

2008 Portland International Conference on Management of Engineering & Technology

**Cape Town, South Africa
27-31 July 2008**

Pages 1-528

**IEEE Catalog Number: CFP08766-PRT
ISBN 13: 978-1-890843-17-5**

Table of Contents

Model Based Services Discovery and Management	1
<i>Richard Taylor, Chris Tofts</i>	
Technology Alignment under Two Strategic Contexts	9
<i>Victoria E. Erosa Martín, Pilar E. Arroyo López</i>	
Intangible Asset Value Evaluation and MOT	17
<i>Tadao Sumi</i>	
IBM's Strategic Direction as Global Player	24
<i>Raymond Jordan</i>	
The Role and Contribution of the Chief Technology Officer (CTO): Perceptions of Core Purpose, Barriers and Enablers	30
<i>Chris van der Hoven, David Probert, Rob Phaal</i>	
The Relationship between CTO and Performance	42
<i>D. Cetindamar, O. Pala</i>	
Technology Gap among Suppliers and Pop & Mom Stores as a Key Distribution Cost Issue	50
<i>Victoria E. Erosa Martín</i>	
"From Follower to Leader: Strategic Analysis of Thailand, the World's Largest Hard Disk Drive Manufacturer"	61
<i>Pattharaporn (Patt) Suntharasaj</i>	
Strategic Cluster Management for Technological Capability Building: A Case of Hard Disk Drive Cluster in Thailand	69
<i>Chayakrit Charoensiriwath</i>	
The Research of the RTIE Performance by Using the Projection Pursuit Model	73
<i>Yafei Luo, Chunyan Guo</i>	
Applying Neural Network to Explore the Influences of the Patent Indicators upon the Market Value of the American Pharmaceutical Companies	80
<i>Yu-Shan Chen, Ke-Chiun Chang, and I-Chun Shih</i>	
Strategic Planning for Management of Technology of China's High-tech Enterprises	89
<i>Weiwei Wu, Bo Yu</i>	
Analysis of National Technological Competitiveness: South Africa's Civil Aircraft Industry	99
<i>Daphney H. Mayindi, Michael O. Kachienga</i>	
Ethanol from Sugar Cane: a successful alternative energy strategy for Brazil	108
<i>Ericson de Paula</i>	
Global Strategy for the Solar Cell Industry Using Integral Core Knowledge Management: Comparative Research with Liquid Crystal Displays and the Semiconductor Industry	119
<i>Yukihiko Nakata</i>	
Towards a National Design Scoreboard: A Model to Enable Comparison of Performance between Countries	126
<i>Cecilia Malvido, James Moultrie, Finbarr Livesey, Kul Pawar, Johann Riedel, Ahmad Beltagui, Jillian Macbryde, Veronica Martinez, Steve Evans, Bill Nixon, Peter Demian</i>	
System Management: Mapping Tool For Complex Systems	138
<i>Laura Martinez-Solano</i>	
Growth Strategy of Chinese Major Information Appliances Makers to Global Enterprises: Case Study Comparison Analysis among Three Companies from an Innovation Creation View Point	154
<i>Masanori Namba</i>	
The Clothing Industry for Growth in South Africa	166
<i>Kem Ramdass, Leon Pretorius</i>	

Table of Contents

Patterns of Collaboration in Emerging Fields of Trans-Disciplinary Science: The Case of Sustainability Science.....	174
<i>Masaru Yarime, Yoshiyuki Takeda, Yuya Kajikawa</i>	
Determining the Most Important Factors for Sustainable Energy Technology Selection in Africa: Application of the Focus Group Technique.....	181
<i>Marie-Louise Barry, Herman Steyn, Alan Brent</i>	
Towards Modelling Macro Influencing Factors to Address South African Energy Challenges: A Focus on Electricity Demand and Climate Change	188
<i>Clemens Engelbrecht, Alan C Brent</i>	
The Leverage Effect of Holistic Engineering and Technology Management to Sustain a Developing Economy	197
<i>Dietmar H Winzker, Leon Pretorius</i>	
Sustainable 3D Mould Design and Manufacturing.....	204
<i>Janez Kopac, Joze Balic, Franc Cus</i>	
How Does Reengineering Sustain Economy? The Case of a Paper Industry in a Developing Country.....	210
<i>François Ravalison, Patrick Rajaonary, Elisé Raveloson, Etienne Rakotomaria, Joëlle Gazérian, Cécile Loubet, Jean Michel Ruiz</i>	
Network Analysis on the Collaborative Research of Research Institutions	220
<i>Heyoung Yang, Sangki Jeong, Hyuck Jai Lee</i>	
Role of Formal Boundary Spanning Structure and Changing Pattern of University-Industry Collaborative Research in University of Tokyo	231
<i>Ohta, Tomohiro, Lee, Kyoung-Joo, Kakehi, Kazuhiko</i>	
Clusters in the EU Member Countries: National and Regional Case Stories with Aalborg University as Partner.....	240
<i>Sven Hvid Nielsen, Karl Brian Nielsen</i>	
i-Manufacturing Project for Collaboration-Based Korean Manufacturing Innovation	253
<i>Kwangyeol Ryu, Jeonghoon Shin, Seokwoo Lee, Horzong Choi</i>	
A VO Formation Process of a Project-Based Organization with Trust Evaluation Using Goal Achievement Probability.....	259
<i>J. Mun, M. Shin, H. Wi, K. Lee, M. Jung</i>	
Development of a Real-Time Collaborative Process Planning Management System for the Mould Industry.....	266
<i>Y. K. Leung, K. L. Choy, C. K. Kwong</i>	
Merging the Porter's Diamond Model with SWOT Method in Order to Analyze the Iranian Technology Parks Competitiveness Level	276
<i>Mohammad Naserbakht, Ezzatollah Asgharizadeh, Ali Mohaghar, Javad Naserbakht</i>	
Modelling Effects of Incentives for Industry Competitiveness Using a System Dynamics Approach.....	284
<i>Martin Kaggwa, Jasper L. Steyn, Anastassios Pouris</i>	
Empirical Analysis of R&D Capability in China's Automotive Firms	294
<i>Xianjun Lee, Nanxiang Xie, Li Pang</i>	
Developing a Systems Engineering Management Model for Use by Eskom Enterprises in Order to Gain a Competitive Advantage	304
<i>W. Zarczynski</i>	
Enhancing A Country's Competitiveness through "National Talent Management Framework	314
<i>Pattharaporn Suntharasaj, Dundar F. Kocaoglu</i>	
Evolution of the Korea's STI Policy Framework.....	328
<i>Jang-Jae Lee, Doohee Hwang, Jong-Yun Baeg, Hye-Young Oh</i>	

Table of Contents

R&D as a Source of Innovation in South Africa	337
<i>Beeuwen A Gerrits, André J Buys</i>	
HDM for Developing National Emerging Technology Strategy and Policy Supporting Sustainable Economy: A Case Study of Nanotechnology for Thailand's Agriculture	344
<i>Pisek Gerdsri, Dundar F. Kocaoglu</i>	
U-health and Regulatory Implications in Korea	351
<i>Kiryong Ha, Jeonwoo Lee</i>	
Determining Research and Development Expenditure Targets Based on an Affordability Index	356
<i>David R. Walwyn</i>	
Effect of Function and Role of Research Council on the Performance of Government Research Institutes: Focusing on Economic and Human Society Research Council in Korea	361
<i>Soon Cheon Byeon, Byung Yong Hwang</i>	
Causal Relationship Analysis Based on DEMATEL Technique for Innovative Policies in SMEs	373
<i>Chia-Han Yang, Jou-Chen Chen, Joseph Z. Shyu, Gwo-Hshiung Tzeng</i>	
The Innovation Communities and Their Ecological Mechanism in Creative Industry	380
<i>Dai Weihui, Zhou Xuan, Yu Yue</i>	
A Performance and Monitoring Evaluation System & Its Applications for National R&D Programs: A Case of Industrial Application Technology in Korea	386
<i>Moon-Soo Kim, Sung Yong Lee, Kyung Il Choi, Byung Woon Kim, Hak Yeon Lee, Chang Woo Choi</i>	
A Dynamic View of Technological Regime Concept: Toward A Framework for Industrial Policies in Developing Countries	395
<i>Mohammad Hosein Rezazadeh Mehrizi, Aram Mozafari</i>	
A Reflective Review of Disruptive Innovation Theory	402
<i>Yu Dan, Hang Chang Chieh</i>	
A Pattern Language for Innovation Management	415
<i>Andres Fortino</i>	
Employee Rating Systems and Innovation	420
<i>Fatima Mohammed Albar</i>	
What Structure of a Corporation is Innovative?	426
<i>Junzo Watada, Shinji Imoto, Yoshiyuki Yabuuchi</i>	
Creating Open Source Innovation: Outside the Software Industry	433
<i>Christina Raasch, Cornelius Herstatt, Nizar Abdelkafi</i>	
A Conceptual Model of the Impacts of Networking on Innovative Performance of New Technology-Based Firms	443
<i>Kai-Ying A. Chan, Leon A.G. Oerlemans, Tinus M.W. Pretorius</i>	
A Conceptual Framework for the Alignment of Innovation and Research Using Technology	454
<i>René Pellissier</i>	
A Study on the Relationship between Organizational Slack and Technology Innovation1	464
<i>Weifeng Yao, Xunmin Qiu, Bin Chang</i>	
Virtual Customer Integration in the Innovation Process: Evaluation of the Web Platforms of Multinational Enterprises (MNE)	469
<i>René Rohrbeck, Fee Steinhoff, Felix Perder</i>	
Henley SME Innovation Study 2007	479
<i>George Tovstiga, David W. Birchall</i>	
The Ethnic Chinese Style of Corporate Innovation	486
<i>Chen Kuan-Cheng</i>	

Table of Contents

Toward the Development of Multi-Dimensional Index for Creative Management	497
<i>Suhyun Hwang, Sueyeon Kim, Jinwoo Kim</i>	
Understanding the Emergence of Disruptive Innovation in Air Force Science and Technology Organizations	506
<i>David E. Shahady, Alfred E. Thal, Jr., Alok Das, Alan R. Heminger, Kent C. Halverson</i>	
A Dynamic Innovation Model for Managing Capabilities of Continuous Innovation.....	519
<i>Shari S. C. Shang, Se-Hwa Wu, Chen-Yen Yao</i>	
Knowledge Networks for Managing Innovation Projects	529
<i>CSL Schutte, ND du Preez</i>	
A Framework for Managing the Innovation Process	546
<i>Niek D du Preez, Louis Louw</i>	
The Nature of Engineering Work in Innovation Activities.....	559
<i>Salih Çevikarslan</i>	
Open Innovation in the Energy Sector.....	565
<i>Rishad P. Hakkim, Ted R. Heidrick</i>	
Leveraging Competitiveness and Economic Growth through Linking Innovation Systems to Wealth Creation in Emerging Countries	572
<i>Carlos Scheel, Jaime Parada</i>	
Intellectual Property Scorecard: Strategically Capitalising on Value Created by Innovation and R&D	584
<i>Irfaan Khota, Leon Pretorius</i>	
An Exploration on Community-Based Innovation: Indaba Music as a Case in Point.....	593
<i>Nina D. Ziv</i>	
Innovative Performance in African Technical Projects: A Multi-Level Theory.....	603
<i>H. Titilayo Seriki, Martin Hoegl, K. Praveen Parboteeah</i>	
Innovation Capability and Competitive Advantage: A Case Study of Two Brazilian Firms1.....	606
<i>Adriana Marotti de Mello, Wander Demonel de Lima, Eduardo Villas Boas, Roberto Sbragia, Roberto Marx</i>	
How to Create and Sustain an Open and Radical Innovation Capability? An Empirical Case Study Analysing Ongoing Radical Innovation Projects at Vodafone R&D.....	618
<i>Christian Stüer, Stefan Hüsig, Stefanie Biala</i>	
Preparing for Takeoff: Breakthrough Process Innovation at Rolls-Royce	629
<i>Simon Ford, Lan Tao and David Probert</i>	
A Case Study in Metals for Inventions and Innovations	639
<i>Michael C. Connelly, J. A. Sekhar</i>	
Collaborative, Heuristic and Normatively Guided Techniques to Creativity	656
<i>C. M. Chang</i>	
On the Relationship between Organizational Slack and the Level of Innovation of Firms	664
<i>Leon Oerlemans, Marthinus Pretorius</i>	
Diffusion of Emerging Technologies: An Innovative Mixing Approach.....	672
<i>Guillermo Rueda, Dundar F. Kocaoglu</i>	
Policy Making Diagnostics of Iran's Fuel Cell Technology.....	698
<i>H. Aliverdilou, M.S. Jabal Ameli, N. Bagheri Moghaddam</i>	
Nanotechnology: Canada's Position in Scientific Publications and Patents	704
<i>M. Fatih Yegul, Mustafa Yavuz, Paul Guild</i>	

Table of Contents

BT R&D and Innovation in Korea: Status and Features	714
<i>Hyun-Dae Cho</i>	
Using of the Advanced Technologies in Turkish Automotive Industry	736
<i>Süleyman Semiz, Mustafa Gölcü, Ceren Göde</i>	
Engineering the Soul of Management in the Nano Era	742
<i>Vijay K. Arora</i>	
Influencing Entrepreneurial Intent for New Technology Intrapreneurs and Entrepreneurs in a University Environment	754
<i>Cory R. A. Hallam, Anita Leffel, David Womack</i>	
The Fit between Entrepreneurs' Personality (ENTP) and the Profile of the Venture (VP) They Manage and Business Success: An Exploratory Study	764
<i>Dov Dvir, Arik Sadeh, Ayala Malach-Pines</i>	
Entrepreneurial Orientation of Spin-offs Created by University Faculties and Institute Researchers in Korea	771
<i>HaengA Seo, Junghua Han, Namjae Cho</i>	
Entrepreneurial Journey: Emergence from Entrepreneurial Intent to Opportunity Realization	777
<i>Min-Seok Cha, Zong-Tae Bae</i>	
The Moderating Effect of Governance Form on the Relationship between Corporate Technological Entrepreneurship Activities and Corporate Financial Performance: An Empirical Study on Chinese High-Tech Firms	787
<i>Xuebing Peng, Gang Zhang</i>	
An Exploration of the Chinese Entrepreneur Aptitude Scale in a Sample of College Students in Taiwan	794
<i>Wan-Yu Chen, Calvin S. Weng, Hui-Ying Hsu</i>	
IT Governance Decision Support Using the IT Organization Modeling and Assessment Tool	802
<i>Mårten Simonsson, Pontus Johnson, Mathias Ekstedt</i>	
Exploring the Characteristics and Impact of Information Technology Crisis on a Company	811
<i>Ecehan Sofuoglu, Nuri Basoglu</i>	
Customer Lock-In in ICT Services Business: Designing and Managing Customer Driven Business Model	818
<i>Mikko Pynnönen</i>	
Intel Case Study: Software On Demand	829
<i>Guillermo Rueda, Catherine Spence</i>	
Information Technology Interoperability Awareness: A Taxonomy Model Based on Information Requirements and Business Needs	846
<i>Sinan Cayir, A. Nuri Basoglu</i>	
A Real-time Data Monitoring and Management System for Thailand's First National Sizing Survey	856
<i>Supiya Charoensiriwath</i>	
A Real-Time Database Management System for Logistics Systems: A Case Study	864
<i>K.L. Choy, Edmond L.H. Choy, T.C. Poon</i>	
A RFID-Based Location Tracking Scheme for Inbound Operations in Warehouse Environment	872
<i>Kenneth T.C. Poon, K.L. Choy, Henry C.W. Lau</i>	
Development of a Framework for Sub-Topic Discovery from the Web	878
<i>Eray Uluhan, Bertan Badur</i>	
Managing Information and Distributing Knowledge in a Knowledge-Intensive Business Environment	889
<i>Jari Soini</i>	
Online Statistical Monitoring of Critical Patient Data increases Patient Safety	895
<i>Svante Lifvergren, Alexander Chakunashvili, Bo Bergman, Peter Docherty</i>	

Table of Contents

Transformational Capabilities of ICT: A Technology Management Perspective in Construction	900
<i>Irtishad Ahmad, Maung K. Sein</i>	
Information Technology Strategy for Six Sigma Projects in a Thai University	917
<i>Jaruek Chookittikul, Wajee Chookittikul</i>	
Reviewing the views of ICT in Development	924
<i>G. Harindranath, Maung K. Sein</i>	
Last-Mile Knowledge Engineering: Quest for the Holy Grail?	938
<i>Robert Benjamin</i>	
Leveraging Unstructured Information Using Topic Modelling	955
<i>J.W. Uys, N.D. du Preez, E.W. Uys</i>	
Role of Organizational Culture for Knowledge Sharing in Projects.....	962
<i>Ajmal Mian, Josu Takala, Tauno Kekäle</i>	
Knowledge Acquisition in Human Resource Management Based on Rough Sets	969
<i>Shinya Imai, Che-Wei Lin, Junzo Watada, Gwo-Hshiung Tzeng</i>	
Looking for a Symbiosis between Organizational Memory and Social Networks	975
<i>José Manuel Cárdenas, Ana Villanueva, Mauro Spinola</i>	
The Use of Non-intrusive User Logging to Capture Engineering Rationale, Knowledge and Intent during the Product Life Cycle.....	981
<i>James M Ritchie, Raymond CW Sung, Heather Rea, Theodore Lim, Jonathan R Corney, Iris Howley</i>	
Knowledge Building in Participative Projects.....	990
<i>José C. Alvarez, Kelly Vodden</i>	
A Holistic Network Approach to Study the Structure of Technological Network by the Block Modeling of Social Network Analysis.....	998
<i>Calvin S. Weng, Wan-Yu Chen, Hui-Ying Hsu, Kuei-Kuei Lai, Shu-Jung Chen</i>	
Managing Engineering and Technology with Better Interoperability in Smart Organizations	1012
<i>Ricardo Jardim-Goncalves, Maria Jose Nunez, Amparo Roca-Togores, A. Steiger-Garcia</i>	
Virtual Community and Customer Participations in User Centric Internet Service Ventures.....	1020
<i>Tzyy Jane Lai, Chih Yung Chen</i>	
The Application Reduction Challenge	1028
<i>Willard F. Stratton</i>	
How SMEs in Western Cape of South Africa Use ICT	1043
<i>Kevin.A.Johnston, Salah K. Kabanda, Sameer Adams, Ezzat Davids</i>	
Risk-Reduction Strategies for Internet Shopping of Search Goods and Experience Goods	1052
<i>Hui-Ying Hsu, Wan-Yu Chen, Calvin S. Weng, Shang-Ping Lin</i>	
Decision Making Typologies in Strategic Planning.....	1060
<i>Alper Çelebi</i>	
A Decision Support Model for Location Selection: Bank Branch Case.....	1069
<i>Ferhan Cebi, Zeynel Zeren</i>	
A Decision Framework for the Evaluation of the Knowledge Management Tools.....	1075
<i>Gülçin Büyüközkan, Orhan Feyzioglu</i>	
Techniques and Methods for Uncertainty Management	1085
<i>Jan Kwakkel, Scott Cunningham</i>	
Technological Decision Process at Lean Production System	1098
<i>Alvair Silveira Torres Jr., Ana Gati Wechsler</i>	

Table of Contents

Scenario Planning for Climate Strategies Development by Integrating Group Delphi, AHP and Dynamic Fuzzy Cognitive Maps	1103
<i>Roberto Biloslavo, Slavko Dolinšek</i>	
Measurement of the Innovation Front End: Viewpoint of Process, Social Environment and Physical Environment.....	1112
<i>Pekka Berg, Jussi Pihlajamaa, Jarno Poskela, Tea Lempiälä, Udo Haner, Ade Mabogunje</i>	
A Future-Based Risk Assessment for the Survivability of Long-Range Strike Systems	1121
<i>Alfred E. Thal, Jr., William D. Heuck, Jr., Gary W. Kinney</i>	
Lean Innovation: Introducing Value Systems to Product Development.....	1129
<i>Günther Schuh, Michael Lenders, Solveigh Hieber</i>	
The Influence of Lean Concepts on the Product Innovation Process of a Brazilian Shoe Manufacturer.....	1137
<i>Ana Maria Gati-Wechsler, Alvair Silveira Torres Junior</i>	
Assessment Of Innovation Risk Factors In New Product Development	1145
<i>Gülçin Büyüközkan</i>	
Strategic Renewal and Management Control in the Front-End of Innovation: The Importance of Input Control Mechanisms.....	1161
<i>Jarno Poskela</i>	
Strategic Analysis of Mass Customization Strategies in Product Development.....	1171
<i>Gülçin Büyüközkan</i>	
Manufacturing Role in Simple Product Development at a Multi-Project Environment.....	1179
<i>Ana Maria Gati-Wechsler, Paulo Tromboni de Souza Nascimento</i>	
Structuring the Development Process According to the Project Context: Two Case Studies.....	1189
<i>N. du Preez, A. Basson, D. Lutters, H Nieberding</i>	
The Impact of Top Management Team Conflict on New Product Development: The Case of Taiwan and the United States	1206
<i>Tsun-Jui Hsieh, Hsien-Jui Chung</i>	
Autonomous Teams and New Product Development	1214
<i>Peerasit Patanakul, Jiyao Chen, Gary S. Lynn</i>	
PMEX - A Performance Measurement Evaluation Matrix for the Development of Complex Products and Systems	1224
<i>Stefan Johnsson, Christer Norström, Anders Wall</i>	
Transferring Value-Added Activities in New Product Development: A Multiple Case Study in the Automotive Sector within Modular Strategy Context.....	1235
<i>Paulo A. Cauchick Miguel, Evandro Prieto</i>	
Enhancing Product and Service Development: A Training Program for Small ICT Companies	1247
<i>Jari Leppäniemi</i>	
A Case Study of Increasing Market Competitiveness through Shortening the Research and Development Cycle.....	1255
<i>Kuei-Kuei Lai, Yang-Kuang Ou, Tung-Yu Tsai, Ta-Tung Chen</i>	
Concurrent Engineering and the Automotive Supplier Industry in South Africa.....	1265
<i>Mwendwa Mutisya, Jasper L Steyn, Jaqui Sommerville</i>	
Promoting the Early-Adopter Feedback Process Using a Firm-Initiated Online Community	1273
<i>Joong Hyun Kim, Shin Hyung Kang, Zong-Tae Bae</i>	
The Myth and Reality of Project Management.....	1279
<i>Aaron Shenhar, Dov Dvir, Joca Stefanovic</i>	

Table of Contents

Communication Issues in Projects Management	1280
<i>Marly M. Carvalho</i>	
Current status of Project Management in South Africa	1285
<i>Leon Uys, Marie-Louise Barry</i>	
A Framework for Managing Quality on System Development Projects.....	1295
<i>Herman Steyn</i>	
Project Manager Personality as a Factor for Success.....	1303
<i>John D. Bedingfield, Alfred E. Thal</i>	
Placing Project Partakers' Emotions, Attitudes and Norms in the Context of Project Vision, Artifacts, Leader Values, Contextual Performance and Success.....	1315
<i>Zvi H. Aronson, Aaron J. Shenhar, Richard R. Reilly</i>	
The Impact of Project Governance Principles on Project Performance.....	1324
<i>Michiel C. Bekker, Herman Steyn</i>	
Implementing a Project Office and Phase Model for Biotechnology Capital Projects	1331
<i>John McCreery, Lanny Bown, Stephen Eubanks</i>	
Effective Leadership for Culturally Diverse Technology Projects.....	1345
<i>Nader Asgary, Hans Thamhain</i>	
From Feasibility to Reality: A Predicament for the Mining Industry in South Africa	1351
<i>Gideon. D. van Aswegen, Manfred Köster</i>	
Partnering on Information Management Projects in South Africa.....	1363
<i>Herman Bisschoff, Siebert J. Benade</i>	
Risk Assessment Modelling for the South African Construction Industry.....	1371
<i>Krige Visser, Pierre Joubert</i>	
An Evaluation of the Adequacy of the Most Commonly Used Pro forma Contracts within the South African Mining Construction Industry.....	1380
<i>Alwyn Smith, Michiel C Bekker</i>	
An Integrated Risk Management Model for Construction Projects	1389
<i>Zhen-Yu Zhao, Lin-Ling Duan</i>	
How the Metacognition Skills Work in Decision Making Processes of the Project	1395
<i>Ko Ito</i>	
The Most Important Success Factors for Implementation of Government Projects in Developing Countries	1400
<i>Pedrito António Jó, Marie-Louise Barry</i>	
Project Delivery Problems: Why Can't We Make Them Go Away?	1410
<i>Jeffrey S. Busch</i>	
Using the Project Integrated Management Methodology to Enhance the Development, Viability and Sustainability of the SA PBMR and PWR Component Manufacturing Sector	1423
<i>Manfried Koster, Jabulani Mangena</i>	
The Sources of Success and Failure of Information Technology Projects: Project Managers' Perspective.....	1430
<i>Oksan Imamoglu, Sitki Gozlu</i>	
Research on the Gap between Skillful/Non Skillful Users of a Cellular Phone, and Anticipation of the Risks Arising out of Lack of Information in Japan	1436
<i>Yukiko Nishimura, Takeaki Sugimura, Masatoshi Iwasaki, Hiromichi Oikawa, Yuuki Yonekawa, Takuro Ito, Kunihiro Nishimura, Katsuya Tamai</i>	
Benefits Realisation Management in Information Technology Projects.....	1442
<i>D. C. Smith, H. Dombo, N. Nkehli</i>	

Table of Contents

An Investigation into the Benefits of the Implementation of an Enterprise Project Management System in Large Organisations in Developing Economies.....	1456
<i>Ketshidile Tlhomelang, Marie-Louise Barry</i>	
Simulation Results on Project Completion Time	1462
<i>Amnon Gonen</i>	
Training Program for R&D Staff.....	1466
<i>Chen-Mei Li, Tien-Lung Yang, Po-Chang Lin</i>	
A Framework for Managing R&D for Thai Research Community Using Text Information Exploitation	1470
<i>Alisa Kongthon, Choochart Haruechaiyasak, Marut Buranarach, Santipong Thaiprayoon, Niran Angkawattanawit</i>	
A Strategic Framework for Attracting R&D Center of Foreign Companies and Its Application in the IT Industry	1477
<i>Kwanyoung Kim, Chanhoo Song, Jung Mann Lee, Kiyong Om</i>	
Technology Licensing Contracts and R&D in Duopoly	1486
<i>Shinji Kobayashi, Shigemi Ohba, Masaaki Ohba</i>	
On the Commercialisation of "Trailing" Knowledge and Intellectual Property	1491
<i>J. E. Amadi-Echendu, Alan John</i>	
Scenario Based Priority Setting of R&D Issues: A Case Study of Membrane Technology in National Iranian Gas Industry	1497
<i>Naser Bagheri Moghaddam, Mahdi Sahafzadeh, Seyyed Mohammadsadegh Emamian, Abdullah Irankhah</i>	
Technology Management Model Application in Concept Approval Decision - Case Study: Concept of Operations and Mission Need Assesment for a Defence System.....	1506
<i>Sezin Bizkevelci, Murat Arda Çakmak</i>	
Mixed Representations of Science and Technology Data for Use in the Management of Technology	1514
<i>Scott W. Cunningham, Jan Kwakkel</i>	
Fuzzy MCDM Approach to R&D Project Evaluation in Taiwan's Public Sectors.....	1523
<i>Wen-Hsiang Lai, Pao-Long Chang, Ying-Chyi Chou</i>	
A Study for MNC's Internship-Type R&D in China.....	1533
<i>Kenji Nagasato, Koji Tanabe</i>	
Comparative Study of Government R&D Investment by Research Activities: Cases of Korea, U.S, and U.K.	1539
<i>Herin Ahn, Kil-Woo Lee, Hye-Jung Joo, Mijeong Kim</i>	
The Effects of Leadership on Technological Innovation Performance: A Comparison of R&D and P&D.....	1548
<i>Selva Kiliç, Nazlihan Ugur</i>	
The Right Attitude to Rain	1555
<i>David Walwyn</i>	
Assessment Driven Process Modeling for Software Process Improvement	1570
<i>Timo Mäkinen, Timo Varkoi</i>	
Proactive Elicitation of Software Process Improvements	1576
<i>Timo Varkoi, Timo Mäkinen</i>	
Developing Methods for the Identification of Competences Needed for Software Production and Utilization in Industry	1580
<i>André Leme Fleury, Afonso Fleury</i>	
Pair Programming for Information Systems Students New to Programming: Students' Experiences and Teachers' Challenges	1587
<i>Wallace Chigona, Michael Pollock</i>	

Table of Contents

Literature Overview of Modularity in World Automotive Industries	1595
<i>Shamsuzzoha Ahm, Petri Helo, Tauno Kekäle</i>	
Technology Diffusion Planning for ERP in Aircraft Manufacturing Industry	1603
<i>Asif Rashid, Uzma Mahmood</i>	
Empirical Study of the Evolving PC Technology System and the Measurement of Its Performance Divide.....	1614
<i>Ozgur Dedehayir, Saku Mäkinen</i>	
The Relationship between Supervisory Support and Work-Family Conflict: The Guanxi, LMX, and Emotional Intelligence Perspectives	1621
<i>Bi-Fen Hsu, Wan-Yu Chen, Mei-Ling Wang, Yen-Yu Lin</i>	
Research on Chinese Perceptions of Implied Hazard for Warning Signal Words and Surrounding Shapes Based on Computer Experiments.....	1628
<i>Yi Wang, Kai Wang, Qingguo Ma</i>	
Cooperative Advertising and Pricing in a Dynamic Stochastic Supply Chain: Feedback Stackelberg Strategies	1634
<i>Xiuli He, Ashutosh Prasad, Suresh P. Sethi</i>	
Incorporating the Cost of Quality in Supply Chain Design	1650
<i>Akif Asil Bulgak, Chaher Alzaman, Amar Ramudhin</i>	
Management Truck Tire Information in Logistic Industry Using RFID Technology.....	1656
<i>La-or Kovavisaruch, Pichit Lertudomtana, Sakol Horungruang</i>	
Level of Knowledge and Formalization of Logistics and SCM in the Brazilian Automakers Suppliers	1666
<i>Kazuo Hatakeyama, Patrícia Guarnieri</i>	
The Impact of RFID Technology on the Formulation of Logistics Strategy	1673
<i>YY Cheung, KL Choy, CW Lau, YK Leung</i>	
The Business Value of Mobile RFID Services in Korea	1681
<i>Dae-Seung Parka,b, Pil-Sun Heoa, Myung-Hwan Rima, Yong-Jae Parka</i>	
A System Dynamics Modeling Approach for the Strategic Management of TFT-LCD Supply Chains.....	1689
<i>Ya-Sheng Cheng, Chuang-Chun Chiou, Cheng-Cheng Tai</i>	
Structure of Interfirm Networks in Regional Clusters.....	1698
<i>Yuya Kajikawa, Yoshiyuki Takeda, Ichiro Sakata, Katsumori Matsushima</i>	
Exploring Correlation of Industry Cluster Alternative with Cluster Formation and Correlation of Cluster Formation with Cluster Effect: A Case Study of Taiwan Precision Machinery Industry.....	1704
<i>James K. C. Chen, , Benjamin J. C. Yuan, Joe Z.Y. He</i>	
Risk Management in Offshore Outsourcing of Software Production Using the ICTSupported Unified Process Model: A Cross-case Study	1721
<i>Anicet Yalaho, Nazmun Nahar</i>	
The Off-shoring Strategies Layout of Taiwan's ICT/IT Industry in China	1749
<i>Ting Lin Lee</i>	
The MNC Subsidiaries of Brazilian Multinational Companies.....	1759
<i>Cristina Rodrigues de Borba Vieira, Mauro Zilbovicius</i>	
National and Cultural Diversity in Global Innovation Teams Creativity and Innovation as a Function of Cultural Team Composition	1764
<i>Ricarda B. Bouncken, Viviane A. Winkler</i>	
A Study of the Relationship between Job Attribute and Employee Workplace Friendship: Taiwan and Mainland China	1773
<i>Chun-Te Lin, An-Tien Hsieh, Chun-Ling Lu</i>	

Table of Contents

An Improved Model for Quantifying an Organisational Quality Culture	1781
<i>Stephanus Johannes Viljoen, Cornelis Cristo van Waveren</i>	
Co-Evolution of Technology and Policies Study of Precedents of Clean Development Mechanism (CDM) Projects for the Prevention of Climate Change.....	1790
<i>Minori Takada</i>	
The Interlinking of Entrepreneurs, Grassroots Movements, Public Policy and Hubs of Innovation: The Rise of Cleantech in New York City.....	1796
<i>Mel Horwitch, Bala Mulloth</i>	
An Indian Experience of Environmental Management System.....	1806
<i>Vinod K. Khanna</i>	
Engineering Management in Developing Economies: The EMIDE Strategies to Meet the New Challenges	1817
<i>C. M. Chang</i>	
Technological Management for Sustainable Development and Competitiveness in the Internationalization Context.....	1827
<i>Clandia Maffini Gomes, Isak Kruglianskas</i>	
Global Sourcing of Information Technology in the Middle East: The Case of Qatar	1837
<i>Selma Limam Mansar, Randy Weinberg</i>	
The Selection of Investment Criteria for Taiwanese High-Tech Firms in China: Study of Grey Relation Analysis.....	1843
<i>Chia-Han Yang, Joseph Z. Shyu, Gwo-Hshung Tzeng</i>	
Using Methods and IT Tools Innovatively for the Management of International IS Development Projects	1851
<i>Tommi Katainen, Nazmun Nahar</i>	
Transformation Of India Into A Knowledge Society.....	1864
<i>Akkanad M. Isaac</i>	
Whither The CIO? Evolution from Keeper of the Infrastructure to Firm Innovator.....	1878
<i>Andres Fortino</i>	
Doctoral seminar to introduce the activity of corporate R&D to Ph.D students	1887
<i>Isaburo Fukawa</i>	
Managing Individual Autonomy to Increase Intrinsic Motivation within a New Product Development Organization in Japan.....	1905
<i>Tsunetoshi Horie, Atsushi Inuzuka and Yasuo Ikawa</i>	
The Management of R&D Organizational Climate through Diagnosis of Individual Potentials	1911
<i>Kunio Shirahada, Kiyoshi Niwa</i>	
Insights into Supporting Complex Systems under Conditions of Obsolescence.....	1918
<i>Maria M. Marshall, Keith R. Lambert</i>	
The Effect of Multiple Organizational Interventions on Suicidal Behavior	1924
<i>Renier Steyn</i>	
A Systematic Approach to Retaining and Increasing the Number of Engineering Graduates in Order to Strengthen a Regional Economy.....	1930
<i>Bahman Ghorashi</i>	
A Knowledge Management System for Disseminating Semi-Structured Information in a Worldwide University	1936
<i>Peter E. Maher, Janet L. Kourik</i>	
Redefining Technology Management Education: The New Managerial Imperatives.....	1943
<i>Nina D. Ziv</i>	

Table of Contents

The Triad of Credentialing Processes in Engineer Quality Regulation: Accreditation, Certification, and Licensure/Registration	1955
<i>Shimei Jang, Fangzhen Yu</i>	
Developing Systems Engineers	1963
<i>Duarte Gonçalves</i>	
Research Characteristics and Agenda of Technology Management Discipline in Turkey.....	1973
<i>Hacer Ansal, Huriye Aygoren, Umut Ekmekci</i>	
Engineering Education in Orissa - Is it Sustainable?	1985
<i>Pranabesh Dash Mitali Monalisa</i>	
Developing Curriculum for Professionals of Intellectual Property	1998
<i>Byun Jung Wook, Lee Byung Chul, Kim Yun Bae, Lee Hee Sang</i>	
A Management Concept of Competencies Improvement for Students with Prior Vocational, Advanced Education, and Work Experience in Technical Fields	2007
<i>Florian Pape, Hans H. Gatzen</i>	
Transforming Technology Management Education: Value Creation-Learning in the Early Twenty-First Century	2015
<i>Mel Horwitch, Edward A. Stohr</i>	
Foresight on the Effect of Technology Advancement on the Quality of Life by Developing Narrative Scenarios.....	2027
<i>Doyun Park, Eun Oh, Jaeseung Jung</i>	
Empirical Research on the Technology Opportunities Analysis Based on Morphology Analysis and Conjoint Analysis.....	2041
<i>Wang Jiwu, Huang Lucheng, Li Jiang, Li Jian</i>	
A Diffusion Model to Growth Phase Forecasting of 3G Industry in Taiwan	2048
<i>Chen-Chun Lin, Ying-Hwa Tang, Joseph Z. Shyu, Yi-Ming Li</i>	
Determination of Performance Criteria for ERP Software Technology.....	2057
<i>Gul Tekin Temur, Sitki Gozlu</i>	
Investigation of Performance Criteria for Health Information Systems	2066
<i>Dilek Ozdemir, Sitki Gozlu</i>	
From Gut Feel to Educated Approximations: Towards an Integrated Approach for Technology Valuation	2073
<i>M.C. Dissel, D. R. Probert, R. Mitchell</i>	
Assessment System for Feasibility Analysis of National R&D Programs	2081
<i>Yoon Been Lee, Jiyoung Park</i>	
A Comparison of a Technology Development Methodology with a Strategy-Based Balanced Scorecard Normative Model	2089
<i>Minerva Garcia, Cory Hallam, William T. Flannery</i>	
Investigating the Impact of Internet in Eliminating Social Exclusion: The Case of South Africa	2094
<i>Wallace Chigona, Fidel Mbhele, Salah Kabanda</i>	
The Progress of the Strategic Technology Roadmap of METI (Ministry of Economy, Trade and Industry of Japan): Practical Business Cases and Sustainable Manufacturing Perspective	2102
<i>Kenichi Fukuda, Masayoshi Watanabe, Motoki Korenaga, Katsumasa Seimaru</i>	
Mapping the Knowledge Evolution and Network of Technology Roadmapping (TRM) Using Bibliometric Analysis.....	2115
<i>Nathasit Gerd Sri, Alisa Kongthon, Ronald S. Vatananan</i>	

Table of Contents

Applying Change Management Approach to Guide the Implementation of Technology Roadmapping (TRM)	2134
<i>Nathasit Gerdsri, Phensoame Assakul, Ronald S. Vatananan</i>	
Towards Systematic Innovation Methods: Innovation Support Technology that Integrates Business Modeling, Roadmapping and Innovation Architecture	2141
<i>Hitoshi Abea, Akihiko Suzukib, Minoru Etohc, Shigeki Sibagakid, Shunichi Koikee</i>	
The Development of Simplified Technology Roadmapping for Use by Japanese Chemical Companies	2150
<i>Masakatsu Fujii, Yasuo Ikawa</i>	
Computer-Assisted Roadmapping: A Case Study in Energy Research	2159
<i>Yuya Kajikawa, Yoshiyuki Takeda, Katsumori Matsushima</i>	
The Semantics of the Uncertainty Literature.....	2165
<i>Jan Kwakkel, Scott Cunningham</i>	
Technology Strategy for a Strategic Planning Tool in a Multinational Company: Case of Dynamic Strategic Planning System.....	2176
<i>Alper Çelebi, Sitki Gözlü</i>	
Improving Value-Creation Ability, Internal Operations Efficiency, & Competitive Advantage of Firms by the Adoption of a New Technology: Four Case-Studies	2183
<i>Igal Karin</i>	
Success Factors in Technology Transfer to SME's: Rundu Woodwork Common Facility Center	2190
<i>Hina Mu Ashekele, Kenneth Matengu</i>	
The Uses and Gratifications of Mobile Internet among the South African Students	2197
<i>Wallace Chigona, Guy Kankwenda, Saffia Manjoo</i>	
A Taxonomy for Technology Adoption: A Human Computer Interaction Perspective.....	2208
<i>Cagla Ozen Seneler, Nuri Basoglu, Tugrul U. Daim</i>	
A Model of Regulatory Burden in Technology Diffusion: The Case of Plant-Derived Vaccines.....	2220
<i>David Castle, Kira Kumagai, Martin Cloutier, Richard Gold</i>	
How to Accelerate the Intra-cluster Knowledge Diffusion: A Case Study of a Hosiery Cluster in China.....	2231
<i>Qian Xu, Gang Zhang, Li Xiong</i>	
How a Brazilian Firm, Characterized by an Innovator Profile, Seeks to Construct Competitive Advantage and How It Impacts at General Economy Growth	2241
<i>Willian Limonge, Arnaldo Souza Cabral</i>	
Diffusion of Technology in the South African Private Healthcare Market	2251
<i>Adriaan J van der Watt, Marthinus W Pretorius</i>	
Is Technology Diffusion from Universities to SME's Gaining Currency among South African Innovation Actors? The Current State of Play	2260
<i>David S. Phaho</i>	
Future Perspectives on Nanotechnology/Material Development: Delphi Studies and Sci-Tech Policies in Japan, Mainland China and Taiwan.....	2266
<i>Hsin-Ning Su, Pei-Chun Lee,</i>	
General Packet Radio Service (GPRS) Technology Transfer: A Case Study to Evaluate Transferors.....	2273
<i>Berna Tektas, Sitki Gozlu</i>	
The Practise of Technology Transfer	2281
<i>Johannes N Mostert, André J Buys</i>	
Analyzing Influence Factors of Technology Transfer Using Fuzzy Set Theory	2287
<i>Wen-Hsiang Lai, Chien-Tzu Tsai</i>	

Table of Contents

How do Chinese Enterprises Conduct Technology Innovation? Implications from Interviews to 25 Nation-Authorized Enterprise Technology Centers	2296
<i>Peng Haoshu, Yang Jianhua, Ye Xiaoliang</i>	
Channels and Ways for Chinese Public to Obtain Information about Science and Technology	2305
<i>Ren Fujun, Zhang Chao, He Wei</i>	
Assortment Planning Using Data Mining Algorithms	2312
<i>Ajlan Nihat Gün, Bertan Badur</i>	
Managing Distribution Channels in the Control and Instrumentation Product Market with Multi-Faceted Product Lines	2323
<i>H.G. Dirker, L. Pretorius, J.H.C. Pretorius</i>	
Price Competition and Innovation Diffusion in an Oligopolistic Market	2337
<i>Daniel T. Eloi Santos, Leonardo P. Santiago</i>	
The Effects of Endorsers' Traits on Counterfeit Purchase	2349
<i>Chien-Hsin Lin</i>	
Services Research Model for Value Co-Creation	2354
<i>Yuriko Sawatani, Kiyoshi Niwa</i>	
Vision Sharing for New Service Development	2361
<i>Atsuko Koizumi, Chiaki Hirai, Shinsuke Takahashi</i>	
Managing the Implementation of Banking Systems for Repeatable Success	2366
<i>Andre Malan, L Pretorius, JHC Pretorius</i>	
Management of Technology deployed in Service Innovations	2376
<i>Arcot Desai Narasimhalu</i>	
Asset Reuse and Service Science: The Delicate Balance	2384
<i>Tyrone Grandison, Jakita O. Thomas</i>	
Research for Experiential Value Design Method in Team Knowledge Creation	2390
<i>Akira Kondo, Naoko Kondo</i>	
A Proposed Model for Mobile Commerce Applications in the Financial Services Industry: A Catalyst for the African Economic Renaissance	2394
<i>Leunis van Rooyen</i>	
How to realize service management innovation in the banking industry in China	2400
<i>Guojun Zhao ,Harry G. Perros</i>	
Organizational Boundary Spanners - Identifying Competencies and Gaps	2416
<i>John McCreery, Lynda Aiman-Smith</i>	
Strategic Utilization of Information Technology within Retail Banking	2429
<i>Lesego M. Chauke, André J Buys</i>	
Dynamic Service Framework Approach to Sustainable Service Value Shift Applied to Traditional Japanese Tea Ceremony	2433
<i>Kotaro Nakamura, Hugo Tschirky, Yasuo Ikawa</i>	
Structural Characteristics, Process and Effectiveness of Cross-functional Teams Consisted of Specialists and Technicians in the Healthcare Industry	2445
<i>Mei-Ling Wang, Bi-Fen Hsu, Wan-Yu Chen, Yen-Yu Lin</i>	
Exploring the Success Factors of Health Information Service Adoption	2453
<i>Umit Topacan, A. Nuri Basoglu, Tugrul U. Daim</i>	

Table of Contents

Towards a Knowledge Management Framework for Assisting Organisations to Evaluate Their Own (Non-Clinical) Approaches to the Dissemination of Knowledge about HIV/AIDS Intervention Programmes in South Africa	2462
<i>Rochelle Sassman, Brian Lehaney, Ian Marshall</i>	
Moderating Effect of Individual Differences on the Adoption of U-Healthcare Service.....	2472
<i>Jung-Hae Seo, Sun-Jin Kim, Sun-Joong Kim</i>	
Case Study: Developing a Technology Innovation Investment Portfolio.....	2477
<i>Joseph F. Cade</i>	
The Technological Innovation Process and the Main Institutions and Actors Involved in the Development of an Ethanol-fueled Airplane: The Case of Ipanema	2483
<i>José Henrique de Sousa Damiani</i>	
Evolution of the Solar Energy Industry: Strategic Groups and Industry Structure	2489
<i>Gerald I. Susman</i>	
Power Transmission Investments Analysis: A New Financial Evaluation Framework for South Africa.....	2499
<i>Silky Ntombifuthi Maboke, Michael Ogembo Kachienga</i>	
Enhancing Military Rapid Product Delivery Capabilities	2509
Technology Valuation Model in Defense Offset Trade: Income Approach.....	2521
<i>Won-Joon Jang, Jin-Young Ryu</i>	
The Technology Assessment Implementation at Science and Technology Research Institute in Defense, Malaysia (Stride).....	2535
<i>Siti Norezam Othman, Mastora Mustafar, Nor Kamariah Kamaruddin, Shamsolnizam Karman</i>	
Simulation-Based Defence Acquisition in South Africa	2541
<i>Arnold J Swart, André J Buys</i>	
Personnel Management Information System of the Brazilian Air Force.....	2549
<i>Manuel A. Fagundes Pérez, Tharcila T. Hyppolito</i>	
Historical, Entrepreneurial and Supply Chain Management Perspectives on the Semiconductor Industry	2552
<i>William Y. Jiang, Xiaohong Quan, Shu Zhou</i>	
A Study of Innovation with ASICs.....	2560
<i>Akihiko Nagai, Koji Tanabe</i>	
On the Value of Technological Knowledge in Semiconductor Manufacturing	2567
<i>Charles Weber and Asser Fayed</i>	
Applying the Real Options to Death-Valley Strategy of Biotech Start-Ups.....	2583
<i>Takao Fujiwara</i>	
Study of the Time Lag Effect of Patent Impact on Profitability of U.S. Pharmaceutical Industry from Innovation to Profit	2588
<i>Yun Ken, Tung-Yu Tsai, Yang-Kuang Ou</i>	
The Role of Information and Communication Technologies (ICT) in Improving Microcredit: The Case of Correspondent Banking in Brazil.....	2597
<i>Eduardo H. Diniz, Marlei Pozzebon, Martin Jayo, Ewandro Araujo</i>	
The Linkage Analysis of Innovation Systems about Development of the 3G International Technology Standards.....	2605
<i>Ji-Zhong Zhou, Xiang-Qi Liu, Liang Hou</i>	
Possibility of Bill & Keep in the Mobile Termination Market of Korea	2613
<i>Jongyong Lee</i>	
Exploring Mobile Service Adoption: A Conjoint Model	2623
<i>Banu Kargin, Nuri Basoglu, Tugrul Daim</i>	

Table of Contents

Four-Scenario Analysis for Mobile Banking Development Contextualized to Taiwan	2634
<i>Dian-Yan Liou</i>	
Wireless Sensor Network based Asset Tracking Service.....	2643
<i>Sun-Jin Kim, Jung Hae Seo, Jonnalagadda Krishna, Sun-Joong Kim</i>	
Telecom Sector Deregulation, Business Growth and Economic Development.....	2648
<i>Muhammad A. Choudhary, Nawar Khan, Aisha Abbas, Ali Salman</i>	
Customer Satisfaction Index Measurement and Importance-Performance Analysis for Improvement of the Mobile RFID Services in Korea	2657
<i>Yong-Jae Park, Pil-Sun Heo, Myung-Hwan Rim, Dae-Seung Park</i>	