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13th International Conference on Operational Research



PROGRAM OVERVIEW

September 29 – October 01, 2010.
University of Split, Faculty of Economics
Matice hrvatske 31, 21000 Split
Croatia

www.hdoi.hr/koi2010

Schedule	29th September	30th September	1st October
08:00-13:00	Participants registration	Participants registration	Participants registration
09:00-10:00	Official opening	Plenary lecture III	Plenary lecture V
10:00-11:00	Plenary lecture I	Plenary lecture IV	Three parallel sessions (10:00 – 11:40)
11:00-11:20	Coffee break	Coffee break	
11:20-13:00	Three parallel sessions (including session 1 in honor of Sanjo Zlobec)	Session 2 in honor of Sanjo Zlobec on the occasion of his 70 th birthday	Coffee break (11:40 – 12:00)
			Three parallel sessions (including session 3 in honor of Sanjo Zlobec from 12:00 to 14:00)
13:15-15:00	Lunch break	Lunch break	
15:00-16:00	Plenary lecture II	Excursion with dinner (Island of Brač)	Lunch break (14:00 – 15:30)
			Conference closing (15:30 – 16:00)
16:00-16:20	Coffee break		CRORS Annual Meeting (16:00 – 18:00)
16:20-18:20	Three parallel sessions		
18:30-20:00	Croatian Folk Night		

Wednesday, 29th September 2010 (1st day)

08:00 – 13:00 Participant registration	
09:00 – 10:00	Official opening – Large hall (opening ceremony will be accompanied by the female vocal group of Faculty of Economics Split "Marjanske Vile")
10:00 – 11:00	Plenary lecture I – Room 1 Chair: <u>Luka Neralić</u> Invited speaker: Richard E. Wendell - <i>Tolerance Sensitivity Analysis: Thirty Years Later</i>
11:00 – 11:20	Coffee break
11:20 – 13:00	Three parallel sessions
Session A: Linear and Nonlinear Programming – Room 1 (session 1 in honor of Sanjo Zlobec) Chair: <u>Viljem Rupnik</u>	
A.1 Sensitivity in Data Envelopment Analysis Using an Approximate Inverse Matrix	Luka Neralić Richard E. Wendell
A.2 Quantity Discounts in Supplier Selection Problem by Use of Fuzzy Multi-Criteria Programming	Tunjo Perić Zoran Babić
A.3 The Tourists' Expectations as a Determinant of Responsible Growth of Tourism	Majda Bastič Slavka Gojčić
A.4 Some Applications of Parametric Optimization in Statistics	Masoud Asgharian
A.5 An Interim Report on Soft Systems Evaluation	Viljem Rupnik
Session B: Multicriteria Decision Making - Room 2 Chair: <u>Lidija Zadnik Stirn</u>	
B.1 Enhancing Group Decision Support Systems with Social Software Applications	Christina E. Evangelou Ioannis Chrisovergis Efi Kostopoulou
B.2 Integration of Multicriteria Analysis into Decision Support Concept for Urban Road Infrastructure Management	Nikša Jajac Snježana Knezić Zoran Babić
B.3 Multicriteria Methods in Performing Companies' Results using Electronic Recruiting, Corporate Communication and Financial Reports	Ivana Bilić Branka Marasović Ivana Tadić
B.4 Application of GIS and Mathematical Modelling in Maritime Crisis Situations	Nenad Mladineo Nikša Jajac Marko Mladineo
B.5 Rationalization of the Personnel by Analyzing Employees Using Multiple Criteria Decision Making	Ana Podrug Goran Radovanić

Session C: Banking and Finance - Room 5	
Chair: <u>Josip Arnerić</u>	
C.1 Motives for Asset Revaluation Policy Choice in Croatia	Željana Aljinović Barać Slavko Šodan
C.2 Fundamental and Technical Analysis on Croatian Stock Market	Veronika Čaljkusić
C.3 Comparison of Value at Risk Approaches on a Stock Portfolio	Šime Čorkalo
C.4 Analysis of Doubt of Croatian Pensioners	Drago Francišковиć
C.5 Research of Beta as Adequate Risk Measure - Is Beta Still Alive?	Ante Perković
13:15 – 15:00	Lunch break
15:00 – 16:00	Plenary lecture II – Room 1 Chair: <u>Zoran Babić</u> Invited speaker: Lidija Zadnik Stirn – <i>Multiple Criteria Methods with Focus on Analytic Hierarchy Process and Group Decision Making</i>
16:00 – 16:20	Coffee break
16:20 – 18:20	Three parallel sessions
Session A: OR Theory and Applications – Room 1	
Chair: <u>Višnja Vojvodić Rosenzweig</u>	
A.1 Determining Safety Stock in Multi-Stage Inventory System as Multi-Objective Optimization Problem	Gordan Badurina Kristina Šorić Zoran Babić
A.2 An Interactive Approach for Multiple Criteria Scheduling in a Croatian Hospital	Silvija Vlah Jerić Jose Rui Figueira
A.3 Optimization and Approximation of NC Polynomials with Sums of Squares	Kristijan Cafuta Igor Klep Janez Povh
A.4 Data Clustering: Applications in Engineering	Goran Martinović Zdravko Krpić Ivan Vazler
A.5 On the Set-Semidefinite Representation of Nonconvex Quadratic Programs with Cone Constraints	Gabriele Eichfelder Janez Povh
A.6 Creation of Optimum Implementation of The Investment Project	Višnja V. Rosenzweig Hrvoje Volarević
Session B: Statistics and Econometrics - Room 2	
Chair: <u>Elza Jurun</u>	
B.1 Developing Multivariate Confirmatory Technique in Measuring Students Satisfaction with Education	Josip Arnerić Anita Talaja

Process	Ante Prka
B.2 Business Climate Indicator as a Predictor of Croatian Industrial Production	Mirjana Čižmešija Nataša K. Živadinović Petar Sorić
B.3 The Analysis of Monetary Transmission Mechanism in Croatia Using Cointegration Approach	Ksenija Dumičić Irena Čibarić Nikolina Horvat
B.4 Analysis and Forecasting the Volatility of Euro – Dollar Exchange Rates	Pánková Václava Cihelková Eva
B.5 Specifics of the Applications of Multiple Regression Model in the Analysis of the Effects of Global Financial Crisis	Željko V. Račić Biljana T. Baraković
B.6 Cluster and Multicriterial Comparative Regional Analysis – Case Study of Croatian Counties	Elza Jurun Snježana Pivac
Session C: Banking and Finance – Room 5 Chair: Zdravka Aljinović	
C.1 Designing the Deposits Management Model in Function of Banking Activities Optimization	Ticijan Peruško Robert Zenzerović
C.2 Markowitz' Model with Fundamental and Technical Analysis – Complementary Methods or Not	Branka Marasović Tea Poklepović Zdravka Aljinović
C.3 Financial Markets and Hedging	Miklavž Mastinšek
C.4 Multivariate and Multicriterial Foreign Debt Analysis of the Selected Transition Economies	Snježana Pivac Mario Pečarić
C.5 Econometric Approach to Difference Equations Modeling of Exchange Rates Changes	Josip Arnerić Lana Kordić
18:30 – 20:00	<p>Croatian Folk Night</p> <p>Folk dance ensemble “Jedinstvo” from Split, founded in 1919, is one of the oldest and most award-winning dance ensembles in Croatia. Due to the quality, numerous quest performances were realized on the stages throughout the world. In 2009 the ensemble has won silver medal at the world renowned folk festival in Dijon.</p> <p>On this occasion dancers of Young ensemble and players of Mandolin and tambura band will represent “Jedinstvo”. The program includes:</p> <ul style="list-style-type: none"> - old dances of town Split - jumpdance “Lindo” from West Herzegovina - dances of Croats Bunjevci from Bačka - final dance from the opera “Ero s onoga svijeta” representing Dalmatian hinterland. <p>Between the dances musicians will play Dalmatian compositions and evergreen songs.</p>

Thursday, 30th September 2010 (2nd day)

08:00 – 13:00	Participant registration
09:00 – 10:00	Plenary lecture III – Room 1 Chair: Majda Bastić Invited speaker: Christodoulos A. Floudas - <i>Biclustering Methods for Re-Ordering Data Matrices in Systems Biology, Drug Discovery and Toxicology</i>
10:00 – 11:00	Plenary lecture IV – Room 1 Chair: Kristina Šorić Invited speaker: Jose R. Figueira - <i>Electre Methods: Main Features and Recent Developments</i>
11:00 – 11:20	Coffee break
11:20 – 13:15	Session 2 in honor of Sanjo Zlobec on the occasion of his 70 th birthday
Session A: Optimization and Applications – Room 1 (session 2 in honor to Sanjo Zlobec) Chair: <u>Luka Neralić</u>	
A.1 Clustering, Classification and the Multy-Facility Location Problem	Adi Ben-Israel
A.2 Magic Moore-Penrose Inverses and Philatelic Magic Squares with Special Emphasis on the Daniels–Zlobec Magic Square	George P. H. Styan
A.3 Global Optimization of Large Scale Quadratically Constrained MINLP Models in Generalized Pooling Problems	Christodoulos A. Floudas
A.4 Theory and Applications of Degeneracy in Cone Optimization	Henry Wolkowicz
A.5 On the Derivative of Smooth Meaningful Functions	Sanjo Zlobec
13:15 – 15:00	Lunch break
15:00 – 22:00	Excursion to the island of Brač (dinner included) The excursion starts with boarding on the catamaran Krilo in the City Port – Gat sv. Petra. Departure for Supetar at 15:00 pm (duration 30 minutes). Upon arrival on Brač the first destination on this tour will be Škrip and a visit to the Brač Museum with valuable exhibits in the Radojković Tower. After enjoying the view on Vidova Gora (the highest point of all the Adriatic islands) dinner in a local tavern "Vladimir Nazor" with very pleasant atmosphere and authentic and traditionally prepared food. Return to Supetar by bus at 20:30 and arrival by catamaran in Split at 21:30 pm.

Friday, 1st October 2010 (3rd day)

08:00 – 13:00 Participant registration	
09:00 – 10:00	Plenary lecture V – Room 1 Chair: <u>Rudolf Scitovski</u> Invited speaker: Masoud Asgharian - <i>Survival Analysis and Length-Biased Sampling</i>
10:00 – 11:40	Three parallel sessions
Session A: OR Applications – Room 1 Chair: <u>Jose R. Figueira</u>	
A.1 One Criteria Supply Chain Management in Olive Oil Industry	Silvija Vlah Jerić Kristina Šorić
A.2 Some Simple Approaches to Planning the Inventory of Spare Components of an Industrial System	Alenka Brezavšek Alenka Hudoklin
A.3 Short Term Load Forecasting Preprocessing Using Support Vector Clustering	Marin Matijaš Vedran Grčić Slavko Krajcar
A.4 System Approach to the Modelling of the Process of Egg Production on the Farm	Tomislav Guć Marko Hell
A.5 Planning of Training Aircraft Flight Hours	Višnja V. Rosenzweig Anita Domitrović Marko Bubić
Session B: OR Applications and Macroeconomics - Room 2 Chair: <u>Snježana Pivac</u>	
B.1 Re-Examination of the Purchasing Power Parity in Central and Eastern European Economies	Ahmad Z. Baharumshah Jani Bekó Darja Boršič
B.2 Decision Making in Competitiveness of Regions	Marija Bogataj Samo Drobne
B.3 Model of Spatial Evaluation for Tourism Eco-Rent	Maja Fredotović Ivana Gunjača Anamarija Kutleša Katija Kurbaša
B.4 Two-Part Tariffs and Multistage Programming	Ilko Vrankić Zrinka Lukač Mira Oraić
B.5 One Regulation Method in Economic Research for Solving Ill-Conditioned Linear Equations	Dominika Crnjac Milić Miljenko Crnjac
Session C: Banking and Finance - Room 5 Chair: <u>Dragan Jukić</u>	
C.1 Comparing Financial Distress Prediction Models Before and During Recession	Nataša Šarlija Marina Jeger

C.2 Credit Scoring Models in Estimating the Creditworthiness of Small and Medium and Big Enterprises		Robert Zenzerović
C.3 Prediction of Company Bankruptcy Using Statistical Techniques – Case of Croatia		Ivica Pervan Maja Pervan Bruno Vukoja Ana Kundid
C.4 Determinants of Bank Profitability in Croatia		Blanka Škrabić Roberto Ercegovac
C.5 Research of Risk Measure Techniques for Portfolio Optimization on Croatian Stock Market		Ante Prka Anita Udiljak
11:40 – 12:00	Coffee break	
12:00 – 14:00	Three parallel sessions	
Session A: Optimization and Mathematical Modeling – Room 1 (session 3 in honor to Sanjo Zlobec) Chair: <u>Tihomir Hunjak</u>		
A.1 Stable Group Purchasing Organizations		Greys Sošić Mahseh Nagarajan Hao Zhang
A.2 Kernel-Based Interior-Point Methods For Cartesian $P^*(k)$ - Linear Complementarity Problems Over Symmetric Cones		Goran Lešaja
A.3 Clustering By Searching For Best Cluster-Centers		Rudolf Scitovski Kristian Sabo Ivan Vazler
A.4 Nonlinear Weighted Least Squares Fitting Bass Diffusion Model		Dragan Jukić
A.5 The Equipment Acquisition Process: Analysis for Negotiation		Irena Peharda Tihomir Hunjak
Session B: Linear, Nonlinear and Combinatorial Optimization - Room 2 Chair: <u>Marijana Zekić-Sušac</u>		
B.1 Restructuring of Small Manufacturing Line Control Software Using Modeling		Lado Lenart Miroslav Vrhovec
B.2 Optimal Utilization of Starting Material		Davor Medarić Tomislav Baškarić
B.3 Taxes, Subsidies and Unemployment - A Unified Optimization Approach		Erik Bajalinov
B.4 In Search of Contextual Variables in a Stochastic DEA Framework: Effect of Regulation on Efficiency of Indian Cement Industry		Simanti Bandyopadhyay
B.5 The Quadratic Assignment Problem with Imprecise Data: The Case of Job Assignment Requiring		Chiang Kao

Coordination	
B.6 Classification of Entrepreneurial Intentions by Neural Networks, Decision Trees and Support Vector Machines	Marijana Zekić-Sušac Sanja Pfeifer Ivana Đurđević
Session C: Data Analysis, Marketing and other OR Applications - Room 5 Chair: <u>Branka Marasović</u>	
C.1 The Significance of Air Temperature Oscillations in the Last Decade in Split - Croatia	Elza Jurun Milan Hodžić Marie Theres Greguš
C.2 Statistical Analysis of Financial Performance in Erste Bank	Ljilja Celić
C.3 Interdependence Between Relationship Quality Dimensions	Mario Pepur Zoran Mihanović Josip Arnerić
C.4 Analysis of the Degree and the Structure of the Use of Market-Oriented Activities in Adult Education Institutions with a Different Number of Enrolled Students	Zoran Mihanović Josip Arnerić Mario Pepur
C.5 Selecting Appropriate Criterion for Finding Value Adding Wholesale Customers	Dubravko Mojsinović
14:00 – 15:30	Lunch break
15:30 – 16:00	Conference closing – Large hall (closing ceremony will be accompanied by the female vocal group of Faculty of Economics Split "Marjanske Vile")
16:00 – 18:00	CRORS Annual Meeting – Room 1

Notices:

- Authors have 15 minutes to present their paper and 5 minutes for discussion, while plenary speakers have 45 minutes to present their paper and 15 minutes for discussion.
- Registration desk will be on the first floor of the main building each day of the conference from 08:00 to 13:00.
- At registration desk CRORS members can also pay annual membership fee of 100 kunas in cash for year 2010 (for those who have not yet paid).
- Lunch is self served at the student restaurant on the ground floor of the main building (registered participants will receive coupons for free lunches).
- During free time participants can relax at the Funky Business cafe on the second floor of the east wing (Aneks).
- Croatian Folk Night will be held in the entrance lobby of the Faculty.
- The rooms for sessions (Large hall, Room 1, Room 2 and Room 5) are located on the first floor of main building. Every room is equipped with a personal computer and a projector to support presentations using Power Point, Word and PDF files.
- All participants will receive a certificate of participation at the KOI - 2010.