

3rd International Symposium and 25th National Conference on Operational Research

Conference Program

Volos, Greece, 26-28 June 2014

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Conference Venue

Vocational Training Center (“KEK”), University of Thessaly, Tsalapatas Complex, Volos, Greece.

The exact address of the venue is: “Giannitson and Lahana, 383 34 Volos”.

Most buses pass pretty close from the conference venue. GPS coordinates: 39.36548, 22.932334.

Chairmen of the Conference

Saharidis G.K.D., University of Thessaly

Liberopoulos G., University of Thessaly

Kozanidis G., University of Thessaly

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Sessions

Session 1: Software	(Thursday, 26 June, 12:30-14:15)
Session 2: Supply Chain Management I	(Thursday, 26 June, 12:30-14:15)
Session 3: Renewable Energy	(Thursday, 26 June, 12:30-14:15)
Session 4: Decision Making	(Thursday, 26 June, 16:15-18:00)
Session 5: Multi-Criteria I	(Thursday, 26 June, 16:15-18:00)
Session 6: Vulnerability, Sustainability & Stochasticity	(Thursday, 26 June, 16:15-18:00)
Session 7: Transportation, Environment & Energy Software	(Friday, 27 June, 11:30-13:15)
Session 8: Rail	(Friday, 27 June, 11:30-13:15)
Session 9: Maritime & Air Transportation	(Friday, 27 June, 11:30-13:15)
Session 10: Multi-Criteria II	(Friday, 27 June, 11:30-13:15)
Session 11: Supply Chain Management II	(Friday, 27 June, 14:15-16:00)
Session 12: Energy & Environment	(Friday, 27 June, 14:15-16:00)
Session 13: Transport, Environment & Energy	(Friday, 27 June, 14:15-16:00)
Session 14: Applications	(Friday, 27 June, 14:15-16:00)

Program Summary

Thursday, 26 June 2014

9:45-11:30	Registration
10:15-11:00	Welcome Session (Foyer <i>The Rooftile and Brickworks Museum</i>) -Welcome by Organizers and Conference Chairmen -National HELORS Awards and Speech of the National HELORS Award Winner -HELORS Post Graduate Thesis Awards
11:00-11:30	Coffee Break
11:30-12:15	Invited Talk: Power Market Reform for Smart Grid and Renewable Generation Adoption (Foyer <i>The Rooftile and Brickworks Museum</i>) Professor Michael Caramanis
12:30-14:15	Sessions 1 to 3 (<i>Hall 1 to 3</i>)
14:15-15:15	Lunch & Coffee
15:15-16:00	Invited Talk: Challenges in Controlling the Dynamics of Energy and their Environmental Impacts (Foyer <i>The Rooftile and Brickworks Museum</i>) Professor Panos M. Pardalos
16:15-18:00	Sessions 4 to 6 (<i>Hall 1 to 3</i>)
20:00-22:00	Dinner

Friday, 27 June 2014

10:00-11:30	Registration
10:00-10:45	Invited Talk: Emergency Management and Probabilistic Combinatorial Optimization (Foyer <i>The Rooftile and Brickworks Museum</i>) Professor Vangelis Th. Paschos
11:00-11:30	Coffee Break
11:30-13:15	Sessions 7 to 10 (<i>Hall 1 to 4</i>)
13:15-14:15	Lunch & Coffee
14:15-16:00	Sessions 11 to 14 (<i>Hall 1 to 4</i>)
16:15-16:45	Closing session (Foyer <i>The Rooftile and Brickworks Museum</i>)

Saturday, 28 June 2014

10:30-13:00	Roundtable discussion on the key parameters for decision support on transportation, energy and environmental systems. Chairman: Dr. Georgios K.D. Saharidis.
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Sessions

Thursday, 26 June 2014

Session 1: Software (12:30-14:15/Hall 1)

Chairman: Z. Andreopoulou

- (1) Z. Andreopoulou, C. Lemonakis, C. Koliouka & K. Zopounidis "Internet and Agro-Tourism Sector for Regional Development in Crete: A Multicriteria Ranking".
- (2) N. Ploskas, V. Kostoglou & M. Vassilakopoulos "Mapping of Higher Education Specialties Through the Implementation of a Decision Support System".
- (3) N. Tsotsolas, N. Christodoulakis & E. Grigoroudis "Towards the Development of a Modular DSS Supporting Robustness Analysis in MCDA".
- (4) A. Batzios, T. Bournaris, Z. Andreopoulou, C. Batzios & B. Manos "Research on Internet Sufficiency of Websites Concerning Women Agricultural Co-Operatives in Greece: A Multicriteria Approach".
- (5) L. Mpizas, N. Tsoutsanis, Z. Moza, O. Pechak, D. Pantelis, G.K.D. Saharidis "Touristic Guide: A prototype software for touristic journey planning".

Session 2: Supply Chain Management I (12:30-14:15/Hall 2)

Chairman: I.P. Tatiopoulos

- (1) G. Liberopoulos, D. Pandelis, G. Kozanidis & G.K.D. Saharidis "Development of optimization models for addressing various decision and information related issues in supply chain planning".
- (2) M. Vidalis, V. Angelis, S. Koukoumialos & M. Geranios "Stochastic Modeling of Multistage Supply Chain, with Poisson External Demand, Exponential Lead Times, Lost Sales and (Si, si) Continuous Review Replenishment Policies".
- (3) M.A. Kalaitzidou, P. Longinidis, P. Tsiakis & M.C. Georgiadis "Optimal Strategic Design of Flexible Supply Chain Networks".
- (4) D. Zissis, G. Ioannou & A. Burnetas "All-Node Information Asymmetry and the Potential of Supply Chain Coordination".
- (5) I.P. Tatiopoulos & D.R.I. Stamatou "On the Way to a Reference Model for Supply Chains in the Construction Industry".

Session 3: Renewable Energy (12:30-14:15/Hall 3)

Chairman: E. Siskos

- (1) E. Siskos, D. Peronikolis & J. Psarras "Rationalizing Electricity Production Investments from Renewable Energy Sources in Greece Using a Synergy of Multicriteria Methods".
- (2) A. Papapostolou, C. Karakosta, V. Marinakis & J. Psarras "Country Risk Evaluation Methodology to Support Bilateral Cooperation in the Field of Electricity Generation from Renewable Sources".
- (3) N.S. Thomaidis, F.J. Santos-Alamillos, D. Pozo-Vázquez & J. Usaola García "Improving the Reliability of Wind Energy Generation with Supplements from Solar Power".
- (4) D. Angelopoulos, H. Doukas, G. Mouridou & J. Psarras "Can Renewables Foster Sustainable Energy Transition? A Comparative Cost Analysis".
- (5) E. Zografidou, K. Petridis, G. Arabatzis & P.K. Dey "Proposing a Hybrid 0-1 Weighted Goal Programming/DEA Approach for the Optimal Design of Renewable Energy Production of Greece".
- (6) C. Papapostolou, E. Kondili & J.K. Kaldellis "Energy Supply Chains - a Modern Approach for the Exploitation of Operational Research Tools in the Design and Optimisation of Energy Systems".

Session 4: Decision Making (16:15-18:00/Hall 1)

Chairman: G. Mosheiov

- (1) E. Gerstl & G. Mosheiov "Single Machine Just-in-Time Scheduling Problems with Two Competing Agents".
- (2) D. Yannacopoulos, A. Spyridakos, N. Tsotsolas & G. Mouridou "Conflict Management in Small Decision Making groups, Utilizing Robustness Analysis of Individual Preference Models: A Case Study".
- (3) D. Mitroulis & F. Kitsios "Innovation Management Strategies for Organizational Performance".
- (4) C. Keramydas, N. Tsolakis, D. Vlachos, E. Iakovou "Sustainable Food Security: A System Dynamics Decision-Making Methodology".
- (5) K. Hassaini & M.O. Bibi "Resolution of a Quadratic Programming Problem with an M-Matrix".

Session 5: Multi-Criteria Analysis I (16:15-18:00/Hall 2)

Chairman: O. Pechak

- (1) A. Valiakos & Y. Siskos "Multicriteria Decision Support for Financing Greek Agricultural Units".
- (2) D. Niklis, M. Doumpos & C. Zopounidis "Financial Distress Prediction Using a Robust Multicriteria Approach".
- (3) B.D. Rouyendegh & Y.D. Rouyendzagh "An IFE Model for Multi-Criteria Decision-Making".
- (4) I. Pologiorgi, E. Grigoroudis & N. Matsatsinis "Theory of Attractive Quality and Multicriteria Analysis: Analyzing Customer Preferences on Smartphone Attributes".
- (4) K.G. Zografos, M.A. Madas & C.S. Tsanos "Assessing Current and Future Uptake of ICT in Construction Supply Chains: A Multi-Criteria Approach".
- (5) G. Konstatzos, G. Emmanouilidis, L. Mpizas, N. Tsoutsanis, Z. Moza, O. Pechak, G.K.D. Saharidis "FindMyWay: A prototype web-based platform for journey planning in Athens city, Volos city and Crete island".

Session 6: Vulnerability, Sustainability & Stochasticity (16:15-18:00/Hall 3)

Chairman: D. Aksen

- (1) M. Benioudakis & A. Burnetas "Customer Equilibrium Policies in Queues with Delay Compensation and Risk Aversion".
- (2) D. Aksen, İ. Çoğal & N. Aras "Heuristics For Solving a Discrete Location-Partial Interdiction Problem with Capacitated Facilities and Demand Outsourcing".
- (3) C. Slave "Vulnerability of the Romanian Cultural Heritage".

- (4) E. Chrysochoou & A. Ziliaskopoulos "An Exact Method for the Stochastic Inventory Routing Problem".
(5) O. Vasileiou, C. Georgis, M. Petychakis, S. Mouzakis & D. Askounis "Open Governmental Data sources in Europe: A Comparative Evaluation of Semantic and Technical Characteristics".

Friday, 27 June 2014

Session 7: Transportation, Environment & Energy Software (11:30-13:15/Hall 1) Chairman: G.K.D. Saharidis

- (1) I. Papastamatiou, H. Doukas, S. Androulaki & J. Psarras "A Holistic Approach for Smart Cities Energy Assessment".
(2) G.E. Konstantzos, G.K.D. Saharidis, G. Kolomvos & M. Loizidou "Development of a Software Developed for Assessing Greenhouse Gas (GHG) Emissions from Terminal and Drayage Operations".
(3) K.G. Zografos, K.N. Androutsopoulos & A. Miliarakis "Developing an International Door-To-Door Journey Planning System with Real Time Itinerary Re-Planning Capabilities Supporting Travellers with Special Mobility Needs".
(4) A. Spiliopoulou, I. Papamichail, M. Papageorgiou & J. Chrysoulakis "Calibration Tool for Macroscopic Traffic Flow Models".
(5) G.K.D. Saharidis "GreenYourRoute Platform".
(6) O. Pechak, G. Mavrotas, D. Diakoulaki & J. Psarras "Adaptation of ITA for Project Portfolio Selection Within a Group of Decision Makers".

Session 8: Rail (11:30-13:15/Hall 2) Chairman: G. Fedin

- (1) A.S. Belenky, G. Fedin, N. Klimova, O. Lebedeva & A. Yunusova "Optimally Planning the Use of Railcars by a Large Railcar Fleet Management Company".
(2) N. Glišović, M. Milenković, N. Bojović & R. Nuhodžić "Comparison of GA-ANN and TRADITIONAL BOX-JENKINS Methods for Railway Passenger Flow Forecasting".
(3) A. Ballis "Simulation Analysis of a Pilot Handling System for the Rail Transport of Conventional Semitrailers".
(4) A. Ballis & F. Karapetis "Towards the Implementation of Optimal Train Loading Plan in the Athens - Thessaloniki Freight Services".

Session 9: Maritime & Air Transportation (11:30-13:15/Hall 3) Chairman: G. Kozanidis

- (1) E. Gagatsi, G. Giannopoulos, C. Pyrgidis & G. Aifadopoulou "A Combined MCDA Approach for Facilitating Maritime Transportation Policies Evaluation".
(2) E. Sdoukopoulos, M. Boile, S. Theofanis & A. Anagnostopoulou "Sustainable Freight Strategies for Port Cities".
(3) P. Andrianesis & G. Kozanidis "A Multi-Stage Column Generation Solution Approach for the Bidline Aircrew Scheduling Problem".
(4) J. Coletsos & C. Ntakolia "Air Traffic Management the Free Flight Concept".
(5) M.A. Dulebenets, M.M. Golias & S. Mishra "Berth Allocation and Scheduling Problem at Dedicated Marine Container Terminals with Excessive Demand".
(6) G. Kozanidis & E. Gioti "A Branch and Price Solution Algorithm for the Tail Assignment Problem".
(7) T. Varelas, S. Archontaki & M. Livadioti "Optimizing Long Term Fleet Wide Crew Assignment".

Session 10: Multi-Criteria Analysis II (11:30-13:15/Hall 4) Chairman: N. Thomaidis

- (1) G.K. Koulinas, P.A. Ioannidou & A.P. Vavatsikos "Project Resource Leveling Using ELECTREE III".
(2) Y. Politis, E. Grigoroudis & I. Pologorgi "The Problem of Robustness in the MUSA Method: Theoretical Developments and Applications".
(3) N. Bouranta, C. Hurson & Y. Siskos "Employee Satisfaction versus Student Satisfaction in a Greek Academic Environment".
(4) N. Bouranta, C. Hurson & Y. Siskos "Identifying Factors of Bank Service Quality during Economic Crisis in Greece".
(5) P. Delias, N. Matsatsinis & E. Grigoroudis "Developing Stability Indices for Group and Collective Decision Approaches".
(6) D. Loukas, A. Ropodi & G-J Nychas "Regression Model Selection for Spectral Data Sets: A Multi-Objective Genetic Approach".

Session 11: Supply Chain Management II (14:15-16:00/Hall 1) Chairman: C.T. Papadopoulos

- (1) E. Gavriel, P. Chrysochoidis-Trantas, T. Kalotychos, A.G. Bimpos & C.T. Papadopoulos "Modeling Supply Chains Using Simulation with Regard to Customer Satisfaction".
(2) D. Pandelis & I. Papachristos "Optimal Use of Non-Collaborative Servers in Two-Stage Tandem Queuing Systems".
(3) P. Chrysochoidis-Trantas, T. Kalotychos & E. Gavriel, A.G. Bimpos & C.T. Papadopoulos "Modeling Supply Chains Using a Linear and a Non-Linear Optimization Model with Regard to Customer Satisfaction".
(4) M. Chalikias & M. Skordoulis "F.W Lanchester's Model Application for the Supply Chain Oligopoly of Two Companies: Coca-Cola and Pepsi".

Session 12: Energy & Environment (14:15-16:00/Hall 2) Chairman: G. Liberopoulos

- (1) N.E. Koltsaklis, P. Liu & M.C. Georgiadis "An Integrated Multi-Regional Long-Term Energy Planning Model Incorporating Autonomous Power Systems".
(2) K. Sellami & P.F. Tiako "Hybridized Genetic Algorithm for Energy and Performance-Aware Task Scheduling in a Cloud Computing Environment".

- (3) G. Vlontzos, S. Niavis & B. Manos "How Much Energy and Environmentally Efficient is the EU Agriculture? Some Initial Evidence".
- (4) A. Anagnostopoulou, M. Boile & E. Sdoukopoulos "Sustainable energy: New Challenges for Urban Distribution".
- (5) P. Andrianesis & G. Liberopoulos "Comparison of pricing mechanisms in markets with non-convexities".

Session 13: Transport, Environment & Energy (14:15-16:00/Hall 3)

Chairman: E. Skordilis

- (1) K. Androutsopoulos, K. Zografos & E. Boulazeris "A Fleet Management System for Freight Distribution with Environmental and Safety Considerations".
- (2) Z. Sbokou, E. Grigoroudis & M. Neofytou "Environmental Performance Evaluation Using a Fuzzy Aggregation-Disaggregation Approach".
- (3) V. Vassiliadis, C. Salagaras, V.P. Koutras, N.S. Thomaidis, A.N. Platis, G. Dounias & C. Kyriazis "Resource Availability Modeling and Optimization in a Car Park Management Problem".
- (4) V. Spathis, I. Forlidas, E. Skordilis & G.K.D. Saharidis "Inspection of Power Grid by Periodic Vehicle Routing Formulation".
- (5) C. Dimitropoulos, E. Skordilis & G.K.D. Saharidis "Reducing Waiting Time at Intermediate Nodes for Intercity Bus Transportation".

Session 14: Applications (14:15-16:00/Hall 4)

Chairman: A. Fragkogios

- (1) F. Kitsios & E. Grigoroudis "Evaluating New Service Development Effectiveness in Tourism: An Ordinal Regression Analysis Approach".
- (2) B. Delibašić, P. Marković & P. Delias "Mining Movement Graphs of Skiers: A Spatiotemporal Analysis".
- (3) G.K.D. Saharidis, A. Fragkogios, E. Zygouri & Mavrotas "An Optimization Modeling Approach for the Establishment of a Bike-Sharing Network Using Monte Carlo Simulation and Stochastic Demand: a Case-Study of the City of Athens".
- (4) K. Nikolaidis "New Technologies & Labour Market".
- (5) P. Mitropoulos, I. Mitropoulos, H. Karanikas & N. Polyzos "Productivity Changes of Greek Public Hospitals During the Economic Crisis".

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