

# NCTS Workshop on Industrial Statistics and its Applications

**Tuesday 26 – Wednesday 27 June 2012**

The field of industrial statistics is broad, both in theory and in application. In this workshop, we invite 12 outstanding researchers of various fields and focus on frontier research topics of Data Mining, DOE, Reliability, and SPC. The main goal of this workshop is to share interesting research topics and exchange research experience with colleagues in the industrial statistics research group (ISRG) at NCTS.

The speakers and the title of their talks are listed as follows:

- **Barry C. Arnold** (Department of Statistics, UC Riverside, USA)  
On Some Bivariate Lifetime Models with Given Conditional Failure Rate Structure.
- **Yi-Li Hong** (Department of Statistics, Virginia Tech., USA)  
Photo-degradation Path Modeling and Analysis with Non-linear Mixed Models.
- **Ying Hung** (Department of Statistics, Rutgers University, USA)  
A New Method for Developing Metamodels
- **Seoung Bum Kim** (School of Industrial Management Engineering, Korea University, Korea)  
Recent Trends in Data Mining.
- **Shuen-Lin Jeng** (Department of Statistics, Cheng Kung University, Taiwan)  
Accelerated Destructive Degradation Tests Robust to Distribution Misspecification.
- **Dennis K, J. Lin** (Department of Statistics, Penn State University, USA)  
Dimensional Analysis and Statistics.
- **Regina Liu** (Department of Statistics, Rutgers University, USA)  
An Exact Meta-analysis Approach and Its Applications to Binary Experiments with Rare Events.
- **William Q. Meeker** (Department of Statistics, Iowa State University, USA)  
Methods for Planning Accelerated Repeated Measures Degradation Tests.
- **Jyh-Jen Horng Shiau** (Institute of Statistics, National Chiao Tung University, Taiwan)  
Nonparametric Monotone Regression for Generalized Linear Models with Applications to Wafer Acceptance Tests.
- **Kaibo Wang** (Department of Industrial Engineering, Tsinghua University, China)  
A Spatial Variable Selection Method for Monitoring Product Surface in Semiconductor Manufacturing.
- **David Shan Hill Wong** (Department of Chemical Engineering, Tsing Hua University, Taiwan)  
Run-to-run Control in a Mixed Product Manufacturing Environment with Variable Metrology Delay.
- **Arthur B. Yeh** (Department of Applied Statistics and Operations Research, Bowling Green State University, USA)  
A Distribution-Free Phase-I Control Chart for Individual Observations Based on Empirical Likelihood Ratio.

## Schedule

Time	June/26	June/27
09:20-09:30	<b>Speech by the Director of NCTS</b>	
09:30-11:30	<b>Reliability Modeling (I)</b> Session Chair: Regina Liu	<b>Design of Experiment</b> Session Chair: Shao-Wei Cheng
Speaker I	William Q. Meeker	Regina Liu
Speaker II	Shuen-Lin Jeng	Dennis Lin
11:30-13:30	<b>Lunch</b>	
13:30-15:30	<b>Reliability Modeling (II)</b> Session Chair: W. Q. Meeker	<b>Statistical Process Control (I)</b> Session Chair: Dennis Lin
Speaker I	Barry C. Arnold	Arthur Yeh
Speaker II	Yili Hong	Ying Hung
15:30-16:00	<b>Tea Break</b>	
16:00-18:00	<b>Data mining</b> Session Chair: Arthur Yeh	<b>Statistical Process Control (II)</b> Session Chair: Ying Hung
Speaker I	Seoung Bum Kim	Kaibo Wang
Speaker II	David Shan Hill Wong	Jyh-Jen Horng Shiau
19:00	<b>Dinner</b>	