



Editors

Nikos E. Mastorakis

Panos M. Pardalos

Michael N. Katehakis



Recent Advances in Applied Economics

**Proceedings of the 6th International Conference on
Applied Economics, Business and Development (AEBD '14)**

Lisbon, Portugal, October 30 - November 1, 2014

Recent Advances in Applied Economics



RECENT ADVANCES in APPLIED ECONOMICS

**Proceedings of the 6th International Conference on Applied Economics,
Business and Development (AEBD '14)**

**Lisbon, Portugal
October 30 - November 1, 2014**

RECENT ADVANCES in APPLIED ECONOMICS

**Proceedings of the 6th International Conference on Applied Economics,
Business and Development (AEBD '14)**

**Lisbon, Portugal
October 30 - November 1, 2014**

Published by WSEAS Press
www.wseas.org

Copyright © 2014, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by no less than two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.

ISSN: 2227-460X
ISBN: 978-960-474-394-0

RECENT ADVANCES in APPLIED ECONOMICS

**Proceedings of the 6th International Conference on Applied Economics,
Business and Development (AEBD '14)**

**Lisbon, Portugal
October 30 - November 1, 2014**

Editors:

Prof. Nikos E. Mastorakis, Technical University of Sofia, Bulgaria

Prof. Panos M. Pardalos, University of Florida, USA

Prof. Michael N. Katehakis, Rutgers University, USA

Committee Members-Reviewers:

Lilia Dvorakova

Michaela Krechovska

Pavlina Hejdukova

Petra Tausl Prochazkova

Dumitru-Alexandru Bodislav

Daniela Cristina Momete

John Manuel Delgado Barroso

Ricardo Gouveia Rodrigues

Ionel Bostan-Dhc

Usama Awan

Katarina Curko

Miguel Angel Vigil Berrocal

Jan Stejskal

Arion Felix

Javier De Andrés

Jose Antonio Porfirio

Loukas Georgiou

Amin Daneshmand Malayeri

Capusneanu Sorinel

Catalin Popescu

Andrei Jean Vasile

Andreea Iacobuta

Lukacs Edit

Petr Hajek

Aw Yoke Cheng

Nikos Loukeris

Ashraf Bany Mohammed

Paresh Rathod

Abdelkader Nouibat

Balcu Florina

Takuya Yamano

Claudiu Mereuta

Francisco Antunes

Doinita Ariton

Yin-Tsuo Huang

Ioana Adrian

Muntean Mihaela-Carmen

Ricardo Bustillo

Pop Cohut Ioana

Claudia - Georgeta Carstea

Chunwei Lu Wini

Stoican Mirela

Constantinescu Dan

Ana Barreira

Rodica Pripoaie

Maria Gabriela Sterian

Rimma Shiptsova

Evangelos Markopoulos

Mioara Chirita

Jae Un Jung

Agnieszka Misztal

Preface

This year the 6th International Conference on Applied Economics, Business and Development (AEBD '14) was held in Lisbon, Portugal, October 30 - November 1, 2014. The conference provided a platform to discuss business management, financial accounting, decision analysis, business ethics, risk management and risk analysis, marketing, security problems, manufacturing and logistics, digital marketing, business law, labor economics, international trade, crisis management, banking sector etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conferences are published in this Book that will be sent to international indexes. They will be also available in the E-Library of the WSEAS. Extended versions of the best papers will be promoted to many Journals for further evaluation.

Conferences such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

Table of Contents

<u>Plenary Lecture 1: Multi-Armed Bandits in: Healthcare, Machine Learning and Scheduling</u>	11
<i>Michael N. Katehakis</i>	
<u>Uncertainty Costs on an International Duopoly with Tariffs</u>	13
<i>M. Choubdar, E. Faria, F. A. Ferreira, A. A. Pinto</i>	
<u>The Influence of Corporate Governance as a Disseminator Factor of Sustainability in the Apparel Industry in the State of São Paulo</u>	17
<i>Fábio Murcia Marques, Dib Karam Jr</i>	
<u>Nash and Social Welfare Impact in International Trade</u>	23
<i>M. Choubdar, J. P. Zubelli, A. A. Pinto</i>	
<u>Local Residents as Visitors to Exhibitions: Investigating Motivation and Attitudes towards Traditional Food Festivals</u>	27
<i>Lorena Bašan, Dina Lončarić, Ana Čuić Tanković</i>	
<u>Competitiveness and Innovation: Economic Integration in Productive Chain of Wine</u>	34
<i>Margarete Luisa Arbugeri Menegotto, Carolina Ranghetti, Antonio Jorge Fernandes</i>	
<u>Characterization of Listed Companies' Governance in Portugal and Spain</u>	43
<i>Ana Sardinha, Humberto Ribeiro, Raquel Alves</i>	
<u>Cost Analysis and Reporting the Performances of Companies in the Mining Industry</u>	51
<i>Sorin Briciu, Sorinel Capusneanu, Ileana Sorina Rakos Boca, Dan Ioan Topor</i>	
<u>A Common Pool Market Formulation for Trading Emission Discharge Permits</u>	57
<i>Keith Willett, Anetta Caplanova, Rudolf Sivak</i>	
<u>Innovation and Education Policies Impact on Knowledge based Economies Performance</u>	62
<i>Soraia Ala, Pedro Vilarinho</i>	
<u>Museum Websites Content as a Mean for Cultural Heritage Promotion and Attracting Visitors: The Case of Istria</u>	71
<i>Dina Lončarić, Lorena Bašan, Ljudmila Sinkovič</i>	
<u>Transformation of Market Economy in Information Society</u>	79
<i>Rasim Alguliyev, Rasim Mahmudov</i>	
<u>Jointness in Relationship Lending: Evidence from UK SMEs</u>	89
<i>Ana Paula Matias Gama, Fábio Duarte</i>	
<u>Team Effectiveness - The Impact of Gender Differences on Satisfaction in Teamwork</u>	100
<i>Sendi Katić, Ana Skledar</i>	

<u>The Issues of the Assessment of Various Reforms in Countries</u>	105
<i>Samson Davoyan, Ashot Davoyan, Ani Khachatryan</i>	
<u>Knowledge Valorization and the European Paradox: A Case Study</u>	113
<i>Soraia Ala, Pedro Vilarinho</i>	
<u>Freedom of Commerce versus Intellectual Property Moral Rights</u>	120
<i>Alin Speriusi-Vlad</i>	
<u>Public Healthcare Expenditure and Environmental Quality in Iran</u>	126
<i>Soheila Khoshnevis Yazdi, Zahra Tahmasebi, Nikos Mastorakis</i>	
<u>Entrepreneurial Skills Development</u>	135
<i>Maria José Sousa, Maria Do Rosário Almeida</i>	
<u>The Dynamic Links between Economic Growth, Energy Intensity and CO2 Emissions in Iran</u>	140
<i>Soheila Khoshnevis Yazdi, Nikos Mastorakis</i>	
<u>Prospective Analysis on Innovation Competencies</u>	147
<i>Maria José Sousa</i>	
<u>Authors Index</u>	155

Plenary Lecture 1

Multi-Armed Bandits in: Healthcare, Machine Learning and Scheduling



Professor Michael N. Katehakis

Management Science and Information Systems Department
Rutgers University
NJ, USA
E-mail: mkatehakis@gmail.com

Abstract: First, we provide a survey of the basic multi-armed bandit models and problems with emphasis on modern data-driven analytics, e.g. allocation of scarce resources, matching patients to treatments, clinical trials, and scheduling.

Then, we present solutions to two key open problems: The first deals with the situation in which a decision to engage a bandit (process) is subject to a commitment of a, possibly stochastic, number or duration of activations before a change to a different process is possible. It is shown that these activation commitments are equivalent to a more general depreciation model for which optimal policies can be constructed using propitiously defined restart in state indices. The second problems deals with the model in which outcomes from different bandits are normally distributed with unknown means and unknown variances, for which the regret increase rate can be minimized by sequential 'upper confidence bounds' based policies.

Lastly, we discuss three new challenging problems involving 'maximizing rewards under multiple simultaneous activation', 'minimizing total deployment costs', and maximizing rewards from 'cumulative payout models'.

Brief Biography of the Speaker: Michael N. Katehakis is a Professor in the Management Science and Information Systems Department at Rutgers University.

He is known for his work on Markov decision processes, Stochastic Models, data-driven analytics and their application to queuing, reliability and service systems. He has served on many panels (NSF, IEEE, conferences), as judge (for the 2013 and 2014 INFORMS Innovative Applications in Analytics Award, the 2013 INFORMS Interactive Sessions Award, and the Jacob Wolfowitz Prize 1994-2006), and editorial boards including the 'Annals of Operations Research', the 'Naval Research Logistics', 'Operations Research Letters', and the 'Probability in the Engineering and Informational Sciences'.

His contributions to the profession have been recognized by INFORMS with an INFORMS Fellow award. He is an Elected member of the International Statistical Institute (ISI) and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE).

In addition to Rutgers he has taught at Stanford, Columbia, SUNY at Stony Brook and at the University of Athens, and at the University of Crete in Greece. Besides to research and teaching, he works with firms in a number of industries on analytics and process improvement projects and he has held industry positions at Bell-Labs and at Brookhaven National Lab.

More information and his full c.v. is available at: <http://www.rci.rutgers.edu/~mnk/>