RQD2013
Conference Program

19th ISSAT International Conference
Reliability and Quality in Design

August 5-7, 2013
Honolulu, Hawaii, USA
Organizing Committee Members

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Rutgers University, USA

**Shigeru Yamada**  
Tottori University, Japan

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National Taiwan University of Science and Technology, Taiwan

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Chrysler Group LLC, USA

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Shigeru Yamada (Japan)

Mitsuhiro Kimura (Japan)  
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Ruey Huei Yeh (Taiwan)

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Wei-Chang Yeh (Taiwan)

Toshio Nakagawa (Japan)  
Panlop Zeephongseck (Australia)
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## Technical Sessions at a Glance

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<td>1. Six Sigma and Quality Design</td>
<td>2. Reliability in Design</td>
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<tr>
<td>1:00 - 3:00</td>
<td>5. Software Reliability and Testing</td>
<td>6. Maintainability and Availability</td>
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<td>10:30 - 12:00</td>
<td>9. Medical Device Quality, Reliability and Risk</td>
<td>10. Software Quality and Reliability Modeling</td>
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<td>1:30 - 3:00</td>
<td>11. Reliability Analysis and Its Applications</td>
<td>12. Maintenance Policies &amp; Optimization</td>
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<td>17. Probabilistic Modeling and Its Applications</td>
<td>18. Accelerated Life Testing and Modeling</td>
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**Technical Sessions**

**SESSION 1: Six Sigma and Quality Design**  
Chair: Chao-Ton Su (National Tsing Hua University, Taiwan)

- Equivalent Geometrical Designs with Same Word-Length Pattern  
  Hsien-Tang Tsai (National Sun Yat-sen University, Taiwan)  
  Jen-der Day (National Kaohsiung University of Applied Sciences, Taiwan)

- Joint Quaternary Design Tables for Geometrical Designs  
  Jen-der Day (National Kaohsiung University of Applied Sciences, Taiwan)  
  Hsien-Tang Tsai (National Sun Yat-sen University, Taiwan)

- Improving Tuning Time of Radio Frequency Devices thru Six Sigma Process  
  Chiao-Tzu Huang (National Chin-Yi University of Technology, Taiwan)  
  Shin-Yi Lai (National Chin-Yi University of Technology, Taiwan)  
  Wei-Ling Wang (National Chin-Yi University of Technology, Taiwan)

- Integrating Taguchi Method and Durbin-Watson Statistic for Independent Component Selection: With Application to Etch Process Fault Detection  
  Chun-Chin Hsu (Chaoyang University of Technology, Taiwan)

**SESSION 2: Reliability in Design**  
Chair: B.S. Dhillon (University of Ottawa, Canada)

- Reliability of Tunnel Ventilation Control: A Conceptual Design  
  Ondřej Nývlt (Czech Technical University, Czech Republic)  
  Lukáš Ferkl (Czech Technical University, Czech Republic)  
  Jan Šulc (Czech Technical University, Czech Republic)

- Designing of Efficient Families of Strategies for Predicting Unknown Population Mean  
  H.S. Jhajj (Punjabi University, Patiala, India)

- A Software Reliability Model with Vtub-Shaped Fault-Detection Rate Subject to Operating Environments  
  Hoang Pham (Rutgers University, USA)

- Human Error in Health Care: An Investigative Study  
  B.S. Dhillon (University of Ottawa, Canada)

**SESSION 3: Stochastic Reliability Modeling**  
Chair: Takashi Satow (Tottori University, Japan)

- Reliability Modeling of a Server System with Hybrid Replication Method  
  Mitsutaka Kimura (Gifu City Women’s College, Japan)  
  Mitsuhiko Imaizumi (Aichi Gakusen University, Japan)  
  Toshio Nakagawa (Aichi Institute of Technology, Japan)

- Optimal Management Policy for a Distributed Processing System  
  Mitsuhiko Imaizumi (Aichi Gakusen University, Japan)  
  Mitsutaka Kimura (Gifu City Women’s College, Japan)

- Determination of Bank Interest Margins Considering Bankruptcy  
  Syouji Nakamura (Kinjo Gakuin University, Japan)  
  Miwako Arafuka (Kinjo Gakuin University, Japan)  
  Toshio Nakagawa (Aichi Institute of Technology, Japan)

- Optimal Maintenance Policy of Airframe Cracks  
  Kodo Ito (Kinjo Gakuin University, Japan)  
  Toshio Nakagawa (Aichi Institute of Technology, Japan)

- Approximation of Inspection Threshold for Multi-Component System  
  Takashi Satow (Tottori University, Japan)

**SESSION 4: Quality Engineering in Design**  
Chair: Gordon Savage (University of Waterloo, Canada)

- Buyer’s Order Quantity and Manufacturer’s Wholesale Price, Process Mean, and Production Run Length Settings  
  Chung-Ho Chen (Southern Taiwan University of Science and Technology, Taiwan)

- Weighted Approach in Estimating Evaluation Indexes for Measurement Systems with Correlated Characteristics  
  R.S. Peruchi (The University of Tennessee, USA)  
  A.P. Paiva (Federal University of Itajubá, Brazil)  
  P.P. Balestrassi (Federal University of Itajubá, Brazil)  
  R. Sawhney (The University of Tennessee, USA)  
  G. Rajpal (The University of Tennessee, USA)  
  V. Marella (The University of Tennessee, USA)

- Lean Six Sigma Based Requirement Analysis of Quality Management for Complex Product Maintenance  
  Hong-bing Ye (Academy of Armored Forces Engineering, China)  
  Bo-gong Ji (Academy of Armored Forces Engineering, China)  
  Qing-jun Meng (Academy of Armored Forces Engineering, China)
Experimental Flexible Two-phase Loop for Quality Optimization of Piping Components  
M. Bevilacqua (Università Politecnica della Marche, Italy)  
F.E. Ciarpica (Università Politecnica della Marche, Italy)  
G. Giacchetta (Università Politecnica della Marche, Italy)  
B. Marchetti (Università degli Studi e-Campus, Italy)

Frequency Response Design of Uncertain Vibration Systems  
G. J. Savage (University of Waterloo, Canada)  
Y. K. Son (Andong National University, Korea)

SESSION 5: Software Reliability and Testing  
Chair: Shinji Inoue (Tottori University, Japan)

NHPP Models with Change-Point for Software Reliability Assessment and Its Application to an Optimal Software Release Problem  
Yuka Fukuta (Tottori University, Japan)  
Shinji Inoue (Tottori University, Japan)  
Shigeru Yamada (Tottori University, Japan)

Optimal Maintenance Problems Based on Jump Diffusion Models Considering the Operating Phase of Cloud OSS  
Kenta Miyaoka (Tottori University, Japan)  
Yoshinobu Tamura (Yamaguchi University, Japan)  
Shigeru Yamada (Tottori University, Japan)

A Software Optimal Release Problem Based on a Hazard Rate Model with Change-Point  
Shinji Inoue (Tottori University, Japan)  
Yuki Nakagawa (Tottori University, Japan)  
Shigeru Yamada (Tottori University, Japan)

Bootstrapping Interval Estimations for Software Reliability Assessment Based on a Discrete NHPP Model  
Shinji Inoue (Tottori University, Japan)  
Hironori Matsuno (Tottori University, Japan)  
Shigeru Yamada (Tottori University, Japan)

An Interval Estimation Approach of Optimal Software Release Time Based on a Nonparametric Bootstrap Method  
Shinji Inoue (Tottori University, Japan)  
Shigeru Yamada (Tottori University, Japan)

SESSION 6: Maintainability and Availability  
Chair: Yao Hsu (Kainan University, Taiwan)

Optimization of a Bi-Objective Imperfect Preventive Maintenance Model  
Chung-Ho Wang (National Defense University, Taiwan)  
Sheng-Wang Tsai (National Defense University, Taiwan)  
Jiu-Zhang Lu (National Defense University, Taiwan)

Minimizing Periodic Preventive Maintenance Costs in Series-Parallel Systems Using Improved Genetic Algorithm  
Yi Hsu (National Formosa University, Taiwan)

A Study on the Structure of the Product Profit  
Jyh-Wen Ho (Aletheia University, Taiwan)

The Impact of Used Products on Channel Coordination and Quality Decision for Warranted Products  
Hui-Chiung Lo (Tamkang University, Taiwan)  
Ruey Huei Yeh (National Taiwan University of Science and Technology, Taiwan)  
Nani Kurniati (National Taiwan University of Science and Technology, Taiwan)  
Jung-Jung Lin (Tamkang University, Taiwan)

Maintenance Scheduling Analysis under Limited Resources with Application to Pumps of a Power Plant  
Yao Hsu (Kainan University, Taiwan)  
Wen-Fang Wu (National Taiwan University, Taiwan)  
Tzu-Yu Kuo (National Taiwan University, Taiwan)  
Jo-Hsin Huang (National Taiwan University, Taiwan)

SESSION 7: Network Reliability and System Analysis  
Chair: Shin-Guang Chen (Tungnan University, Taiwan)

Development of a Quality Model for Comparing Mobile Cloud Computing Systems  
Wei-Jung Shiang (Chung Yuan Christian University, Taiwan)  
Hsin Rau (Chung Yuan Christian University, Taiwan)  
Ting-Kuo Peng (Minghsin University of Science and Technology, Taiwan)

Reliability of Permitted Packet Unreliability and Latency in a Multi-State Imperfect Vertex Computer Network  
Cheng-Fu Huang (National Taiwan University of Science & Technology, Taiwan)  
Yi-Kuei Lin (National Taiwan University of Science & Technology, Taiwan)

A Study of Compound Failure Rate Control Schemes for Monitoring IC Wafers Quality and Lifetime Reliability  
Yung-Yu Yang (Yuan Ze University, Taiwan)  
Yun-Shiow Chen (Yuan Ze University, Taiwan)

Performance Measure for a Multistate Distribution Network under the Delivery Spoilage Consideration  
Cheng-Fu Huang (National Taiwan University of Science & Technology, Taiwan)  
Cheng-Ta Yeh (National Taiwan University of Science & Technology, Taiwan)  
Yi-Kuei Lin (National Taiwan University of Science & Technology, Taiwan)

Search for All MCs with Backtracking  
Shin-Guang Chen (Tungnan University, Taiwan)
SESSION 8: Software Quality/Reliability Measurement and Management
Chair: Yoshinobu Tamura (Yamaguchi University, Japan)

Trend Analysis Based on Historical Data for OSS Reliability Assessment
Hirona Miyahara (Tottori University, Japan)
Yoshinobu Tamura (Yamaguchi University, Japan)
Shigeru Yamada (Tottori University, Japan)

Data Analysis for Decreasing Mold Defective Fraction in Automotive Rubber Products Based on Orthogonal Array Experiments
Shigeru Yamada (Tottori University, Japan)
Giichi Takabatake (Tottori University, Japan)

On Change-Point Detection and Its Application to Software Reliability Measurement Based on Hazard Rate Models
Shiho Hayashida (Tottori University, Japan)
Shinji Inoue (Tottori University, Japan)
Shigeru Yamada (Tottori University, Japan)

Quantitative Assessment for Software Safety Integrity Level with Optimal Software Release Policies
Takahiro Nishikawa (Tottori University, Japan)
Shigeru Yamada (Tottori University, Japan)

AIR Application based on Jump Diffusion Models for Cloud Computing
Yoshinobu Tamura (Yamaguchi University, Japan)
Shigeru Yamada (Tottori University, Japan)

SESSION 9: Medical Device Quality, Reliability and Risk
Chair: Mingxiao Jiang (Medtronic Inc., USA)

Reparable Medical System Reliability
James McLinn (Rel-Tech Group, USA)

Performance Reliability Analysis for the Landing Gear System Based on the Simulation Model
Tianxiang Yu (Northwestern Polytechnical University, China)
Ruke Lei (Northwestern Polytechnical University, China)
Bifeng Song (Northwestern Polytechnical University, China)
Zetao Xiong (Beijing University of Aeronautics and Astronautics, China)

Overview of Design for Reliability
Guangbin Yang (Chrysler Group LLC, USA)

Reliability Program for Medical Device
Julio Pulido (ReliaSoft, USA)

Neuromodulation Leads Reliability Assessment in Therapy System
Mingxiao Jiang (Medtronic Inc., USA)
Bernard Q. Li (Medtronic Inc., USA)
Haitao Zhang (Medtronic Inc., USA)

SESSION 10: Software Quality and Reliability Modeling
Chair: Kehan Gao (Eastern Connecticut State University, USA)

Exploring Ensemble Filters for Software Defect Prediction
Taghi M. Khoshgoftaar (Florida Atlantic University, USA)
Kehan Gao (Eastern Connecticut State University, USA)
Lofton A. Bullard (Florida Atlantic University, USA)

Software Reliability Models Selection Method
Kun Han (Academy of Armored Forces Engineering, China)
Jin-mao Guo (Academy of Armored Forces Engineering, China)
Qing-jun Meng (Academy of Armored Forces Engineering, China)

Software Quality Analysis with Distribution Bias in Defect Data
Naeem Seliya (Health Safety Technologies, LLC, USA)
Taghi M. Khoshgoftaar (Florida Atlantic University, USA)

A Comparative Study of Iterative Feature Selection and Boosting for Software Quality Estimation
Kehan Gao (Eastern Connecticut State University, USA)
Taghi M. Khoshgoftaar (Florida Atlantic University, USA)
Randall Wald (Florida Atlantic University, USA)

SESSION 11: Reliability Analysis and Its Applications
Chair: Taghi Khoshgoftaar (Florida Atlantic University, USA)

Research on Mechanism of System State Transfer and Check Based on Adaptive Agent Simulation
Ying Shen (Academy of Armored Forces Engineering, China)
Wei-guang Liu (Academy of Armored Forces Engineering, China)
Qing-jun Meng (Academy of Armored Forces Engineering, China)

Multi-Class Classification for Ocean Turbine State Detection
Janell Duhaney (Florida Atlantic University, USA)
Taghi M. Khoshgoftaar (Florida Atlantic University, USA)

Experimental Results for Weighted-k-out-of-n System
Yoichi Higashiyama (Ehime University, Japan)
Ventsi Rumchev (Curtin University of Technology, Australia)

Detecting Changes in Readings from Remote Battery Systems
Gregory W. Ratcliff (Emerson Network Power, USA)
Randall Wald (Florida Atlantic University, USA)
Taghi M. Khoshgoftaar (Florida Atlantic University, USA)
Cody Neuburger (Florida Atlantic University, USA)
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Chair: Alessandro Persona (University of Padova, Italy)

Optimal Maintenance Policies with Preventive Maintenance  
Minjae Park (Hongik University, Korea)  
Hoang Pham (Rutgers University, USA)

The Optimization of a Maintenance Policy Related to a Global Service Contract  
Toni Lupo (Università degli Studi di Palermo, Italy)

Tuan Khac Huynh (Université de Technologie de Troyes, France)  
Anne Barros (Université de Technologie de Troyes, France)  
Christophe Bérenguer (Grenoble Institute of Technology & CNRS, France)

Spare Parts Management: A Comparison Between (S,S) Policy with Delayed Ordering and Policy Based on Binomial Distribution and Total Cost  
D. Battini (University of Padova, Italy)  
A. Persona (University of Padova, Italy)  
F. Sgarbossa (University of Padova, Italy)

SESSION 13: Statistical Methods in Reliability Design  
Chair: Feng-Bin Sun (HGST, a Western Digital company, USA)

Statistical Analysis for Design Improvement of Wheels  
Zhi-Sheng Ye (The Hong Kong Polytechnic University, Hong Kong)  
Jian-Guo Li (Tsinghua University, China)  
Min Xie (City University of Hong Kong, Hong Kong)

Reliability for Three-Level Supply Chain  
X. Zhang (RMIT University, Australia)  
P. Zeephongsekul (RMIT University, Australia)

Sparse Parts Decision under Reliability Growth and Warranty Repair: A Customer Perspective  
Tongdan Jin (Texas State University, USA)  
Kranthi Katepalli (Texas State University, USA)  
Heidi Taboada (University of Texas at El Paso, USA)  
Jose Espiritu (University of Texas at El Paso, USA)

Reliability Analysis of Hybrid Energy System  
Zhigang Tian (Concordia University, Canada)  
Amir Ahmad Seifi (Concordia University, Canada)

On Duty Cycle Concept in Reliability - Definitions, Pitfalls and Clarifications  
Feng-Bin Sun (HGST, a Western Digital company, USA)  
Steve Lock (HGST, a Western Digital company, USA)  
Wendai Wang (Varian Medical Systems, USA)

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Chair: Hsin-Hung Wu (National Changhua University of Education, Taiwan)

Human Reliability and Un-safety Behavior Factors  
Investigation of the Prescription Preparing Processes in Pharmacy  
Chih-Wei Lu (Chung Yuan Christian University, Taiwan)

An Invisible Knowledge Network of Relationship and quality: Themes, Concepts and Correlations  
Ying-Shao Chang (Chang Jung Christian University, Taiwan)  
Yender Lee (Chang Jung Christian University, Taiwan)  
Yuan-Duen Lee (Chang Jung Christian University, Taiwan)

Research Trends in the Field of E-learning Quality, 2003-2012: A Citation Analysis  
Chin-Hsiu Tai (Chang Jung Christian University, Taiwan)  
Che-Wei Lee (University of Pittsburgh, USA)  
Yender Lee (Chang Jung Christian University, Taiwan)

Invisible Network of Knowledge: Education, Management and Quality  
Yuan-Duen Lee (Chang Jung Christian University, Taiwan)  
Chiu-Chuan Lin (Chang Jung Christian University, Taiwan)  
Chen-Fen Huang (Chang Jung Christian University, Taiwan)

Using MANOVA to Evaluate Service Process Satisfaction of a Tourism Factory – A Case of Brand’s Health Museum  
Ting Chin Shih (Nymphreas International Biomaterial Corporation, Taiwan)  
Chia-Hsien Tsai (Brand’s Health Museum, Taiwan)  
Hsin-Hung Wu (National Changhua University of Education, Taiwan)

SESSION 15: Maintenance Optimization  
Chair: Mingchih Chen (Fu Jen Catholic University, Taiwan)

Structural Properties of an Optimal Maintenance Policy for a Makovian Deteriorating System Subject to Random Shocks  
Nobuyuki Tamura (Hosei University, Japan)

Extended Optimal Replacement Policies for a Random Intervals with Working Time  
Satoshi Mizutani (Aichi Institute of Technology, Japan)  
Toshio Nakagawa (Aichi Institute of Technology, Japan)

Optimal Checkpoint Times for a Majority Database System  
Kenichiro Naruse (Nagoya Sangyo University, Japan)  
Toshio Nakagawa (Aichi Institute of Technology, Japan)

Optimal Policies for Cumulative Damage Models with Replacement Overtime  
Xufeng Zhao (Aichi Institute of Technology, Japan)  
Syouji Nakamura (Kinjo Gakuin University, Japan)  
Toshio Nakagawa (Aichi Institute of Technology, Japan)
Optimal Replacement Policies for a Parallel System with Shortage and Excess Costs
Mingchih Chen (Fu Jen Catholic University, Taiwan)
Xufeng Zhao (Aichi Institute of Technology, Japan)
Toshio Nakagawa (Aichi Institute of Technology, Japan)

SESSION 16: Quality Analysis and Measurement
Chair: Hsin Rau (Chung Yuan Christian University, Taiwan)

An Invisible Network of Knowledge of Quality of Health Care
Cheng-Kun Wang (Chang Jung Christian University, Taiwan)

12 Years of Supply Chain Management and Quality Study (2001~2012)
Fu-Jin Hu (Chang Jung Christian University, Taiwan)
Jen-Hwa Kuo (Chang Jung Christian University, Taiwan)
Yender Lee (Chang Jung Christian University, Taiwan)
Chiu-Chuan Lin (Chang Jung Christian University, Taiwan)

Ten Years of Website & Website Quality Studies: Themes, Concepts and Relationships
Yuan-Duen Lee (Chang Jung Christian University, Taiwan)
Yender Lee (Chang Jung Christian University, Taiwan)
Jwu-Jenq Chen (Chang Jung Christian University, Taiwan)

Identifying and Mapping the Scientific Landscape of Service Quality Management Studies, 2003-2012
Yuan-Duen Lee (Chang Jung Christian University, Taiwan)
Yender McLee (Chang Jung Christian University, Taiwan)
Min-Tzu Chen (Chang Jung Christian University, Taiwan)
Yen-Hui Lin (Chang Jung Christian University, Taiwan)

Quality Inspection Policy for Color Filter Production System
Hsin Rau (Chung Yuan Christian University, Taiwan)
Chih-Chung Chien (Chung Yuan Christian University, Taiwan)
Kuo-Hua Cho (Chung Yuan Christian University, Taiwan)
Wei-Jung Shiang (Chung Yuan Christian University, Taiwan)

SESSION 17: Probabilistic Modeling and Its Applications
Chair: Liyang Xie (Northeastern University, China)

Human Factor Criteria for the Design of Cars
Hong Wang (Northeastern University, China)
Ningning Zhang (Northeastern University, China)
Chi Zhang (Northeastern University, China)
Xu Luo (Northeastern University, China)
Guangbin Sun (Northeastern University, China)

Dynamics Study and Finite Element Analysis of the 50t/h Dual-axis Inertia Horizontal Vibrated Fluidized Bed
Xiangwei Kong (Northeastern University, China)
Feng Guo (Northeastern University, China)
Dong Wang (Northeastern University, China)
Ning Yin (Northeastern University, China)

A Proposal for an Exact Algorithm for Solving a SALBP-1 Problem
Mosé Gallo (University of Naples Federico II, Italy)
Teresa Murino (University of Naples Federico II, Italy)
Valentino Pensato (University of Naples Federico II, Italy)
Liberatina Carmela Santillo (University of Naples Federico II, Italy)

Probabilistic Specimen Property-Fatigue Life Mapping and P-S-N Curve Fitting
Liyang Xie (Northeastern University, China)
Jianzhong Liu (Beijing Institute of Aeronautic Materials, China)

SESSION 18: Accelerated Life Testing and Modeling
Chair: Panlop Zeephongsekul (RMIT University, Australia)

Equivalent Accelerated Degradation Test Plans for a Nonlinear Random Coefficients Models
Seong-joon Kim (Hanyang University, Korea)
Suk Joo Bae (Hanyang University, Korea)

Research on Sample Size Determination to Estimate Fatigue Life in Reliability Test of Mechanical Products
Weimin Cui (Northwestern Polytechnical University, China)
Jiaoyang Wang (Northwestern Polytechnical University, China)
Tianxian Yang (Northwestern Polytechnical University, China)
Bifeng Song (Northwestern Polytechnical University, China)

Accelerated Life Testings(ALTs) and Acceleration Modeling of Battery Disconnecting Systems(BDS)
Sung-Min Kim (Korea Testing Laboratory, Korea)
Kwang-Min Lee (Korea Testing Laboratory, Korea)
Jeong-Hwan Cho (Kimpo University, Korea)

Reliability and Durability Analysis for Fuel Cell Vehicle Based On Road Test
Songlin Zheng (University of Shanghai for Science and Technology, China)
Tie Chen (University of Shanghai for Science and Technology, China)
Shuying Wang (University of Shanghai for Science and Technology, China)
Xintian Lin (University of Shanghai for Science and Technology, China)

SESSION 19: Statistical Reliability Modeling & Applications
Chair: Gary Harlow (Lehigh University, USA)

Efficient and Practical Reliability Engineering
Jiajun Shao (Sunlight Technology, Beijing, China)
Junxian Han (Sunlight Technology, Beijing, China)

A Dual Stochastic Process Model with Applications to Security Systems
Yao Zhang (Rutgers University, USA)
Hoang Pham (Rutgers University, USA)
An Approach for the Fast Calculation Method of Pareto Solutions of a Two-Objective Network
Tomoaki Akiba (Chiba Institute of Technology, Japan)
Natsumi Takahashi (Tokyo Metropolitan University, Japan)
Shuhei Nomura (Tokyo Metropolitan University, Japan)
Hisashi Yamamoto (Tokyo Metropolitan University, Japan)

Statistical Modeling for Low Cycle Fatigue
D. Gary Harlow (Lehigh University, USA)

SESSION 20: Maintenance Modeling
Chair: Yada Zhu (IBM T. J. Watson Research Center, USA)

A Multi-Decision Makers Approach to Select the Maintenance Plan for a Multi-Component System
Antonella Certa (Università degli Studi di Palermo, Italy)
Mario Enea (Università degli Studi di Palermo, Italy)
Giacomo Galante (Università degli Studi di Palermo, Italy)
Toni Lupo (Università degli Studi di Palermo, Italy)

Selective Maintenance for a Multi-Component System with Two Types of Failure Modes under Age-Based Imperfect Maintenance
Mayank Pandey (University of Alberta, Canada)
Ming J. Zuo (University of Alberta, Canada)
Dao Duc Cuong (University of Alberta, Canada)

A Methodology for Maintenance Time Prediction in Virtual Maintenance Environment
Geng Jie (Beijing University of Aeronautics and Astronautics, China)
Zhou Dong (Beijing University of Aeronautics and Astronautics, China)
Lv Chuan (Beijing University of Aeronautics and Astronautics, China)

Periodic Inspection Optimization for Infrastructure Systems Subject to Hidden Failures
Dzung T. Phan (IBM T. J. Watson Research Center, USA)
Yada Zhu (IBM T. J. Watson Research Center, USA)

SESSION 21: Engineering Reliability Design & Applications
Chair: Minjae Park (Hongik University, Korea)

Lifetime Estimation of Ceramic Package Light-Emitting Diodes using Complex-Stress and Real-Time Monitoring
Byungjiin Ma (Korea Electronics Technology Institute, Korea)
Jemin Kim (Korea Electronics Technology Institute, Korea)
Sungsun Choi (Korea Electronics Technology Institute, Korea)
Kwanhoon Lee (Korea Electronics Technology Institute, Korea)

Application of Standard FMECA and FMECA with Grey Relation Analysis, in a Wall-Hung Boiler Case Study
M. Bevilacqua (Università di Ancona, Italy)
F. E. Ciaramica (Università di Ancona, Italy)
L. Postacchini (Libera Università di Bolzano, Italy)
G. Mazzuto (Università di Ancona, Italy)

Measurement System Analysis Applied to AISI 12L14 Steel Turning
R.S. Peruchi (The University of Tennessee, USA)
P.P. Balestrassi (Federal University of Itajubá, Brazil)
A.P. Paiva (Federal University of Itajubá, Brazil)
R. Sawhney (The University of Tennessee, USA)
E.M. Anda (The University of Tennessee, USA)
S.A. Niknam (The University of Tennessee, USA)

A Distribution of Quick Chargers Used by Electric Vehicles on an Expressway Considering with the Type of Charging Place
Junji Koyanagi (Tottori University, Japan)

SESSION 22: System Reliability Modeling & Analysis
Chair: Zhenmin Chen (Florida International University, USA)

Research on Mechanism Wear Reliability Analysis Methods Based on Theory of Operational State
Cheng-ming He (Academy of Armored Forces Engineering, China)
Qing-hua Liang (Academy of Armored Forces Engineering, China)
Qing-jun Meng (Academy of Armored Forces Engineering, China)

Reliability Modeling for k-out-of-n Surveillance Systems Subject to Two Stochastic Processes
Yao Zhang (Rutgers University, USA)
Hoang Pham (Rutgers University, USA)

Statistical Process Control for the Fairness of Network Resource Distribution
Zhenmin Chen (Florida International University, USA)
Qingyun Liu (Florida International University, USA)

Reliability for Fluid Bearings Design
K. Diop (University of Angers, France)
A. Charki (University of Angers, France)
S. Champmartin (Centre Arts et Métiers Paris Tech d’Angers, France)
A. Ambari (Centre Arts et Métiers Paris Tech d’Angers, France)
Thank you for contributing and participating
in the 19th ISSAT RQD conference

We hope you enjoy the entire program