

Oil Mist Filter Design : A CFD Approach
Ka-Shuen Fung (Hong Kong Institute of Vocational Education, Hong Kong)
Eric T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)

On Designing Virtual Environments based on Intelligent Mechatronic Systems
Ildiko Margit Pasc (University of Oradea, Romania)
Radu Catalin Tarca (University of Oradea, Romania)
Florin Popentiu-Vladicescu (University of Oradea, Romania)
Grigore Albeanu (University of Oradea, Romania)

Statistical Modeling of Gas Cooktop Efficiency and Greenhouse Gas Emissions
T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)
C.W. Leung (The Hong Kong Polytechnic University, Hong Kong)
W.L. Lo (The Hong Kong Polytechnic University, Hong Kong)
Y.W. Chan (The Hong Kong Polytechnic University, Hong Kong)

2:45 pm – 3:00 pm Break

SESSION 10

Tuesday, July 17, 3:00 pm - 4:30 pm

Reliability Design and Modeling of Complex Systems

Chair: John Quigley (University of Strathclyde, Scotland)

Reliability Design and Test Model in Manufacturing Facility Design
Heung-Suk Hwang (TongMyong University, Korea)
Suk-Tae Bae (TongMyong University, Korea)
Gyu-Sung Cho (TongMyong University, Korea)

Multivariagte Reliability Modelling with Empirical Bayes Inference
John Quigley (University of Strathclyde, Scotland)
Lesley Walls (University of Strathclyde, Scotland)

Accelerated Life Tests and Degradation Characteristics of Resistive Humidity Sensors under High Temperature and Humidity
Sung-Min Kim (Korea Testing Laboratory, Korea)
Dong-Hoon Hwang (Korea Testing Laboratory, Korea)
Jung-Won Park (Korea Testing Laboratory, Korea)
Jung-Keol Ham (Korea Testing Laboratory, Korea)
Myung-Soo Kim (The University of Suwon, Korea)
Geun-Tae Oh (The University of Suwon, Korea)

Bayesian Optimal Release Time based on Inflection S-Shaped Software Reliability Growth Model
Hee Soo Kim (Korea Testing Laboratory, Korea)
Dong Ho Park (Hallym University, Korea)
Shigeru Yamada (Tottori University, Japan)

SESSION 11

Tuesday, July 17, 3:00 pm - 4:30 pm

Product and Process Developments in Complex Environments

Chair: Ka-Shuen Fung (Hong Kong Institute of Vocational Education, Hong Kong)

Development of an Incentive Scheme for Technical Marketing Department in Electronic Component Distribution Industry
C. L. Chui (Willas-Array Electronics (Hong Kong) Limited, Hong Kong)
Y. C. Chan (City University of Hong Kong, Hong Kong)

A Requirement-based Methodology for Automotive Software Development
Jean-Louis Boulanger (Université de Technologie de Compiègne, France)
Quang-Dao Van (Université de Technologie de Compiègne, France)

Modeling of Public Bus Temperature and Velocity: A CFD Approach
T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)
Edmund M.F. Kwok (The Hong Kong Polytechnic University, Hong Kong)
K.P. Lee (The Hong Kong Polytechnic University, Hong Kong)
Y.C. Wong (The Hong Kong Polytechnic University, Hong Kong)

Process Modeling for Fruit Dehydration
K.H. Ng (The Hong Kong Polytechnic University, Hong Kong)
T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)



Wednesday, July 18, 2007 - Location: International University

SESSION 12

Wednesday, July 18, 9:00 am - 11:00 am

Complex Systems Modeling and Computing

Chair: Ho Thanh Phong (HCMC International University, Vietnam)

The Fuzzy Logic System for Risk Level Assessment
H.C.W. Lau (The Hong Kong Polytechnic University, Hong Kong)
E.N.M. Cheng (The Hong Kong Polytechnic University, Hong Kong)
F.T.S Chan (The Hong Kong Polytechnic University, Hong Kong)

Avoidance of Roll Resonance and Wave Impact on Board Ships
Knud Benedict (Wismar University of Technology, Germany)
Matthias Kirchhoff (Wismar University of Technology, Germany)
Michael Baldauf (Wismar University of Technology, Germany)

Computer Simulation Model of Green Houses for the Multi-Attribute Optimal Control of the Air-Conditioning
Wojciech Tarnowski (Technical University, Poland)
Bach Lam Bui (Technical University, Poland)

Simulation for Complex Systems through Predictive Maintenance
Vasile Anghel (National R & D Institute for cryogenics and Isotopes Technologies, Romania)
George Emilian Draghici (University "Politehnica" from Timisoara, Romania)

Application of Reliability / via Hole Testing using the Interconnect Stress Testing System to Improve the Reliability of Printed Circuit Board Assemblies used for DLP TVs
Sang-goo Kang (Samsung Electronics Co., Korea), Jun-woo Kim (Samsung Electronics Co., Korea)

SESSION 13

Wednesday, July 18, 9:00 am - 11:00 am

Complex Systems and Environments: Methods, Applications and Case Studies

Chair: Hurdy Su (Sususing Co., Ltd., South Africa)

An Approach to Fuzzy Markov Matrix with Application to Service Management - A Case of Rental Excavators
Jaw-Sin Su (Chinese Culture University, Taiwan)
Wen-Ling Chang (MasterLijk Co., Ltd., Taiwan)

Learning Object Oriented Concepts by using Intelligent Tutoring Systems
Tuan Nguyen (International University, Vietnam)

Gender Differences in English Learning with Fuzzy Logics -A Case Study
Yen-ju Hou (Shu Zen College of Medicine & Management, Taiwan)
Hsueh-yu Cheng (Shu Zen College of Medicine & Management, Taiwan)
Fen-ming Lee (Far East University of Technology, Taiwan)
Yi-an Hou (Far East University of Technology, Taiwan)
Wei-yu Chung (Far East University of Technology, Taiwan)

Reverse Auction Model for Argiculture Region and Effecting on The Structural Change of Region Multiagent Technology and GA Approach
Thuy Thanh Nguyen (Hanoi University of Technology, Vietnam)
Phat Van Nguyen (Hanoi University of Technology, Vietnam)
Tuyet Van Dao (HCMC Institute of InformationTechnology, Vietnam)

A Study on Creation of Hair Style in Design – A Case of Beauty Hair Center
Eing-Ji Song (Chienkuo Technology University, Taiwan)
Hurdy Su (Sususing Co., Ltd., South Africa)

11:15 am – 1:00 pm Lunch

1:15 pm – 4:00 pm Saigon High-Tech visit

4:00 pm Adjourn!



GENERAL CO-CHAIRS

Hoang Pham
Rutgers University, USA

Ho Thanh Phong
HCMC International Univ., Vietnam

Dong Ho Park
Hallym University, Korea

PROGRAM CHAIR

Eric T. T. Wong
Hong Kong Polytechnic Univ., HK

LOCAL ARRANGEMENTS CHAIR

Khanh Quoc Phan
HCMC International Univ., VN



ISSAT INTERNATIONAL CONFERENCE
ON Modeling OF Complex Systems AND Environments

JULY 16 – 18, 2007 - VIETNAM

INTERNATIONAL PROGRAM COMMITTEE

Jian Chen	China
Tommy K.L. Choy	HK
Kevin Edwards	UK
Mohamed Eid	France
Emilio Ferrari	Italy
K.Y. Fung	HK
Hong-Zhong Huang	China
Krzysztof Kolowrocki	Poland
Chin-Diew Lai	New Zealand
Alan K.T. Lau	HK
Randolph C.K. Leung	HK
Nikolaos Limnios	France
Krishna B. Misra	India
Jung Won Park	Korea
Nam V. Pham	Vietnam
Florin Popentiu	Denmark
Vadim Seleznev	Russia
Min Xie	Singapore

CONFERENCE SPONSOR

The International Society of Science and Applied Technologies (ISSAT)

IN COOPERATION WITH

IEEE Reliability Society
Rutgers University, USA
HCMC International University, Vietnam

THEME

The ISSAT International Conference on Modeling of Complex Systems and Environments (MCSE) is an international forum for presentation of new results, research development, case studies and applications in modeling the complex systems and environments. Papers may address any aspect of complex systems and environments. Papers dealing with case studies, experimental results, or applications of new or well-known theory to the solution of actual complex systems and environments are of particular interest.

www.issatconferences.org

Monday, July 16, 2007 - Location: Continental Hotel

8:15 am – 3:00 pm Registration

SESSION 1

Monday, July 16, 9:00 am - 10:00 am

Keynotes

Phan Thanh Binh, President, Vietnam National University, Vietnam

Hoang Pham, ISE Department Chair, Rutgers University, USA

Dong Ho Park, Dean, School of Natural Science, Hallym University, Korea

Ho Thanh Phong, Vice Rector, HCMC International University, Vietnam

10:00 am - 10:30 am Coffee Break

SESSION 2

Monday, July 16, 10:30 am - 12:00 noon

Modeling and Analysis for Complex Data Problems

Chair: Won Young Yun (Pusan National University, Korea)

Modelling of Decision-Making Process Relating to Design for Operational or Maintenance Properties of Complex Technical Items

Wieslaw Tarelko (Gdynia Maritime University, Poland)

Improving the Artificial Neural Network performance by Principal Components Analysis for Modeling High-Dimension Small-Sample Data Sets

Phuong Nga Nguyen (Hanoi Univ. of Technology, Vietnam)

Thanh Thuy Nguyen (Hanoi Univ. of Technology, Vietnam)

Ngoc Binh Nguyen (Vietnam National University, Vietnam)

Modeling Lactation Curves using New Zealand Data

Mark Bebbington (Massey University, New Zealand)

Chin-Diew Lai (Massey University, New Zealand)

Riāardas Zitikis (University of Western Ontario, Canada)

Performance Evaluation of Distributed Hash Table (DHT) CHord Algorithm

Chan Hung Nguyen (Hanoi University of Technology, Vietnam)

Hoang Giang Ngo (Hanoi University of Technology, Vietnam)

Tan Pek Yew (Panasonic Singapore Laboratory, Singapore)

12:00 pm – 1:00 pm Lunch

SESSION 3

Monday, July 16, 1:15 pm - 2:45 pm

Performability / Risk Complex Modeling

Chair: Emilio Ferrari (University of Bologna, Italy)

Checking Static Crosscuts of Aspect J Model using B Notation

Ninh Thuan Truong (Vietnam National University, Hanoi, Vietnam)

Viet Ha Nguyen (Vietnam National University, Hanoi, Vietnam)

Parameters Estimation in Ageing Models using Bayesian Approach

I. Žutautait (Lithuanian Energy Institute, Lithuania)

J. Augutis (Lithuanian Energy Institute, Lithuania)

E. Ušpuras (Lithuanian Energy Institute, Lithuania)

Optimization the Performance of Optical Mesh Networks by using Traffic Grooming Technique

Thanh Thao Thi Nguyen (International University, Vietnam)

A Study on Achievement Learning by Psychology Factors of College Students

Hsi-Lin Yang (Chienkuo Technology University, Taiwan)

2:45 pm – 3:15 pm Coffee break

SESSION 4

Monday, July 16, 3:15 pm - 4:45 pm

Optimization of Complex Dynamic Systems

Chair: Dong Ho Park (Hallym University, Korea)

Dynamic Performance Optimization of a Vibration Absorber for an Uncertain System using a Probabilistic Design Approach

Young Kap Son (Hanyang University, Korea)

Seog-weon Chang (Hanyang University, Korea)

Gordon J. Savage (University of Waterloo, Canada)

Optimization Based Design for 2-D Nonseparable Filters

Hung Q. Ta (University of New South Wales, Australia)

Tuan D. Hoang (University of New South Wales, Australia)

T. Q. Nguyen (University of California, San Diego, U.S.A.)

A Resource Allocation Model and an Efficient Solution Algorithm

Chih-Young Hung (National Chiao Tung University, Taiwan)

Jia-Ren Yang (National Chiao Tung University, Taiwan)

Li-Han Kao (National Chiao Tung University, Taiwan)

Yi-Hsin Liu (Hsuan Chuang University, Taiwan)

Dong Ho Park (Hallym University, Korea)

Optimal Stock Allocation of MIME System using GA and Simulation

Gue Rae Kim (Pusan National University, Korea)

Won Young Yun (Pusan National University, Korea)

Il Han Joung (Rotem, Co., Ltd, Korea)

Ho Gyun Kim (Dong-Eui University, Korea)

7:00 pm – 9:00 pm Reception

Tuesday, July 17, 2007 - Location: International University

SESSION 5

Tuesday, July 17, 9:00 am - 9:30 am

Plenary Talk “What Every Engineer Should Know About Working with Complex Systems”

Dev Raheja (Design for Competitiveness, Inc., USA)

Chair: Hoang Pham (Rutgers University, USA)

9:30 am – 9:45 am Break

SESSION 6

Tuesday, July 17, 9:45 am - 11:15 am

Data Mining and Information Processing

Chair: Ho Thanh Phong (HCMC International University, Vietnam)

An Infinite-server Queueing Model for Multi-task Processing System Based on Markovian Perfect Debugging Model with Two Types of Faults

Chong Hyung Lee (Konyang University, Korea)

Kyu Beom Jang (Hallym University, Korea)

Dong Ho Park (Hallym University, Korea)

An Algorithm for Processing Linear System in Modeling or Analysis

Mingquan Shi (University of Electronic Science & Technology of China, China)

Guanghui Jing (University of Electronic Science & Technology of China, China)

Haibo Sun (University of Electronic Science & Technology of China, China)

Modeling of Cryptographic Protocols in First-Order Logic

Jihong Han (Zhengzhou Information Science and Technology Institute, China)

Zhiyong Zhou (Zhengzhou Information Science and Technology Institute, China)

Yadi Wang (Zhengzhou Information Science and Technology Institute, China)

Lin Yuan (Zhengzhou Information Science and Technology Institute, China)

Multi-scale Features and SVM Algorithm in Analyzing Protein Subcellular Location Microscopy Images

Quoc Viet Ngo (University of Natural Science, Vietnam)

Thi Le Tran (University of Natural Science, Vietnam)

Dinh Thuc Nguyen (University of Natural Science, Vietnam)

SESSION 7

Tuesday, July 17, 9:45 am - 11:15 am

Industrial Automation and Maintenance Plants

Chair: T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)

A Cost Based Model for Failure Modes Analysis, Reliability Prediction and Magnitudo Evaluation of a Waste to Energy Plant

Riccardo Manzini (University of Bologna, Italy)

Emilio Ferrari (University of Bologna, Italy)

Alex Meccariello (University of Bologna, Italy)

Alberto Regattieri (University of Bologna, Italy)

Human Factor Modeling in Aircraft Maintenance

T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)

K.S. Pang (The Hong Kong Polytechnic University, Hong Kong)

The Research for the Ultrasonic Welding System in High-G Accelerometer

Xiaoming Liu (University of Electronic Science and Technology of China, China)

Lin Liu (University of Electronic Science and Technology of China, China)

Zhonggan Zhu (University of Electronic Science and Technology of China, China)

A TCP/AQM Fluid Flow Model for Congestion Control

Yuanqiu Li (The Hong Kong Polytechnic University, Hong Kong)

Jing Tao (The Hong Kong Polytechnic University, Hong Kong)

Jifeng Sun (The Hong Kong Polytechnic University, Hong Kong)

T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)

11:30 am – 1:00 pm Lunch

SESSION 8

Tuesday, July 17, 1:15 pm - 2:45 pm

Systems and Software Engineering Design and Safety

Chair: Dev Raheja (Design for Competitiveness, Inc., USA)

An Authentication Protocol based on Threshold Secret Sharing

Dinh Thuc Nguyen (University of Natural Science, Vietnam)

Ngoc Bao Tran (University of Natural Science, Vietnam)

Sustainable Cooktop Design: A Neural Factorial Design Approach

Tao Jing (The Hong Kong Polytechnic University, Hong Kong)

Sun Jifeng (The Hong Kong Polytechnic University, Hong Kong)

Li Yuanqiu (The Hong Kong Polytechnic University, Hong Kong)

T.T. Wong (The Hong Kong Polytechnic University, Hong Kong)

C.W. Leung (The Hong Kong Polytechnic University, Hong Kong)

Simulated Annealing Algorithm with Adaptive Cooling Schedule for Microscopy Image Segmentation

Quoc Viet Ngo (University of Natural Science, Vietnam)

Dinh Thuc Nguyen (University of Natural Science, Vietnam)

Phuoc Huy Dang (Dalat University, Vietnam)

Applying Pretopological Concepts & Negotiation Analysis to study Cockpit's Perspective to Collaborate Decision Making

Matthias Groppe (EPHE Sorbonne, France)

Marc Bui (EPHE Sorbonne, France)

SESSION 9

Tuesday, July 17, 1:15 pm - 2:45 pm

Integrated Information Systems in Complex Environments

Chair: Florin Popentiu-Vladicescu (University of Oradea, Romania)

MAS for Modelling Dynamic Manufacturing Systems

Tung Dang (University of Limerick, Ireland)

Cáthál Wilson (University of Limerick, Ireland)

Con Sheahan (University of Limerick, Ireland)

