

Session Schedules

Decision Analysis & Methods (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2703

Chairs: Krzysztof Ostaszewski
Mubarak Almutairi

Abstracts: see page 46

- **Pricing Insurance Contracts and Determining Optimal Capital of Insurers**
Hong Mao¹, Krzysztof Ostaszewski²
¹Shanghai Second Polytechnic University, China
²Illinois State University, United States
- **Two-Decision-Maker Cooperative Games with Fuzzy Preferences**
Mubarak Almutairi¹
¹Hafr Albatin Community College, Saudi Arabia
- **An Integrated Fuzzy Multi-criteria Decision Making Approach for Realizing the Practice of Quality Function Deployment**
Chih-Hsuan Wang¹
¹National Chiao Tung University, Taiwan
- **An Empirical Analysis of Elicited Weights in AHP**
Céline Verly¹, Karim Lidouh¹, Yves De Smet¹
¹Université Libre de Bruxelles, Belgium
- **Overall Weighting Equipment Effectiveness**
Ratapol Wudhikarn¹
¹Chiang Mai University, Thailand
- **Diversity of Feature Selection Approaches Combined with Distinct Classifiers**
Feng-Chia Li¹, Peng-Kai Wang², Cho Hua Yeh³
¹Jen Teh Junior College, Taiwan
²Hwa Hsia College, Taiwan
³Tsing Hua University, Taiwan

Decision Analysis & Methods (2)

8/12/2010 13:30 - 15:00
Room: NAPLES 2703

Chairs: Prasanta Deb
Mei-Chen Lo

Abstracts: see page 47

- **A Dynamic Differential Evolution Algorithm for Mixed Logit Discrete Choice Model Estimation**
Songlin Chen¹, Youbang Zhang¹, Xiaojin Zhang¹, Jianxin Jiao²
¹Nanyang Technological University, Singapore
²Georgia Institute of Technology, United States
- **A Decision Making Method for Selection of Finish Process for a Cylindrical Surface**
Varinder Singh¹, Vishnu Prakash Agarwal², Prasanta Deb¹
¹Bits Pilani K K Birla Goa Campus, India
²Thapar University, India
- **A Decision Analysis on the Optimal Timing Under the Uncertain Cost of Urban Logistics**
Tyrone T. Lin¹, Chun-Chen Shih²
¹National Dong Hua University, Taiwan
²National Chengchi University, Taiwan
- **The Decision Analysis of Market Entry with Game Options Concept**
Tyrone T. Lin¹, Chia-Fang Wu¹
¹National Dong Hua University, Taiwan
- **Using Multiple Criteria Decision Analysis for Supporting Decisions of Business Process Management**
Ana Carolina Campos¹, Adiel Almeida¹
¹Federal University of Pernambuco, Brazil
- **Spatial Detection of Manufacturing Shift in Mean**
Chen-ju Lin¹, Chen-yu Lin¹, Yen-ting Chen¹
¹Yuan Ze University, Taiwan

Decision Analysis & Methods (3)

8/12/2010 15:30 - 17:15
Room: NAPLES 2703

Chairs: Kwa-Sang Chin
Jin Han Park

Abstracts: see page 48

- **What Affects the Decision-making Consumers Consumption of Luxury Goods: An Evidence Case from China**
Yong Zhang¹, Jikun Fang¹, Hao Zhang¹, Zheng Cui¹, Xiaojuan Fan¹
¹Beijing Technology and Business University, China
- **Analysis of Competitive Advantages - Approach of Transnational Interregional I-O Table**
Mei-Chen Lo¹, Toshimasa Osaki², Martin Drozda³, Gwo-Hsiung Tzeng⁴
¹National United University, Taiwan
²Nagoyagakuin University, Japan
³Leibniz University of Hannover, Germany
⁴National Chiao Tung University, Taiwan
- **Advanced Sales and Operations Planning Based on Integration of Physical and Financial Flows**
Jun-Zhong Wang¹, Ping-Yu Hsu¹
¹National Central University, Taiwan
- **Ranking of Product Alternatives Based on Customer-Designer Preferences**
Sanjaykumar Gangurde¹, Milind Akarte²
¹K.K.Wagh Institute of Engineering Education and Research, India
²National Institute of Industrial Engineering, India
- **A Preliminary Study on Design and Development of Template-Based for License Plate Recognition System Applying Artificial Coordinates Auxiliary Techniques**
Bih-Yaw Shih¹, Chen-Yuan Chen², Jin-Wei Kuo¹, Po-Wei Chen¹, Tsung-Hao Chen³, Po-Hsuan Huang¹, Pei-Yin Chung⁴, Wan-I Lee²
¹National Pingtung University of Education, Taiwan
²National Kaohsiung First University of Science and Technology, Taiwan
³Shu-Te University, Taiwan
⁴Meiho University, Taiwan
- **Interactive Permutation Decision Making Based on Genetic Algorithm**
Mahdi Bashiri¹, Majid Jalili¹
¹Shahed University, Iran
- **Coastal Vulnerability to Sea Level Rise: A Spatio-temporal Decision Making Tool**
Oz Sahin¹, Sherif Mohamed¹
¹Griffith University, Australia

Technology & Knowledge Management (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2603

Chairs: Prattana Punnakitikashem
Poul Kyvsgaard Hansen

Abstracts: see page 49

- **Does Internet Self-Efficacy Affect Knowledge Sharing Behavior?**
Pei-Lee Teh¹, Jessica Sze-Yin Ho¹, Chen-Chen Yong², Siew-Yong Yew²
¹Multimedia University, Malaysia
²University of Malaya, Malaysia
- **Detecting the Valley of International Academic Collaboration in Renewable Energy**
Hajime Sasaki¹, Yuya Kajikawa¹, Kenzo Fujisue², Ichiro Sakata¹
¹The University of Tokyo, Japan
²Waseda University, Japan
- **Technology Acquisition in Functional Chemicals - An Empirical Study on Phase Difference Film**
Takashi Yukita¹, Hiroshi Osada²
¹Mitsui Chemicals, INC., Japan
²Tokyo Institute of Technology, Japan
- **A Correlation Analysis on Service Innovation and Management for the International Roaming Inbound Business**
Chia-Chi Lee¹, Ta-Hui Yang², Tyrone T. Lin³
¹National Taipei College of Business, Taiwan
²Chunghwa Telecom Co., Ltd., Taiwan and National Dong Hwa University, Taiwan
³National Dong Hwa University, Taiwan
- **An Efficient Development Process for an Innovative Transport Unit**
Sebastian Jursch¹, Sylwia Jalocho¹, Eckart Hauck¹, Sabina Jeschke¹, Klaus Henning¹
¹RWTH Aachen University, Germany
- **Knowledge Sources, Innovative Activity and the Performance of UK New Technology Based Firms**
Panagiotis Ganotakis¹, Jim Love¹
¹Aston University, United Kingdom

Technology & Knowledge Management (2)

8/12/2010 13:30 - 15:00
Room: NAPLES 2603

Chairs: Chui Young Yoon
Panagiotis Ganotakis

Abstracts: see page 50

- **Mapping the Relations Between Technology, Product, and Service: Case of Apple Inc.**
Woori Han¹, Yongtae Park¹
¹Seoul National University, South Korea
- **Create a Proactive Knowledge Sharing Platform Through Specific Supplier Network and Location Investment**
Tung-Hsien Chen¹
¹National ChengChi University, Taiwan
- **Profiling Chinese Nano-Biomedical Science in a Decade**
Ruimin Pei¹, Alan Porter², Peng Gao¹
¹Chinese Academy of Sciences, China
²Georgia Institute of Technology, United States
- **The Interrelationship Among Learning Environment, Knowledge Process and New Product Development Performance**
Ningning Jing¹, Chen Yang¹
¹Hohai University, China
- **A Method for Assessing Patent Similarity Using Direct and Indirect Citation Links**
Hsiao-Chung Wu¹, Hung-Yi Chen¹, Kung-Yen Lee², Ying-Chieh Liu¹
¹Chaoyang University of Technology, Taiwan
²National Taiwan University, Taiwan
- **Inter-organizational Knowledge Transfer Effectiveness in New Technology-Based Firms: A Relational and Empirical View from South Africa**
Kai-Ying Chan¹, Leon Oerlemans², Marthinus Pretorius¹
¹University of Pretoria, South Africa
²Tilburg University, Netherlands

Technology & Knowledge Management (3)

8/12/2010 15:30 - 17:15
Room: NAPLES 2603

Chairs: Dotun Adebajo
Hung-Yi Chen

Abstracts: see page 51

- **Application of Production Management Principles to Engineering Processes: An Explorative Study**
Johannes Hinckeldeyn¹, Rob Dekkers², Jochen Kreutzfeldt¹
¹Hamburg University of Applied Science, Germany
²University of the West of Scotland, United Kingdom
- **Challenges and Approaches to Customer Development in Co-located High-tech Start-ups**
Dotun Adebajo¹
¹University of Liverpool, United Kingdom
- **Measuring Individual IT Capability to Efficiently Perform Business Tasks in an Enterprise IT Environment**
Chui Young Yoon¹, Jae Soo Yoo², Young Ju Bae², Soon Suk Chung², Ji Chul You², Seung Kweon Hong²
¹Chungbuk National University, South Korea
²Chungju National University, South Korea
- **An Incremental Approach to Support Realization of Modularization Benefits**
Poul Kyvsgaard Hansen¹, Hongyi Sun²
¹Aalborg University, Denmark
²City University of Hong Kong, Hong Kong
- **A Framework to Analyze Different Intellectual Property Systems**
Jiang Wei¹, Xiaolei Kong¹
¹Zhejiang University, China
- **A Systematic Approach to Design a Knowledge Transfer Framework for Process Improvement Projects**
Charalampos Daniilidis¹, Thomas Lamperstorfer¹, Rafael Kirschner¹, Andreas Kain¹, Udo Lindemann¹
¹Technische Universitaet Muenchen, Germany

Supply Chain Management (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2702

Chairs: William Ho
Ruhul Sarker

Abstracts: see page 52

- **Strategic Capabilities of Japanese Independent Suppliers**
Kiminori Gemba¹
¹*Ritsumeikan University, Japan*
- **A Value-oriented Model for Managing Service Supply Chains**
T. He¹, William Ho¹, X.F. Xu²
¹*Aston University, United Kingdom*
²*Harbin Institute of Technology, China*
- **A Recovery Model for an Economic Production Quantity Problem with Disruption**
Hawa Hishamuddin¹, Ruhul Sarker¹, Daryl Essam¹
¹*University of New South Wales at the Australian Defence Force Academy, Australia*
- **Analysis of Capacity and Cost Heterogeneity in a Vendor Base**
Jishnu Hazra¹, B. Mahadevan¹
¹*Indian Institute of Management, India*
- **Asset Prioritization as a Modal Integrator in Organizational Logistics Activities**
Rodrigo Macedo¹, Kelly Macedo², Assed Haddad³
¹*Brazilian Army, Brazil*
²*Fluminense Federal University, Brazil*
³*Federal University of Rio de Janeiro, Brazil*
- **Dynamic Multi-modal Transportation Problem**
Suk-Chul Rim¹, Ikju Jang¹
¹*Ajou University, South Korea*

Supply Chain Management (2)

8/12/2010 13:30 - 15:00
Room: NAPLES 2702

Chairs: Chun-Mei Lai
Jun-Der Leu

Abstracts: see page 53

- **Global Supply Network Configuration Considering the Application of Free Trade Zones and Industrial Parks: A Decision Model and Application Case**
Yu-Tsung Huang¹, Jun-Der Leu¹, Chih-Hao Wen¹
¹*National Central University, Taiwan*
- **Minimizing Bullwhip Effect in Supply Chains**
Truong Ton Hien Duc¹, Huynh Trung Luong², Yeong-Dae Kim³
¹*Singapore Institute of Manufacturing and Technology, Singapore*
²*Asian Institute of Technology, Thailand*
³*Korea Advanced Institute of Science and Technology, South Korea*
- **Optimizing Short-Life-Product Replenishment Policy Considering Random Purchase Cost Increase and Incentive-Dependent Selling Rate**
Chun-Jen Chung¹, Hui-Ming Wee²
¹*Aletheia University, Taiwan*
²*Chung Yuan Christian University, Taiwan*
- **A Supply Chain Performance Measurement Improved with Integrated Methods FDSM, MOO and DEA Part I: A Conceptual of Performance Measurement Framework in Thailand: Frozen Shrimp Chains**
Sirirat Pungchompoo¹, Apichat Sopadang¹
¹*Chiang Mai University, Thailand*
- **The Influence of Total Quality Management, Concurrent Engineering and Knowledge Management in a Semiconductor Manufacturing Firm**
Poh Kiat Ng¹, Gerald Guan Gan Goh¹, Uchenna Eze¹
¹*Multimedia University, Malaysia*

Supply Chain Management (3)

8/12/2010 15:30 - 17:15
Room: NAPLES 2702

Chairs: Chandra K Jaggi
Chih-Cheng Chen

Abstracts: see page 54

- **Toward a Resilient Supply Chain with Supply Disturbances**
Ana Paula Barroso¹, Virginia Machado¹, Ana Rita Barros¹, Virgilio Cruz-Machado¹
¹*Universidade Nova de Lisboa, Portugal*
- **Waste Electrical and Electronic Equipment Management. A Case Study**
Virginia Machado¹, Ana Paula Barroso¹, Ana Rita Barros¹, Virgilio Cruz-Machado¹
¹*Universidade Nova de Lisboa, Portugal*
- **Effective Inventory Management of PCBA Production for Mobile Devices**
Weidong Lin¹
¹*Temasek Polytechnic, Singapore*
- **Implementation of Green Supply Chain Management in Uncertainty**
Chih-Cheng Chen¹, Ming-Lang Tseng², Yuan-Hsu Lin¹, Zeng Sheng Lin¹
¹*MingDao University, Taiwan*
²*Lung Hwa University of Science and Technology, Taiwan*
- **Using QFD to Analyse Demand Chain Management in China for European Winery**
Haitao Wen¹, Jian Tong², Xuemei Fan¹, Sebastian Kummer²
¹*Jilin University, China*
²*Vienna University of Economics and Business Administration, Austria*
- **Channel Coordination Through Discount Pricing Policies When Demand Is Price and Effort Dependent**
Yao Yu Wang¹, Hon Shiang Lau¹
¹*City University of Hong Kong, Hong Kong*

Production Planning & Control (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2602

Chairs: Yongzhong Wu
Suksan Prombanpong

Abstracts: see page 55

- **Optimization of Group Scheduling Using Simulation with The Meta-heuristic Extended Great Deluge (EGD) Approach**
A. Ben Mosbah¹, Thien-My Dao¹
¹ETS/University of Quebec, Canada
- **Determination of the Pareto-optimal Build Orientations in Stereolithography**
John Giannatsis¹, Vassilis Canellidis¹, Vassilis Dedoussis¹
¹University of Piraeus, Greece
- **A Hybrid Neural Network- Meta Heuristics Approach for Permutation Flow Shop Scheduling Problems**
Radha Ramanan Thiyagarajan¹, Sarang Kulkarni¹, Sridharan R¹
¹National Institute of Technology Calicut, India
- **Worst Case Performance Scheduling Facing Uncertain Disruption in a Continuous Casting Process**
Purit Thanakijkasem¹, Kiatkajohn Worapradya¹
¹King Mongkut's University of Technology Thonburi, Thailand
- **A Niche Genetic Algorithm for Two-machine Flowshop Scheduling with Family Sequence-dependent Setup Times and a Common Due Window**
Meng-Chang Wang¹, Yunqing Rao¹, Kun-Peng Wang¹
¹Huazhong University of Science and Technology, China
- **Multiple Model Predictive Control of Nonlinear pH Neutralization System**
Ayman Hermansson¹, Syafii Syafii², Samsul Mohd Noor²
¹SEGi University College, Malaysia
²University Putra Malaysia, Malaysia

Information Processing & Engineering (1)

8/12/2010 13:30 - 15:00
Room: NAPLES 2602

Chairs: Suthep Butdee
Tingting Zhao

Abstracts: see page 56

- **Rule Based Business Process Optimization**
Mohamad Aghdasi¹, Ehsan Malihi¹
¹Tarbiat Modares University, Iran
- **Improving Users Satisfaction by Using Requirements Engineering Approaches in the Conceptual Phase of Construction Projects: The Elicitation Process**
Cyril Mauger¹, Thomas Schwartz¹, Jean-Yves Dantan², Lahcene Harbouche¹
¹Public Research Center Henri Tudor, Luxembourg
²Arts et Métiers ParisTech, France
- **Product Model-based Design Process Modeling in Collaborative Design**
Xu Zhang¹, Yadong Sun¹, Lijuan Wang², Dehao Xu³
¹Beijing Institute of Technology, China
²Beijing University of Chemical Technology, China
³Nanjing Institute of Electronic Technology, China
- **Applying Fuzzy Sets for ERP Systems Selection within the Construction Industry**
Marco Barreiros¹, Antonio Grilo², Virgilio Cruz-Machado², Maria do Rosário Cabrita²
¹YKK, Portugal
²Universidade Nova de Lisboa, Portugal
- **Positive Infusion of Propofol Drug During Induction**
Syafii Syafii¹, Mustapha Ait Rami², Fernando Tadeo²
¹University Putra Malaysia, Malaysia
²University of Valladolid, Spain
- **A Novel Digit Serial Dual Basis GF(2m) Multiplier**
Po-Lun Chang¹, Fei-Hu Hsieh¹, Horng-Lin Shieh²
¹Lunghwa University of Science and Technology, Taiwan
²Saint John's University, Taiwan

Information Processing & Engineering (2)

8/12/2010 15:30 - 17:15
Room: NAPLES 2602

Chairs: Yaoguang Hu
Xu Zhang

Abstracts: see page 57

- **Creative Design of Solar Energy Portable Lamp Based on Product Gene and Intuition Models**
Ting-ting Zhao¹, Zhenhe Ju¹, Xiao-peng Wei², Xiao-xiao Li³
¹Shenyang Institute of Engineering, China
²Dalian University, China
³Liaoning Solar Energy R&D CO., LTD, China
- **A New Filter Feature Selection Approach for Customer Churn Prediction in Telecommunications**
Ying Huang¹, Bingquan Huang¹, Tahar Kechadi¹
¹University College Dublin, Ireland
- **Model Building of Coordination Theory: A Review**
Xiaoming Hu¹, Qiang Lu¹
¹Shenzhen Graduate School, Harbin Institute of Technology, China
- **Function-Based Patent Retrieval for Concept Design**
Hongtao Wu¹, Haobo Yang¹, Jianhong Ma¹, Runhua Tan¹
¹Hebei University of Technology, China
- **Robust Tool for Feature Extraction and Its Application**
Pawel Blaszczyk¹
¹University of Silesia, Poland
- **Identifying a New Service Opportunity from Potential Needs: User-centric Service Map**
Jieun Kim¹, Yongtae Park¹
¹Seoul National University, South Korea

Operations Research (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2701

Chairs: Yuri Popkov
Chuanyin Dang

Abstracts: see page 58

- **Ranking Alternative Production Scenarios Using Super-Efficiency Analysis**
Stella Sofianopoulou¹
¹University of Piraeus, Greece
- **Complexity and Approximability Results for Robust Knapsack Problems**
Fabrice Talla Nobibon¹, Roel Leus¹
¹Katholieke Universiteit Leuven, Belgium
- **A Shortest Path Problem with Random and Interval Variables for Arcs Based on Conditional Value at Risk**
Takashi Hasuike¹
¹Osaka University, Japan
- **The Development on Obstacle Avoidance Design for a Humanoid Robot Based on Four Ultrasonic Sensors for the Learning Behavior and Performance**
Ya-Ju Li¹, Wei Chung Chou¹, Chen-Yuan Chen², Bih-Yaw Shih¹, Lien-Tung Chen³, Pei-Yin Chung⁴
¹National Pingtung University of Education, Taiwan
²National Kaohsiung First University of Science and Technology, Taiwan
³Yung-Ta Institute of Technology and Commerce, Taiwan
⁴Meiho University, Taiwan
- **A Performance Management on Automobile Dealers with Applying Data Envelopment Analysis**
Tyronne T. Lin¹, Chia-Chi Lee², Fei-Ting Chang¹
¹National Dong Hua University, Taiwan
²National Taipei College of Business, Taiwan
- **Mixed Integer Programming Formulation for Hybrid Flow Shop Scheduling Problem**
Mohamed K. Omar¹, Siew Chein Teo², Yasothai Suppiah²
¹University Technical Melaka, Malaysia
²Multimedia University, Malaysia
- **Application of Simulated Annealing on Least-Cost Design of Sewer Network**
Shuang-Fu Yeh¹, Yao-Jen Chang¹, Min-Der Lin¹
¹National Chung Hsing University, Taiwan

Service Innovation & Management (1)

8/12/2010 13:30 - 15:00
Room: NAPLES 2701

Chairs: Yuya Kajikawa
Chien-Liang Kuo

Abstracts: see page 59

- **Analyzing Service Quality in Thai Hotel Industry: An Application of the SERVQUAL Model**
Sakun Boon-itt¹, Vornsupa Chomvong²
¹Thammasat Business School, Thailand
²PricewaterhouseCoopers, Thailand
- **A Novel RFID Application for Realizing Lean Services Based on Customer Chain Operations Reference Model**
Stuart So¹
¹City University of Hong Kong, Hong Kong
- **Creating an Academic and Technological Landscape of Service Innovation: An Analysis of the Citation Network**
Naoki Shibata¹, Yuya Kajikawa¹, Junichiro Mori¹, Ichiro Sakata¹
¹The University of Tokyo, Japan
- **Development of Technology Roadmap for Product-Service System (TRPSS)**
Youngjung Geum¹, Yongtae Park¹
¹Seoul National University, South Korea
- **Fuzzy Measures for Service Quality of Fuzzy Numbers**
Cheng-Che Chen¹, Chun-Mei Lai¹, Hsu-San Liu¹
¹Far East University, Taiwan
- **Development of Two-layered Service Evolution Map: Structure and Development Process**
Bomi Song¹, Daekook Kang¹, Byungun Yoon², Yongtae Park¹
¹Seoul National University, South Korea
²Dongguk University-Seoul, South Korea

Service Innovation & Management (2)

8/12/2010 15:30 - 17:15
Room: NAPLES 2701

Chairs: Zheng Cui
Stuart So

Abstracts: see page 60

- **How Trust Links the Association Connecting Use Experience, Word-of-Mouth with Use Intention and Use Behavior - A Case Study on the Service Innovation in the Aesthetic Medical Treatment**
Shuo-Chang Tsai¹, Yung-Hsin Chen², Ling-Yu Chang³
¹Asia University, Taiwan
²National Cheng Kung University, Taiwan
³China Medical University Hospital, Taiwan
- **An Exploration of Service Quality Practices in the Chinese Hotel Industry - A Comparison between CMHs and FMHs**
Zheng Cui¹, Haoxiong Yang¹, Suyuan Zhang²
¹Beijing Technology and Business University, China
²Peking University, China
- **Impact of Waiting Time on Tourists Satisfaction in a Theme Park: An Empirical Investigation**
Wenli Li¹
¹Jinan University, China
- **A Two-Stage Discretionary Priority Service System with Markovian Arrival Inputs**
Ning Zhao¹, Zhaotong Lian¹
¹University of Macau, China
- **iSIM: A Proposed Methodology for Industrial-oriented Service Innovation**
Chien-Liang Kuo¹, Chao-yin Chi², Huey-Jiuan Yeh²
¹Chinese Culture University, Taiwan
²Industrial Technology Research Institute, Taiwan
- **Service Science: An Analysis of the Business System of Product Service Companies**
Noriyuki Shikata¹, Kiminori Gemba², Keisuke Uenishi¹
¹Osaka University, Japan
²Ritsumeikan University, Japan
- **Evaluation of PSS Concepts for Successful Shift from Product to PSS: An Approach Based on AHP and Niche Theory**
Sora Lee¹, Yongtae Park¹
¹Seoul National University, South Korea

Quality Control & Management (1)

8/12/2010 11:00 - 12:30
Room: NAPLES 2601

Chairs: Lianjie Shu
Chen-Ju Lin

Abstracts: see page 61

- **Evaluation of Production Yield for Process Selection**
Chen-ju Lin¹, Hsin-hui Kuo¹
¹*Yuan Ze University, Taiwan*
- **Simultaneously Considered the Properties of Cost and Quality for a Control Chart Design with a Gamma Shock Model and Correlated Data**
Peng-Kai Wang¹, Cho Hua Yeh²,
Feng-Chia Li³
¹*Hwa Hsia College, Taiwan*
²*Tsing Hua University, Taiwan*
³*Jen Teh Junior College, Taiwan*
- **Weighted CUSUM Procedures for Surveillance of Health Events with Varying Population Sizes**
Lianjie Shu¹, Wei Jiang², Kwok-Leung Tsui³
¹*University of Macau, Macau*
²*The Hong Kong University of Science and Technology, Hong Kong*
³*Georgia Institute of Technology, United States*
- **Medical Equipment (DXA) Reliability and the Management of Its Quality Control by the Clinical User**
Jan Pieter Clarys¹, Aldo Scafoglieri¹,
Steven Provyn¹, Olivia Louis², Joanne Wallace³, Jonathan Tresignie¹, Johan De Mey¹
¹*Vrije Universiteit Brussel, Belgium*
²*Brussels University Hospital, Belgium*
³*University of Aberystwyth, United Kingdom*
- **Application of XML for Manufacturing Quality Information Representation Based on STEP**
Xianlong Xu¹, Shurong Tong², Xinwei Zhang³, Xin Shi², Shiwang Hou⁴
¹*Xi'an Technological University, China*
²*Northwestern Polytechnical University, China*
³*University of Toulouse, France*
⁴*North University of China, China*
- **Application of QFD in Digital Electronics Industry**
Mahmood Ul Hassan¹, Ahmer Tajammul¹, Muhammad Asim²
¹*National University of Sciences and Technology, Pakistan*
²*Center for Advance Studies in Engineering, Pakistan*

Human Factors (1)

8/12/2010 13:30 - 15:00
Room: NAPLES 2601

Chairs: Jianwei Niu
Toraj Mojibi

Abstracts: see page 62

- **Only Room for an Ideas Man - or Is There More to CI for the Less Creative?**
Helen Wagner¹, Sue Morton¹, Chris Backhouse¹
¹*Loughborough University, United Kingdom*
- **Problem-Identification Workshop as a Future-Oriented Macroergonomic Tool for Managing the Work Environment**
Mohammed-Aminu Sanda¹, Ylva Fältholm¹, Lena Abrahamsson¹, Jan Johansson¹
¹*Luleå University of Technology, Sweden*
- **Foot Measurements from 2D Digital Images**
Shuping Xiong¹, Yulin Li¹, Yi Zhu¹,
Jingxing Qian¹, Dong Yang²
¹*Shanghai Jiao Tong University, China*
²*Donghua University, China*
- **Designing Lifting Task in Shoe Industry using Genetic Algorithm**
Sanjay Srivastava¹, Kamal Srivastava¹,
Swati N¹, Yogesh Anand¹, V. Soamidas¹
¹*Dayalbagh Educational Institute, India*
- **Measuring Member Performance in Multi-functional R&D Teams: An Empirical Study with GAHP Analysis**
Jie Zhu¹, Shuang Chen¹, Qiang Lu¹
¹*Shenzhen Graduate School, Harbin Institute of Technology, China*
- **Structural Analysis of Approaches for Worker Participation**
Uwe Dombrowski¹, Tim Mielke¹, Sven Schulze¹
¹*Technische Universität Braunschweig, Germany*

Human Factors (2)

8/12/2010 15:30 - 17:15
Room: NAPLES 2601

Chairs: Masahiro Aruga
Zhizhong Li

Abstracts: see page 63

- **Studying Into Relationship Between Strategy and Organizational Structure at Power Distribution Company for Tehran Province Districts**
Toraj Mojibi¹, Mona Milani¹, Yasaman Khalili², Soheil Khorshidi³
¹*Islamic Azad University, Iran*
²*Payame Noor University, Iran*
³*Ministry of Education, Iran*
- **A Modeling Consideration of the Latent Characters of the Information System and Amounts based on the Philosophical and Nervous Elements**
Masahiro Aruga¹, Masayuki Aruga²
¹*Tokai University, Japan*
²*The Open University of Japan,*
- **Examining the Mediating Effect of Innovative Culture in the Relationship Between Leadership and Knowledge-based Customer Relationship Implementation**
Andy, Li Yueh Chen¹
¹*MingDao University, Taiwan*
- **Sonar-based Obstacle Avoidance Using a Path Correction Method for Autonomous Control of a Biped Robot for the Learning Stratification and Performance**
Cheng-Hsuan Tsai¹, Po-Hsuan Huang¹,
Wei Chung Chou¹, Chia-Hung Shih¹,
Chen-Yuan Chen², Bih-Yaw Shih¹,
Chin-Jui Chang³, Cheng-Wu Chen⁴,
Tsung-Hao Chen⁵, Wan-I Lee², Pei-Yin Chung⁶
¹*National Pingtung University of Education, Taiwan*
²*National Kaohsiung First University of Science and Technology, Taiwan*
³*Transworld University, Taiwan*
⁴*National Kaohsiung Marine University, Taiwan*
⁵*Shu-Te University, Taiwan*
⁶*Meiho University, Taiwan*
- **Feature Extraction of Three Dimensional (3D) Facial Landmarks Using Spin Image**
Xin Zhang¹, Na Fan², Xiao Chen³,
Linhua Ran¹, Jianwei Niu²
¹*China National Institute of Standardization, China*
²*University of Science and Technology Beijing, China*
³*Quartermaster Research Institute, China*
- **Reducing the Risk of Heat Stress Using Artificial Neural Networks Based Job-combination Approach**
Sanjay Srivastava¹, Yogesh Anand¹, V. Soamidas¹
¹*Dayalbagh Educational Institute, India*

Manufacturing Systems (1)

8/12/2010 11:00 - 12:30
Room: SICILY 2502

Chairs: S.S. Mahapatra
Carman Ka Man Lee

Abstracts: see page 64

- **Effective Nesting of Layer Manufacturing Fabricated Parts Using a Genetic Algorithm and a Bottom-Left Ray Casting Procedure**
Vassilis Canellidis¹, John Giannatsis¹, Vassilis Dedoussis¹
¹University of Piraeus, Greece
- **Heuristic Procedure for Mixed Model Assembly Line Balancing Problem**
Venkatesh Jonnalagedda¹, Balaji Dabade¹
¹SGGS Institute of Engineering and Technology, India
- **A Web-based Collaborative QFD System to Aid Children Backpack Design**
Kevin Tseng¹, Cho-Chi Hsu¹
¹Chang Gung University, Taiwan
- **Optimization Problems Related to Triangular Pocket Machining**
Apriani Soepardi¹, Mochammad Chaeron¹, Fahryl Aini²
¹University of National Development, Indonesia
²Insan Teknologi Semesta Ltd., Indonesia
- **Grinding Path Optimization for The Roll Grinding Machine**
Apisak Phromfaiy¹, Kawin Sonthipermpoon¹, Erik Bohez²
¹University of Naresuan, Thailand
²Asian Institute of Technology, Thailand
- **Simultaneous Microchannel Formation and Copper Deposition on Silicon Along with Surface Treatment**
Anjali Kulkarni¹, Vijay Kumar Jain¹, K. A. Misra²
¹Indian Institute of Technology, India
²Harcourt Butler Technological Institute, India

Manufacturing Systems (2)

8/12/2010 13:30 - 15:00
Room: SICILY 2502

Chairs: Kevin Tseng
Nirjhar Roy

Abstracts: see page 65

- **Application of Hierarchical Colored Petri Net in Distributed Manufacturing Network**
Yaqiong Lv¹, Carman Ka Man Lee¹
¹Nanyang Technological University, Singapore
- **Manufacturing Cell Formation under Probabilistic Product Mix**
Madhusudanan Pillai¹, M. P. Chandrasekharan²
¹National Institute of Technology Calicut, India
²Amrita Viswa Vidya Peetham, India
- **An Improved Artificial Immune System for Solving Loading Problems in Flexible Manufacturing Systems**
Prasant Ranjan Dhal¹, Mohapatra S S¹, Saurav Datta¹, Antaryami Mishra¹
¹National Institute of Technology, India
- **A Multi-plant Tolerance Allocation Model for Assembled Electronic Products in Green Supply Chain Management**
Feng-Yi Huang¹, Yuan-Jye Tseng¹
¹Yuan Ze University, Taiwan
- **Study on Implementation Strategies of EPR-Driven Remanufacturing in China**
Yi Wu¹
¹Shanghai University, China
- **Assembly Planning of Aircraft Based on Polychromatic Sets**
Song Wang¹, Jun Hong¹, Yunlong Li¹, Yi Zhang¹, Zongbin Li¹
¹Xi'an Jiaotong University, China

Reliability & Maintenance Engineering (1)

8/12/2010 15:30 - 17:15
Room: SICILY 2502

Chairs: Jihong Yan
Ming-Der Yang

Abstracts: see page 66

- **A Checkpoint Scheme with Task Duplication Considering Transient and Permanent Faults**
Jung-Min Yang¹, Seong Woo Kwak²
¹Catholic University of Daegu, South Korea
²Keimyung University, South Korea
- **A Study of Applying the Bounded Generalized Pareto Distribution to the Analysis of Software Fault Distribution**
Chih-Song Kuo¹, Chin-Yu Huang¹
¹National Tsing Hua University, Taiwan
- **Change-Point Modeling for Software Reliability Assessment Depending on Two-Types of Reliability Growth Factors**
Shinji Inoue¹, Shigeru Yamada¹
¹Tottori University, Japan
- **Sewerage Rehabilitation Planning**
Ming-Der Yang¹, T. C. Su², Nang-Fei Pan³, P. Liu⁴
¹National Chung Hsing University, Taiwan
²National Quemoy University, Taiwan
³National Cheng Kung University, Taiwan
⁴Feng Chia University, Taiwan
- **An Investigation Into Whether the NHPP Framework Is Suitable For Software Reliability Prediction and Estimation**
Chu-Ti Lin¹, Kai-Wei Tang¹, Jun-Ru Chang², Chin-Yu Huang²
¹National Chiayi University, Taiwan
²National Tsing Hua University, Taiwan
- **Availability Assessment of a Multi-State Repairable Bubble Gum Production System**
Pardeep Gupta¹, Atul Goyal²
¹Sant Longowal Institute of Engineering & Technology, India
²Lala Lajpat Rai Institute of Engineering & Technology, India
- **Residual-based Inspection/Replacement Policy for a Deteriorating System with Markovian Covariates**
Xuejing Zhao¹, Mitra Fouladirad², Christophe Berenguer²
¹Lanzhou University, China
²Troyes University of Technology, France

Project Management (1)

8/12/2010 11:00 - 12:30
Room: SICILY 2402

Chairs: Norbert Trautmann
Luciana Alencar

Abstracts: see page 67

- **Project Scheduling with Alternative Technologies: Incorporating Varying Activity Duration Variability**
Stefan Creemers¹, Roel Leus¹, Bert De Reyck²
¹*Katholieke Universiteit Leuven, Belgium*
²*University College London, United Kingdom*
- **Preemptive Resource Constrained Project Scheduling Problem with Uncertain Resource Availabilities: Investigate Worth of Proactive Strategies**
Mohamad Fallah¹, M.Bahador Aryanezhad², Behzad Ashtiani²
¹*Islamic Azad University, Iran*
²*Iran University of Science and Technology, Iran*
- **Factors Influencing Project Quality in the Design Phase of Building Projects. A Case in the Department of Building and Engineering Services of Botswana**
Emmanuel Dodoo¹, Corro Van Waveren¹, K.Y Chan¹
¹*University of Pretoria, South Africa*
- **A Two-stage Stochastic Programming Model for Resource Allocation in Project Management**
Dongsheng Xu¹, Yinhua Ye¹, Yingna Lu¹, Shujin Deng¹
¹*Sun Yat-sen University, China*
- **Optimal Modular Design Policy for Complex Systems in Considering Coordination Costs**
Bingyin Bao¹, Suxiu Xu¹, Qiang Lu¹
¹*Shenzhen Graduate School, Harbin Institute of Technology, China*

Engineering Education & Training

8/12/2010 13:30 - 15:00
Room: SICILY 2402

Chairs: Fu-Man Hsieh
Seng Fat Wong

Abstracts: see page 68

- **Assessing Core Competencies and Their Training Demands for Industrial Safety and Hygiene Professional Engineers in Taiwan**
Fu-Man Hsieh¹, Yichun Yu², Y.C. Lin², Perng-Jy Tsai³
¹*Wenzao Ursuline College of Languages, Taiwan*
²*Institute of Occupational Safety and Health, Taiwan*
³*National Cheng Kung University, Taiwan*
- **Learning Construction Procurement Negotiation in an Educational Game**
Pei-Ru Wang¹, R. J. Dzung¹, N. F. Pan²
¹*National Chiao-Tung University, Taiwan*
²*National Cheng Kung University, Taiwan*
- **Applied RFID and Virtual Reality Technology in Professional Training System for Manufacturing**
Seng Fat Wong¹, Zhixin Yang¹, N. Cao¹, W. I. Ho¹
¹*University of Macau, Macau*
- **Compositive Support System and Evaluation System Study on Engineering Equipment's Use Course Management**
Yongsheng Jin¹, Guowei Wei¹, Ding Wei², Yueguo Shen³
¹*Beijing University of Posts and Telecommunications, China*
²*Peking University, China*
³*PLA University of Science and Technology, China*
- **Establishing an Energy Education Experience Course Program in Taiwan**
How-Gao Hsu¹, Wei-Hsien Huang¹, Hui-Yun Fu¹, Tun-Ping Teng¹
¹*National Taiwan Normal University, Taiwan*
- **Study of the Ability and the Education System of Professionals on Housing Maintenance Engineering**
Yunbo Xu¹, Leilei Gao¹
¹*Henan Institute of Engineering, China*

E-business & E-Commerce

8/12/2010 15:30 - 17:15
Room: SICILY 2402

Chairs: Zhaotong Lian
Michael Johnson

Abstracts: see page 69

- **Business Communication Experiences in the US, Mexico, and China**
Kejia Wu¹, Malini Natarajarathinam¹, Michael Johnson¹, Thanigaivel Kulandaivelu¹
¹*Texas A&M University, United States*
- **An Empirical Study of User Acceptance of Internet Banking: An Integration of TAM with Trust and Self-efficacy**
Hong-Lei Song¹, Shuang Wang²
¹*Renmin University of China, China*
²*China Agricultural University, China*
- **An Online Group-buying Model Based on Fuzzy Theory**
Chu-Chai Henry Chan¹, Chien-Yu Chiang¹
¹*Chaoyang University of Technology, Taiwan*
- **Factors Affecting the Continued Intention of Mobile Shopping**
Chuen-Roan Kang¹, Ming-Chien Hung², Shih-Ting Yang², Ting-Chu Hsieh³, Shun-ming Tang¹
¹*National Yunlin University of Sciences and Technology, Taiwan*
²*Nanhua University, Taiwan*
³*WuFeng University, Taiwan*
- **Customer Value of Social Network Service Website: Key Components and Impacts on Customer Loyalty**
Guozheng Zhang¹, Faming Zhou², Yong Lan²
¹*Central South University, China*
²*Hunan Agricultural University, China*
- **The Influence of Electronic Word-of-Mouth on Consumers' Quadratic Selection: Based on the Positive Research of Banks in Mainland China**
Junfeng Liao¹, Chunyan Zhong¹
¹*South China University of Technology, China*
- **The Implications of Virtual Reality Technology in E-commerce**
Hana Estifaei¹, Mustafa Riza¹, Hamed F. Manesh¹
¹*Eastern Mediterranean University, Turkey*

Poster Session 1

8/12/2010 All-Day Display
Room: SICILY 2501

- p.70 **A Memetic Algorithm for the Close-Open Mixed Vehicle Routing Problem**
Ran Liu¹, Zhibin Jiang¹, Hongtao Hu¹, Shiqing Yao¹
¹Shanghai Jiao Tong University, China
- p.70 **Development of Integrated Qualitative and Environmental Decision Method**
Ratapol Wudhikarn¹, Nopasit Chakpitak¹
¹Chiang Mai University, Thailand
- p.70 **Developing A Consumer Experience Conceptual Model for the Taiwanese Fine Food Culture in the Restaurant Industry**
Ching-Yu Lien¹, Shu-Hwa Hsiao¹, Chih-Wen Huang²
¹Minghsin University of Science and Technology, Taiwan
²Tamkang University, Taiwan
- p.70 **Calculating Lifecycle Interdependencies Based on Eco-Design Strategies**
Clemens Hepperle¹, Nikolas Bradford¹, Francesco Costantino², Robert Orawski¹, Stefan Langer¹, Udo Lindemann¹
¹Technische Universitaet Muenchen, Germany
²University of Rome "La Sapienza", Italy
- p.70 **The Relationships Between Green Consumption Cognition and Behavioral Intentions for Consumers in the Restaurant Industry**
Ching-Yu Lien¹, Yu-Shih Chen², Chih-Wen Huang³
¹Minghsin University of Science and Technology, Taiwan
²Feng Chia University, Taiwan
³Tamkang University, Taiwan
- p.70 **The Comparison Between MAUT and PROMETHEE**
Min Wang¹, S.-J. Lin¹, Y.-C. Lo¹
¹Chaoyang University of Technology, Taiwan
- p.70 **Regulatory Focus and Recovery Fit in Airline Overbooking**
Xiang Zhang¹, Peng Wang¹, Yuehui Wang¹, Guoxin Wang¹
¹Beijing Institute of Technology, China
- p.71 **Development of an Adjustable Mold Box for Making Silicone Rubber Mold**
Chil-Chyuan Kuo¹, Cheng-Yan Lin¹, Xin-Zhu Wu¹
¹Ming Chi University of Technology, Taiwan
- p.71 **A New Robust Validity Index for Fuzzy Clustering Algorithm**
Horng-Lin Shieh¹, Po-Lun Chang²
¹Saint John's University, Taiwan
²Lunghua University of Science and Technology, Taiwan
- p.71 **Analysis of the Harmonics Losses and Bearing Load for Motorized High Speed Spindle Part I: Modeling**
Shih-Chang Chen¹, Yu-Ling Juan¹, Chia-Hui Tang¹, Ching-Feng Chang¹, Tsair-Rong Chen¹
¹National Changhua University of Education, Taiwan
- p.71 **Schedulability and Optimal Checkpoint Placement for Real-Time Multi-Tasks**
Seong Woo Kwak¹, Jung-Min Yang²
¹Keimyung University, South Korea
²Catholic University of Daegu, South Korea
- p.71 **Failure Rate Calculating Method of Components Based on the Load-strength Interference Model**
Zheng Wang¹, Zengquan Wang¹, A-na Wang²
¹National Key Laboratory of Diesel Engine Turbocharging Technology, China
²Shenyang Ligong University, China
- p.71 **Time-To-State and Availability Assessment of Multi-state Weighted K-out-of-N: G Systems**
Shahrazad Faghihroohi¹, Yanfu Li²
¹National University of Singapore, Singapore
²University of Tennessee, United States
- p.71 **Admission Control of an M/M/1 Queue with Multiple Deterioration States**
Yarlin Kuo¹
¹Yunlin University of Science and Technology, Taiwan
- p.71 **Modeling Impact of Product Variety on Performance in Mixed-model Assembly System: an Artificial Neural Network Meta-modeling Approach**
Yunqing Rao¹, Kunpeng Wang¹, Meng-Chang Wang¹
¹Huazhong University of Science and Technology, China
- p.72 **Scheduling of Television Commercials**
Min-Sun Wuang¹, Chang-Lin Yang¹, Rong-Hwa Huang¹, Shan-Ping Chuang²
¹Fu Jen Catholic University, Taiwan
²Huaan University, Taiwan
- p.72 **Bond Graph Model of a New Hydraulic Winch Test Bench on Energy Recycle**
Mengru Li¹, Baofu Xu¹, Zhixin Chen²
¹Tongji University, China
²Chinese Academy of Fishery Sciences, China
- p.72 **Flight Operation-oriented Tunnel-in-the-Sky Design**
Xuelin Huang¹, Jiangyun Wang¹
¹Beihang University, China
- p.72 **How Could Non-feasible Constraints Be Located in Predictive Control?**
Teresa Alvarez¹, Daniel Briongos¹, Monica Garcia¹
¹University of Valladolid, Spain
- p.72 **Algorithm for Obstacle Classification and Lane Line Identification Using LRF Sensors**
Hung-Yuan Chung¹, Zih-Yang Lin¹, Hong-Wei Chen¹, Hsiao-Yu Wang¹
¹National Central University, Taiwan
- p.72 **A Comparison Study of Five In-vehicle Warning Information Displays with or Without Spatial Compatibility**
Jing-Wun Jhuang¹, Yung Ching Liu¹, Yang-Kun Ou¹
¹National Yunlin University of Science and Technology, Taiwan
- p.72 **The Effects of Memory Cue and Memory Aid on Prospective Memory in Older and Younger Adults**
Min-Sheng Chen¹, Chih-Nan Wang¹
¹National Yunlin University of Science & Technology, Taiwan
- p.72 **Estimating Technical Efficiency for Global E-tailing Companies for Different Regions**
Yi-Hsing Lin¹, Chun-Fu Hong²
¹National Quemoy University, Taiwan
²National Yang-Ming University, Taiwan
- p.73 **International Liquidity, Inflation and Exchange Rate: Evidence from China**
Hongxia Ma¹, Xuefen Sun¹
¹Wuhan University, China
- p.73 **An Empirical Analysis of the Content of Chinese and American B2C Home Furniture Web Sites**
Liyi Zhang¹, Shouxiang Li¹, Yun Xiao¹
¹Wuhan University, China
- p.73 **Key Factors of Online Bank Brand Choice Intention - Basing on Mainland China Online Banks**
Junfeng Liao¹, Rui Cheng², Zhongqiang Wang³
¹South China University of Technology, China
²City University, Hong Kong
³University of Warwick, United Kingdom
- p.73 **An Agent Based Negotiation Mechanism Considering Suppliers Bidding in an Automated Business Transaction**
S. Kamal Chaharsooghi¹, Zahra Taheri¹
¹Tarbiat Modares University, Iran
- p.73 **Cloud Computing for Network Business Ecosystem**
Roberto Gagliardi¹, Fausto Marcantoni¹, Alberto Polzonetti¹, Barbara Re¹, Pietro Tapanelli¹
¹University of Camerino, Italy
- p.73 **An Oligopolistic Electricity Model with Marketable CO2 Emission Permits**
William Chung¹
¹City University of Hong Kong, Hong Kong

- p.73 **The Project Management of the Profit Contribution from the Customers of Mobile Virtual Private Network Services**
Chia-Chi Lee¹, Du-Ching Lu², Tyrone T. Lin³
¹*National Taipei College of Business, Taiwan*
²*Chunghwa Telecom Co., Ltd., Taipei, Taiwan and National Dong Hwa University, Taiwan*
³*National Dong Hwa University, Taiwan*
- p.73 **High in Quantity and High in Storage: A Look Into the Patents Conversion in Chinese Universities**
Yang Zhou¹, Jin Chen¹
¹*Zhejiang University, China*
- p.74 **Examining Transactive Memory System in R&D Teams**
Chi-Cheng Huang¹, Pin-Chen Jiang²
¹*Aletheia University, Taiwan*
²*Chang Jung Christian University, Taiwan*
- p.74 **A Review of Inter-Firm Technology Transfer Through the Lens of the Resource-Based View**
Nisakorn Somsuk¹
¹*Thammasat University, Thailand*
- p.74 **The Interactive Effect of Knowledge Management with Organizational Citizenship Behavior on Knowledge Management Performance in Taiwan Semiconductor Industries**
Chin Ping Chen¹, His-Chi Hsiao², Ching Wei Lin³, Yong Xin Li¹
¹*National Changhua University of Education, Taiwan*
²*Cheng Shiu University, Taiwan*
³*National Chiao Tung University, Taiwan*
- p.74 **University-Industry Technology Transfer Programme's Success Analysis: Using the Analytic Hierarchy Process-Based Model**
Nisakorn Somsuk¹
¹*Thammasat University, Thailand*
- p.74 **Research on Pervasive Knowledge Service Model**
Min Yao¹, Xinghe Wu¹, Yao Yao², Yiwen Wang¹
¹*Zhejiang University, China*
²*Hangzhou Normal University, China*
- p.74 **What Leads to Differences in Success Antecedents? Analyzing the Effect of Offering Nature, Variety, and Service Mode**
Bin Xu¹, Kay Chuan Tan¹
¹*National University of Singapore, Singapore*
- p.74 **Theoretical Perspectives in Quality Management Implementation: A Literature Review**
Nisakorn Somsuk¹
¹*Thammasat University, Thailand*

Decision Analysis & Methods (4)

9/12/2010 11:00 - 12:30
Room: NAPLES 2703

Chairs: Mubarak Almutairi
Tomasz Błaszczuk

Abstracts: see page 75

- **Dynamic Linguistic Weighted Averaging Operators Applied to Decision Making**
Jin Han Park¹, Young Chel Kwun², Ja Hong Koo²
¹*Pukyong National University, South Korea*
²*Dong-A University, South Korea*
- **A Comparison of Three Forecasting Methods to Establish a Flexible Pavement Serviceability Index**
Ching-Tsung Hung¹, Shih-Huang Chen²
¹*Kainan University, Taiwan*
²*Feng Chia University, Taiwan*
- **Decision Making in House of Quality: A Hybrid AHP-PROMETHEE Approach**
Majid Behzadian¹, Reza Samizadeh², Jamshid Nazemi³
¹*Shomal University, Iran*
²*Alzahra University, Iran*
³*Azad University, Iran*
- **Restaurant Location Selection by Utilizing the Fuzzy Preference Relations**
Tsung-Han Chang¹
¹*Kao-Yuan University, Taiwan*
- **Is China's Voluntary Action on Carbon Intensity Cut Too Ambitious?**
Hongliang Yang¹, Dan Shi²
¹*Asian Development Bank, Philippines*
²*Chinese Academy of Social Sciences, China*
- **Fuzzy Approaches to Two-Decision-Maker Games**
Mubarak Almutairi¹
¹*Hafr Albatin Community College, Saudi Arabia*

Decision Analysis & Methods (5)

9/12/2010 13:30 - 15:00
Room: NAPLES 2703

Chairs: Chih Wang
Majid Jalili

Abstracts: see page 76

- **An Evaluation Methodology for Binary Pattern Classification Systems**
Chih-Fong Tsai¹
¹*National Central University, Taiwan*
- **On the Use of Multi-criteria Decision Aid Tools for the Efficient Design of 3D-stacked Integrated Circuits: A Preliminary Study**
Anh Vu Doan¹, Yves De Smet¹, F. Robert¹, Dragomic Milojevic¹
¹*Université Libre de Bruxelles, Belgium*
- **Investigation on the Improvement of Operational Performance of Soeu's in India Using Dea Based Malmquist Index**
Meenakumari Ramachandran¹, R Subasri¹, S Jayamani², N Kamaraj³
¹*Kongu Engineering College, India*
²*Pavai Engineering College, India*
³*Thiagarajar College of Engineering, India*
- **A Note to TOPSIS Method in MADM Problems Under Fuzzy Environment**
Zhi Pei¹, Li Zheng¹
¹*Tsinghua University, China*
- **Characterizing Triggers of Reactive Cycles within Design Processes Based on Process Observation**
Arne Herberg¹, Stefan Langer¹, Florian Netter¹, Udo Lindemann¹
¹*Technische Universität Muenchen, Germany*
- **Utilization of Data Mining on Asset Management of Freeway Flexible Pavement**
Po-Hsun Sung¹, Jyh-Dong Lin¹, Shih-Huang Chen², Shun-Hsing Chen³, Jr-Hung Peng¹
¹*National Central University, Taiwan*
²*Feng Chia University, Taiwan*
³*Taiwan Area National Freeway Bureau, Taiwan*
- **Building Fuzzy Random Objective Function for Interval Fuzzy Goal Programming**
Arbaay Nureize¹, Junzo Watada¹
¹*Waseda University, Japan*

Decision Analysis & Methods (6)

9/12/2010 15:30 - 17:15
Room: NAPLES 2703

Chairs: Majid Behzadian
Xuenzheng Zhang

Abstracts: see page 77

- **A Cost and Space Efficient Method for Unbalanced Assignment Problems**
Anupong Lampang¹, Veera Boonjing¹, Pisit Chanvarasuth²
¹*King Mongkut's Institute of Technology Ladkrabang, Thailand*
²*Sirindhorn International Institute of Technology, Thailand*
- **The Effects of Feature Selection and Model Selection on the Correctness of Classification**
ShuChuan Lo¹
¹*National Taipei University of Technology, Taiwan*
- **A Case Study of Evaluating Supplier's Selection Criteria in a Steel Bars Manufacturer**
Yun-Ning Liu¹
¹*University of Dong Hua, Taiwan*
- **A Study on Revenue Management of Taiwan High Speed Railway**
Hsiao-min Chuang¹, Chihpeng Chu¹, Wei-Feng Niu²
¹*National Dong-hwa University, Taiwan*
²*G5 Capital Management, Ltd., Taiwan*
- **A Fuzzy Logic-Based Evaluation Method for Idea Screening of Product Design**
Yao-Tsung Ko¹, Ping-Hong Kuo¹
¹*Tunghai University, Taiwan*
- **Predictive Modeling of High-Performance Concrete with Regression Analysis**
Shanshan Wu¹, Libei Zhi¹, Jianguo Yang¹, Sanjay Shukla²
¹*Donghua University, China*
²*University of Texas at San Antonio, United States*
- **Regional Industrial Energy Efficiency Research Under the Low-carbon Economy Target**
Yuanying Chi¹, Yuanqin Chi², Dongxiao Niu¹, Zhi Liu¹
¹*North China Electric Power University, China*
²*Longkou Liangjia Coal Mine, China*

**Technology &
Knowledge Management (4)**

9/12/2010 11:00 - 12:30
Room: NAPLES 2603

Chairs: Uchenna Cyril Eze
Yuya Kajikawa

Abstracts: see page 78

- **Developing Coherency Matrix to Support Design Changes of Complex Product**
Nattawut Jantong¹, Suthep Butdee¹
¹King Mongkut's University of Technology North Bangkok, Thailand
- **Determinants of Knowledge Search Strategy of Chinese SMEs**
Fang Luo¹
¹Zhejiang University, China
- **Performance Assessment of Technology Transfer Project: An Application of DEA Technique**
Prattana Punnakitikashem¹, Patarapong Intarakumnerd², Tritos Laosirihongthong²
¹Mahidol University, Thailand
²Thammasat University, Thailand
- **Determining Enabling Factors of University Technology Business Incubation Program: Resource-Based View Theory**
Nisakorn Somsuk¹, Prattana Punnakitikashem², Tritos Laosirihongthong¹
¹Thammasat University, Thailand
²Mahidol University, Thailand
- **A Conceptual Framework of Cluster Innovation Mechanism Based on Network Theory: A Case of Dalian Software Park in China**
Weilin Zhao¹
¹Waseda University, Japan
- **Building Environmental Assessment as a Knowledge Management Tool Driving Society**
Yuya Kajikawa¹, Toshihiro Inoue¹
¹The University of Tokyo, Japan

**Technology &
Knowledge Management (5)**

9/12/2010 13:30 - 15:00
Room: NAPLES 2603

Chairs: Tritos Laosirihongthong
Dotun Adebajo

Abstracts: see page 79

- **Technological Regime and Knowledge Productivity: An Industry-level Analysis of Chinese Manufacturing**
Bin Guo¹, Xiaoling Chen¹
¹Zhejiang University, China
- **Missing Link Between Knowledge Management and Organizational Performance---Empirical Evidence in Taiwan**
Chi-Chuan Wu¹, Shu-Hsien Liao², Wen-Jung Chang², Retno Widowati², Da-Chian Hu²
¹Tatung University, Taiwan
²Tamkang University, Taiwan
- **A Novel Technique for Measuring the Technology Application on CNG Industry of Pakistan**
Jawwad Hassan¹, Naeha Sharif¹, Muhammad Asim²
¹National University of Sciences and Technology, Pakistan
²Center for Advance Studies in Engineering, Pakistan
- **Global Trends and Rapid Growth of East Asia in IEEE Publications**
Nobuyuki Shirakawa¹, Minoru Nomura¹, Kumi Okuwada¹, Takao Furukawa¹
¹National Institute of Science and Technology Policy, Japan
- **Leveraging Knowledge Management with the Balanced Scorecard**
Maria do Rosário Cabrita¹, Virgilio Cruz-Machado¹, Antonio Grilo¹
¹Universidade Nova de Lisboa, Portugal
- **An Approach to New Product Development Management in SMEs**
Bingwen Yan¹
¹Cape Peninsula University of Technology, South Africa

**Technology &
Knowledge Management (6)**

9/12/2010 15:30 - 17:15
Room: NAPLES 2603

Chairs: Uchenna Cyril Eze
Hongyi Sun

Abstracts: see page 80

- **Fuzzy Axiomatic Design for Knowledge Demanders and Suppliers in Knowledge Service**
Xi Chen¹, Jing Han², Zhi-ping Fan³, Yang Liu³
¹Xi'dian University, China
²China Mobile Group, Shanxi Company, China
³Northeastern University, China
- **Information Technology Acceptance Models Comparison and IT Development Strategies: In Small and Medium Sized Enterprises Case**
Masoud Movahedi¹, Mostafa Zamanian², Amirhossein Meisami³
¹Imam Hussain University, Iran
²Amid Development Management Consultants, Iran
³K. N. Toosi University of Technology, Iran
- **A Framework for Measuring Performance Faculty Knowledge Management Program**
Amelia Kurniawati¹, Luciana Andrawina¹
¹Telecom Institute of Technology, Indonesia
- **An Evidential Reasoning Based LSA Approach to Document Classification for Knowledge Acquisition**
Rozlini Mohamed¹, Junzo Watada¹
¹Waseda University, Japan
- **Requirements Uncertainty and Standardization in IS Development Projects: A Survey of the IT Sector in China**
Younes Benslimane¹, Zijiang Yang¹, Bouchaib Bahli²
¹York University, Canada
²Danube University, Austria
- **Knowledge Long Tail**
I-Ching Lin¹, Rainer Seidel¹, David Howell¹, David Walker¹
¹The University of Auckland, New Zealand
- **Knowledge Sharing and Total Quality Management: A Conceptual Framework**
Jamie Li-Yi Chua¹, Uchenna Eze¹, Gerald Guan Gan Goh¹
¹Multimedia University, Malaysia

Supply Chain Management (4)

9/12/2010 11:00 - 12:30
Room: NAPLES 2702

Chairs: Kamrul Ahsan
Mahdi Bashiri

Abstracts: see page 81

- **An EPQ Model Under Partial Trade Credit Financing with Credit Sensitive Demand**
Chandra K Jaggi¹
¹University of Delhi, India
- **A Novel Swarm Optimization Technique for Partner Selection in Virtual Enterprise**
Mohapatra S S¹, S. Sahu², Saurav Datta¹, Prasanna K¹, Nihar Ranjan Nayak¹
¹National Institute of Technology, India
²Indian Institute of Technology, Kharagpur, India
- **Understanding Trends of Car Recalls**
Kamrul Ahsan¹
¹Auckland University of Technology, New Zealand
- **Distribution Planning in Supply Chain Management**
Radha Ramanan Thiyagarajan¹, K Ratnakumar¹, Abhijith Vasudevan¹, Mishaal Sarawgi¹, Mithun Sundar Raj¹
¹National Institute of Technology Calicut, India
- **A Novel Rewards-based Protocol and Decision-making Technique for Transshipment in Supply Chains**
Lokendra Shastri¹, Srinivas Narasimhamurthy¹, Durga Prasad Muni¹
¹Infosys Technologies Limited, India
- **Reverse Logistics Network: A Review**
Zheng Wang¹, Hua Bai¹
¹Jinan University, China
- **Solving the Pickup and Delivery Problem in Semiconductor Supply Chain**
Chun-Mei Lai¹, Cheng-Che Chen¹
¹Far East University, Taiwan

Supply Chain Management (5)

9/12/2010 13:30 - 15:00
Room: NAPLES 2702

Chairs: Suk-Chul Rim
Assed Haddad

Abstracts: see page 82

- **Analysis of Value Chain Coordination via Revenue-Sharing for Improving the Expected Profits**
Yuhei Koike¹, Masato Kotani¹, Ushio Sumita¹, Yoshitugu Yamamoto¹
¹University of Tsukuba, Japan
- **Using Hybrid Metaheuristic Approaches to Solve Bi-Level Linear Programming Problem for Supply Chain Management**
R. J. Kuo¹, Y. S. Han²
¹National Taiwan University of Science and Technology, Taiwan
²National Taipei University of Technology, Taiwan
- **A Multi-Product Capacitated Inventory-Location Model with Risk Pooling**
Noura Al Dhaheri¹, Ali Diabat¹
¹MASDAR Institute, United Arab Emirates
- **Bees Algorithm for Dynamic Multi-Zone Dispatching in Truck Load Trucking**
Pairush Triwate¹, Pongchanun Luangpaiboon¹
¹Thammasat University, Thailand
- **Supply Chain Performance Improvement Using Vendor Management Inventory Strategy**
Wei Xu¹, Dongping Song¹, Michael Roe¹
¹University of Plymouth, United Kingdom
- **Stochastic P-hub Center Covering Problem with Delivery Time Constraint**
Mahdi Bashiri¹, Somayeh Mehrabi¹
¹Shahed University, Iran

Supply Chain Management (6)

9/12/2010 15:30 - 17:15
Room: NAPLES 2702

Chairs: Ushio Sumita
S.S. Mahapatra

Abstracts: see page 83

- **Impacts of Random Capacity and Fluctuating Environment On Inventory Systems**
Xiaoming Yan¹, Ping Cao², Minghui Zhang², Ke Liu²
¹Dongguan University of Technology, China
²Chinese Academy of Sciences, China
- **A Hierarchical Assessment Method using Bayesian Network for Material Risk Detection on Green Supply Chain**
Benjamin Yen¹, Bingcong Zeng¹
¹The University of Hong Kong, Hong Kong
- **Does Technology Capability-enriched Private Brand Impacts Customer Satisfaction and Loyalty in the Marketing Channel?**
Yin-Ying Wang¹, Yung-Hsin Chen², Shuo-Chang Tsai³, Long-Tai Chen⁴
¹National Yunlin University of Science and Technology, Taiwan
²National Cheng Kung University, Taiwan
³Asia University, Taiwan
⁴Industrial Technology Research Institute, Taiwan
- **Corporate Myopia, Forecast Precision, and Production Planning**
Zhaolin Li¹
¹The University of Sydney, Australia
- **Constitution and Evaluation of Waste Electric and Electronic Equipment Reverse Logistics Capability**
Jianchang Liu¹, Hua Zhong¹, Wenjing Wei¹
¹Beijing Institute of Technology, China
- **Optimal Single-Period Inventory Financing Decisions with Stochastic Demand**
Jiayan Xu¹, Ke Fu¹
¹Sun Yat-sen University, China

Production Planning & Control (2)

9/12/2010 11:00 - 12:30
Room: NAPLES 2602

Chairs: Carman Ka Man Lee
Junqiang Wang

Abstracts: see page 84

- **An Efficient Heuristic to Sequence Mixed-Model Assembly Lines**
Rico Gujjula¹, Hans-Otto Guenther¹
¹Technical University Berlin, Germany
- **Human-computer Collaborative Approach to Subassembly Planning of Complex Product**
Xiaoyi Wang¹, Huifen Wang²
¹Anhui University of Technology, China
²Nanjing University of Science and Technology, China
- **Multi-bottleneck Permutation Flow-shop Scheduling Driven by Bottleneck**
Junqiang Wang¹, Jianbin Yang¹, Jian Chen¹, Songfei Zhang¹, Shudong Sun¹
¹Northwestern Polytechnical University, Ministry of Education, China
- **Order-Lot Pegging Heuristics for Minimizing Total Tardiness in a Semiconductor Wafer Fabrication Facility**
Jae-Gon Kim¹, Seung-Kil Lim², SangOh Shim³, SeongWoo Choi⁴
¹University of Incheon, South Korea
²Sungkyul University, South Korea
³Hanbat National University, South Korea
⁴Kyonggi University, South Korea
- **An MILP Approach To Short-term Scheduling of an Industrial Make-and-Pack Production Facility with Batch Splitting and Quality Release Times**
Philipp Baumann¹, Norbert Trautmann¹
¹University of Bern, Switzerland
- **Solving Production Reconfiguration based on Constraint Satisfaction**
Linda Zhang¹, Qianli Xu²
¹University of Groningen, Netherlands
²Institute for Infocomm Research, A*STAR, Singapore

Production Planning & Control (3)

9/12/2010 13:30 - 15:00
Room: NAPLES 2602

Chairs: Seyyed Mohammad Taghi
Fatemi Ghomi
Seng Fatt Wong

Abstracts: see page 85

- **Hybrid Genetic Algorithm for Bi-objective Flow Shop Scheduling Problems with Re-entrant Jobs**
Carman Ka Man Lee¹, Danping Lin¹
¹Nanyang Technological University, Singapore
- **A Column Generation Heuristic for Dynamic Capacitated Lot Sizing with Random Demand Under a Fillrate Constraint**
Horst Tempelmeier¹
¹University of Cologne, Germany
- **A Decentralized VPLs based Control Policy for Semiconductor Manufacturing**
Shiqing Yao¹, Zhibin Jiang¹, Na Li¹, Ran Liu¹
¹Shanghai Jiao Tong University, China
- **Parallel Machines Scheduling with Dual Criteria and Sequence-dependent Setups: Cooperative Metaheuristics**
J. Behnamian¹, Seyyed Mohammad Taghi Fatemi Ghomi¹
¹Amirkabir University of Technology, Iran
- **A Hybrid Simulated Annealing for the Single Machine Capacitated Lot-sizing and Scheduling Problem with Sequence-dependent Setup Times and Costs**
M. Mirabi¹, Seyyed Mohammad Taghi Fatemi Ghomi²
¹Islamic Azad University, Iran
²Amirkabir University of Technology, Iran
- **A Fixed Rate Launching of Mixed-Model Car Sequencing in the Multiple Assembly Lines**
Suksan Prombanpong¹, Chaiya Dumkum¹, Ekarach Satranonda²
¹King Mongkut's University of Technology Thonburi, Thailand
²Mitsubishi Motors (Thailand), Thailand

Production Planning & Control (4)

9/12/2010 15:30 - 17:15
Room: NAPLES 2602

Chairs: Hsuan Pu Chang
Mohammad Mirabi

Abstracts: see page 86

- **Re-engineering the Forecasting Phase Using Traditional and Soft Computing Methods**
Massimo Bertolini¹, Maurizio Bevilacqua², Filippo Emanuele Ciarapica²
¹University of Parma, Italy
²Università Politecnica delle Marche, Italy
- **Incremental Temporal Reasoning in Job Shop Scheduling Repair**
Yi Huang¹, Li Zheng¹, Brian Williams², Lin Tang¹, Huasheng Yang¹
¹Tsinghua University, China
²Massachusetts Institute of Technology, United States
- **A GA-Based Heuristic Algorithm for Non-Permutation Two-Machine Robotic Flow-Shop Scheduling Problem of Minimizing Total Weighted Completion Time**
Juntao Li¹, Lizhen Zhang¹, Chunxia Shangguan¹, Hiroshi Kise²
¹Shanghai Ocean University, China
²Kyoto Institute of technology, Japan
- **Autonomous Product Manufacturing Cycle An Integrated Approach to Process Planning and Production Control**
Katja Windt¹, Oliver Jeken¹
¹Jacobs University Bremen, Germany
- **A Simulated Annealing-based Approach for Dynamic Facility Planning**
Tzer-Ming Chen¹, Ching Chih Chen¹, Shan-Ping Chuang²
¹National Taipei University of Technology, Taiwan
²Huafan University, Taiwan
- **A New Numerical Method of Nonlinear Equations by Four Order Runge-Kutta Method**
Ruitao Lin¹, Chan Wang¹, Fang Liu¹, Yueliang Xu¹
¹Southwest Jiaotong University, China

Service Innovation & Management (3)

9/12/2010 11:00 - 12:30
Room: NAPLES 2701

Chairs: Li Yueh Chen
Linda Zhang

Abstracts: see page 87

- **A Simulation on Impacts of a Dynamic Pricing Model for Perishable Foods on Retail Operations Productivity and Customer Behaviours**
Jaekwon Chung¹, Dong Li¹
¹University of Liverpool, United Kingdom
- **Identify Lead Users by Customer Competence**
Guozheng He¹, Jianan Yu²
¹Wuhan Textile University, China
²SAP Labs China, China
- **The Application of Lean Concept Combines Demand Channel and Supply Channel in Service Industry**
Yao-hung Hsieh¹, Hsiao-Ching Chen²,
Wei-Lung Chang²
¹China University of Technology, Taiwan
²Chungyu Institute of Technology, Taiwan
- **Applying Adaptive Course Caching and Presentation Strategies in M-learning Environment**
Hsuan Pu Chang¹
¹Tamkang University, Taiwan
- **The Impacts of Brand Trust, Customer Satisfaction, and Brand Loyalty on Word-of-Mouth**
Shu-Hsien Liao¹, Yu-Chun Chung¹,
Yun-Ru Hung¹, Retno Widowati¹
¹Tamkang University, Taiwan
- **Evaluation on the Technological Innovation Capability in Companies Based on the Network**
Xiao-li Chen¹, Ralph Riedel¹, Egon Mueller¹
¹Chemnitz University of Technology, Germany

Operations Research (2)

9/12/2010 13:30 - 15:00
Room: NAPLES 2701

Chairs: Yong-Zai Lu
Kaveh Sheibani

Abstracts: see page 88

- **The Hierarchical Hub Maximal Covering Problem with Determinate Cover Radiuses**
Rashed Sahraeian¹, Ehsan Korani¹
¹Shahed University, Iran
- **Generating Large Scale Undirected Graph for Solving Flow Network Problems**
Shin-Guang Chen¹
¹Tungnan University, Taiwan
- **Process Management Systems and Public Healthcare in Brazil: Technology to Improve Service Delivery**
Daniel G. S. dos Santos¹
¹CEFET/RJ, Brazil
- **Genetic Algorithm Based Optimization of an Agent Based Queuing System**
Karthik Sankaranarayanan¹, Erik R Larsen¹, Ann Van Ackere², Carlos Arturo Delgado²
¹University of Lugano, Switzerland
²University of Lausanne, Switzerland
- **A Revenue Management Model in BTO Manufacturing Over an Infinite Horizon**
Li Li¹, Zhixiang Chen¹
¹Sun Yat-Sen University, China
- **Simulation Modeling and Analysis on Asset Planning for Emergency Medical System (EMS)**
Jieping Liu¹, Xiaocong Wang¹, Ming Cheng E¹
¹Beijing Jiaotong University, China

Operations Research (3)

9/12/2010 15:30 - 17:15
Room: NAPLES 2701

Chairs: Roel Leus
Zhaotong Lian

Abstracts: see page 89

- **Multiplicative Methods for Entropy Programming Problems and Their Applications**
Yuri Popkov¹
¹Institute for Systems Analysis, Russian Academy of Sciences, Russian Federation
- **An Effective Heuristic Considering Machine Flexibility for Parallel Machine with Eligibility Problem**
Rong-Hwa Huang¹, Tung Han Yu²
¹Fu Jen Catholic University, Taiwan
²Graduate Institute of Business Administration, Taiwan
- **The Fuzzy Greedy Search in Combinatorial Optimization with Specific Reference to the Travelling Salesman Problem**
Kaveh Sheibani¹
¹Iran Telecommunication Research Center, Iran
- **Computing Fixed Points of an Increasing Mapping from a Finite Lattice Formed by Integer Points of a Box into Itself**
Chuanyin Dang¹
¹City University of Hong Kong, Hong Kong
- **A Lagrangian Heuristic for a Dock Assignment Problem with Trailer Transportation**
Lotte Berghman¹, Roel Leus¹
¹Katholieke Universiteit Leuven, Belgium

Human Factors (3)

9/12/2010 11:00 - 12:30
Room: NAPLES 2601

Chairs: Sue Morton
Zhizhong Li

Abstracts: see page 90

- **Investigation of Ergonomics in Automotive Assembly Line Using Jack**
Jianwei Niu¹, Xiaowei Zhang¹, Xin Zhang², Linhua Ran²
¹University of Science and Technology Beijing, China
²China National Institute of Standardization, China
- **Leading a Technical Organization through Change: A Focus on the Key Drivers Affecting Communication**
Travesh Ramkhelawan¹, Marie-Louise Barry¹
¹University of Pretoria, South Africa
- **Human Errors Reliability Analysis in Coal Mine Accidents Based on Gray Relational Theory**
Jianyi Lan¹, Meiyang Qiao¹
¹Henan Polytechnic University, China
- **A Study on Human Redundancy in Execution of Computerized Emergency Operating Procedures**
Xiaolu Dong¹, Zhizhong Li¹
¹Tsinghua University, China
- **A Study of Occupational Stress of Aviation Ground Crews**
Kuo-Shun Sun¹, Yu-Shan Lee¹
¹Kainan University, Taiwan
- **An Operational Framework in Forecasting Radical Innovation: The Case of the CO₂-free Automobile**
Jean-Jacques Chanaron¹
¹Grenoble Ecole de Management, France

Quality Control & Management (2)

9/12/2010 13:30 - 15:00
Room: NAPLES 2601

Chairs: Philippe Castagliola
Fugee Tsung

Abstracts: see page 91

- **An Integrated T and TCUSUM Scheme**
Liang Qu¹
¹Nanyang Technological University, Singapore
- **A Single Chart for Monitoring Frequency and Magnitude of Events**
Zhang Wu¹, Qu Liang¹
¹Nanyang Technological University, Singapore
- **Preliminary Results Concerning the VSS Xbar Chart with Unknown In-Control Parameters**
Philippe Castagliola¹, Ying Zhang², Antonio Costa³, Petros Maravelakis⁴
¹IRCCyN UMR CNRS 6597 & Université de Nantes, France
²IRCCyN UMR CNRS 6597 & Ecole Centrale de Nantes, France
³Salo Paulo State University, Brazil
⁴University of the Aegean, Greece
- **Linear Profile Monitoring Using an Adaptive EWMA Control Chart**
Giovanna Capizzi¹, Guido Masarotto¹
¹University of Padua, Italy
- **Monitoring a Process with Mixed-Type and High-Dimensional Data**
Xianghui Ning¹, Fugee Tsung¹
¹Hong Kong University of Science and Technology, Hong Kong
- **EWMA Control Chart that Minimizes the Numbers of Defectives for Out-of-Control Cases**
Mohammad Shamsuzzaman¹, Zhang Wu²
¹University of Sharjah, United Arab Emirates
²Nanyang Technological University, Singapore

Quality Control & Management (3)

9/12/2010 15:30 - 17:15
Room: NAPLES 2601

Chairs: Kaibo Wang
Yaoguang Hu

Abstracts: see page 92

- **Soft Sensor Modeling for Feed Liquid Viscosity Control for PVC Gloves Based on BP Neural Network**
Yaoguang Hu¹, Cheng Xi¹, Xiangmin Cui¹, Ruijun Zhang², Yan Yan¹
¹Beijing Institute of Technology, China
²Renmin University, China
- **A Spatial Multivariate Process Capability Index**
Shaohi Wang¹, Arthur Yeh²
¹Northwestern Polytechnical University, China
²Bowling Green State University, United States
- **Statistical Process Adjustment of Multivariate Processes with Minimum Control Efforts**
Li Wang¹, Kaibo Wang²
¹University of South California, United States
²Tsinghua University, China
- **Competitive Analysis in Digital Electronics Industry of Pakistan**
Kinza Nasrullah¹, Hira Ali Jamal¹, Muhammad Asim²
¹National University of Sciences and Technology, Pakistan
²Center for Advance Studies in Engineering, Pakistan
- **Using Forecasting Technique in Quality Function Deployment to Facilitate Dynamic Customer Needs**
Liang-Tsung Lin¹, Ching-Pou Chang¹, Kuen-Ho Chiang¹
¹Hsiuping Institute of Technology, Taiwan
- **Quality Computation Model of Complex Assembling Process Using Multivariate Process Capability Index**
Yihai He¹, Wenbing Chang¹, Wei Ping Mu¹
¹Beijing University of Aeronautics and Astronautics, China
- **SWOT Analysis of Mobile Telecommunications Sector of Pakistan**
Muhammad Bilal Khan¹, Muhammad Asim²
¹National University of Sciences and Technology, Pakistan
²Center for Advance Studies in Engineering, Pakistan

Safety, Security & Risk Management (1)

9/12/2010 11:00 - 12:30
Room: SICILY 2502

Chairs: Sou-Sen Leu
Takashi Hasuike

Abstracts: see page 93

- **The Role of Safety Leadership in Improving Organization**
Minna Paivinen¹
¹*Safety Technology Authority, Finland*
- **Public Debt of Medical Security System: Is China Following in America's Footsteps?**
Shibin Song¹, Lizhi Feng¹, Xiaojun Xue¹, Mingmei Huang¹
¹*Sun Yat-sen University, China*
- **Oil Sensitivity and Systematic Risk in China O&G Industry Stock Indices**
Chunhong Li¹, Zhongying Qi¹, Zhibo Zhang², Jie Tang¹
¹*Harbin Institute of Technology, China*
²*China Executive Leadership Academy Pudong, China*
- **Safety Analysis of the Single-walled Steel Suspension Box Cofferdam During Construction**
Zanyun Xu¹, Wei Xu¹
¹*Tongji University, China*
- **Synergic Mode of Grid-based Traffic Risk Control in China's Coastal Waters**
Jinpeng Zhang¹, Quangen Fang¹, Shenping Hu¹
¹*Shanghai Maritime University, China*
- **Relative Risk Assessment Methodology in Vessel Traffic at Sea**
Shenping Hu¹, Quangen Fang¹, Jinpeng Zhang¹, Yongtao Xi¹
¹*Shanghai Maritime University, China*

Safety, Security & Risk Management (2)

9/12/2010 13:30 - 15:00
Room: SICILY 2502

Chairs: Shibin Song
I-Tung Yang

Abstracts: see page 94

- **HFACS Model Based Data Mining of Human Factors-A Marine Study**
Yongtao Xi¹, Weijiong Chen¹, Quangen Fang¹, Shenping Hu¹
¹*Shanghai Maritime University, China*
- **Applied Real-time Bayesian Analysis in Forecasting Tunnel Geological Conditions**
Sou-Sen Leu¹, Tri Joko¹, Abraham Sutanto¹
¹*National Taiwan University of Science and Technology, Taiwan*
- **Design of the Late-model Key Exchange Algorithm Based on the Polymorphic Cipher**
Yifeng Yin¹, Yong Gan¹, Hongyan Liu², Yupu Hu³
¹*Zhengzhou University of Light Industry, China*
²*NO.202 Institute of China Ordnance Industry, China*
³*Xidian University, China*
- **Workplace Accidents in Finnish Manufacturing Maintenance**
Janne Haatainen¹
¹*Tampere University of Technology, Finland*
- **Orientation and Guidance of Temporary Agency Workers**
Toni Hyytinen¹
¹*Tampere University of Technology, Finland*
- **A Virtualization Approach for Distributed Resources Security in Network Manufacturing**
Lei Ren¹, Yabin Zhang¹, Yongliang Luo², Lin Zhang¹
¹*Beijing University of Aeronautics and Astronautics, China*
²*Beihang University, China*

Safety, Security & Risk Management (3)

9/12/2010 15:30 - 17:15
Room: SICILY 2502

Chairs: Victor Esteves
Yifeng Yin

Abstracts: see page 95

- **Safety Management Problems Encountered by Industrial Service Providers**
Sanna Nenonen¹
¹*Tampere University of Technology, Finland*
- **Necessary Insurance in the Service Business of the Manufacturing Industry**
Juha Vasara¹
¹*Tampere University of Technology, Finland*
- **The Exploration of Instrument of Users' Privacy Concerns of Social Network Service**
Shilei Zheng¹, Kun Shi¹, Zhu Zeng¹, Qiang Lu¹
¹*Shenzhen Graduate School, Harbin Institute of Technology, China*
- **A Reformed Lattice Gas Model and Its Application in the Simulation of Evacuation in Hospital Fire**
Weili Zhang¹, Zhengyu Yao¹
¹*Southeast University, China*
- **Carbon Capture and Geological Storage - Technologies, Risk Analysis and Prospects for Use in Brazil**
Claudia Morgado¹, Victor Esteves¹
¹*Federal University of Rio de Janeiro, Brazil*
- **A Time-dependent Flow Model for Hazmat Transportation Routing**
Hongmei Jia¹, Lin Zhang¹, Manzhen Duan¹, Gao Fu¹
¹*Hebei Polytechnic University, China*

Project Management (2)

9/12/2010 11:00 - 12:30
Room: SICILY 2402

Chairs: Christina Chin May May
Hossam Ismail

Abstracts: see page 96

- **An Iterative Backward/Forward Technique for the Scheduling of Resource-Constrained Projects within Microsoft Project**
Norbert Trautmann¹, Philipp Baumann¹
¹University of Bern, Switzerland
- **Selecting Subcontractors in Projects Using a Multicriteria Group Decision Model**
Luciana Alencar¹, Adiel Almeida¹
¹Federal University of Pernambuco, Brazil
- **A IDEF0-Based Methodology for Project Reliability Assessment**
Hossam Ismail¹, Mustafa Rashid¹, Ping Zhu¹, Jenny Poolton¹
¹University of Liverpool, United Kingdom
- **Understanding the Requirements for Project Management Maturity Models: Awareness of the ICT Industry in Malaysia**
Roslan Jamaluddin¹, Christina May May Chin¹, Chan Wai Lee¹
¹University of Nottingham, Malaysia
- **Project Data Warehouse Management with Multivariate Analysis**
Jui-Sheng Chou¹, Hsien-Cheng Tseng²
¹National Taiwan University of Science and Technology, Taiwan
²Nissan Taiwan, Taiwan
- **A Support Tool for Assessing the Impact of Design Changes During Built Environment Projects**
Helen Hindmarch¹, Andrew Gale¹, Robert Harrison²
¹University of Manchester, United Kingdom
²Arup, United Kingdom

Systems Modeling & Simulation (1)

9/12/2010 13:30 - 15:00
Room: SICILY 2402

Chairs: Szu Hui Ng
Young Chel Kwun

Abstracts: see page 97

- **Interpreting the Out of Control Signals of the Generalized Variance |S| Control Chart**
Gerardo Avendano¹, Francisco Aparisi², Jose Sanz²
¹EAN University, Colombia
²Polytechnic University of Valencia, Spain
- **Effect of Confidence Interval on Bottleneck Identification via Simulation**
Chompoonoot Kasemset¹, Voratas Kachitvichyanukul²
¹Chiang Mai University, Thailand
²Asian Institute of Technology, Thailand
- **Performance Evaluation of Adaptive Cellular Manufacturing System using Simulation**
Jibi Job¹, Madhusudanan Pillai²
¹Federal Institute of Science and Technology, India
²National Institute of Technology Calicut, India
- **Response-based Interactive Motion Generation**
Xuelin Huang¹, Xiao Song¹, Guanghong Gong¹, Dongming Chen¹, Jiajia Li¹
¹Beihang University, China
- **Application of Stochastic Approximation Methods for Stochastic Computer Models Calibration**
Jun Yuan¹, Szu Hui Ng¹, Kwok-Leung Tsui²
¹National University of Singapore, Singapore
²Georgia Institute of Technology, United States
- **Designing a Robust and Cost-Effective Screening Strategy for Diabetic Retinopathy Using Simulation Coupled with Design of Experiments**
Irene Vidyanti¹, Shinyi Wu¹, Carl Kesselman¹
¹University of Southern California, United States

Systems Modeling & Simulation (2)

9/12/2010 15:30 - 17:15
Room: SICILY 2402

Chairs: Gerardo Avendano
Chuang-Chun Chiou

Abstracts: see page 98

- **Existence of Extremal Solutions for Impulsive Delay Fuzzy Differential Equations in (E, N^n, d, L)**
Young Chel Kwun¹, Jeong Soon Kim¹, Ja Hong Koo¹, Jin Han Park²
¹Dong-A University, South Korea
²Pukyong National University, South Korea
- **Analysis of Check-in Procedure Using Simulation: a Case Study**
Maurizio Bevilacqua¹, Filippo Emanuele Ciarapica¹
¹Università Politecnica delle Marche, Italy
- **Aeroengine Modules Performance Deterioration Modeling and Assessment**
Rui Zhu¹, Dezhi Wu¹, Zhirong Liu¹, Xinye Wu¹, Yinbiao Guo¹
¹Xiamen University, China
- **Modified Max-Plus Linear Representation for Inserting Time Buffers**
Shotaro Yoshida¹, Hirotaka Takahashi², Hiroyuki Goto¹
¹Nagaoka University of Technology, Japan
²Yamanashi Eitwa College, Japan
- **Impact of Bilateral Contracts on the Price Volatility in the Electricity Market**
Guanli Wang¹, Hui-Chih Hung¹
¹National University of Singapore, Singapore
- **Switched Hybrid Speed Control of Elastic Systems with Backlash**
Muhammad Burhan Khan¹, Fahad Mumtaz Malik¹, Khalid Munawar¹
¹National University of Science and Technology, Pakistan
- **Link-16 Model Architecture for Multiple Nets Simulation in NS-2**
Zhao-Xiong He¹, Xing Liu¹, Xue-Min Liu¹, Jinglun Zhou¹
¹National University of Defense Technology, China

Poster Session 2

9/12/2010 All-Day Display
Room: SICILY 2501

- p.99 **Study on Comprehensive Evaluation for Small and Medium Enterprises in Supply Chain Finance**
Ying Chen¹, Chen Hong¹
¹Shanghai University, China
- p.99 **Manufacturing Strategies in the Auto Industry in Brazil and Spain**
Jose Salles¹, Milton Vieira Jr.¹, Rodrigo Vaz¹, Rosangela Vanalle¹
¹Nove de Julho University, Brazil
- p.99 **A Fuzzy Integrated Vendor-Buyer Inventory Policy of Deteriorating Items Under Credibility Measure**
Chien-Chung Lo¹
¹National United University, Taiwan
- p.99 **Simulation Study of SCM-Related Factors on Retailer's Performance Using Structural Equation Model**
Erkan Bayraktar¹, Chang-Ching Lin², Kazim Sari³
¹Bahcesehir University, Turkey
²Tamkang University, Taiwan
³Beykent University, Turkey
- p.99 **Implementing a Green Manufacturing System Based on a Novel Assessment Model**
Chang-Lin Yang¹, Rong-Hwa Huang¹, Min-Sun Wuang¹, Yu-Chun Chen¹
¹Fu Jen Catholic University, Taiwan
- p.99 **An EMQ Model with Time-Varying Demand Over the Product Life Cycle**
Kuei-Chen Chiu¹, Chun-Wu Yeh², Chih-Chiang Fang³
¹Hsing Kuo University of Management, Taiwan
²Kun Shan University, Taiwan
³Shu-Te University, Taiwan
- p.99 **Toward Managing Demand Variability by Neuro-fuzzy Approach**
Wen-Pai Wang¹, Chun-Chih Chiu¹
¹National Chin-Yi University of Technology, Taiwan
- p.99 **Reinforcement Learning Based Scheduling in Semiconductor Final Testing**
Zhicong Zhang¹
¹Dongguan University of Technology, China
- p.100 **A Hybrid Ant Colony Optimization Method for Scheduling Batch Processing Machine in the Semiconductor Manufacturing**
Chengtao Guo¹, Zhibin Jiang¹, Hongtao Hu¹
¹Shanghai Jiao Tong University, China
- p.100 **Agent-Based Scheduling with a Learning Effect Model**
C.Y. Lam¹, W.H. Ip¹, C.H. Wu¹, S.L. Chan¹
¹The Hong Kong Polytechnic University, Hong Kong
- p.100 **New High Performing Hybrid Particle Swarm Optimization for Permutation Flow Shop Scheduling Problem with Minimization of Makespan**
Yi Sun¹, Min Liu¹, Chaoyong Zhang², Liang Gao², Kunlei Lian¹
¹State Key Laboratory of Digital Manufacturing Equipment and Technology, China
²Huazhong University of Science & Technology, China
- p.100 **How Managerial Ties Influence Firm Performance in China: A Perspective of Sensemaking**
Xue-Feng Zhu¹, Yuan-Qiong He¹
¹Huazhong University of Science and Technology, China
- p.100 **GenCos Decision-Making Constrained by Operational and Financial Requirements**
Guillermo Gutierrez¹
¹Instituto Tecnológico de Morelia, Mexico
- p.100 **The Urban Bus Supplier Selection Aided by AHP and Additive Scoring Model**
Tomasz Blaszczyk¹, Tomasz Wachowicz¹
¹Karol Adamiecki University of Economics, Poland
- p.100 **The Applications of Maximal Covering Model in Typhoon Emergency Shelter Location Problem**
Anping Pan¹
¹Wenzhou University, China
- p.100 **Comparing Product Development Models to Identify Process Coverage and Current Gaps: A Literature Review**
Armin Sharafi¹, Thomas Wolfenstetter¹, Petra Wolf¹, Helmut Krcmar¹
¹Technische Universität München, Germany
- p.101 **Research on Integrated Modeling Method for Modular Fixture Based on OO Technology**
Jin Cai¹, Guolin Duan¹, Tao Yao¹, Hongjing Xu¹, Xuebin Chen²
¹Hebei University of Technology, China
²Hebei Polytechnic University, China
- p.101 **Simulation and Experimental Verification of Linear Interpolation Cutter Path Error Produced by NC Servo Characteristics of Machining Center**
Hua Qiu¹, Chao Lin²
¹Kyushu Sangyo University, Japan
²Chongqing University, China
- p.101 **A Comparative Study for Designing Cellular Manufacturing Systems with Assembly Aspects by a New Approach**
Jamal Aliabadi¹, M.Bahador Aryanezhad¹, Reza Tavakkoli-Moghaddam²
¹Iran University of Science and Technology, Iran
²University of Tehran, Iran
- p.101 **Prediction of State of User's Behavior Using Hidden Markov Model in Ubiquitous Home Network**
Wonjoon Kang¹, Dongkyoo Shine¹, Dongil Shin¹
¹Sejong University, South Korea
- p.101 **Study of the Terminal-Pair Reliability in Grid Networks**
Young C. Park¹
¹Baekseok University, South Korea
- p.101 **An ADT Comprehensive Evaluation Method Based on Bayesian**
Lizhi Wang¹, Tongmin Jiang¹, Xiaoyang Li², Jingrui zhang¹
¹Beijing University of Aeronautics and Astronautics, China
²Beihang University, China
- p.101 **A Heuristic Approach for Transportation Planning Optimization in Container Yard**
Minghua Zhu¹, Xiumin Fan¹, Qichang He²
¹Shanghai Jiao Tong University, China
²Shanghai Key Lab of Advanced Manufacturing Environment, China
- p.101 **Alleviating Shaft Torsional Vibrations Caused by Electric Arc Furnaces for a Low Capacity Turbine Generator by Using a Flywheel Coupler**
Whei Min Lin¹, Chia Chun Tsai¹, Chi Hsiang Lin², Ta Peng Tsao³
¹National Sun Yat-Sen University, Taiwan
²Kao-Yuan University, Taiwan
³National Taipei University of Technology, Taiwan
- p.102 **A New Methodology to Integrate Human Factors Analysis and Classification System with Bayesian Network**
Yanfu Wang¹, Shahrzad Faghihroohi², Xiu Ming Hu², Min Xie²
¹National University of Singapore & China University of Petroleum, Singapore
²National University of Singapore, Singapore
- p.102 **Effects of Psychological Empowerment on the Performance of R&D Employees: Moderating Effects of LOC**
Yang Di¹, Yi Li²
¹Alcatel Lucent Technologies, China
²Shanghai University, China
- p.102 **The Analysis and Design of Urban Bridge Safety Early-warning Management System**
Rong Liu¹
¹Chongqing Jiaotong University, China
- p.102 **Pavement Performance Evaluation Based on Entropy Weight Radar Chart Theory**
Hongyun Yao¹, Rongjun Xing¹, Pai Xu¹
¹Chongqing Jiaotong University, China

- p.102 **Development of an Explanatory Model of Cycles within Development Processes by Integrating Process and Context Perspective**
Stefan Langer¹, Arne Herberg¹, Klaus Körber¹, Udo Lindemann¹
¹Technische Universität München, Germany
- p.102 **Research on the Innovation BT Mode of Urban Rail Transit Projects Based on Project Control Right - A Case of Shenzhen Metro Line 5**
Ling Yan¹, Yufei Zhao¹, Yaling Du¹
¹Tianjin University of Technology, China
- p.102 **Ideation for the Problem of Component Placing**
Christine Chou¹, Steven Kimbrough², Thomas Lee²
¹National Dong Hwa University, Taiwan
²University of Pennsylvania, United States
- p.102 **An Automatic Ontology Building Method with Case-base in Semantic SOA Integrated System**
Qicheng Zhang¹, Lin Zhang², Yongliang Luo¹, Baolu Wang¹
¹Beihang University, China
²Simulation Center, China
- p.103 **Embracing Open Innovation and Disruptive Innovation as Strategies for Chinese Companies**
Jun Jin¹, Shanchao Wu¹, Aijun Ruan², Xiaomei Wang³
¹Zhejiang University, China
²Taizhou University, China
³Zhejiang Forestry College, China
- p.103 **Niche Strategy, Interfirm Network and Technological Innovation of Latecomer Firms: A Case from China**
Lijuan Wu¹, Haiting Huang², Ju Li³, Xinmin Peng¹, Ruiqing Huang¹
¹Zhejiang Wanli University, China
²Zhejiang Textile & Fashion College, China
³Zhejiang University, China
- p.103 **University-Industry Cooperation and its Impact on the Innovation Performance of Firms in China: A Conceptual Model**
Shichao Li¹, Jun Su¹
¹Tsinghua University, China
- p.103 **Application of Digital Watermark Technology for Movie Data in Streaming Distribution Service**
Manabu Hirakawa¹, Junichi Ijima¹
¹Tokyo Institute of Technology, Japan
- p.103 **An Objective Measure of Risk**
Jiang Hong¹, Jian Zhai¹
¹Zhejiang University, China
- p.103 **Engaging Employees in Organizational Commitment: The Training Quality in Industrial Management**
Chien-Pei Ko¹, Chen-Chen Ko², Shiu-Chuan Chiu¹
¹Ching-Kuo Institute of Management and Health, Taiwan
²National Changhua University of Education, Taiwan
- p.103 **The Moderator Role of Organizational Structure and Network on International Entrepreneurship: A Study of Chinese Firms**
Hairu Yang¹
¹Shanghai Financial College, China
- p.104 **Cost of Quality Modeling: Extension and Improvement**
Mohamed K. Omar¹, Sharmeeni Murugan¹, Nor Akramin Bin Mohamad¹, Mohamad Razali¹
¹University Technical Melaka, Malaysia
- p.104 **Internal Customer Orientation and Internal Supply Chain Management**
Qionglei Yu¹, Yi Qiu¹, Wei Feng¹
¹Zhejiang Gongshang University, China
- p.104 **Customer-Supplier Relationship: a Multicases Study in the Brazilian Automotive Industry**
Rosangela Vanalle¹, Alexandre Dias¹, Jose Salles¹
¹Nove de Julho University, Brazil

Decision Analysis & Methods (7)

10/12/2010 09:00 - 10:30
Room: NAPLES 2703

Chairs: Hsiao-Min Chuang
Mohammed-Aminu Sanda

Abstracts: see page 105

- **Oligarchic's Game Equilibrium Model in Regional Power Markets with Financial Options**
Fang Wang¹
¹Human Agricultural University, China
- **Assignment Problem Formulation Under Competence and Preference Constraints**
Raoudha Mkaouar Hachicha¹, El Mouloudi Dafaoui¹, Abderrahman El Mhamedi¹
¹University of Paris 8, France
- **Selection of Construction Method for Large Section Soil Tunnel and Analysis of Monitoring Results During Construction Period**
Ya Li Xu¹, Zeng Rong Liu¹, Quan Zhang²
¹Xi'an University of Architecture and Technology, China
²Longyan Institute of Architectural Design and Research, China
- **Classifying and Ranking DMUs of Different Efficiency Levels**
Gongbing Bi¹, Linlin Zhang¹
¹University of Science and Technology of China, China
- **Modeling and Simulation of Operational Decisions in Manufacturing Enterprises Based on SD and BSC**
Ying Yang¹
¹Donghua University, China

Technology & Knowledge Management (7)

10/12/2010 11:00 - 12:30
Room: NAPLES 2703

Chairs: Prattana Punnakitikashem
Yuya Kajikawa

Abstracts: see page 106

- **Technological Upgrading Path for Latecomer Firms in Global Value Chain: The Case of YOUNGOR from China**
Xinmin Peng¹, Na Li¹, Changjuan Zheng¹, Lijuan Wu¹, Ruiqing Huang¹
¹Zhejiang Wanli University, China
- **The Role of Outbound-Revealing Open Innovation: Theoretical Extension and Case Study**
Pengfei Wang¹, Yisha Zhou¹
¹Zhejiang University, China
- **Visual Knowledge Service Market for Employment Information Grid**
Chunlai Chai¹
¹Zhejiang GongShang University, China
- **The Representation and Analysis Methods of Domain Knowledge of Scientific Research Organization Based on Knowledge Network**
Ruishen Chen¹, Haifeng Zhao¹, Guanwei Huang¹
¹Tongji University, China
- **Science and Technology Map Analysis of a Multi-Disciplinary Field Case Study of Aerospace Engineering**
Hiroko Nakamura¹, Hajime Sasaki¹, Naoki Shibata¹, Yuya Kajikawa¹, Ichiro Sakata¹, Shinji Suzuki¹
¹The University of Tokyo, Japan
- **The Role of Organizational Factors in the International Technology Transfer Project Success: An Empirical Investigation**
Mohammadreza Taghva¹, Seyed Habibollah Tabatabaieian¹, Kamal Mohammadi¹
¹Allameh Tabatabaie University, Iran

Intelligent Systems (1)

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0/12/2010 09:00 - 10:30
Room: NAPLES 2603

Chairs: Suthep Butdee
R. J. Kuo

Abstracts: see page 107

- **Decision Making of Facility Locations Based on Fuzzy Probability Distribution Function**
Pei-Chun Lin¹, Shuming Wang¹, Junzo Watada¹
¹Waseda University, Japan
- **Predicting Customer-supplier Relationships Using Network-based Features**
Junichiro Mori¹, Yuya Kajikawa¹, Ichiro Sakata¹, Hisashi Kashima¹
¹The University of Tokyo, Japan
- **Using Constraints Filtering and Evolutionary Algorithms for Interactive Configuration and Planning**
Paul Pitiot¹, Michel Aldanondo¹, Meriem Djefel², Elise Vareilles¹, Paul Gaborit¹, Thierry Coudert³
¹Toulouse University - Mines Albi, France
²Toulouse University - Mines Albi, INSA, France
³Toulouse University - ENIT / LGP, France
- **Decision Tree Based Demand Forecasts for Improving Inventory Performance**
Pradip Kumar Bala¹
¹Xavier Institute of Management, Bhubaneswar, India
- **SVR Sagittal Balance of a Biped Robot Controlling the Torso and Ankle Joint Angles**
J. P. Ferreira¹, Manuel Crisóstomo², António Coimbra²
¹Superior Institute of Engineering of Coimbra, Portugal
²University of Coimbra, Portugal
- **Fault Detection Methods for Reconfigurable Manipulators Via Decentralized Adaptive Fuzzy Nonlinear Observer**
Peng Lu¹, Bo Zhao¹, Yuanchun Li¹
¹Jilin University, China

Intelligent Systems (2)

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Room: NAPLES 2603

Chairs: Manuel Crisóstomo
Ichiro Sakata

Abstracts: see page 108

- **Composite Orthonormal Basis for Person-Independent Facial Expression Recognition**
Wenfei Gu¹, Y.V. Venkatesh¹, Cheng Xiang¹
¹National University of Singapore, Singapore
- **An Intelligent Approach of Obtaining Feasible Machining Methods and Their Selection Priorities Based on Features Using Neural Network**
Guang Ru Hua¹, Qing Hui Dai¹
¹North China Electric Power University, China
- **Mixed Signature Descriptor with Global Invariants for 3D Motion Trajectory Perception and Recognition**
Jianyu Yang¹, Y. F. Li², Keyi Wang¹
¹USTC/Cityu Joint Center, China
²City University of Hong Kong, Hong Kong
- **Body Sensor Network Based Prosthesis Training System for Leg-Amputees**
Chenn-Jung Huang¹, Chin-Fa Lin¹, Po-Yen Tsai¹, Yu-Wu Wang¹, Ching-Yu Li¹, Heng-Ming Chen¹, Jia-Jian Liao²
¹National Dong Hua University, Taiwan
²National Taiwan University, Taiwan
- **Algorithm of an Optimization Route for Collaborative 2 Swarm Robots**
Suthep Butdee¹, Kritsak Tangchaidee¹
¹King Mongkut's University of Technology North Bangkok, Thailand

Engineering Economy & Cost Analysis (1)

10/12/2010 09:00 - 10:30
Room: NAPLES 2702

Chairs: Poul Kyvsgaard Hansen
Songlin Chen

Abstracts: see page 109

- **Towards Customer Evaluation Based Product Performance Modeling**
Chathura Withanage¹, Hae-Jin Choi², Truong Ton Hien Duc³, Taezoon Park¹
¹Nanyang Technological University, Singapore
²Chung Ang University, South Korea
³Singapore Institute of Manufacturing and Technology, Singapore
- **Synthesizing Judgment Matrix and Risk-odds Matrix for Small-sample Combined Forecasting**
Li Xie¹, Ru-Xiang Wei¹, Da-Wei Zhang¹
¹Naval University of Engineering, China
- **Evaluation of TOU Price Based on Responses of Customer**
Yu Cheng¹, Nana Zhai¹
¹North China Electric Power University, China
- **Analogy in Contemporary Engineering Economy: Mortgage Loan and Bond Pricing**
Kai Lam¹
¹The Chinese University of Hong Kong, China
- **A New Approach to Improve Functionality for Cost Reduction in Construction Project**
Shujing Li¹
¹Tianjin Institute of Urban Construction, China

Engineering Economy & Cost Analysis (2)

10/12/2010 11:00 - 12:30
Room: NAPLES 2702

Chairs: Kai Lam
Jean-Jacques Chanaron

Abstracts: see page 110

- **Life Cycle Costing Analysis for Poly-Silicon Photovoltaics Production Processes in Japan**
Toshihiro Inoue¹, Yuya Kajikawa¹, Koichi Yamada¹
¹The University of Tokyo, Japan
- **An Extended Pricing Model for Wireless Oligopolies**
Hailing Zhu¹, Andre L Nel¹, Wimpie Clarke¹
¹University of Johannesburg, South Africa
- **Particle Swarm Optimization Algorithm for Optimization of Utility Systems in Chemical Processes**
Wenzhi Dai¹, Lin Mu², Hongchao Yin², Wei-Haur Lam²
¹Dalian University of Technology, Dalian university of Technology, China
²Dalian University of Technology, China
- **Thermoeconomics Cost Modeling of Marine Gas Turbine Generating Unit**
Youhong Yu¹, F.R Sun¹
¹Naval University of Engineering, China
- **New Service Development Success Factors: A Managerial Perspective**
Dayu Jin¹, Kah-Hin Chai¹, Kay Chuan Tan¹
¹National University of Singapore, Singapore

Production Planning & Control (5)

10/12/2010 09:00 - 10:30
Room: NAPLES 2602

Chairs: Jack Su
Radha Ramanan Thiyagarajan

Abstracts: see page 111

- **The Impact of Product Proliferation in Reverse Supply Chain**
Vincent Huang¹, Jack Su¹
¹National Tsing Hua University, Taiwan
- **Performance Evaluation of a Mixed-model Assembly Line with a Bypass Subline Under Line Stop Condition**
Mitsutoshi Kojima¹, Kenichi Nakashima²
¹Nagoya Institute of Technology, Japan
²Kanagawa University, Japan
- **Development of a Hybrid Model for Manufacturing Cell Formation Using Linguistic Theory**
Nirjhar Roy¹
¹M.N. National Institute of Technology, India
- **Novel Approach for Balancing Manual Automobile Assembly Based on Genetic Algorithm**
Qiu Hua Tang¹, Zhonghua Xiao¹, Yanli Liang¹, Mingxing Deng¹, Zhongmin Xi²
¹Wuhan University of Science and Technology, China
²Technique Center of Dongfeng Peugeot Citroen Automobile Company, China
- **Multi-objective Particle Swarm Optimization with Negative Knowledge for U-shaped Assembly Line Worker Allocation Problems**
Ronnachai Sirovetnukul¹, Parames Chutima²
¹Mahidol University, Thailand
²Chulalongkorn University, Thailand
- **Risk Analysis and Response for Flow Construction**
Zhiyong Yang¹, Zhuofu Wang¹, Bingsheng Liu¹, Zurong Chen¹
¹Hohai University, China

Systems Modeling & Simulation (3)

10/12/2010 11:00 - 12:30
Room: NAPLES 2602

Chairs: Young Chel Kwun
Dong Li

Abstracts: see page 112

- **A Novel Compatible Runtime Infrastructure under Complex Environment**
Yingchao Yue¹, Tiaoyuan Xiao¹, Wenhui Fan¹, Shucai Tang¹, Xin Chen¹
¹Tsinghua University, China
- **A Reflective Memory Network Based Runtime Infrastructure**
Xin Chen¹, Wenhui Fan¹, Yingchao Yue¹
¹Tsinghua University, China
- **A Performance Comparison between the Extended Kanban Control System (EKCS) and the Traditional Kanban Control System (TKCS)**
Alvin Ang¹, Rajesh Piplani¹
¹Nanyang Technological University, Singapore
- **Production Simulation using a Distributed Node-Aware System**
Haw-Ching Yang¹, Z.-B. Wang¹, J.-S. Peng¹
¹National Kaohsiung First University of Science and Technology, Taiwan
- **CAD\CAM System for Formed Turning Tool Grinding**
Wei He¹, Y. Q. Tan², Min Ren¹
¹University of Electronic Science and Technology of China, China
²University of Jilin, China
- **A Decomposition Based Algorithm for the Scheduling Problem in Wafer Fabrication System**
Hongtao Hu¹, Zhibin Jiang¹, Chengtao Guo¹, Ran Liu¹
¹Shanghai Jiao Tong University, China

Service Innovation & Management (4)

10/12/2010 09:00 - 10:30
Room: NAPLES 2701

Chairs: Bingwen Yan
Hongyi Sun

Abstracts: see page 113

- **The Mediating Role of Incubator Capability for the Relationship between Incubator Resources and Incubator Performance**
Yanjie Li¹, Dechang Lin¹, Hongwei Wang², Qiang Lu¹, Hong Yin¹
¹Shenzhen Graduate School, Harbin Institute of Technology, China
²Nanshan Technology Venture Service Center, China
- **Enhanced User Experience Design Based on User Behavior Data by Using Theory of Inventive Problem Solving**
Song-Kyoo Kim¹
¹Samsung Electronics Co., Ltd, South Korea
- **Towards a Knowledge-based Taxonomy for Value Creation Patterns in Professional Service Firms: Cases of Law Firms in People's Republic of China**
Jiang Wei¹, Jiangqi Zhao¹, Yang Liu¹
¹Zhejiang University, China
- **State Space Model Based Dimensional Errors Analysis for Rigid Part in Multistation Manufacturing Processes**
Ying-xue Tong¹, Yan Wu¹, Bin-kuan Ma², Faping Zhang³, Jiping Lu³
¹Sha Shi University, China
²Information Center of Xi'an Dong Fang Group Co,Ltd, China
³Beijing Institute of Technology, China
- **Measuring After-sales Service Quality in Automobile Retail: an Application of the SERVQUAL Instruments**
Bingwen Yan¹, Patrick McLaren¹
¹Cape Peninsula University of Technology, South Africa
- **Quality Function Deployment of Cement Industry in Pakistan**
Khazal Dar¹, Muhammad Usama Shairi¹, Muhammad Asim²
¹National University of Sciences and Technology, Pakistan
²Center for Advance Studies in Engineering, Pakistan

Operations Research (4)

10/12/2010 11:00 - 12:30
Room: NAPLES 2701

Chairs: Rashed Sahraeian
Xiaoming Liu

Abstracts: see page 114

- **A Multi-Period Return-Risk Measure Portfolio Optimization Problem Incorporating Risk Strategies**
Hossein Parsa¹, Mingzhou Jin², Xuechun Liang³
¹Mississippi State Uni, United States
²Mississippi State University, United States
³Nanjing University of Technology, China
- **A Nested Genetic Optimization Algorithm for the Capacitated Facility Location Problem**
Shan Huen Huang¹, Pei Chun Lin², Hou Ip Chan²
¹National Kaohsiung First University of Science and Technology, Taiwan
²National Cheng Kung University, Taiwan
- **A Weighting Scheme and a Model for Computing Alternative Pareto Optimal Solutions of Multi Objective Linear Programming Problems**
Yashar Maali¹, Nezam Mahdavi-Amiri²
¹University of Technology, Sydney, Australia
²Sharif University of Technology, Iran
- **Evaluation of the Solution for an Optimal Shelf Allocation for SPA Retailers**
Takuya Suganuma¹, Hiroyuki Goto¹
¹Nagaoka University of Technology, Japan
- **NonLinear Quintic Schrodinger Equations with Complex Initial Conditions, Limited Time Response**
Magdy El Tawil¹, Hanafy El Zoheiry¹, Sherif E. Nasr²
¹Cairo University, Egypt
²Fayoum University, Egypt
- **Scheduling and Planning the Outbound Baggage Process at International Airports**
Markus Frey¹, Christian Artigues², Rainer Kolisch¹, Pierre Lopez²
¹Technische Universität München, Germany
²Université de Toulouse, France

Quality Control & Management (4)

10/12/2010 09:00 - 10:30
Room: NAPLES 2601

Chairs: Caiwen Zhang
Shaoxi Wang

Abstracts: see page 115

- **Quality Control via Simplex Search-Based Model Free Optimization for Injection Molding**
Xiangsong Kong¹, Zhijiang Shao¹, Xi Chen¹
¹Zhejiang University, China
- **Generic Compliance Check Tool in Examining the Conformity of Company-Specific Standards to Public Standards**
Karen Tso-Sutter¹, Lars Karg¹
¹SAP Research, Germany
- **Applying Fast Fourier Transform (FFT) to Statistic Quality Control**
Youxiang Cui¹, Jianxin You¹, Feng Luo¹
¹Tongji University, China
- **SWOT Analysis and the Key Driving Factors as an Indicator of the Current Situation of CNG Industry of Pakistan**
Sahar Tanveer¹, Muhammad Asim²
¹National University of Sciences and Technology, Pakistan
²Center for Advance Studies in Engineering, Pakistan
- **An Evaluation of the Relationship Between Emotional Labor and Volunteers' Positive Affective Delivery: In Non-Profit Organizations in Taiwan**
Chen-Yang Shih¹, Pei Wen Liao¹, Chung-Hsiung Fang¹
¹National Taiwan Normal University, Taiwan
- **Multistage Process Monitoring Using Survival Analysis Regression Models**
Shervin Asadzadeh¹, Abdollah Aghaie¹, Yaser Samimi¹
¹K.N. Toosi University of Technology, Iran

Eco-system and New Business Model

10/12/2010 11:00 - 12:30
Room: NAPLES 2601

Chairs: Qiang Lu
Yongjiang Shi

Abstracts: see page 116

- **Illustrating the Concept of Business Ecosystem from Views of Bionics and Competitive Network and Related Theories**
Jie Hou¹, Qiang Lu¹, Yongjiang Shi², Ke Rong²
¹Shenzhen Graduate School, Harbin Institute of Technology, China
²University of Cambridge, United Kingdom
- **Critical Factors for Technology Roadmapping: Case Studies**
Jie Hou¹, Qiang Lu¹, Yongjiang Shi², Ke Rong², Qun Lei³
¹Shenzhen Graduate School, Harbin Institute of Technology, China
²University of Cambridge, United Kingdom
³Han's Laser Company, China
- **From Value Chain, Supply Network, Towards Business Ecosystem (BE): Evaluating the BE Concept's Implications to Emerging Industrial Demand**
Ke Rong¹, Jie Hou², Yongjiang Shi¹, Qiang Lu²
¹University of Cambridge, United Kingdom
²Shenzhen Graduate School, Harbin Institute of Technology, China
- **Renew Business Ecosystem: A Comparison Study between Traditional and Shanzhai network**
Ke Rong¹, Yongjiang Shi¹
¹University of Cambridge, United Kingdom
- **Shanzhai (山寨) Manufacturing and its Network Behaviors**
Yongjiang Shi¹, Ke Rong¹
¹University of Cambridge, United Kingdom
- **A New Operations Model of Logistics Service Providers: Evidence from EA Company**
Xiaoling Zhang¹, Qiang Lu¹, Cai Wen Zhang²
¹Shenzhen Graduate School, Harbin Institute of Technology, China
²Sun Yat-sen University, China

Reliability & Maintenance Engineering (2)

10/12/2010 09:00 - 10:30
Room: SICILY 2502

Chairs: Zhixin Yang
Young C. Park

Abstracts: see page 117

- **Recent Trends in Systems Performance Monitoring & Failure Diagnosis**
K P Ramachandran¹, Khalid Fathi¹, B K Nagaraja Rao²
¹*Caledonian College of Engineering, Oman*
²*COMADEM International, United Kingdom*
- **Energy Consumption Modeling for Machine Tools After Preventive Maintenance**
Jihong Yan¹, Dingguo Hua¹
¹*Harbin Institute of Technology, China*
- **Reliability Optimization Model of Standby Phased-mission Systems Based on BDD**
Tao Hu¹, Jian Yu¹, Jian-Jun Yang¹, Ming-en Sheng²
¹*Naval University of Engineering, China*
²*Naval 702 Factory, China*
- **Boundary-approaching Particle Swarm Optimization in Reliability-based Design Optimization**
I-Tung Yang¹, Yi-Hung Hsieh¹
¹*National Taiwan University of Science and Technology, Taiwan*
- **An Imperfect Process Strategy for a Repairable Product with Production Correction and Maintenance**
Gwo-Liang Liao¹, Yar-Tin Chang², Bor-Ling Shaw³, Hung Yu Huang¹
¹*National Taitung University, Taiwan*
²*Tian-Mu Junior High School, Taiwan*
³*China University of Science & Technology, Taiwan*
- **A General Framework to Make A Sequential Preventive Maintenance Decision Using Proportional Hazards Model (PHM)**
Ping Jiang¹, Ming Zuo², Jae-Hak Lim³, Bo Guo¹
¹*National University of Defense Technology, China*
²*University of Alberta, Canada*
³*Hanbat National University, South Korea*

Reliability & Maintenance Engineering (3)

10/12/2010 11:00 - 12:30
Room: SICILY 2502

Chairs: Ramachandran K P
Mohammad AlDurgam

Abstracts: see page 118

- **Reliability Model of Multiplatform Phased Mission System Based on CPN**
Chun-Hui Yang¹, Jian-Jun Yang¹, Peng Dong¹, Ming Li²
¹*Naval University of Engineering, China*
²*China Shipbuilding Industry Corporation, China*
- **Machine Condition Monitoring and Fault Diagnosis based on Support Vector Machine**
Jianhua Zhong¹, Zhixin Yang¹, Seng Fat Wong¹
¹*University of Macau, Macau*
- **Improving Healthcare Reliability by Integrating Six-sigma in a Business Process Modeling and Analysis Strategy**
Zied Ben Atallah¹, Amar Ramudhin¹
¹*École de Technologie Supérieure, Canada*
- **Optimal Maintenance Policy for Three-States POMDP with Quality Measurement Errors**
Mohammad AlDurgam¹, Salih O. Duffuaa¹
¹*King Fahd University of Petroleum and Minerals, Saudi Arabia*
- **Application of Accelerated Failure Model for Oil and Gas Industry in Arctic Region**
Abbas Barabadi¹, Javad Barabady¹, Tore Markeset²
¹*University of Tromsø, Norway*
²*University of Stavanger, Norway*
- **Assurance Technologies for Electric Point Machine Controlled by Optical LAN**
Yoshiyuki Hirano¹, Gen Kogure¹, Shinichi Ryoki¹, Tadao Miura¹, Takashi Kunifuji¹, Yuichiro Den¹
¹*East Japan Railway Company, Japan*

Global Manufacturing & Management (1)

10/12/2010 09:00 - 10:30
Room: SICILY 2402

Chairs: Yong-Zai Lu
Sue Morton

Abstracts: see page 119

- **Implementation Framework for Collaboration in a Non-Hierarchical Business Network**
Ahm Shamsuzzoha¹, Timo Kankaanpää¹, Luis Carneiro², Petri Helo¹
¹*University of Vaasa, Finland*
²*INESC-Porto, Portugal*
- **The Investigation on Research Opportunities for the Applications of the Internet of Things in Semiconductor Wafer Fabrication**
Yong-Zai Lu¹
¹*Zhejiang University, China*
- **Engineering Portal with Coordination Mechanism for Collaborative Product Development**
Zhixin Yang¹, Jie Zhou¹
¹*University of Macau, Macau*
- **Analysis of Green Product Knowledge, Green Behavior and Green Consumers of Indonesian Students (Case Study for Universities in Surabaya)**
Togar Panjaitan¹, I Nyoman Sutapa¹
¹*Petra Christian University, Indonesia*
- **Job Characteristics, Work Commitments, and Job Satisfaction of the Thai Workers in Taiwan**
PeiWen Liao¹, FurHsing Wen², Chin-Cheh Yu¹
¹*National Taiwan Normal University, Taiwan*
²*Soochow University, Taiwan*
- **Flexible Management of Resource Service Composition in Cloud Manufacturing**
Lin Zhang¹, Hua Guo¹, Fei Tao¹, Yongliang Luo¹, Nan Si¹
¹*Beihang University, China*

Global Manufacturing & Management (2)

10/12/2010 11:00 - 12:30
Room: SICILY 2402

Chairs: Anil Varma
Ahm Shamsuzzoha

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- **A Measure to Estimate the Novelty of Component Combinations in Technologies**
Toru Takahashi¹, Tomoko Saiki¹
¹*Tokyo Institute of Technology, Japan*
- **Green Manufacturing Using Integrated Decision Tools**
Clifford Chan¹, K.M. Yu², K.L. Yung²
¹*Queensland University of Technology, Australia*
²*Hong Kong Polytechnic University, Hong Kong*
- **Partner Selection of Chinese Firms' in Cross-boarder M&A: Perspectives From Complementary Assets and Global Value Chain**
Xiaobo Wu¹, Xi Yang¹
¹*Zhejiang University, China*
- **Study on The Utility Model and Utility Equilibrium of Resource Service Transaction in Cloud Manufacturing**
Ying Cheng¹, Fei Tao¹, Lin Zhang¹, G. H. Xi², D. Zhao³
¹*Beihang University, China*
²*Wuhan University of Technology, China*
³*The University of Michigan-Dearborn, United States*
- **Multi-layer Analysis of Relationships within Production Networks: A Case Study of the Huangyan Mould Cluster in China**
Lubin Wu¹, Yongyi Shou¹
¹*Zhejiang University, China*

Poster Session 3

10/12/2010 All-Day Display
Room: SICILY 2501

- p.121 **Elucidating the Supplier Integration Spectrum on Strategic Supplier Selection Problem Using an Integrated Fuzzy Approach**
Chun-Ying Shen¹, Kun-Tzu Yu², Chi-Ho Chiou¹
¹Ching Yun University, Taiwan
²Tzu Chi College of Technology, Taiwan
- p.121 **A System Dynamic Model for an Open-loop Reverse Logistic Channel**
Chuang-Chun Chiou¹
¹Dayeh University, Taiwan
- p.121 **Multiobjective Hybrid Genetic Algorithm for Reverse Logistics Network Design of Inventory Systems with Backordering**
Jeong-Eun Lee¹, Kyong-Gu Rhee², Hee-Hyol Lee¹
¹Waseda University, Japan
²Donggeui University, South Korea
- p.121 **Study of the Performance of Reverse Logistics for Supply Chain Management**
Chia-Ching Tu¹, Shu Hsuan Chang¹, Chia-Jung Tu², Andrew C. H. Lee³
¹National Changhua University of Education, Taiwan
²Kainai University, Taiwan
³Chihlee Institute of Technology, Taiwan
- p.121 **Clustering Spanish Households E-Waste Disposal Behavior Using Self-Organizing Feature Maps**
Sebastián Lozano¹, Jorge Esparza¹, Belarmino Adenso-Díaz², José Manuel García¹
¹Universidad de Sevilla, Spain
²Universidad de Oviedo, Spain
- p.121 **Measurement of the Integration Level of Supply Chain Based on Complex Network**
Bo Shu¹, Hao Chen¹
¹Yanshan University, China
- p.121 **Impact of Financial Crisis on Performance of Listed Logistics Companies: Evidence from China**
Xin Li¹, Xiaobo Zhu²
¹Chongqing University of Technology, China
²Bridgestone Europe NV/SA (Belgium), Belgium
- p.121 **Optimizing Feeder Arrangement of a PCB Assembly Machine for Multiple Boards**
Yongzhong Wu¹, Ping Ji²
¹South China University of Technology, China
²The Hong Kong Polytechnic University, Hong Kong
- p.122 **Study on Subsidy Policies of Waste Recycling**
Tao Zhao¹, Mali Zong¹
¹Tianjin University, China
- p.122 **Linguistic Set-Valued Decision Making Based on LWA Operator**
Xuezheng Zhang¹, Qian Zhu¹, Zheng Pei¹
¹University of Xihua, China
- p.122 **Empirical Research on the Relationship Between Managerial Ownership and Earnings Quality in China**
Zhijun Zhang¹, Zushan Wang¹
¹Wuhan Institute of Technology, China
- p.122 **Influence Factor Analysis of Product Development Process**
Kunlun Zhang¹, Bo Guo¹
¹National University of Defense Technology, China
- p.122 **Real-Time Scheduling Method for Steelmaking-Continuous Casting**
Kai Chen¹, Zhong Zheng¹, Yi Liu¹, Xiaoqiang Gao¹
¹Chongqing University, China
- p.122 **Effective Design of Production Systems**
Vladimir Srajer¹, Antonin Miller¹
¹University of West Bohemia, Czech Republic
- p.122 **A Comprehensive Assessment Method for Reliability Enhancement Testing Based on D-S Theory of Evidence**
Junbo Wan¹, Tongmin Jiang¹, Xiaoyang Li¹, Xi Liu¹
¹Beihang University, China
- p.122 **Prediction of Service Life of Pre-stressed Concrete Bridge by Fault Tree Analysis Model**
Xiongjun He¹, Phan Anh Nguyen¹
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