

## Keynote Presentations

---



Tue – 9 Dec, 9.00 to 9.45am

### **The Nexus Between Creativity and Innovation at the National Library Board**

**N Varaprasad, PhD**

Chief Executive, National Library Board – Singapore

#### **ABSTRACT**

The National Library Board, through the National Library Singapore and the network of Public Libraries provides a trusted and globally-connected library and information service designed to promote a knowledgeable and engaged society.

In this paper, the keynote speaker will explore the nexus between Creativity and Innovation and explain how the Board has used this to generate creative ideas and develop innovative applications that have marked out NLB as a one of the most enterprising and leading edge library systems in the world. In doing so, it has transformed libraries in Singapore as lifestyle destinations, but also worldwide as many metropolitan libraries have come here to study its success story and replicate it at home.

#### **ABOUT THE KEYNOTE SPEAKER**

Dr N Varaprasad is a lifelong educator, starting his career in 1972 at the Faculty of Engineering, University of Singapore. In 1985, he ventured into educational management and leadership in the polytechnic sector, becoming founding Principal of Temasek Polytechnic in 1990.

In 2001, he returned to the National University of Singapore as Deputy President in overseeing the Corporate cluster. Since 2004, he has been Chief Executive of the NLB, responsible for developing the National and Public libraries in Singapore to promote a vibrant, creative and engaged society. In June 2005, he launched the Library2010 strategic plan, “Libraries for Life, Knowledge for Success”, aimed at bringing the libraries into the digital world.

In January 2008, he was one of only two Singaporeans to be named “Champion of Creativity” by the American Creativity Association, for his work in transforming polytechnic education in Singapore.



Tue – 9 Dec, 9.45 to 10.30am

## **Process Mining and RFID**

**Dennis K.J. Lin**

University Distinguished Professor  
Penn State University - USA

### **ABSTRACT**

A well-defined business process which reflects the dependencies among tasks is desirable for modern business intelligent. Processes are typically modeled as annotated activity graphs. The traditional method is using the workflow paradigm to prescribe how business processes should be performed. Process mining (or Workflows mining), on the other hand, is to construct process models from event logs of past (the data). This technique aims at improving the underlying processes by providing techniques and tools for discovering process, control, data, organizational, and social structures from event logs. The discovered information can be used to develop new systems that support the execution of business processes or as a feedback tool that helps in analyzing and improving the performed business processes. Process mining raises a number of interesting scientific questions coming to several kinds of the challenges of process mining.

This talk will first introduce the general idea and the objectives of our study. The existing algorithms for process mining will be discussed and compared. A new algorithm which is especially good for the case when the event logs (data) contain errors is proposed. Followed an overview of recent development on RFID (Radio Frequency Identification), a process mining application on RFID will be discussed.

### **ABOUT THE KEYNOTE SPEAKER**

Dr. Dennis Lin is a University Distinguished Professor of Supply Chain Management and Statistics at the Penn State University. His research interests are quality assurance, industrial statistics, data mining and response surface. He has published near 150 papers in a wide variety of journals and is editor of Applied Stochastic Models for Business and Industry.

Dr. Lin is an elected fellow of the American Statistical Association (ASA), an elected member of International Statistical Institute (ISI), an elected fellow of American Society of Quality (ASQ), a lifetime member of International Chinese Statistical Association (ICSA), a fellow of the Royal Statistical Society (RSS), and has received the Most Outstanding Presentation Award from SPES, ASA. He is also the recipient of the 2004 Faculty Scholar Medal Award at Penn State University, and is currently a Chang-Jiang Scholar at Renmin University of China.



Wed – 10 Dec, 9.00 to 9.45am

## **Industrial Engineering and Challenges in the Global Economy**

**E. A. Elsayed**

Professor and Director of the NSF Center for Quality and Reliability Engineering, Rutgers University - USA

### **ABSTRACT**

The economies of world countries are intertwined and are strongly dependent on each other. This has created many challenging opportunities for the industrial engineering profession. IEs play a major role in every aspect of the economy including manufacturing, production, transportation, energy and health care. Moreover, the customers expect “high” quality products at minimum cost and readily available. In this presentation, we will provide examples of challenges and opportunities for the IE professional to impact the global economy. We address issues related to the preparation of future IEs in order to play a more effective role in this economy.

### **ABOUT THE SPEAKER**

Dr. E. A. Elsayed is a Professor in the Department of Industrial Engineering. He is also Director of the NSF / Industry / University Co-operative Research Center for Quality and Reliability Engineering, Rutgers-Arizona State University. He served as chairman of the Department of Industrial and Systems Engineering at Rutgers 1983-2001.

His research interests are in the areas of quality and reliability engineering and Production Planning and Control. He is a co-author of *Quality Engineering in Production Systems*, McGraw Hill Book Company, 1989. He is the author of *Reliability Engineering*, Addison-Wesley, 1996. These two books received the 1990 and 1997 IIE Joint Publishers Book-of-the-Year Award respectively. Dr. Elsayed is also a co-author of *Analysis and Control of Production Systems*, Prentice-Hall, 2nd Edition, 1994. Dr. Elsayed has served as the Editor-in-Chief of the IIE Transactions. He is also an Editor for the *International Journal of Reliability, Quality and Safety Engineering*. He serves on the editorial boards of other journals such as *International Journal of Production Research* and *Computers and Industrial Engineering*. Prof Elsayed received his MSc and BSc from University of Cairo, Egypt, and he has a PhD in Industrial Engineering from University of Windsor, Windsor, Canada.