ITQM
2015
Rio

3rd International Conference on Information Technology and Quantitative Management

July 21-24, 2015
Rio De Janeiro, Brazil
Welcome Message from the Conference Organizers

Welcome to the Third International Conference on Information Technology and Quantitative Management (ITQM 2015), July 21-24, 2015, Rio De Janeiro, Brazil. The theme of ITQM 2015 is "Exploring Data Science in IT and Quantitative Management". ITQM 2015 is organized by International Academy of Information Technology and Quantitative Management (IAITQM) and Ibmec/RJ, Brazil.

The International Conference on Information Technology and Quantitative Management is a global forum for exchanging research results and case studies that bridge the latest information technology and quantitative management techniques. It explores how the use of information technology to improve quantitative management techniques and how the development of management tools can reshape the development of information technology.

ITQM 2015 covers all topics in the broad ranges of Information Technology and quantitative management, including, but not limited to:

- IT-enabled quantitative management and decision making in the government sector and in public and private companies
- Applications of IT-enabled quantitative management and decision making in Logistics, Finance, Marketing, Strategy, Human Resources, IT, Project Management, Process Improvement, Sustainability, Innovation, and other Management disciplines
- Developments in IT-enabled quantitative management and decision making in different industries, such as Oil and Gas, Banking, Transportation, Utilities, Health care, Telecom, Education, etc.
- Habitual domain and behavioral approaches to Big Data analytics
- Data Science issues in information technology and quantitative management
- Applications of Big Data technologies and methods (e.g., Data Mining, Data Warehousing, Data Analysis) to support optimal decision making
- Using mobile technologies and cloud computing to enhance optimal decision making
- Applications of Social Networks Analysis in IT-enabled quantitative management and decision making
- IT-enabled quantitative management and maturity models
- Soft computing methods in quantitative management and decision making processes
- Developments in Multicriteria Analysis related to IT-enabled quantitative management
- Semantic learning and intelligent awareness
- Quantitative management tools

Technical exchanges within the research community will encompass invited keynote lectures, special sessions, tutorials and workshops, and panel discussions.

At ITQM 2015, we have invited the following world leading keynote speakers to give their current and future vision of Information Technology and Quantitative Management:

- Raj Reddy “Computational Limits to Human Thinking in a Society with Too Much Information and Too Little Time”, Carnegie Mellon University, USA;
- James M. Tien “Exploring Big Data in Enterprise Systems”, University of Miami, USA;
- Po-lung Yu “Decision Making in Changeable Spaces”, University of Kansas, USA/National Chiao-Tung University, Taiwan;
- Heeseok Lee “IT and Emerging Internet of Things: Potential and Opportunities”, Korea Advanced Institute of Science and Technology, Korea;
In addition to our excellent keynote speakers, there are 4 tutorial speakers on various IT/QM topics:

- Fuad Aleskerov “Models for Analysis of Consumers’ Behavior for A Large Retail Network”, National Research University Higher School of Economics/ Russian Academy of Sciences, Russia;
- Yong Shi “Big Data and Data Science in ITQM”, International Academy of Information Technology and Quantitative Management (IAITQM);
- Francisco Antonio Doria “A Quasi-Polynomial Algorithm for NP-Complete Problems”, Federal University at Rio de Janeiro, Brazil;

There were more 400 scholars from 19 countries and regions submitted their papers to ITQM 2015. The authors are from Australia, Brazil, Chile, China, Colombia, Greece, Iran, Japan, Kazakhstan, Korea, Mexico, Romania, Russia, South Africa, Spain, Sweden, Taiwan, UK, and USA. After the peer-review process, we have accepted 166 high-quality papers from all submitted papers for presentation at the conference. These papers are published by Elsevier in their Procedia Computer Science series. They are allocated into one main track, 22 special sessions and 16 workshops.

Again, ITQM 2015 relies strongly on the vital contributions of our workshop organizers to attract high quality papers in many subject areas. We would like to thank all special session/workshop organizers, ITQM committee members, and reviewers for their contribution to ensure a high standard for the accepted papers. We would like to express our gratitude to the Rio local organizing committee for their enthusiastic work towards the success of ITQM 2015. We owe special thanks to our sponsors: Ibmec, FIRJAN, UFF, SOBRAPO, ASSESPRO, UFF, CAPES, FAPERJ, SUCESU-RJ, SINDITEC, and ANE – National Academy of Engineering in Brazil; Research Center on Fictitious Economy and Data Science and Key Lab of Big Data Mining and Knowledge Management, Chinese Academy of Sciences, School of Management, University Chinese Academy of Sciences, Institute of Policy and Management, Chinese Academy of Sciences, and Chinese Society of Management Modernization in China, University of Nebraska at Omaha in USA, for their generous support.

We wish you a successful and enjoyable conference in Rio!

Luiz F. Autran M. Gomes and Yong Shi
Conference Co-chairs, July 2014, Rio, Brazil
The ITQM 2015 Program/Conference Chairs:

Honorary Chair: Joao Arinos R. dos Santos, Siwei Cheng and James Tian
Conference Chair: Luiz F. Autran M. Gomes and Yong Shi
Organizing Chair: Peter Wolcott and Enrique Herrera-Viedma
Program Chair: Raul Colcher and Heeseok Lee
Tutorial Chair: Yingjie Tian and Jing He
Special Sessions and Workshops Chair: Felisa Cordova and Zhengxin Chen
Publications and Proceedings Chair: Gang Kou and David Olson
Awards Chair: Daniel Berg and Yong Shi
Financial Chair: Wikil Kwak and Jianping Li

Local Committee:

Carlos F.S. Gomes (Co-chair), UFF, Brazil
Cid Miranda (Co-chair), SUCESU, Brazil
Fabio R. E. Silva, Ibmec, Brazil
Francisco A. Doria, UFRJ, Brazil
Raul Colcher, ASSESPRO, Brazil
Valter Moreno, Ibmec & UERJ, Brazil
Heitor Quintella, Stratimidia, Brazil
Marco Ribeiro, Ibmec and a member of the Rio Board for 2016 Olympic Games of Brazil, Brazil
Danilo Santos, Ibmec, Brazil

Program Committee:

- Fuad Aleskerov, Russian Academy of Sciences, Russia
- Vassil Alexandrov, Barcelona Supercomputing Center, Spain
- Hesham Ali, University of Nebraska at Omaha, USA
- Daniel Berg, Rensselaer Polytechnic Institute, USA
- Marian Bubak, AGH University of Science and Technology, Poland
- Sergiy Butenko, Texas A&M University, USA
- Francisco Javier Cabrerizo, UNED, Spain
- Zhangxin Chen, University of Nebraska at Omaha, USA
- Siwei Cheng, Chinese Academy of Sciences, China
- Francisco Chiclana, De Montfort University, United Kingdom
- Vyacheslav V. Chistyakov, NRU HSE, Nijniy Novgorod, Russia
- Raul Colcher, ASSESPRO, Brazil
- Pablo Cordero, University of Malaga, Spain
- Helder G. Costa, UFF, Brazil
- Frederica Darema, Air Force Office of Scientific Research, USA
- Kalyanmoy Deb, India Institute of Technology, India
- Jack Dongarra, University of Tennessee, Knoxville, USA
- Francisco A. Doria, UFRJ, Brazil
- Ioan Dzitac, Agora University, Romania
- Shu Cherng Fang, North Carolina State University, USA
- Cordova Felisa, University of Santiago of Chile USACH, Chile
- Florin Gheorghe Filip, Romanian Academy, Romania
- Hamido Fujita, Iwate Prefectural University, Japan
- Fred Glover, OptTek Systems, Inc., USA
- Michel Grabisch, Paris I, France
- Carlos F.S. Gomes, UFF, Brazil
Luiz F. Autran M. Gomes, IBMEC, Brazil
Jifa Gu, Chinese Academy of Sciences, China
Kun Guo, Chinese Academy of Sciences, China
Pankaj Gupta, University of Delhi, India
Jing He, Victoria University, Australia
Wenxue Huang, Guangzhou University, China
Zhimin Huang, Adelphi University, USA
Hiroshi Inoue, Science University of Tokyo, Japan
Deepak Khazanchi, University of Nebraska at Omaha, USA
Gang Kou, Southwest University of Finance and Economics, China
Murat M. Koksalan, Middle East Technical University, Turkey
Wikil Kwak, University of Nebraska at Omaha, USA
Moussa Larbani, Islamic International University, Malaysia
Cheng-Few Lee, Rutgers University, USA
Heeseok Lee Korea Advanced Institute of Science and Technology, Korea
Jongwon Lee, Hoseo University, Korea
Stanley Lee, Kansas State University, USA
Michael Harold Lees, Nanyang Technological University, Singapore
Alexander E. Lepskiy, HSE, Moscow, Russia
Aihua Li, Central University of Finance & Economics, China
Duan Li, Chinese University of Hong Kong, Hong Kong, China
Jianping Li, Chinese Academy of Sciences, China
Shanling Li, McGill University, Canada
Weigang Li, University of Brasilia, Brazil
Xingsen Li, NIT, Zhejiang University, China
Xiaodong Lin, Rutgers University, USA
Jiming Liu, Hong Kong Baptist University, Hong Kong, China
Rong Liu, University of California at Los Angeles, USA
Xiaohui Liu, Brunel University, United Kingdom
Ying Liu, Chinese Academy of Sciences, China
Aleksey Lobanov, Bank of Russia, Russia
Wen Long, Chinese Academy of Sciences, China
David H. Lorenz, Northeastern University, USA
Robert M. Losee, University of North Carolina at Chapel Hill, USA
Alexander V. Lotov, Russian Academy of Sciences, Russia
Joao C.S. de Mello, UFF, Brazil
Andreas Merikas, National Research University Higher School of Economics, Russia
Cid Miranda, SUCESU, Brazil
Vadim V. Mottl, Tula State University, Russia
Valter Moreno, Ibmec & UERJ, Brazil
Lingfeng Niu, Chinese Academy of Sciences, China
David L. Olson, University of Nebraska at Lincoln, USA
Panos M. Pardalos, University of Florida, USA
Yi Peng, University of Electronic Science and Technology of China, China
Henry I. Penikas, HSE, Moscow, Russia
Ignacio Javier Pérez, University of Cadiz, Spain
David Poole, University of British Columbia, Canada
Luis Omar Herrera Prada, Universidad de la Salle, Colombia
Zhiquan Qi, Chinese Academy of Sciences, China
Heitor Quintella, Stratimidia, Brazil
Cliff T. Ragsdale, Virginia Polytechnic Institute and State University, USA
Balasubramaniam Ramesh, Georgia State University, USA
• Fuji Ren, The University of Tokushima, Japan
• Francisco Ruiz, Universidad de Malaga, Spain
• Thomas Saaty, University of Pittsburgh, USA
• Isaac D. Scherson, University of California at Irvine, USA
• Prakash P. Shenoy, University of Kansas, USA
• Fabio R. E. Silva, IBMec, Brazil
• Dominik Slezak, Warsaw University, Poland
• P.M.A. Sloot, Universiteit van Amsterdam, The Netherlands
• Roman Slowinski, Poznan University of Technology, Poland
• Paulo de Souza, CSIRO, Australia
• Bogdana Stanojevic, the Serbian Academy of Sciences and Arts, Serbia
• Christian Stummer, Bielefeld University, Germany
• Minghe Sun, University of Texas at San Antonio, USA
• Tetsuzo Tanino, Osaka University, Japan
• Xin Tian, Chinese Academy of Sciences, China
• Yingjie Tian, Chinese Academy of Sciences, China
• James Tien, University of Miami, USA
• Zenonas Turskis, Vilnius Gediminas Technical University, Lithuania
• Gwo-Hshiung Tzeng, National Chiao Tung University, Taiwan
• Luis G. Vargas, University of Pittsburgh, USA
• Rayford Vaughn, Mississippi State University, USA
• Enrique Herrera-Viedma, University of Granada, Spain
• Jyrki Wallenius, Aalto University School of Economics, Finland
• Hsiao-Fan Wang, Aalto University School of Economics, Finland
• James Wang, Pennsylvania State University, USA
• Shouyang Wang, Chinese Academy of Sciences, China
• Xianhua Wei, Chinese Academy of Sciences, China
• Peter Wolcott, University of Nebraska at Omaha, USA
• Weixuan Xu, Chinese Academy of Sciences, China
• Lean Yu, Beijing University of Chemical Technology, China
• Ming Min Yu, National Taiwan Ocean University, Taiwan
• Philip S. Yu, University of Illinois at Chicago, USA
• Po-lung Yu, University of Kansas, USA
• Xiaogang Wang, York University, Canada
• Edmundas Kazimieras Zavadskas, Vilnius Gediminas Technical University, Lithuania
• Milan Zeleny, Fordham University, USA
• Chengqi Zhang, University of Technology Sydney, Australia
• Haolan Zhang, NIT, Zhejiang University, China
• Lingling Zhang, Chinese Academy of Sciences, China
• Peng Zhang, University of Technology Sydney, Australia
• Wei Zhang, Tianjin University, China
• Yanchun Zhang, Victoria University, Australia
• Yuejin Zhang, Central University of Finance and Economics, China
• Ning Zhong, Maebashi Institute of Technology, Japan
• Xiaofei Zhou, Chinese Academy of Sciences, China
• Zongfang Zhou, University of Electronic Science and Technology of China
• Xingquan Zhu, Florida Atlantic University, USA
• Yangyong Zhu, Fudan University, China
• Kirill Zinkovskiy, National Research University Higher School of Economics, Russia
Special Sessions/Workshops and Organizers

Special Session 01: Soft Computing Methods in Quantitative Management and Decision Making
Florin Gheorghe Filip, Romanian Academy, Romania (ffilip@acad.ro)
Ioan Dzitac, Agora University of Oradea, Romania (rector@univagora.ro)

Special Session 02: Intelligent Decision Making and Consensus
Enrique Herrera-Viedma, Granada University, Spain (viedma@decsai.ugr.es)
Hamido Fujita, Iwate Prefectural University, Japan (HFujita-799@acm.org)
Francisco Chiclana, De Montfort University, U.K. (chiclana@dmu.ac.uk)
Francisco Javier Cabrerizo, UNED, Spain (cabrerizo@issi.uned.es)
Ignacio Javier Pérez, University of Cadiz, Spain (ignaciojavier.perez@uca.es)

Special Session 03: A New Energy Approach to Building and Managing Intelligent Sustainable Hybrid Energy Systems (SHES)
Franco F. Yanine, Technical University Santa María, Valparaíso, Chile (fyanine@uc.cl)
Felisa M. Córdova, University of Santiago de Chile, Santiago, Chile (felisa.cordova@gmail.com)
Ouadie Bennouna, ESIGELEC, IRSEEM, Rouen, France (bennouna@esigelec.fr)

Special Session 04: Data Acquisition and Management for Traceability Analytics
Jing He, Victoria University, Australia (Jing.He@vu.edu.au)
Bo Mao, Nanjing University of Finance and Economics, China (bo.mao@njue.edu.cn)
Hai Liu, School of Computer, South China Normal University, China (liuhai@scnu.edu.cn)

Special Session 05: AHP/ANP Applications I
Roberto Camanho, SIDEC, Brazil (rcamanho@sidec.com.br)

Special Session 06: AHP/ANP Applications II
Valerio Salomon, UNESP, Brazil (salomon@feg.unesp.br)

Special Session 07: Neurocognitive Engineering and Neuromarketing
Felisa Cordova, University of Santiago de Chile (felisa.cordova@gmail.com)
Juan Pablo Rodríguez, CEO eye on media, Chile (jprodriguez@eyeonmedia.net)
Hernán Díaz, University of Santiago de Chile
Robertino Pereira, CEO eye on media, Colombia
Ana Titos, University of Granada, Spain

Special Session 08: Advances in Computational Intelligence
Maria Augusta Soares Machado (mmachado@ibmecrj.br, fuzzyconsultoria@hotmail.com)

Special Session 09: IT Applications to City Logistics, Urban Logistics and Reverse Logistics
Fernando Augusto Silva Marins, São Paulo State University, Brazil (fmarins@feg.unesp.br)
Aneirson Francisco da Silva, São Paulo State University, Brazil
José Roberto Dale Luche, São Paulo State University, Brazil
Reinaldo Fagundes dos Santos, FATEC – São José dos Campos, Brazil

Special Session 10: Applications of Multi-Criteria Decision Analysis in Quantitative Management
Luis Alberto Duncan Rangel, Fluminense Federal University, Brazil (duncan@metal.eimvr.uff.br)
Luiz Flavio Autran Monteiro Gomes (autran@ibmecrj.br)
Special Session 11: Long-Term Electricity Forecasting - Management and Support in Decision Making
Reinaldo Castro Souza, Pontifical Catholic University of Rio de Janeiro, Brazil (reinaldo@ele.puc-rio.br)
Fernando Cyrino, Pontifical Catholic University of Rio de Janeiro, Brazil (cyrino@puc-rio.br)

Special Session 12: The Dominance-based Rough Set Approach in Quantitative Management
Ayrton Benedito Gaia do Couto, The Brazilian Development Bank (BNDES), Brazil (ayrtoncouto@gmail.com)

Special Session 13: Knowledge Discovery Meets Multicriteria Analysis
Harold Paredes-Frigolett, Universidad Diego Portales, Santiago, Chile (harold.paredes@udp.cl)

Special Session 14: Applications and Software in Verbal Decision Analysis
Placido Rogerio Pinheiro, University of Fortaleza, Brazil (placido@unifor.br)
Maria Elizabeth Sucupira Furtado, University of Fortaleza, Brazil (elizabet@unifor.br)

Special Session 15: Big Data Analytics for Smarter Commerce
Svetlana Maltseva, National Research University Higher School of Economics, Moscow, Russia (smaltseva@hse.ru)
Andrey Dmitriev, National Research University Higher School of Economics, Moscow, Russia (admitriev@hse.ru)
Mikhail Komarov, National Research University Higher School of Economics, Moscow, Russia (mkomarov@hse.ru)

Special Session 16: Quantitative Management to Improve Control and Plans Projects, Programs and Portfolios: Demystifying Statistical Tools
Fabio Reginaldo, IBMEC, Quode Project, International Institute of Learning (fabioreginaldo@yahoo.com)

Special Session 17: DEA and MCDA in Sports Management and Evaluation
João Carlos Soares de Mello (jcsmello@producao.uff.br)
Lidia Angulo Meza (lidia_a_meza@pq.cnpq.br)

Special Session 18: Information and Technology Governance
Carlos Francisco Simões Gomes, Fluminense Federal University, Brazil (cfsg1@bol.com.br)

Special Session 19: Process Improvement Quantitative Tools
Annibal Parracho Sant’Anna (annibal.parracho@gmail.com)

Special Session 20: Intelligent Transportation Systems and the Olympics - 2016
Paulo Cezar M Ribeiro, Federal University of Rio de Janeiro, Brazil (pribeiro@pet.coppe.ufj.br)

Special Session 21: Crisis, Risk and Business Continuity Management
Denise Faertes, Petrobras/E&P/ENGP/OPM (faertes@petrobras.com.br)

Special Session 22: Using Information Technologies to Create Value for Customers
Priscilla Yung Medeiros, IBMEC-RJ, Brazil (priscilla.medeiros@ibmecrj.br)

Workshop 01: Smart Cities: The Roles of IT and Quantitative Management
Raul Colcher, Questera Consulting, Brazil, (raul.colcher@questera.com)
Luiz Flavio Autran Monteiro Gomes, IBMEC, Brazil (autran@ibmecrj.br)

Workshop 02: Risk Correlation Analysis and Risk Measurement
Jianping Li, Institute of Policy & Management, Chinese Academy of Sciences, China (ljp@casipm.ac.cn)
Yi Peng, University of Electronic Science and Technology of China, China (pengyicd@gmail.com)
Xiaodong Lin, Rutgers University, USA (lin@business.rutgers.edu)
Rongda Chen, Zhejiang University of Finance & Economics, China (rongdachen@163.com)

Workshop 03: Intelligent Decision Making and Extenics based Innovation
Xingsen Li, NIT, Zhejiang University, China (lixs@nit.zju.edu.cn)
Chunyan Yang, Guangdong University of Technology, China (wyw@gdut.edu.cn)
Haolan Zhang, NIT, Zhejiang University, China (haolan.zhang@nit.zju.edu.cn)
Yanbin Liu, NIT, Zhejiang University, China (lyb.nbt@gmail.com)

Workshop 04: High Performance Data Analysis
Vassil Alexandrov, ICREA Research Professor in Computational Science at Barcelona Supercomputing Centre, Spain (vassil.alexandrov@bsc.es)
Ying Liu, University of Chinese Academy of Sciences, China (yingliu@ucas.ac.cn)

Workshop 05: Credit Evaluation and Management
Zongfang Zhou, University of Electronic Science and Technology of China, China (zhouzf@uestc.edu.cn)

Workshop 06: Intelligent Knowledge Management
Jifa Gu, Academy of Mathematics and System Science, Chinese Academy of Sciences, China (zll933@163.com)
Lingling Zhang, Management School of Graduate University of Chinese Academy of Sciences, China (zhangll@ucas.ac.cn)

Workshop 07: The Third Workshop on Optimization-based Data Mining
Yingjie Tian, Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, China (tianyingjie1213@163.com)
Yong Shi, Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, China/University of Nebraska at Omaha, USA (yshi@unomaha.edu)
Zhiquan Qi, Chinese Academy of Sciences Research Center on Fictitious Economy and Data Science, China (qizhiquan@gucas.ac.cn)

Workshop 08: The Second Workshop on Data Mining and Social Network Analysis
Peng Zhang, IIE, Chinese Academy of Sciences, China (zhangpeng@iie.ac.cn)
Zhou Xiaofei, IIE, Chinese Academy of Sciences, China (zhouxiaofei@iie.ac.cn)

Workshop 09: The Second Workshop on Quantitative Finance (QF2015)
Xianhua Wei, University of Chinese Academy of Sciences, China (weixh@ucas.ac.cn)
Guizai Chi, Dalian University of Technology, China (chigt@dlut.edu.cn)
Weixing Wu, University of International Business and Economics, China (wxwu@uibe.edu.cn)
Yonghui Wang, Director-General of China QClub (wangyonghui@phfund.com.cn)

Workshop 10: On Supporting Informed Decision-Making in Real-Time: Where Environmental Sensing Meets the Data Analytics
Paulo de Souza, CSIRO, Australia (Paulo.Desouzajunior@csiro.au)

Workshop 11: Analytics in Education
Lotfollah Najjar, University of Nebraska at Omaha, USA (lnajjar@unomaha.edu)
Leah Pietron, University of Nebraska at Omaha, USA (lpietron@unomaha.edu)
Workshop 12: Big Data & Social Governing
Jie Cao, Nanjing University of Information Science & Technology, China (cj@amss.ac.cn)
Tinghuai Ma, Nanjing University of Information Science & Technology, China

Workshop 13: Hydrothermal Dispatch – Scenarios Generation and Management
Reinaldo Castro Souza, Pontifical Catholic University of Rio de Janeiro, Brazil (reinaldo@ele.puc-rio.br)
Fernando Cyrino, Pontifical Catholic University of Rio de Janeiro, Brazil (cyrino@puc-rio.br)
Hugo Ribeiro Baldioti, Pontifical Catholic University of Rio de Janeiro, Brazil (baldioti@ele.puc-rio.br)

André Figueiredo, SENSEDIA (andre.figueiredo@sensedia.com)
Fabio Reginaldo, IBMEC, Quode Project, International Institute of Learning (fabioreginaldo@yahoo.com)

Workshop 15: Quantitative Methods Applied to Investment Analysis
Rodrigo Novinski, professor of economics, Ibmec-RJ, Brazil (rodrigo.novinski@ibmecrj.br)
Sergei Vieira, professor of economics, Ibmec-RJ, Brazil (sergei.vieira@ibmecrj.br)

Workshop 16: Scientific Data Analysis and Decision Making
Dengsheng Wu, Assistant Prof., Institute of Policy and Management, Chinese Academy of Sciences, China (wds@casipm.ac.cn)
Yuanping Chen, Assistant Prof., Computer Network Information Center, Chinese Academy of Sciences, China (ypchen@cashq.ac.cn)
Xianyu Lang, Associate Prof., Computer Network Information Center, Chinese Academy of Sciences, China (xylang@cashq.ac.cn)
## ITQM 2015 Program AT A GLANCE

### Monday, 20 July

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<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
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<tr>
<td>14:00-17:00</td>
<td>Registration</td>
<td>(IBMEC, 10th floor)</td>
</tr>
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<td>18:00-21:00</td>
<td>Welcome Cocktail</td>
<td>(IBMEC, 10th floor)</td>
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### Tuesday, 21 July

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<th>Time</th>
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<th>Location</th>
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<tbody>
<tr>
<td>09:00-09:30</td>
<td>Opening Session</td>
<td>(IBMEC, 10th floor)</td>
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<tr>
<td>09:30-10:30</td>
<td>Keynote I</td>
<td>(IBMEC, 10th floor)</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Coffee Break</td>
<td></td>
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<tr>
<td>11:00-12:00</td>
<td>Tutorial I</td>
<td>(IBMEC, 10th floor)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch Time</td>
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<tr>
<td>13:30-15:30</td>
<td>Session I</td>
<td>SS 2-A (808), SS 18-A (807), WS 9-A (805), SS 21 (806), WS 3-A (804), SS 17 (809)</td>
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<tr>
<td>15:30-16:00</td>
<td>Coffee Break</td>
<td></td>
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<tr>
<td>16:00-18:00</td>
<td>Session II</td>
<td>SS 2-B (808), SS 18-B (807), WS 9-B (805), SS 15 (806), WS 3-B (804), WS 4 (809)</td>
</tr>
<tr>
<td>19:00-22:00</td>
<td>Get Together Dinner and IAITQM Awards - Margutta Restaurant</td>
<td>2nd Floor of FIRJAN's Building</td>
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### Wednesday, 22 July

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>08:30-09:30</td>
<td>Keynote II</td>
<td>(IBMEC, 10th floor)</td>
</tr>
<tr>
<td>09:30-10:00</td>
<td>Coffee Break</td>
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<tr>
<td>10:00-11:00</td>
<td>Tutorial II</td>
<td>(IBMEC, 10th floor)</td>
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<tr>
<td>15:30-16:00</td>
<td>Coffee Break</td>
<td></td>
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<tr>
<td>16:00-18:00</td>
<td>Session V</td>
<td>WS 7 (807), SS 11-A (808), WS 6 (805), WS 1 (806), WS 15 (804), SS 10 (809)</td>
</tr>
<tr>
<td>18:00-18:30</td>
<td>Closing Session</td>
<td>(IBMEC, 10th floor)</td>
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Conference Information

Hours of Registration
• Monday, 20 July, 14:00-17:00
• Tuesday, 21 July, 14:00-17:00
• Wednesday, 22 July, 14:00-17:00
• Thursday, 23 July, 14:00-17:00

Tour Information

Social Programs
• Welcome Cocktail
  Monday, 20 July, 18:00-21:00
• Get Together Dinner and IAITQM Awards
  Tuesday, 21 July, 19:00-22:00

Instruction for Speaker
• Keynote speech: 60 minutes
• Tutorial lecture: 60 minutes
• Oral presentation: 20 minutes
Computational Limits to Human Thinking in a Society with Too Much Information and Too Little Time

Raj Reddy
Professor of Computer Science and Robotics in the School of Computer Science at Carnegie Mellon University

Chair: Daniel Berg, University of Miami, USA

Abstract In the increasingly digital world of the 21st century, Management Decision Making requires the ability to get timely information about all the developments that might impact personal and management objectives. A grand challenge for Computer Science is that society should aspire to get the right information to the right people at the right time in the right language in the right medium with the right level of detail. The designers of such systems have to keep in mind computational limits to human thinking. Humans make errors, tend to forget, are impatient and look for least effort solutions, sometimes leading to catastrophic results. At the same time, humans learn with experience, tolerate error and ambiguity, use vast amounts knowledge, and communicate using speech and language. Such features are still lacking in most of our systems. Most systems don’t get better with experience. We cannot even send routine voice emails and video emails. Most importantly, we are severely lacking in tools for coping with 21st century world of “too much information and too little time”. In this talk we will present two families of intelligent agents, viz., “cognition amplifiers” and “guardian angels” to help with problem of scarcity of attention. A Cognition Amplifier is a personal intelligent agent that anticipates what you want to do and helps you to do it with less effort. A Guardian Angel is a personal intelligent agent that discovers and warns you about unanticipated, possibly catastrophic, events that could impact your safety, security, and wellbeing. Both Cogs and Gats are enduring, autonomic, nonintrusive intelligent agents which are always-on, always working, and always-learning. In this talk, we will review the current state of the art and possible options for coping with human limitations.
Abstract Information Technology (IT) is not only the story of technology, but the potential of revolutionary and disruptive change. IT and other digital advances like Internet of Things (IoT) enable us to overcome the limitation of mental power. This has ushered in humanity's new age as the Industrial Revolution led to today's modern society. Who can imagine Google's self driving car now drives nearly more than one million miles autonomously? Isn't it so weird to find a global IT company, not a traditional auto manufacturer like GM, leads the race for the future of driving? This dramatic phenomenon is easy to understand if we are aware that the core technology of autonomous car is IT coupled with big data and IoT. The business potential from emerging IT is unlimited. Global IT companies are sharpening their competencies to win in this "Winner takes it all" business environment. This talk will illustrate how IT has evolved, revolutionizing the business models up to the current sharing economy. It will highlight its potential and implications for academia and practice.

Decision Making in Changeable Spaces

Po-Lung Yu
Distinguished Professor (Emeritus) of University of Kansas (KU), Kansas, USA
Distinguished Professor for Life of National Chiao-Tung University (NCTU), Taiwan

Chair: Yong Shi, IAITQM

Abstract Human makes decisions under some situation settings. There are many parameters involving in decision processes, especially the challenging ones, including those of psychology and its dynamics, and other decision parameters such as criteria, alternatives, outcomes, preference, information inputs, rules of games, players, ...etc. The parameters can be explicit, implicit or hidden. Most likely they are changeable in their dimensions and shapes. We provide a new decision making paradigm in changeable spaces (DMCS). The unique feature of DMCS is that it actively incorporates, search and constructively restructures those parameters, tangible and intangible, in the process of decision making as to achieve an ultimate goal. Using concepts of competence set analysis, Habitual Domain (HD) and mental operators 7-8-9 principles of deep knowledge of HD. DMCS can be modeled and solved effectively. In the process to achieve an ultimate goal, we on one hand need to find what competence, including resources, know how, skills, effort...etc. are needed to solve the problem( a discovering process). On the other hand we need to effectively acquire those needed competence ( a covering process). The 7-8-9 principles of deep knowledge can help us to systematically expand and enrich our competence set and habitual domains as to reduce decision blinds and avoid decision traps in the discovering and covering processes and solve the challenging problems more effectively. New concepts of covering and discovering processes are proposed and formulated as mathematical tools to solve DMCS problems. Some illustrative real life challenging problems that cannot be solved by traditional optimization techniques are formulated as DMCS problems and solved mathematically. Vast applications of OCS will be shown. Some directions of research related to innovation dynamics, management, artificial intelligence, artificial and e-economics, scientific discovery and knowledge extraction will also be provided.

Models for analysis of consumers’ behavior for a large retail network

Fuad Aleskerov
Head, Department of Mathematics for Economics, National Research University Higher School of Economics;
Head, International Laboratory of Decision Analysis and Choice, National Research University Higher School of Economics;
Head, Laboratory of Choice Theory and Decision Analysis, Russian Academy of Sciences Institute of Control Sciences, Russia

Chair: Wikil Kwak, University of Nebraska at Omaha, USA

Abstract How can a company or a bank increase the loyalty of customers? How can we attract customers to switch from
competing companies? How can we get more profit from our customers?
These questions are continuously studied by all companies, specially retail networks.
In my paper I propose a system of new models to solve the following problems:
— an analysis of consumers’ baskets and segmentation of the customers of a large retail firm on the basis of similarity of their consumption;
— an analysis of the sets of goods purchased by the customers of a large retail network, and segmentation of these sets;
— an analysis of the dynamic behavior of customers, and segmentation of customers in terms of their life cycle period, i.e. weather the customer is a leaving, growing or stable one;
— one analysis of how can a retail network return a leaving customer.
These models allow us to solve the above stated problems, and they were used to analyze a real retail network with more than 500,000 customers and more than 1 mln. goods.
We analyzed the data for this network for more than 1 year of functioning on the basis of the customers’ purchases.
We analyzed real Big Data of this network and construct the corresponding very fast algorithms.

**Tutorial II (IBMEC, 10th floor)**

**Wednesday, July 22**
**10:00-11:00**

**Rio 2016 and the Use of IT**

Walter Böddener

*Rio 2016™, Brazil*

Chair: Felisa M. Córdova, University of Santiago de Chile, Santiago, Chile

**Abstract** The presentation will consist in showing what types of technology are used nowadays in high level Classes sailing events over the world, as the ISAF World Cup, World Championships and Olympic Games. Sailing is a spectacular sport, in which athletes submit their skills to a sailing boat in the sea, using the force of the wind. To show this spectacle more interesting for the spectators, in the last 20 years, a lot of technology has been developed to show spectators on shore what is going on in the water, to explain the sport and to enhance the interest in sailing. Such technology is for example the on water GPS tracking systems, onboard cameras and live coverage in the water with high quality images. Tracking systems shows the positions of the sailors online for all over the world, they can be seen in computers, tablets and also cell phones miles away from the regatta venue. Results feed has also been a great challenge in these events, and today it is already possible to have immediate final and partial results online directly from the water, with special software and wireless communication system. These results can be distributed to any client that is interested in results of such events. Finally, some electronic equipment will be showed that is used at modern sailing boats, especially big boats, that facilitate and potential the sailing experience of high level sailing competition.

**Tutorial III** (IBMEC, 10th floor)

**Thursday, July 23**
**10:00-11:00**

**Big Data and Data Science in ITQM**

Yong Shi

*International Academy of Information Technology and Quantitative Management (IAITQM)*

Chair: Gang Kou, Southwest University of Finance and Economics, China

**Abstract** Big Data has become a reality that no one can ignore. Big Data is our environment whenever we need to make a decision. Big Data is a buzz word that makes everyone understands how important it is. Big Data shows a big opportunity for academia, industry and government. Big Data then is a big challenge for all parties. This talk will discuss some challenges of Big Data application as well as Data Science, the scientific issues behind Big Data. Then, this talk will provide a number of real-life Big Data Applications. Finally, it will outline two journals of ITQM community: International Journal of Information Technology and Decision Making (IJITDM) and Annals of Data Science (AODS).

**Tutorial IV** (IBMEC, 10th floor)

**Thursday, July 23**
**11:00-12:00**

**A Quasi-polynomial Algorithm for NP-Complete Problems**

Francisco Antonio Doria

*Federal University at Rio de Janeiro, Brazil*
Abstract We present and discuss the O'Donnell 1979 algorithm for the solution of NP-complete problems. If P≠NP is proved in a theory with greater "provability strength" than Primitive Recursive Arithmetic, the O'Donnell algorithm turns out to be quasi-polynomial. We elaborate on how close to polynomial it might be. O'Donnell's algorithm isn't based on a specific problem in a given NP class, as most standard algorithms for similar problems. Instead it arises out of some very general, abstract considerations about NP-complete problems. Surprisingly, this leads to a very efficient program. For the usual working range (say, around 2 gigabytes), the algorithm behaves as a low-degree polynomial algorithm (given our hypothesis), and can be applied to the solution of a whole fauna of practical problems in the NP-class, e.g. the traveling salesman problem, allocation problems, the knapsack problem, and so on.

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Information and Communication Technology as a Key Strategy for Efficient Supply Chain Management in Manufacturing SMEs (ID 126)
Monica Colin, Raquel Galindo and Octavio Hernandez

Assessment of Maturity in Project Management: A Bibliometric Study of Main Models (ID 14)
Talita Souza and Carlos Gomes

Mapping of the Scientific Production on the ITIL Application Published in the National and International Literature (ID 16)
Marta Duarte de Barros, Carlos Alberto Leite Salles, Carlos Francisco Simões Gomes, Rafaela Alexandre da Silva, Helder Gomes Costa

Text Mining Business Intelligence: A Small Sample of What Words Can Say (ID 40)
Célia Satiko Ishikiriyama, Diego Miro, Carlos Francisco Simões Gomes

Simulation of Operation of an Integrated Information System for Emergency Pre-Hospital Care in Rio de Janeiro Municipality (ID 140)
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Volatility Spillovers in the CSI300 Futures and Spot Markets in China: Empirical Study based on Discrete Wavelet Transform and VAR-BEKK-bivariate GARCH Model (ID 56)
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An Analysis on Crude Oil Price Mutation in View of Zeeman’s Catastrophe Machine (ID 60)
Yanyu Jia, Kun Guo and Xiaohui Sun

On Pass-through of RMB Exchange Rate to Prices of Different Industries (ID 133)
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Negative Overnight Returns: China’s Security Markets (ID 149)
Qingyuan Liu, Hongbo Guo, Xianhua Wei

Analyzing Consensus Measures in Group Decision Making (ID 151)
Francisco Chiclana, Juan Miguel Tapia García, María José Del Moral and Enrique Herrera-Viedma

A Dynamic Recommender System as Reinforcement for Personalized Education by a Fuzzy Linguistic Web System (ID 169)
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Integrating Ontologies and Fuzzy Logic to Represent User-Trustworthiness in Recommender Systems (ID 91)
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Consensus in a Fuzzy Environment: A Bibliometric Study (ID 98)
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Reliability of Supply Chains and Business Continuity Management (ID 62)
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Business Continuity Management (BCM) Applied to Transpetro’s National Operational Control Center – CNCO (ID 63)
Dilmar Alves and Marcio Manhaes

Human Cooperation Assessment Methodology (ID 135)
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Reliability of Supply Chains and Business Continuity Management (ID 210)
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Yanbin Liu, Ping Yuan, Wei Liu, Xingsen Li

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A 2-tuple Fuzzy Linguistic RFM Model and its Implementation (ID 200)
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Marco Lopez, Stephane Couturier and Yael Barrera

Design and Implementation of a Scientific Research Funds Analysis Model based on Boston Matrix (ID 144)
Yuanping Chen, Dengsheng Wu, Jianying Sun, Fengxia Wang, Wenbin Jiao

WS 7: Workshop 7 (807)
Chair: Yingjie Tian, Yong Shi, Zhiquan Qi

Multi-Dimensional Critical Control of Water Resource in Bayannur (ID 37)
Xuchan Ju, Yingjie Tian, Dalian Liu, Manjin Cheng, Yuhong Xia, Fuqiang Quo

A Summation Constraint Method for Linear Programming (ID 38)
Victor Gordunovsky

Establishment of China Information Technology Outsourcing Early Warning Index based on SVR (ID 121)
Siqi Yi, Yong Shi and Yibing Chen

A Novel Dynamic Financial Conditions Index Approach based on Accurate Online Support Vector Regression (ID 143)
Xiang-Yu Hua, Zhi-Min Yang, Ya-Fen Ye, Yuan-Hai Shao

Image Segmentation via Improving Clustering Algorithms with Density and Distance (ID 153)
Zhensong Chen, Zhiquan Qi, Fan Meng, Limeng Cui, Yong Shi

WS 1: Workshop 1 (806)
Chair: Raul Colcher, Luiz Flavio Autran Monteiro Gomes

Hierarchy Models for the Organization of Economic Spaces (ID 13)
Carlos Alberto Nunes Cosenza, Francisco Antonio Doria, Leonardo Antonio Monteiro Pessôa

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Chair: Jifa Gu, Lingling Zhang

Impacts of the Technological Change Introduced by Smart Energy Metering in the Legal Department of an Electricity Utility (ID 42)
Carolina Teixeira Nicolau, Reinaldo C. Souza, Mauricio N. Frota

Synergy and Technology Gaps in Export Logistics Chains between a Chilean and a Spanish Medium-Sized Port (ID 95)
Claudia A. Durán, Felisa M. Córdova

Text Clustering based on a Divide and Merge Strategy (ID 125)
Man Yuan, Yong Shi

Personalized Financial News Recommendation Algorithm based on Ontology (ID 127)
Rui Ren, Lingling Zhang, Limeng Cui, Bo Deng, Yong Shi

WS 11-A: Special Session 11-A (808)
Chair: Reinaldo Castro Souza, Fernando Cyrino

Forecasting Long-Term Electricity Demand in the Residential Sector (ID 79)
José Pessanha and Nelson Leon

EMD Copula based Value at Risk Estimates for Electricity Markets (ID 197)
Xuan Wang, Junling Cai and Kajian He

Long Term Electricity Forecast: A Systematic Review (ID 82)
Gheisa Roberta Telles Esteves, Bruno Bastos, Fernando Luiz Cyrino Oliveira, Rodrigo Flora Calili and Reinaldo Castro Souza

Economic and Environmental Effects of Coal Resource Tax Reform in China: based on a Dynamic CGE Approach (ID 196)
Jiarui Shi, Ling Tang and Lean Yu

An Interval Knowledge based Forecasting Paradigm for Container Throughput Prediction (ID 208)
Anqiang Huang, Kin Keung Lai, Han Qiao, Shouyang Wang and Zhenji Zhang
Information (ID 25)
Vladimir Mazalov, Elena Konovalchikova

A Revised Frequent Pattern Model for Crime Situation Recognition based on Floor-Ceil Quartile Function (ID 39)
Omowunmi Isafiade, Antoine Bagula, Sonia Berman

Modeling and Simulation of Emergence: Proposal of a Tool based on Choquet Integral (ID 71)
Juan Miguel Sepúlveda-Salas, Frederique Mayer and Klauss Adam

ELES-Model Based Housing Affordability Comparative Research of Urban Households in Beijing between 2004 and 2013 (ID 160)
Aihua Li, Qingqing Mo

Chair: Rodrigo Novinski, Sergei Vieira 13:30-15:30

Supply Function Auction for Linear Asymmetric Oligopoly: Equilibrium and Convergence (ID 17)
Marina Dolmatova, Alexander Vasin, Hongwei Gao

The Study of the Development of Chinese Stock Market based on Factor Analysis (ID 61)
Lu Yu, Xiaowan Hu and Kun Guo

Modeling Generic Mean Reversion Processes with a Symmetrical Binomial Lattice - Applications to Real Options (ID 116)
Carlos de Lamare Bastian-Pinto

Search Engine Marketing, Financing Ability and Firm Performance in E-commerce (ID 164)
Zhuofan Yang, Yong Shi, Bo Wang

SS 10: Special Session 10 (809) Thu, 23 July 2015
Chair: Luis Alberto Duncan Rangel, Luiz Flavio Aturan Monteiro Gomes 13:30-15:30

Comparing Rankings from using TODIM and a Fuzzy Expert System (ID 21)
Valério Antonio Pamplona Salomon, Luis Alberto Duncan Range

A-TOPSIS – An Approach based on TOPSIS for Ranking Evolutionary Algorithms (ID 46)
Renato Krohling and André Pacheco

TODIM based Method to Process Heterogeneous Information (ID 47)
Rodolfo Lourenzutti and Renato Krohling

Multicriteria Classification with TODIM-FSE (ID 83)
Renato Monte Araujo

Ranking of Suppliers for a Steel Industry: A Comparison of the Original TODIM and the Choquet-extended TODIM Methods (ID 105)
Luiz Flavio Aturan Monteiro Gomes, Maria Augusta Machado, Danilo Jusnan Santos and André Machado Caldeira

SS 1: Special Session 1 (807) Thu, 23 July 2015
Chair: Florin Gheorghe Filip, Ioan Dzitac 16:00-18:00

Database Versioning 2.0, a Transparent SQL Approach used in Quantitative Management and Decision Making (ID 78)
Cosmin Cioranu, Marius Cioca and Carmen Novac

Assigning Weights for Quality Software Metrics Aggregation (ID 87)
Ion Ivan, Alin Zamfiroiu, Mihai Doinea and Mihai Liviu Despa

The Decision Model for the Internet Services in the Context of Development (ID 94)
Elly Amani Gamukama, Aron Larsson, Oliver Popov and Joseph Y.T. Mugisha

The Application of Conflict Measure to Estimating Incoherence of Analyst's Forecasts about the Cost of Shares of Russian Companies (ID 165)
Andrew Bronevich, Alexander Lepskiy, Henry Penikas

SS 11-B: Special Session 11-B (808) Thu, 23 July 2015
Chair: Reinaldo Castro Souza, Fernando Cyrino 16:00-18:00

Modelling and Forecasting the Residential Electricity Consumption in Brazil with Pegels Exponential Smoothing Techniques (ID 48)
Paula Macaira, Reinaldo Souza and Fernando Cyrino Oliveira

Bottom-up Long-Term Forecasting of Brazilian Commercial Class Electricity Consumption: First Results (ID 57)
Bruno Q. Bastos, Reinaldo C. Souza and Fernando L.Cyrino Oliveira

Fuzzy Modeling to Forecast an Electric Load Time Serie Cesar (ID 58)
Pereira, Nival Almeida and Maria Velloso

Forecast of Long-Term Electricity Consumption of the Industrial Sub-Sector of Pulp and Paper in Brazil using a Bottom-up Approach (ID 75)
Felipe Silva, Reinaldo Souza, Fernando Cyrino Oliveira, Plutarcho Lourenço and Wesley Fagundes

Long Term Electricity Demand Forecasting with Few, Limited and Imprecise Data (ID 81)
João Aires and José Pessanha

Chair: Lotfollah Najjar, Leah Pietron 16:00-18:00

Productivity Analysis and Variable Returns to Scale in Education: DEA Efficiency Frontier Interpretation (ID 50)
Juliana Benicio, João Carlos Soares de Mello and Lidia Angulo Meza

A Multi-objective Programming Approach to Network DEA with an Application to the Assessment of the Academic Research Activity (ID 55)
Dimitris Despotis, Gregory Koronakos and Dimitris Sotiros

Primary Education Evaluation in Brazil using Big Data and Cluster Analysis (ID 155)
Thiago Graca Ramos, Jean Cristian Ferreira Machado, Bruna Principe Vieira Cordeiro

University Level Learning and Teaching via E-Learning Platforms (ID 206)
Dan Benta, Gabriela Bologa, Simona Dzitac and Ioan Dzitac

SS 14: Special Session 14 (806) Thu, 23 July 2015
Chair: Placido Rogerio Pinheiro, Maria Elizabeth Sucupira Furtado 16:00-18:00

Problem Structuring Methods Recommendation for a Public Organization of the Rio de Janeiro State (ID 29)
Mario Tinoco da Silva Filho

A Hybrid Approach for Modeling Alternatives of Flexible Working (ID 112)
Patricia Vasconcelos, Elizabeth Furtado, Plácido Pinheiro

Thais Cristina Sampaio Machado and Adriano Albuquerque. Hybrid Approaches of Verbal Decision Analysis in the Selection of Project Management Approaches (ID 175)
Isabelle Tamanini, Plácido Rogerio Pinheiro, Thais Cristina Sampaio Machado and Adriano Albuquerque

MAIS - A Model for the Multi-criteria Analysis of Interaction Solutions (ID 181)
Plácido Rogerio Pinheiro and Maria Furtado

Facility Layout for an Automated Guided Vehicle System (ID 9)
Hsiao-Fan Wang and Ching-Min Chang

Numerical Methods for Modeling of Traffic Flows at Research and Optimization of Traffic on the Signal-Controlled Road Intersections (ID 66)
Tatiana Babicheva and Dmitry Babichev

The Use of Queuing Theory at Research and Optimization of Traffic on the Signal-Controlled Road Intersections (ID 67)
Tatiana Babicheva

Integrated Model for Reverse Logistics Management of Electronic Products and Components (ID 86)
Reinaldo Fagundes Dos Santos and Fernando Augusto Silva Marins

Cost Assessment and Benefits of using RFID in Reverse Logistics of Waste Electrical & Electronic Equipment (WEEE) (ID 102)
Marcus Vinicius F. Araujo, Vanderson R. de Oliveira, Fernando A. S. Marins and Jorge M. Júnior

ANP applied to the Evaluation of Performance Indicators of Reverse Logistics in Footwear Industry (ID 22)
José Leonardo da Silveira Guimarães, Valério Antonio Pamplona Salomon

ICT Support Assessment in Primary School Teaching and Learning through AHP (ID 23)
Astrid Oddershede, Jorge Donoso, Francia Fariasa, Patricia Jarufe

Analytic Hierarchy Process and Supply Chain Management: A bibliometric Study (ID 64)
Claudemir Leif Tramarico, Daniele Mizuno, Valerio Salomon and Fernando Augusto Silva Marins

Proposal for Using AHP Method to Evaluate the Quality of Services Provided by Outsourced Companies (ID 106)
André Andrade Longaray, João De Deus Rodrigues Gois and Paulo Roberto Munhoz
The International Academy of Information Technology and Quantitative Management

The inauguration meeting of IAITQM successfully took place in Omaha of United States on Sunday, June 3, 2012. More than 50 participants, coming from China, United States, Australia, South Korea, Japan, The Netherlands, Poland, Romania, Singapore, Spain, Lithuania, Turkey and other countries, attended the meeting.

IAITQM is glad to have Prof. Siwei Cheng (Director of CAS FEDS), Mr. Walter Scott (Chairman of Level 3 Communications Inc., board member of Berkshire Hathaway Inc) and Prof. James Tien (University of Miami) to serve as the Honorary Chairmen. IAITQM attendees discussed and passed the IAITQM bylaws, and held the first election. Attendees elected Prof. Yong Shi as the President, Prof. Peter Wolcott as the Vice President for Conferences, Prof. WikiKwak as the Vice President for Finance, and Prof. Jianping Li as the Secretary. According to the bylaws, the attendees also elected five committees and their chairpersons, namely, the advisory committee, the awards committee, the executive committee, the conferences committee, and the publications committee.

IAITQM’s Vision:
The International Academy of Information Technology and Quantitative Management (The Academy) is a global community for educators, scholars, policy makers and professionals to promote innovation and excellence of information technology and quantitative management.

IAITQM’s Mission:
The Academy
(1) develops and maintains a professional identity for all educators, scholars, policy makers and professionals in the fields of information technology and quantitative management around the world;
(2) promotes the use of information technology in business and other areas to gain competitive capability;
(3) promotes the development of quantitative models in support of identifying solutions that can improve business management and operations;
(4) provides multiple interchange or communication venues, including conferences, journals, books, newsletters, etc. to enhance the exchanges of ideas, research findings and business practices related to information technology and quantitative management;
(5) acts as a leading association of information technology and quantitative management to improve business efficiency and effectiveness and eventually the quality of life for all humans.

The IAITQM inauguration meeting, June 3, 2012, Omaha, NE, USA
The First International Conference on Information technology and Quantitative Management, May 2013, Suzhou, China

The Second International Conference on Information technology and Quantitative Management, June 2014, Moscow, Russia
About Rio de Janeiro and Ibmec

**Rio de Janeiro**, called Rio, is the second largest city in Brazil by population. It is the capital of the state of Rio de Janeiro, Brazil's third most populous state. Part of the city has been designated as a World Heritage Site, named "Rio de Janeiro: Carioca Landscapes between the Mountain and the Sea", identified by UNESCO on 1 July 2012 in the category Cultural Landscape.

Founded in 1565, by the Portuguese, the city was initially the seat of the Captaincy of Rio de Janeiro, a captaincy of the Portuguese Empire. Rio has the second largest GDP in the country, estimated at about R$343 billion (IBGE/2008) (nearly US$201 billion), and is headquarters to a number of major companies and the home of many universities and institutes.

Rio de Janeiro is one of the most visited cities in the Southern Hemisphere and is known for its natural settings, carnival celebrations, samba, bossa nova, balneario beaches such as Barra da Tijuca, Copacabana, Ipanema, and Leblon. Some of the most famous landmarks in addition to the beaches include the giant statue of **Christ the Redeemer atop Corcovado mountain**, named one of the New Seven Wonders of the World; Sugarloaf mountain with its cable car; the Sambódromo, a permanent grandstand-lined parade avenue which is used during Carnival; and Maracanã Stadium, one of the world's largest football stadiums.

Rio de Janeiro will host the 2016 Summer Olympics and the 2016 Summer Paralympics. This will be the first time a South American and Portuguese-speaking nation hosts the event. Rio's Maracanã Stadium held the finals of the 1950 and 2014 FIFA World Cup, the 2013 FIFA Confederations Cup and the XV Pan American Games both opening and closing ceremonies.

**Ibmec** (Instituto Brasileiro de Mercado de Capitais), is a Brazilian private university, widely regarded as one of the leading and most prestigious institutions specialized in teaching and research in the fields of Business and Economics in Latin America. It was founded in 1970 in Rio de Janeiro and, since then, has expanded to two other campuses located in the cities of Belo Horizonte and Brasília.
ITQM 2015 will be held at Ibmec Rio de Janeiro's main campus, located at Av. Presidente Wilson, 118 - CEP. 20030-020 - Centro - Rio de Janeiro and offers undergraduate courses in Business, Economics, Law, International Relations and Accounting.
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