

Announcement (as of Dec. 14, 2004)

## **International workshop on**

**The Grammar of Technology Development**  
**-Accelerating New Technology Development by Statistical Thinking-**

**January 17-18, 2005**

**University of Tsukuba, Tokyo campus**

Hosted by

Grant-in-Aid for Scientific Research, Ministry of Education, Culture, Science and Technology

University of Tsukuba

Transdisciplinary Federation of Science and Technology

Japanese Society for Quality Control

## Invitation

I am privileged to announce that a research group (representative Hiroe Tsubaki, University of Tsukuba) supported by Grant-in-Aid for Scientific Research, Ministry of Education, Culture, Science and Technology at University of Tsukuba will host

### **International workshop of the Grammar of Technology Development -Accelerating New Technology Development by Statistical Thinking-**

on January 17-18, 2005 at Tokyo Campus of University of Tsukuba.

Computer simulation is becoming popular in many fields, such as manufacturing industry, communication, at many stages, such as design and development of product, production design. This trend implies the necessity to develop a grammar of technology development whose core is computer simulation with statistical thinking.

In order to accelerate new technology development, there is a need to utilize the computer simulation in an effective way. In particular, it is crucial to have knowledge to utilize computer simulation, such as techniques of data collection, data analysis, model fitting, approximated function as well as the importance of the knowledge on simulated field. This workshop focuses on the techniques that support to utilize computer simulation effectively.

One of the features of this workshop is an interdisciplinary approach, because the difficulty of this subject. We believe that some in depth discussions from various viewpoints derive a grammar of technology. Some candidate sessions are shown in the below.

- Application of computer simulation in industry
- New statistical tools of design of experiments for computer simulation
- Linkage of Mathematical programming with computer simulation
- Simulation technology and data mining, etc
- Effective application of SQC in practice
- Data mining and computer simulation
- Review of software in terms of effective application

Another feature of this workshop is post publication after the workshop. Some excellent papers are published in a special issue. More details will be informed you later.

Thank you very much for your joining!

**Workshop chair:**  
**Hiroe Tsubaki, (Professor, University of Tsukuba)**

## **Dates & Venue**

The workshop is held during January 17-18, 2005 at Tokyo campus of University of Tsukuba. The home page address will be informed you soon.

## **Schedule**

January 17(Mon) 9:00-18:00

January 18 (Tuesday) 9:00-12:00

(More details are shown in the attached pages)

## **Official language**

The official language of the workshop is English.

## **Proceedings**

A CD ROM of the proceedings will be provided at the site.

## **Topics**

The topic for papers will include the following sectors and quality approaches.

Application of computer simulation in industry

New tools of design of experiments for computer simulation

Linkage of Mathematical programming with computer simulation

Simulation technology and data mining, etc

Effective application of SQC in practice

Data mining and computer simulation

## **Registration**

Registration fee is free. For the preparation, all participants are requested to send registration form via e-mail addressing to [GrammarTechnology@hotmail.com](mailto:GrammarTechnology@hotmail.com) with the followings.

Name, Affiliation, E-mail address, Regular mail address, Telephone number

## **General Information**

Passport & Visa

A valid passport and visa is required for visiting Japan. If an invitation letter is requested, please contact to Shu YAMADA.

## **Electricity**

The electricity supplied in Tokyo is 110V, 50Hz.

Contact person

Shu YAMADA

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Date	From	To	Contact author	Affiliation	Title	
17-Jan	9:00 AM	9:05 AM	Opening remarks	Shu Yamada	University of Tsukuba	Opening Address
	9:05 AM	9:50 AM	Opening Address	Hiroe Tsubaki	University of Tsukuba	
	9:50 AM	10:30 AM	Keynote address	Kai Tai Fang	Hong Kong Baptist University	
	Break					
	10:45 AM	11:15 AM		Mutsumi Yoshir	Denso corporation	SQC and Digital Engineering---Technological Trends in Design Parameter Optimization and Current Issues
	11:15 AM	11:45 AM		Tomohiko Saka	Mitsubishi Research Institute	Effective Use of QFD and LCA for Environmentally Conscious Design
	11:45 AM	12:15 PM		Kakuro Amasak	Aoyama gakuin University	Establishment of Process Layout CAE System "TPS-LAS" - Advanced TPS, Key to Successful Strategy of New JIT at Toyota
	Lunch					
	1:30 PM	2:15 PM		Geoff Vining	Virginia Tech	Adapting Response Surface Methodology for Computer and Simulation Experiments
	2:15 PM	2:45 PM		Hiroki Hashiguc	Saitama University	Maximum Likelihood Method of Code Acquisition in a Chip-Synchronous Direct-Sequence Spread-Spectrum Communication
2:45 PM	3:15 PM		Nobuoki Eshim	Oita University		
Break						
3:40 PM	3:20 PM		Dennis Lin	Pennsylvania State Univeristy	Mixture Tree Analysis with Application to Genome Sequence Study	
3:20 PM	3:50 PM		Tomomi Matsui	The University of Tokyo		
3:50 PM	4:20 PM		Grace Chen	Arizona State University		
4:20 PM	4:50 PM		Ken Nishina	Nagoya Institute of Technology		

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18-Jan	9:00 AM	9:30 AM	Yukio Osawa	University of Tsukuba	
	9:30 AM	10:00 AM	Masahiro Matsuo	Osaka University	
	10:00 AM	10:30 AM	Naoki Makimoto	University of Tsukuba	A hybrid simulation approach for performance evaluation of distributed client/server systems
	Break				
	11:00 AM	11:30 AM	Takashi Ishii	Mizuho Information and research	The latest environment of optimization software in engineering
	11:30 AM	12:10 PM	Shu Yamada	University of Tsukuba	Closing address