

Program

December 13 (Thursday) 08:30 ~12:15 Venue: Macronix Building (1F)	
Time\Venue	International Conference Hall, Macronix Building (1F)
08:30~09:00	Registration
09:00~09:15	Opening Ceremony Chair: Wen-Ping Hsieh, National Tsing Hua University
	Ching-Kang Ing, National Tsing Hua University Chen-Fu Chien, National Tsing Hua University Henry Horng-Shing Lu, National Chiao Tung University Frederick Kin Hing Phoa, Academia Sinica
09:15~10:05	Plenary Session I Chair: Frederick Kin Hing Phoa, Academia Sinica Title: <i>Towards a General Approach to the Selection of Multi-Stratum Factorial Designs</i> Speaker: Ching-Shui Cheng, University of California, Berkeley and Academia Sinica
10:05~10:30	Tea Break
10:30~12:15	Session I Smart Manufacturing 1 Organizer: Jun Ni, University of Michigan Chair: Fan-Tien Cheng, National Cheng Kung University
	Title: <i>Architecture and Application of Industrial Internet Platform</i> Speaker: Dengji Zhou, Shanghai Jiao Tong University
	Title: <i>Prognostic Health Management for Smart Equipment Using Industrial Big Data and Artificial Intelligence</i> Speaker: Jun Ni, University of Michigan
	Title: <i>“Industry 3.5” as Hybrid Strategy to Empower Intelligent Manufacturing via Data-Driven Smart Production and Case Studies in Emerging Countries</i> Speaker: Chen-Fu Chien, National Tsing Hua University

December 13 (Thursday) 12:15 ~18:00 Venue: Engineering Building I (1F)	
12:15~13:05	Lunch Classrooms 101, 103, and 104, Engineering Building I (1F)
Time\Venue	107 IEEM/PME Auditorium, Engineering Building I (1F)
13:05~14:50	Session II Smart Manufacturing 2 Organizer: Ying Lu, Stanford University Chair: Nan-Jung Hsu, National Tsing Hua University
	Title: <i>The Inspection Report for the SN-Ratio Optimum Prediction Accuracy of Taguchi Two Step Design. Is It D Grade?</i> Speaker: Teruo Mori, The Mori Consulting Office
	Title: <i>Fault Detection and Identification in Multi-Component Manufacturing Processes</i> Speaker: Ka Wai Tsang, The Chinese University of Hong Kong, Shenzhen
	Title: <i>Intelligent Manufacturing and Industry 4.1</i> Speaker: Yu-Chuan Lin, National Cheng Kung University
14:50~15:10	Tea Break
15:10~16:55	Session III Complex Data Analysis in Industry and Business Organizer: Ching-Kang Ing, National Tsing Hua University Dennis K.J. Lin, The Pennsylvania State University Chair: Wen-Han Hwang, National Chung Hsing University
	Title: <i>Ghost Data</i> Speaker: Dennis K.J. Lin, The Pennsylvania State University
	Title: <i>Machine Learning for 3D Printing Accuracy Control</i> Speaker: Qiang Huang, University of Southern California
	Title: <i>Predictive Analytics for Smart Commerce Applications</i> Speaker: Wei-Chung Hwang, Industrial Technology Research Institute
16:55~17:00	Break
17:00~18:00	Panel Discussion I Moderator: Henry Horng-Shing Lu, National Chiao Tung University

December 14 (Friday) 08:30 ~12:15 Venue: Macronix Building (1F)	
Time\Venue	International Conference Hall, Macronix Building (1F)
08:30~09:10	Registration
09:10~10:00	Plenary Session II Chair: Regina Y. Liu, Rutgers University Title: <i>Service Life Prediction of Field-Exposed Units Based on Laboratory Accelerated Degradation Test Data</i> Speaker: William Q. Meeker, Iowa State University
10:00~10:30	Tea Break
10:30~12:15	Session IV Reliability Organizer: Sheng-Tsaing Tseng, National Tsing Hua University Chair: Yufen Huang, National Cheng Kung University
	Title: <i>Systems Resilience: Recovery Modeling and Trending</i> Speaker: Loon Ching Tang, National University of Singapore
	Title: <i>Critical Fault-Detecting Time Evaluation in Software with Discrete Compound Poisson Models</i> Speaker: Shuen-Lin Jeng, National Cheng Kung University
	Title: <i>EM-Type Algorithms for System Reliability Data Analysis</i> Speaker: Hon Keung Tony Ng, Southern Methodist University
	Title: <i>Field Return Rate Prediction within Warranty Period (Based on Laboratory Testing Data)</i> Speaker: Sheng-Tsaing Tseng, National Tsing Hua University

December 14 (Friday) 12:15 ~ 18:00 Venue: Engineering Building I (1F)	
12:15~13:05	Lunch Classrooms 101, 102, and 104, Engineering Building I (1F)
Time\Venue	107 IEEM/PME Auditorium, Engineering Building I (1F)
13:05~14:50	Session V Applications of Copula in Industry Organizer: Dae-Heung Jang, Pukyong National University Chair: Meihui Guo, National Sun Yat-sen University
	Title: <i>Confidence as Likelihood</i> Speaker: Youngjo Lee, Seoul National University
	Title: <i>Change Point Detection Method with Copula Conditional Distributions to Multistage Sequential Control Chart</i> Speaker: Jong-Min Kim, University of Minnesota at Morris
	Title: <i>Penalized Variable Selection for Copula Survival Models with Clustered Survival Data</i> Speaker: Il Do Ha, Pukyong National University
	Title: <i>Modeling the Dependence in Compound Model Using Copula Representation</i> Speaker: Jae Youn Ahn, Ewha Womans University
	Title: <i>A Bayesian Inference for Time Series via Copula-Based Markov Chain Models</i> Speaker: Li-Hsien Sun, National Central University
14:50~15:10	Tea Break
15:10~16:55	Session VI Quality Control and Management in the Big Data Era: Some Recent Research and Applications Organizer: Peihua Qiu, University of Florida Chair: Peihua Qiu, University of Florida
	Title: <i>Systems Monitoring and Personalized Health Management</i> Speaker: Kwok Leung Tsui, City University of Hong Kong
	Title: <i>Quality Big Data</i> Speaker: Fugee Tsung, Hong Kong University of Science and Technology
	Title: <i>From Disease Surveillance to Image Monitoring: Challenges in Modern SPC Applications</i> Speaker: Peihua Qiu, University of Florida
16:55~17:00	Break
17:00~18:00	Panel Discussion II Moderator: Jong-Min Kim, University of Minnesota at Morris

December 15 (Saturday) 08:30 ~ 16:30 Venue: Engineering Building I (1F)	
Time\Venue	107 IEEM/PME Auditorium, Engineering Building I (1F)
08:30~09:00	Registration
09:00~10:15	Short Course 1 <i>Fundamentals of Machine Learning for Predictive Data Analytics</i> Part I Instructor: Yuh-Jye Lee, National Chiao Tung University and Academia Sinica
10:15~10:45	Tea Break
10:45~12:00	Short Course 1 <i>Fundamentals of Machine Learning for Predictive Data Analytics</i> Part II Instructor: Yuh-Jye Lee, National Chiao Tung University and Academia Sinica
12:00~13:30	Lunch Classrooms 101, 102, and 103, Engineering Building I (1F)
13:30~14:45	Short Course 2 <i>Modern Statistical Process Control Charts and Their Applications for Analyzing Big Data</i> Part I Instructor: Peihua Qiu, University of Florida
14:45~15:15	Tea Break
15:15~16:30	Short Course 2 <i>Modern Statistical Process Control Charts and Their Applications for Analyzing Big Data</i> Part II Instructor: Peihua Qiu, University of Florida