

Zorica Dražić

METAHEURISTIČKI PRISTUP REŠAVANJU VIŠEPERIODNOG PROBLEMA P-MEDIJANE OTPORNOG NA OTKAZE (METAHEURISTIC APPROACH TO SOLVING MULTI-PERIOD FAULT-TOLERANT P-MEDIAN PROBLEM)

Kristina Kostić, Zorica Stanimirović

GENERAL VARIABLE NEIGHBORHOOD SEARCH FOR THE WEIGHTED SCHEDULING PROBLEM WITH DEADLINES AND RELEASE TIMES

Luka Matijević, Una Stanković, Tatjana Davidović

METODA PROMENLJIVIH OKOLINA ZA PROBLEM MAKSIMIZACIJE RAZNOLIKOSTI SA KAPACITETIMA (BASIC VARIABLE NEIGHBORHOOD SEARCH FOR CAPACITATED DISPERSION PROBLEM)

Nenad Mladenović, Raca Todosijević, Dragan Urošević

HYBRID VARIABLE NEIGHBORHOOD SEARCH FOR THE AUTOMATIC WAREHOUSE SCHEDULING

Yury Kochetov, Ivan Davydov, Daniil Tolstykh

VARIABLE NEIGHBORHOOD SEARCH ALGORITHMS FOR SOME DISCRETE FACILITY LOCATION PROBLEMS

Tatyana Levanova

10.00–11.30 Sala B / Room B

MEN Menadžment / Management

MALOPRODAJA I OPERACIONA ISTRAŽIVANJA: ISTRAŽIVAČKE PERSPEKTIVE (RETAIL AND OPERATIONS RESEARCH: RESEARCH PERSPECTIVES)

Aleksa Dokić, Mladen Stamenković, Dragan Stojković

MEĐUNARODNE AKVIZICIJE I KONKURETNOST KINESKIH MULTINACIONALNIH KOMPANIJA (CROSS-BORDER ACQUISITIONS AND COMPETITIVENESS OF CHINESE MULTINATIONAL COMPANIES)

Dušan Marković



ODREĐIVANJE VAŽNOSTI KRITERIJUMA PRI IZBORU FAKULTETA PRIMENOM MACBETH METODE (EVALUATION OF IMPORTANCE OF FACULTY SELECTION CRITERIA USING MACBETH METHOD)

Milena Popović, Bisera Andrić Gušavac, Minja Marinović, Dragan Pamučar

CIRCULAR ECONOMY IN CONSTRUCTION

Milena Senjak, Igor Peško, Vladimir Mučenski, Mirjana Terzić

UTICAJ POTROŠAČKOG KOSMOPOLITIZMA I KSENOCENTRIZMA NA PRIHVATANJE STRANIH BRENDOVA- MODERATORSKI EFEKAT IMIDŽA ZEMLJE POREKLA (THE INFLUENCE OF CONSUMER COSMOPOLITANISM AND XENOCENTRISM ON THE ACCEPTANCE OF FOREIGN BRANDS- MODERATORY EFFECT OF THE IMAGE OF THE COUNTRY OF ORIGIN)

Stefan Zdravković, Jelena Peković

10.00–11.30 Sala C / Room C

IIR Istraživanje i razvoj / Research and Development

PROMENE U POSLOVNOM MODELU I NAČINU ZADOVOLJENJA NOVIH POTREBA KUPACA UZROKOVANE NOVOM DIGITALNOM EROM (CHANGES IN THE BUSINESS MODEL AND THE WAY OF MEETING THE NEW NEEDS OF CUSTOMERS CAUSED BY THE NEW DIGITAL ERA)

Teodora Ivanović

MERE POLITIKE ISTRAŽIVANJA I INOVACIJA EVROPSKE UNIJE TOKOM COVID-19 PANDEMIJE (MEASURES OF THE EU RESEARCH AND INNOVATION POLICY DURING THE COVID-19 PANDEMIC)

Dijana Štrbac, Lazar Živković, Đuro Kutlača

POVEZANOST INVESTICIJA U ISTRAŽIVANJE I RAZVOJ I REZULTATA ISTRAŽIVAČKORAZVOJNOG PROCESA U REPUBLICI SRBIJI – ANALIZA VREMENSKIH SERIJA (RELATIONSHIP BETWEEN R&D INVESTMENT AND R&D OUTPUT IN THE REPUBLIC OF SERBIA – TIME SERIES ANALYSIS)

Nikola Vasilčić, Đuro Kutlača

ISTRAŽIVANJE JAVNOG MNJENJA U FUNKCIJI SAGLEDAVANJA UTICAJA RAZLIČITIH DRUŠTVENO-EKONOMSKIH FAKTORA NA PONAŠANJE U PANDEMIJI (PUBLIC OPINION RESEARCH IN THE FUNCTION OF CONSIDERING THE INFLUENCE OF DIFFERENT SOCIO-ECONOMIC FACTORS ON BEHAVIOR IN A PANDEMIC)

Jovanka Vukmirović, Aleksandra Vukmirović, Sofija Vukmirović

MODEL OTVORENIH INOVACIJA U KOMPANIJAMA U REPUBLICI SRBIJI (OPEN INNOVATION MODEL IN SERBIAN COMPANIES)

Lazar Živković, Dijana Štrbac, Đuro Kutlača

PAN Poslovna analitika / Business Analytics

ANALIZA STAVOVA STUDENATA PREMA ONLINE NASTAVI (ANALYSIS OF STUDENTS' ATTITUDES TOWARDS ONLINE TEACHING)

Milan Radojičić, Ivana Milićev



09.00–11.00 Sala A / Room A

LLS Logistika i lanci snabdevanja / Logistics Management and Supply Chains

VREMENSKO RASPOREĐIVANJE VOZILA NA CROSS DOCK TERMINALIMA ZA PRETOVAR LAKO KVARLJIVE ROBE: LINERANA FORMULACIJA (TRUCK SCHEDULING IN CROSS DOCK TERMINALS FOR PERISCHABLE GOODS: LINEAR FORMULATION)

Nenad Bjelić, Milorad Vidović, Branislava Ratković

UNAPREĐENJE FUNKCIONISANJA LANCA SNABDEVANJA U AUTOMOBILSKOJ INDUSTRIJI PRIMENOM KOOPETITIVNIH IGARA (IMPROVING THE FUNCTIONING OF SUPPLY CHAINS IN THE AUTOMOTIVE INDUSTRY BY APPLYING COOPETITIVE GAMES)

Nemanja Jevtić, Biljana Panić

ODREĐIVANJE OPTIMALNE MULTIKANALNE STRATEGIJE U USLOVIMA PANDEMIJE COVID-19 (DETERMINATION OF THE OPTIMAL MULTICANAL STRATEGY IN THE CONDITIONS OF THE COVID-19 PANDEMIC)

Jelena Končar, Sonja Vučenović, Radenko Marić, Goran Vukmirović

FAZI MODEL ZA IZBOR SNABDEVAČA (FUZZY MODEL FOR SUPPLIER SELECTION)

Milica Mitrović, Gordana Radivojević, Dražen Popović

EVALUATION AND SELECTION OF FREIGHT FORWARDING COMPANY USING SWARA-COCOSO APPROACH

Vukašin Pajić, Milan Andrejić, Milorad Kilibarda

IZBOR SNABDEVAČA PRIMENOM METODA AHP I FAHP (SUPPLIER SELECTION USING AHP AND FAHP METHODS)

Gordana Radivojević, Milica Mitrović, Dražen Popović

LOCIRANJE OBJEKATA ZA TRETMAN INFEKTIVNOG MEDICINSKOG OTPADA (FACILITY LOCATION FOR INFECTIOUS HEALTHCARE WASTE TREATMENT)

Branislava Ratković, Branka Dimitrijević, Lazar Marković

DETERMINING DELIVERY DURATION IN URBAN AREAS USING FUZZY SYSTEM

Snežana Tadić, Mladen Krstić, Miloš Veljović

MULTI LEVEL FACILITY LOCATION MODEL AND SUCCESSIVE SET COVERING AND P-MEDIAN HEURISTICS APPLICATION TO ESTABLISH RECYCLING NETWORK

Milorad Vidović, Sladana Jovanović

09.00–11.00 Sala B / Room B

HEU-2 Heuristike / Heuristics

DVOKRITERIJUMSKI DINAMIČKI PROBLEM MAKSIMALNOG POKRIVANJA LOKACIJA (BI-OBJECTIVE DYNAMIC MAXIMAL COVERING LOCATION PROBLEM)

Lazar Mrkela, Zorica Stanimirović



REŠAVANJE PROBLEMA RASPOREĐIVANJA POSLOVA NA JEDNOJ MAŠINI SA PERIODIČNIM RESURSNIM OGRANIČENJIMA (SOLVING THE SINGLE-MACHINE SCHEDULING PROBLEM WITH PERIODICAL RESOURCE CONSTRAINTS)

Maja Ristić, Zorica Dražić

HIBRIDNA METAHEURISTIKA ZA REŠAVANJE PROBLEMA P-HAB MAKSIMALNOG POKRIVANJA NEOGRANIČENIH KAPACITETA SA R-ALOKACIJSKOM ŠEMOM (HYBRID METAHEURISTIC METHOD FOR THE UNCAPACITATED r-ALLOCATION p-HAB MAXIMAL COVERING PROBLEM)

Zorica Stanimirović, Olivera Stančić

OCENE KVALITETA ZA FAZI KLASTEROVANJE NA KOMPLEKSNIM MREŽAMA (QUALITY MEASURES FOR FUZZY CLUSTERING IN COMPLEX NETWORKS)

Filip Vidojević, Denis Aličić, Miroslav Marić, Dušan Džamić

MER Meko računarstvo / Soft Computing

GENERIČKI ALGORITAM KLASTEROVANJA ZASNOVAN NA OPTIMIZACIJI ROJEM ČESTICA (GENERIC CLUSTER ALGORITHM BASED ON PARTICLE SWARM OPTIMIZATION)

Denis Aličić, Filip Vidojević, Dušan Džamić, Miroslav Marić

PRIMENA TEHNIKA RAČUNARSKE INTELIGENCIJE ZA BEZBEDNOST NA RADNOM MESTU – PREGLED LITERATURE (COMPUTATIONAL INTELLIGENCE TECHNIQUES FOR WORKPLACE SAFETY – LITERATURE REVIEW)

Pavle Milošević, Arso M. Vukićević, Miloš Milovanović

PRIMENA HIBRIDNIH NEUTROSOFNIH RASPLINUTIH BROJEVA ZA MODELIRANJE NEIZVESNOSTI U ODLUČIVANJU (APPLICATION OF HYBRID NEUTROSOPHIC FUZZY NUMBERS FOR MODELING UNCERTAINTY IN DECISION MAKING)

Dragan Pamučar, Goran Čirović, Nataša Popović-Miletić

PRIMENA ALGORITMA FAZI C-SREDNJIH VREDNOSTI PRI SELEKCIJI ČLANOVA STUDENTSKE ORGANIZACIJE CASE STUDY CLUB (SELECTING CASE STUDY CLUB MEMBERS USING FUZZY C-MEANS ALGORITHM)

Aleksandra Vučićević, Pavle Milošević, Ana Poledica

09.00–11.00 Sala C / Room C

FIB Finansije i bankarstvo / Finance and Banking

NOVI PRISTUPI OCENJIVANJU STEPENA KONCENTRACIJE I KONKURENCIJE: PRIMER SEKTORA OSIGURANJA U SRBIJI (NEW APPROACHES TO ESTIMATION OF CONCENTRATION AND COMPETITION DEGREE: EXAMPLE OF INSURANCE SECTOR IN SERBIA)

Rajko M. Bukvić

VALUTNA NEUSAGLAŠENOST U COVID-19 OKOLNOSTIMA (CURRENCY MISMATCH IN COVID-19 CIRCUMSTANCES)

Irena Janković

SOVEREIGN CREDIT RATING TRANSITION MATRIX ESTIMATION USING DIFFERENTIAL EVOLUTION

Srdan Jelinek, Dragana Makajić-Nikolić, Pavle Milošević



VALUTNI SVOP IZMEĐU POSLOVNIH BANAKA I NARODNE BANKE SRBIJE (CURRENCY SWAP BETWEEN COMMERCIAL BANKS AND THE NATIONAL BANK OF SERBIA)

Ivana Jeremić

SYSTEMIC RISKS AND STATIC INDICATORS OF BANK ASSETS QUALITY: HOW COINTEGRATION CAN BE LOST

Željko Jović

OCENA REPNOG FAKTORA RAZVOJA ŠTETA EKSTRAPOLACIJOM TEORIJSKOG OBLIKA KRIVE (ESTIMATION OF LOSS DEVELOPMENT TAIL FACTOR WITH CURVE FITTING METHOD)

Jelena Kočović, Marija Koprivica

DISKONT ZA NEUTRŽIVOST AKCIJA: PRIMENA U SRBIJI (DISCOUNT FOR LACK OF MARKETABILITY: APPLICATION IN SERBIA)

Nina Milenković

DRIVERS OF RISE IN PUBLIC DEBT DURING COVID-19 PANDEMIC: A DECOMPOSITION APPROACH

Saša Randelović

11.30–13.00 Sala A / Room A

PUO Primene OI u odbrani / OR Applications in Military Defence

PROCENA RIZIKA RADNIH MESTA TOKOM PROCESA DELABORACIJE UBOJNIH SREDSTAVA (RISK ASSESSMENT OF WORKPLACES DURING THE AMMUNITION DISASSEMBLY PROCESS)

Zoran Bajić, Dušan Jevremović, Jovica Bogdanov, Zlate Veličković

ANALIZA SISTEMA AKTIVNE ZAŠTITE BORBENIH VOZILA (ANALYSIS OF ACTIVE PROTECTION SYSTEMS FOR COMBAT VEHICLES)

Jovica Bogdanov, Anas Chabane, Dragan Pamučar, Zoran Bajić

UNAPREĐENJE BEZBEDNOSTI KOMERCIJALNIH VOZILA U SAOBRAĆAJU (IMPROVING THE SAFETY OF COMMERCIAL VEHICLES IN TRAFFIC)

Srđan Dimić, Milan Kankaraš, Srđan Ljubojević

KONCEPT PARALAKSE NESAVRŠENOG KOMANDNO-INFORMACIONOG SISTEMA ZA SIMULATORE VOJNIH SISTEMA ROJENJA (IMPERFECT COMMAND INFORMATION SYSTEM PARALLAX CONCEPT FOR MILITARY SWARMING SYSTEMS SIMULATORS)

Radimir Janković

STRUCTURING QUEUEING MODEL FOR MOBILIZATION OF VEHICLES FOR WARTIME MILITARY UNITS

Nebojša Nikolić

ODREĐIVANJE BORBENIH MOGUĆNOSTI I EFIKASNOSTI HIBRIDNOG PVO SISTEMA U ODBRANI OD NAPADA DRONOVA KAMIKAZA (DETERMINATION OF COMBAT CAPABILITIES AND EFFICIENCY OF HYBRID ANTI-AIRCRAFT SYSTEMS IN DEFENSE AGAINST THE KAMIKAZE DRONS)

Dalibor Petrović, Vladimir Stanković, Momir Drakulić



11.30–13.00 Sala B / Room B

KOP Kombinatorna optimizacija / Combinatorial Optimization

SOME REMARKS ON THE EFFICIENCY OF COMPLEXITY INDICES FOR THE TRAVELING SALESMAN PROBLEM

Dragoš Cvetković, Zorica Dražić, Vera Kovačević-Vujčić

MATHEMATICAL MODELS FOR THE WEIGHTED SCHEDULING PROBLEM WITH DEADLINES AND RELEASE TIMES

Una Stanković, Luka Matijević, Tatjana Davidović

BRANCH AND BOUND ALGORITHM FOR BI-OBJECTIVE SET COVERING PROBLEM

Hamidi Imane, Chaabane Djamel

MPR Matematičko programiranje / Mathematical Programming

SUFFICIENCY CRITERIA IN CONTINUOUS-TIME PROGRAMMING PROBLEMS OF VECTOR OPTIMIZATION

Aleksandar Jović

SOLVING A REAL WORLD NON-CONVEX QUADRATIC ASSIGNMENT PROBLEM

Badri Toppur

11.30–13.00 Sala C / Room C

SSM Simulacija i stohastički modeli / Simulation and Stochastic Models

SIMULACIONI MODEL ZA PRORAČUN EMISIJE ŠTETNIH GASOVA NA AERODROMU BEOGRAD (SIMULATION MODEL FOR POLLUTANTS EMISSION CALCULATION AT BELGRADE AIRPORT)

Jelena Belić, Bojana Mirković, Marko Đogatović, Tatjana Krstić Simić

STOCHASTIC MODELS FOR A SIMPLE LOTTERY GAME

Jelena Jocković, Bojana Todić

O RASPODELI VEROVANJA PARAMETARA POUZDANOSTI DVOKOMPONENTNOG SISTEMA SA NEZAVISNIM EKSPONENCIJALNIM RASPODELAMA (ON A FIDUCIAL DISTRIBUTION OF THE RELIABILITY PARAMETER OF A TWO-COMPONENT SYSTEM WITH INDEPENDENT EXPONENTIAL DISTRIBUTIONS)

Žikica Lukić, Bojana Milošević, Marko Obradović

SIMULATION MODELLING OF AIRSIDE OPERATIONS AT NIS AIRPORT AND VALIDATION BY MODELS COMPARISON

Goran Pavlović, Bojana Mirković, Marko Đogatović

ALGEBRAIC MODELING OF SOCIAL SYSTEMS EVOLUTION – ALMODES

Jerzy Michnik



15.30–17.00 Sala A / Room A

STK-1 Saobraćaj, transport i komunikacije / Traffic, Transportation, and Communication

REŠAVANJE PROBLEMA RUTIRANJA VOZILA SA VREMENSKIM INTERVALIMA I OPTIMIZACIJOM POTROŠNJE GORIVA PRIMENOM HEURISTIČKIH ALGORITAMA (SOLVING THE VEHICLE ROUTING PROBLEM WITH TIME WINDOWS AND OPTIMIZATION OF FUEL CONSUMPTION BY HEURISTIC ALGORITHMS)

Predrag Grozdanović, Miloš Nikolić, Katarina Vukadinović

PREGLED PRIMENA METAHEURISTIKE OPTIMIZACIJA KOLONIJOM PČELA NA PROBLEME U SAOBRAĆAJU I TRANSPORTU (REVIEW OF THE BEE COLONY OPTIMIZATION METAHEURISTIC APPLICATIONS TO TRAFFIC AND TRANSPORT PROBLEMS)

Ivana Jovanović, Milica Šelmić, Miloš Nikolić

MODELIRANJE UZROKA IZLETANJA SA POLETNO-SLETNIH STAZA PRIMENOM ANALIZE STABLA OTKAZA (MODELLING OF RUNWAY EXCURSIONS USING FAULT TREE ANALYSIS)

Jovana Sekulić, Feđa Netjasov

ODREĐIVANJE LOKACIJA SUPER-PUNJAČA ZA SNABDEVANJE SISTEMA ELEKTRO AUTOBUSA (DETERMINATION OF SUPER-CHARGER LOCATIONS FOR SUPPLYING ELECTRIC BUS SYSTEM)

Marko Stokić, Branka Dimitrijević, Miloš Nikolić

ANALIZA UTICAJNIH FAKTORA NEBEZBEDNIH DOGAĐAJA NA AERODROMIMA PRIMENOM METODA MULTIVARIJACIONE STATISTIČKE ANALIZE (THE ANALYSIS OF INFLUENTIAL FACTORS OF UNSAFE EVENTS AT AIRPORTS USING MULTIVARIATION STATISTICAL ANALYSIS METHODS)

Doroteja Timotić, Katarina Halaj, Mira Paskota, Feđa Netjasov

KONCEPT OPERACIJA BESPILOTNIH VAZDUHOPLOVA U URBANIM PODRUČJIMA: RAZVOJ I TESTIRANJE (THE CONCEPT OF DRONE OPERATIONS IN THE URBAN AREAS)

Sara Zoraja, Feđa Netjasov

15.30–17.00 Sala B / Room B

**EMU-1 Ekološki menadžment i upravljanje prirodnim resursima/
Environmental Management and Natural Resources
Management**

PROCENA EKOLOŠKOG RIZIKA ZA PROJEKAT „JADAR“ SA POSEBNIM OSVRTOM NA RAZVOJ KONCEPTUALNOG MODELA (ECOLOGICAL RISK ASSESSMENT FOR THE “JADAR” PROJECT WITH SPECIAL REFERENCE TO THE DEVELOPMENT OF THE CONCEPTUAL MODEL)

Saša Bakrač



UTICAJ PANDEMIJE COVID-19 NA CILJEVE ODRŽIVOG RAZVOJA (THE IMPACT OF COVID-19 PANDEMIC ON SUSTAINABLE DEVELOPMENT GOALS)

Milica Grujić, Aleksandar Đukić

UČEŠĆE JAVNOSTI U PROCESU DONOŠENJA PLANOVA UPRAVLJANJA VODAMA (PUBLIC PARTICIPATION IN THE WATER MANAGEMENT PLANS ADOPTION PROCESS)

Marijana Miletić-Radić

KOLEKTIVNE AKCIJE U EKOLOŠKIM DILEMAMA: REZULTATI EKSPERIMENTA (COLLECTIVE ACTIONS IN ENVIRONMENTAL DILEMMAS: EXPERIMENTAL EVIDENCE)

Dragan Mirković, Marija Kuzmanović

ULOGA NACIONALNIH PLATFORMI ZA SMANJENJE RIZIKA OD KATASTROFA U JAČANJU OTPORNOSTI NA POPLAVE I DEGRADACIJU ŽIVOTNE SREDINE (THE ROLE OF NATIONAL PLATFORMS FOR DISASTER RISK REDUCTION IN IMPROVING RESILIENCE TO FLOODS AND ENVIRONMENTAL DEGRADATION)

Jelena Andreja Radaković, Borko Drašković, Dragana Makajić-Nikolić, Nataša Petrović

PREGLED OPTIMIZACIONIH PROBLEMA U UPRAVLJANJU MEDICINSKIM OTPADOM (OVERVIEW OF OPTIMIZATION PROBLEMS IN MEDICAL WASTE MANAGEMENT)

Kristina Stanojević, Dragana Makajić-Nikolić

15.30–17.00 Sala C / Room C

NOP Nauka o podacima / Data Science

IMPUTACIJA NEDOSTAJUĆIH PODATAKA U JEDNODIMENZIONIM VREMENSKIM SERIJAMA (IMPUTATION OF MISSING DATA IN UNIVARIATE TIME SERIES)

Danijel Aleksić

SIGNATURES OF BUILT-IN MESOSTRUCTURE CONNECTIVITY IN A COMPLEX TRANSPORTATION NETWORK

Miroslav Anđelković, Slobodan Maletić

DISEASE PREVENTION AND/OR IMPROVEMENT OF PATIENTS' OUTCOMES THROUGH HIGHER ACCURACY OF PREDICTIVE MODELS IN DIFFERENT AREAS OF MEDICINE IN THE ERA OF (MOBILE) MEDICAL DEVICES AND APPS – A LITERATURE REVIEW

Sara Gračić

CLUSTERING ANALYSIS OF TURKEY AND EU COUNTRIES ON THE AXIS OF GREEN GROWTH HEADLINE INDICATORS

Yeşim Ok, Burcu Yılmaz Kaya

STM Statistički modeli / Statistical Models

ISTRAŽIVANJE FAKTORA KOJI UTIČU NA POTENCIJALNE MIGRACIJE STUDENATA (EXPLORING THE FACTORS WHICH IMPACT THE POTENTIAL MIGRATION OF STUDENTS)

Isidora Albijanić, Strahinja Radaković, Milica Maričić, Veljko Jeremić

VIŠESTRUKA ANALIZA KORESPONDENCIJE: VIZUELIZACIJA POVEZANOSTI KATEGORIJSKIH PROMENLJIVIH IZ UPITNIKA (MULTIPLE CORRESPONDENCE ANALYSIS: VISUALIZING RELATIONSHIP OF CATEGORICAL VARIABLES FROM A QUESTIONNAIRE SURVEY)

Dana Bucalo Jelić



17.30–19.00 Sala A / Room A

STK-2 Saobraćaj, transport i komunikacije / Traffic, Transportation, and Communication

IZBOR OPTIMALNOG PUTA NA BICIKLISTIČKOJ MREŽI PRIMENOM MODIFIKOVANOG DIJKSTRINOG ALGORITMA (OPTIMAL PATH SELECTION ON THE BICYCLE NETWORK USING THE MODIFIED DIJKSTRA'S ALGORITHM)

Sreten Jevremović, Ana Trpković, Milica Šelmić

DELPHI SURVEY: THE FUTURE OF AIR TRANSPORT IN SERBIA

Katarina Kukić, Slavica Dožić, Danica Babić, Milica Kalić

DOUBLE AUCTION-BASED MECHANISM FOR SECURITY-AWARE CLOUD RESOURCE PRICING AND ALLOCATION

Branka Mikavica, Aleksandra Kostić-Ljubisavljević

COMPLEX NETWORK THEORY AND ITS APPLICATIONS IN AIR TRANSPORT

Dorođeja Timotić, Milica Kalić

GIM Grafovi i mreže / Graphs and networks

ON SOME FAMILIES OF GRAPHS WITH SMALL SECOND LARGEST EIGENVALUE

Bojana Mihailović

17.30–19.00 Sala B / Room B

EMU-2 Ekološki menadžment i upravljanje prirodnim resursima / Environmental Management and Natural Resources Management

UPRAVLJANJE ZAŠTITOM ŽIVOTNE SREDINE I ODRŽIVI RAZVOJ – OPŠTI PRISTUP (ENVIRONMENTAL MANAGEMENT AND SUSTAINABLE DEVELOPMENT – GENERAL APPROACH)

Ljiljana Stošić Mihajlović

THE STRUCTURE OF OPTIMAL SOLUTIONS FOR HARVESTING A RENEWABLE RESOURCE

Dmitry Gromov, Thorsten Upmann

ON THE VALUE OF INFORMATION IN THE DIFFERENTIAL GAME OF POLLUTION CONTROL

Ekaterina Gromova, Anna Tur, Shimai Su

A MATHEMATICAL APPROACH PROPOSAL TO ANALYZE SUSTAINABLE DEVELOPMENT PERFORMANCE

Burcu Yılmaz Kaya, Yeşim Ok

ANP Analiza performansi / Performance Analysis

MERENJE ISTRAŽIVAČKO-RAZVOJNIH PERFORMANSI DRŽAVA EVROPE KORIŠĆENJEM DEA METODE (MEASURING RESEARCH AND DEVELOPMENT PERFORMANCES OF EUROPEAN COUNTRIES USING DEA METHOD)

Milica Milošević, Gordana Savić, Milena Popović



FOUR DECADES OF DATA ENVELOPMENT ANALYSIS RESEARCH: A REVIEW AND BIBLIOMETRIC ANALYSIS OF TOP-CITED PAPERS

Aleksander Aristovnik, Dejan Ravšelj, Lan Umek, Ruimin Pei, Guoliang Yang

17.30–19.00 Sala C / Room C

PUG Primene OI u građevinarstvu / OR Applications in Civil Engineering

PRIMENA BIM TEHNOLOGIJA U PROCESU PLANIRANJA I PROJEKTOVANJA OBJEKATA (APPLICATION OF BIM TECHNOLOGIES IN OBJECT PLANNING AND DESIGN)

Ljubo Marković, Ljiljana Milić Marković

PREDIKTORI AKADEMSKOG USPJEHA STUDENATA GRAĐEVINARSTVA (PREDICTORS OF ACADEMIC SUCCESS OF CIVIL ENGINEERING STUDENTS)

Ljubiša Preradović, Snježana Maksimović, Sandra Kosić-Jeremić

APPLICATION OF ROBOTICS AND ARTIFICIAL INTELLIGENCE IN THE IMPLEMENTATION OF CONSTRUCTION PROJECTS

Dragana Veselinović, Igor Peško, Vladimir Mučenski

RGE Rudarstvo, geologija i energetika / Mining, Geology and Energetics

OPTIMIZACIJA FUNKCIONISANJA RUDARSKIH KOMPANIJA TOKOM COVID-19 PANDEMIJE (OPTIMIZATION OF THE FUNCTIONING OF MINING COMPANIES DURING THE COVID-19 PANDEMIC)

Dejan Bogdanović, Ivan Jovanović

ANALIZA HIDROGEOLOŠKOG UTICAJA EKSPLOATACIJE OPEKARSKIH SIROVINA U LEŽIŠTU "SREDNJA STRANA" NA SPECIJALNI REZERVAT PRIRODE "SLANO KOPOVO" KOD NOVOG BEČEJA (ANALYSIS OF THE HYDROGEOLOGICAL IMPACT OF THE EXPLOITATION OF BRICK RAW MATERIALS IN THE "SREDNJA STRANA" DEPOSIT ON THE SPECIAL NATURE RESERVE "SLANO KOPOVO" NEAR NOVI BEČEJ)

Vladan Čanović, Violeta Čolaković, Željko Praštalo, Rade Šarac

KLIZIŠTA NA UNUTRAŠNJI ODLAGALIŠTIMA POVRŠINSKIH KOPOVA LIGNITA (LANDSLIDES ON INTERNAL TAILINGS DUMP OF OPEN PIT LIGNITE MINES)

Branka Jovanović, Dragan Milošević, Željko Praštalo, Rade Šarac

ČETVRTAK, 23. septembar THURSDAY, September 23

09.00–11.00 Sala A / Room A

IST Informacioni sistemi i tehnologije / Information Systems and Technologies

UNAPREĐENJE POSLOVNIH PROCESA POMOĆU ROBOTSKJE AUTOMATIZACIJE PROCESA (PROCESS IMPROVEMENT THROUGH ROBOTIC PROCESS AUTOMATION)

Danijel Horvat, Rajko Ivanišević



ČETVRTAK, 23. septembar THURSDAY, September 23

TESTIRANJE PREZENTACIONOG SLOJA .NET VEB APLIKACIJA (TESTING PRESENTATION LAYER OF .NET WEB APPLICATIONS)

Tijana Milošević, Saša Lazarević, Tatjana Stojanović

PRIMENA ZAŠTITNOG KODOVANJA I KODOVA ZA KONTROLU GREŠAKA U SISTEMU ZA VREDNOVANJE ZNANJA (AN IMPLEMENTATION OF ERROR CORRECTING CODES IN THE KNOWLEDGE EVALUATION SYSTEM)

Nikola Popović, Goran Bjelobaba, Hana Stefanović

NAJBOLJE PRAKSE U PISANJU UNIT TESTOVA ZA .NET OKVIR (UNIT TESTING BEST PRACTICES WITH .NET FRAMEWORK)

Nemanja Radulović, Saša D. Lazarević, Tatjana Stojanović

COMBINATORIAL OPTIMIZATION FOR SELF CONTAINED BLOCKCHAIN: AN EXAMPLE OF USEFUL SYNERGY

Dušan Ramljak, Tatjana Davidović, Dragan Urošević, Tatjana Jakšić Krüger, Luka Matijević, Milan Todorović, Đorđe Jovanović

PREGLED OKVIRA ZA TESTIRANJE ANGULAR APLIKACIJA (OVERVIEW OF FRAMEWORKS FOR TESTING ANGULAR APPLICATIONS)

Katarina Simić, Aleksa Pavlović, Tatjana D. Stojanović, Saša D. Lazarević

PRIMENA ISO 8583 PROTOKOLA U APLIKACIJAMA ZA ELEKTRONSKO PLAĆANJE (USING ISO 8583 PROTOCOL IN ELECTRONIC PAYMENT APPLICATIONS)

Srđan Tripković, Dejan Simić

MODEL INTERAKCIJE ČOVEKA I RAČUNARA KAO OSNOVA ZA UMANJENJE NEGATIVNIH EFEKATA APLIKACIJA SA VIRTUELNOM REALNOŠĆU (MODEL OF HUMAN/COMPUTER INTERACTION AS A BASIS FOR REDUCING THE NEGATIVE EFFECTS OF VIRTUAL REALITY APPLICATIONS)

Predrag Veličković, Miloš Milovanović

09.00–11.00 Sala B / Room B

GIS Geoinformacioni sistemi / Geoinformation systems

VAŽNOST KARATA KOD RIZIKA I UGROŽENOSTI OD POPLAVA U NADGLEDANJU PLAVNIH PODRUČJA SRBIJE (THE IMPORTANCE OF FLOOD RISK AND RISK MAPS IN FLOOD AREA MONITORING)

Radoje Banković, Dragoljub Sekulović, Miloš Basarić

ANALIZA DMT KREIRANOG GLOBALNIM INTERPOLACIONIM POLINOMOM VIŠEG REDA U GIS ALATIMA (ANALYZED DMT CREATED BY GLOBAL INTERPOLATION POLYNOMIAL OF HIGHER ORDER IN GIS TOOLS)

Stanislava Bosiočić, Zoran Srđić, Nebojša Bosiočić

PRIMENA GIS - MCDA MODELA ZA IZBOR LOKACIJA KAMERA ZA NADZOR ŠUMSKOG POŽARA (APPLICATION OF GIS - MCDA MODEL FOR SELECTION OF PLACEMENT A WILDFIRE MONITORING CAMERAS)

Ljubomir Gigović, Darko Lukić, Nenad Galjak

FOTOGRAMETRIJSKO SNIMANJE PEĆINE (PHOTOGRAMMETRIC SURVEY OF THE CAVE)

Petar Ivetić

PRIMENA GIS VOJSKE SRBIJE U IZRADI KOMBINOVANE KARTE POKRIVENOSTI I ZAŠTITNOG POTENCIJALA ZONE OPERACIJE (APPLICATION OF THE SERBIAN ARMY GIS IN THE COMPOSING OF A COMBINED MAP OF THE COVER AND CONCEALMENT

POTENTIAL OF THE OPERATION ZONE)

Darko Lukić, Ljubomir Gigović, Nenad Galjak, Ivan Stojadinović

KARTOGRAFSKA GENERALIZACIJA ZA POTREBE IZRADE ZIDNE KARTE RAZMERE 1:250.000
(CARTOGRAPHIC GENERALIZATION FOR WALL MAP PRODUCTION AT SCALE 1:250.000)

Marko Stojanović, Siniša Drobnyak, Jasmina M. Jovanović, Dejan Đorđević, Radoje Banković

SATELITSKO SNIMANJE ZA POTREBE URBANIZMA (SATELLITE OBSERVATION FOR URBANISM)

Miroslav Vujasinović, Miodrag Regodić, Milena Milotić, Nenad Galjak

PRAĆENJE VREMENSKIH POJAVA NA OSNOVU SATELITSKIH SNIMANJA
(MONITORING OF TIME PHENOMENA BASED ON SATELLITE OBSERVATION)

Miroslav Vujasinović, Miodrag Regodić, Milorad Čičić

09.00–11.00 Sala C / Room C

VAO Višekriterijumska analiza i optimizacija / Multicriteria Analysis and Optimization

FER I TAČNA LOGISTIČKA REGRESIJA SA VIŠEKRITERIJUMSKOM
METAHEURISTIČKOM OPTIMIZACIJOM (FAIR AND ACCURATE LOGISTIC
REGRESSION WITH MULTIOBJECTIVE METAHEURISTIC OPTIMIZATION)

Ana Kovačević, Milan Vukićević, Sandro Radovanović, Milija Suknović, Boris Delibašić

MOGUĆNOSTI PRIMENE METODE ANALITIČKOG HIJERARHIJSKOG PROCESA
U POSTUPKU JAVNIH NABAVKI (POSSIBILITIES OF APPLYING THE METHOD OF
ANALYTICAL HIERARCHICAL PROCESS IN THE PUBLIC PROCUREMENT PROCEDURE)

Magdalena Minić

ALGORITAM ZA NALAŽENJE SVIH NEDOMINIRANIH TAČAKA PROBLEMA MOCO BAZIRAN
NA METODI GRANANJA I OGRANIČAVANJA (AN ALGORITHM BASED ON BRANCH AND
BOUND METHOD FOR FINDING ALL NON-DOMINATED POINTS OF MOCO PROBLEM)

Milan Stanojević, Bogdana Stanojević

KONCEPT ZA ODREĐIVANJE TEŽINSKIH KOEFICIJENATA KRITERIJUMA BAZIRAN
NA METODI ENTROPIJE (CONCEPT FOR DETERMINING WEIGHT COEFFICIENTS OF
CRITERIA BASED ON THE ENTROPY METHOD)

Mališa Žižović, Dragan Pamučar, Miomir Stanković, Dragan Đurčić, Miodrag M. Žižović

A NEW CLASS OF WEIGHTED EQUILIBRIUM PROBLEMS

Miruna Mihaela Beldiman, Andrei Dan Halanay, Andreea-Mădălina Stancu-Rusu

EME Ekonomski modeli i ekonometrija / Economic Models and Econometrics

INFLATION CONVERGENCE IN CENTRAL AND EASTERN EUROPE TOWARD THE EU:
ASYMMETRIC ADJUSTMENT MODELING

Zorica Mladenović

THE CHAOTIC AGRICULTURAL PRICE GROWTH MODEL

Vesna Jablanović

FUZZY REPREZENTACIJA I OČEKIVANA VREDNOST SLUČAJNE VELIČINE: PRIMER
BINOMNE SLUČAJNE VELIČINE (A FUZZY REPRESENTATION AND MEAN VALUE OF
RANDOM VARIABLE: THE EXAMPLE OF BINOMIAL RANDOM VARIABLE)

Jelena Stanojević



SYM-OP-IS 2021

Organizatori / Organizers



Suorganizatori / Co-organizers



Simpozijum podržavaju / Supported by



Donatori / Donators

Telekom Srbija **SVEA**