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ISSAT International Conference on
MODELING OF COMPLEX SYSTEMS AND ENVIRONMENTS
JUNE 8 - 10, 2015 • DANANG, VIETNAM
CONFERENCE PROGRAM

MONDAY, JUNE 8
8:30 am - 11:00 am REGISTRATION
9:00 am - 9:15 am WELCOME
Hoang Pham, Conference Chair (Rutgers University, USA)
Hung La, Program Chair (University of Nevada, Reno, USA)
9:15 am - 10:30 am SESSION 1:
Design and Modeling of Complex Systems
Chair: Prof. Yantao Shen (University of Nevada, Reno, USA)
9:15 am - 10:30 am

M NOND AY, JUNE 8
CO N FERENCE PR OGR A M
Chair:  Prof. Yantao Shen (University of Nevada, Reno, USA)
9:15 am  - 10:30 am SESSION 1:
Design and Modeling of Complex Systems
Hung La, Program Chair (University of Nevada, Reno, USA)
8 :30 am  - 11:00 am REGISTRATION
Hoang Pham , Conference Chair (Rutgers University, USA)
Pan Yang (Tsinghua University, China)
Kai Yi (University of Electronic Science and Technology of China, China)
Hui Zhang (Tsinghua University, China)
A New Architecture for Reliable Computerized-Control System via IoT Enabled Connectivity
Tri Tran (Nanyang Technological University, Singapore)
Multi-striped PVD Miniature Pressure Sensing System for Monitoring Embolized Brain Aneurysms: Design, Modeling, and Validation
Nitiya Mohan (University of Nevada, Reno, USA)
Yudong Luo (University of Nevada, Reno, USA)
Yantao Shen (University of Nevada, Reno, USA)
10:30 am - 10:45 am COFFEE BREAK
10:45 am - 12:00 pm SESSION 2:
System Performance and Its Applications
Chair: Prof. Liyang Xie (Northeastern University, China)
Technique of Simultaneous Spectrophotometric Determination of Chromium (VI) And Iron (iii)
Via Curve Fitting
Ekaterina V. Larionova (Tomsk Polytechnic University, Russia)
Anna N. Votrubchina (Tomsk-Polytechnic University, Russia)
Evgeniya V. Zabolotskaya (Tomsk Polytechnic University, Russia)
Ksenia A. Bulygina (Tomsk Polytechnic University, Russia)
Chair: Intelligent Powerchair for Severely Disabled People
Jesse Leaman (University of Nevada, Reno, USA)
Hung Manh La (University of Nevada, Reno, USA)
System Reliability Modeling Method Based on Conditional Probability
Liying Xie (Northeastern University, China)
Ningsiag Wu (Northeastern University, China)
Wenxue Qian (Northeastern University, China)
12:00 pm - 1:00 pm LUNCH
1:15 pm - 2:45 pm SESSION 3:
Distributed Systems and Algorithms
Chair: Dr. Anthony Tran (Nanyang Technological University, Singapore)
Case Model Study Based on Multi-dimensional Scenario Space Method
Jing Qian (Tsinghua University, China)
Yi Liu (Tsinghua University, China)
Cheng Liu (Tsinghua University, China)
Yi Liu (People’s Public Security University of China, China)
Hui Zhang (Tsinghua University, China)
On the Formation Control of a Multi-Vehicle System
Thang Nguyen (University of Exeter, United Kingdom)
Hung M. La (University of Nevada, Reno, USA)
Mohammad Jatin (University of Nevada, Reno, USA)
A Testing-Coverage Software Reliability Model and Model Comparisons
In Hong Chang (Chosun University, Korea)
Hoang Pham (Rutgers University, USA)
Srung Woo Lee (Chosun University, Korea)
Kwang Yoon Song (Chosun University, Korea)
A Distributed Power Hardware-in-the-Loop Microgrid Simulator with Reduced-Voltage Components
Tran (Nanyang Technological University, Singapore)
Huy Nguyen (HCMC University of Technology, Vietnam)
2:45 pm - 3:00 pm COFFEE BREAK
3:00 pm - 4:30 pm SESSION 4:
Modeling of Complex Systems and Its Applications
Chair: Prof. Chi Tim Ng (Chonnam National University, Korea)
On the Performance of Phased-Mimo Radar With Beamforming
Van Tho Tran (Ho Chi Minh city University of Transport, Vietnam)
Canh Vinh Tran (Ho Chi Minh city University of Transport, Vietnam)
Cong Phuong Vo (Ho Chi Minh city University of Transport, Vietnam)
Situation Awareness and Emergency Response Using Cross-domain Data in Typhoon Haiyan
Qing Deng (Tsinghua University, China)
Xiaolong Deng (Beijing University of Posts and Telecommunications, China)
Yi Liu (Tsinghua University, China)
Hui Zhang (Tsinghua University, China)
Modeling of Washing Circuits in Mining - A Networked System Approach
Tri Tran (Nanyang Technological University, Singapore)
Q. P. Ha (University of Technology, Sydney, Australia)
A Note on the Fast Maximum Likelihood Estimation Algorithm of Factor Analysis
Chi Tim Ng (Chonnam National University, Korea)
Myung Hwan Na (Chonnam National University, Korea)
5:00 pm - 8:00 pm WELCOME RECEPTION
TUESDAY, JUNE 9
9:00 am - 10:15 am SESSION 5:
Modeling of Complex Systems and Environments
Chair: Prof. Myung Hwan Na (Chonnam National University, Korea)
Characterization of Hip Implant Surfaces
Zhuojun Feng (Texas A&M University, USA)
Trung Q. Le (Texas A&M University, USA)
Wayne Hung P. Nguyen (Texas A&M University, USA)
Physical Layer Secrecy Performance with Artificial Noise over Rayleigh/Rician Fading Channels
Tien Vu Tran (Duy Tan University, Vietnam)
Van-Thang Le (Duy Tan University, Vietnam)
Dac-Binh Ha (Duy Tan University, Vietnam)
Reliability Analysis of Tires Using Field Data
Myung Hwan Na (Chonnam University, Korea)
Chi Tim Ng (Chonnam University, Korea)
Ho-Chun Song (Chonnam University, Korea)
Eun Hee Hong (Seoul National University, Korea)
10:15 am - 10:30 am COFFEE BREAK
10:30 am - 12:00 pm SESSION 6:
System Modeling and Optimization
Chair: Prof. Hung La (University of Nevada, USA)
Stochastic Opinion Changing Model for Multiracial Society
Chang Phang (University Tun Hussein Onn Malaysia, Malaysia)
Hasma Heng Binti Kamal Koh (University Tun Hussein Onn Malaysia, Malaysia)
Numerical Algorithms for Quadratic Programming in Model Predictive Control - An Overview
Thuy V. Dang (Nanyang Technological University, Singapore)
Tri Tran (Nanyang Technological University, Singapore)
K-V. Ling (Nanyang Technological University, Singapore)
The Biological Sewage Disposal in Local Treatment Facilities of Objects of Individual Residential Buildings
A.Y. Basharova (Tomsk Polytechnic University, Russia)
A.N. Votrushina (Tomsk Polytechnic University, Russia)
E.V. Larionova (Tomsk Polytechnic University, Russia)
Dynamic Human Gait Phase Detection Algorithm
Luan V. Nguyen (University of Nevada, USA)
Hung M. La (University of Nevada, USA)
Trung H. Ducong (Rutgers University, USA)
12:00 pm - 1:00 pm LUNCH
1:30 pm - 7:00 pm CITY TOURS AND DINNER
WEDNESDAY, JUNE 10
9:30 am - 12:00 pm INDUSTRY TOURS
12:00 pm - 1:15 pm CLOSING LUNCH
AWARD PRESENTATION
1:30 pm ADJOURN

AWARD PRESENTATION

CONFERENCE PROGRAM

MONDAY, JUNE 8

8:30 am - 11:00 am REGISTRATION
9:00 am - 9:15 am WELCOME
Hoang Pham, Conference Chair (Rutgers University, USA)
Hung La, Program Chair (University of Nevada, Reno, USA)

9:15 am - 10:30 am SESSION 1:
Design and Modeling of Complex Systems
Chair: Prof. Yantao Shen (University of Nevada, Reno, USA)

A Collective Decision-Making System for Complex Crisis Event
Li Liu (Tsinghua University, China)
Pan Yang (Tsinghua University, China)
Gangqiao Wang (Tsinghua University, China)
Crisis Event
Li Liu (Tsinghua University, China)

System Reliability Modeling Method Based on Conditional Probability
Li Yang (Tsinghua University, China)
Ningsiang Wu (Northeastern University, China)
Wenxue Qian (Northeastern University, China)

12:00 pm - 1:00 pm LUNCH
1:15 pm - 2:45 pm SESSION 3:
Distributed Systems and Algorithms
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Jing Gao (Tsinghua University, China)
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Mohammad Jafar (University of Nevada, Reno, USA)

A Testing-Coverage Software Reliability Model and Model Comparisons
In Hong Chang (Chosun University, Korea)
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A Distributed Power Hardware-in-the-Loop Microgrid Simulator with Reduced-Voltage Components
Tran Nannv (Nanyang Technological University, Singapore)
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2:45 pm - 3:00 pm COFFEE BREAK
3:00 pm - 4:30 pm SESSION 4:
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On the Performance of Phased-Mimo Radar with Beamforming
Van Tho Tran (Ho Chi Minh city University of Transport, Vietnam)
Canh Vinh Tran (Ho Chi Minh city University of Transport, Vietnam)
Cong Phuong Vo (Ho Chi Minh city University of Transport, Vietnam)

3:00 pm - 4:30 pm SESSION 5:
Modeling of Washing Circuits in Mining - A Networked System Approach
Tran Truc (Nanyang Technological University, Singapore)
G. P. Ha (University of Technology, Sydney, Australia)

A Note on the Fast Maximum Likelihood Estimation Algorithm of Factor Analysis
Chi Tim Ng (Chonnam National University, Korea)
Myung Hwan Na (Chonnam National University, Korea)

5:00 pm - 8:00 pm WELCOME RECEPTION

TUESDAY, JUNE 9

9:00 am - 10:15 am SESSION 5:
Modeling of Complex Systems and Environments
Chair: Prof. Myung Hwan Na (Chonnam National University, Korea)

Characterization of Hip Implant Surfaces
Zhujuan Feng (Texas A&M University, USA)
Trung Q. Le (Texas A&M University, USA)
Wayne Hung P. Nguyen (Texas A&M University, USA)

Physical Layer Secrecy Performance with Artificial Noise over Rayleigh/Rician Fading Channels
Tien Vu Tran (Duy Tan University, Vietnam)
Van-Thang Le (Duy Tan University, Vietnam)
Dac-Binh Ha (Duy Tan University, Vietnam)

12:00 pm - 1:00 pm LUNCH
1:30 pm - 7:00 pm CITY TOURS AND DINNER

WEDNESDAY, JUNE 10

9:30 am - 12:00 pm INDUSTRY TOURS
12:00 pm - 1:15 pm CLOSING LUNCH
1:30 pm ADJOURN

Conference Program:

- Monday, June 8:
  - Design and Modeling of Complex Systems
  - A Collective Decision-Making System for Complex Crisis Event
  - System Reliability Modeling Method Based on Conditional Probability
  - Distributed Systems and Algorithms
  - Case Model Study Based on Multi-dimensional Scenario Space Method
  - On the Formation Control of a Multi-Vehicle System
  - A Testing-Coverage Software Reliability Model and Model Comparisons
  - A Distributed Power Hardware-in-the-Loop Microgrid Simulator with Reduced-Voltage Components
  - On the Performance of Phased-Mimo Radar with Beamforming
  - Modeling of Washing Circuits in Mining - A Networked System Approach

- Tuesday, June 9:
  - Characterization of Hip Implant Surfaces
  - Physical Layer Secrecy Performance with Artificial Noise over Rayleigh/Rician Fading Channels

- Wednesday, June 10:
  - Industry Tours