

Institutional Speaker

Dr. Tsutomu Matsumoto

Japanese -Thai KOSEN Institute of Engineering and Technology, Japan

National Institute of Technology appointed Dr. Tsutomu Matsumoto as Director of Japan-Thai Kosen Institute. He has served as Chair for Subcommittee on Global Strategy, Committee on Educational Reform and Vice Director, Center for International Exchange at the National Institute of Technology (NIT) which administers 51 national colleges of technology in Japan for 2011AY-2016AY. He joined the NIT faculty in 1978 and had taught electronic engineering, computer science and information engineering and electronic control engineering at NIT, Kumamoto College for 35 years, and served as Department Chair and Director of Problem Based Learning & Integrated Education Center. Throughout his career, he has played a leading role in building KOSEN's international network of collaboration. In particular, he started with polytechnics in Singapore the International Symposium on Advances in Technology Education (ISATE) aimed at providing a unique platform for educators and experts from institutions of higher education in engineering and technology around the world to share their knowledge and experiences to prepare young people with relevant knowledge and skills needed for a better society.



His broad research interest includes the design and implementation of information system for welfare, artificial intelligence (AI) and mobile robotics, embedded system, engineering education and global human resource education. He earned his Ph.D. from Graduate School of Science and Technology, Kumamoto University in 2004.

Institutional Presentation

Historical Background of Establishing KOSEN

Dr. Tsutomu Matsumoto

Japanese -Thai KOSEN Institute of Engineering and Technology, Japan

KOSEN engineering education has been highly evaluated over the world wide especially South East Asia, Africa, South America and Central Asia. Engineering/technology education at KOSENs has been improved since school starting in pedagogy such as adopting PBL (Project Based Learning, Problem Based Learning), on an going basis updating facility and revising course structure and so on. So that KOSEN has evolved over a long period of time.

Although future prediction is key to the growth of KOSEN, we have also that the Fools say they learn from experience; I prefer to learn from the experience of the others. In this talk, we try to look back the KOSEN history. What are important things would be discussed through looking back history of KOSEN.

This talk consists of four parts from predawn of KOSEN history, such as reason of KOSEN establishment, to present at the settlement of bachelor degree course.

1. Back ground of KOSEN foundation
Postwar rebuilding, Shortage of engineer, Over a short amount of time.
2. Starting to transfer KOSEN graduates to university (Revise education system)
Foundation of Nagaoka & Toyohashi University of Technology. Other national universities have opened the gate for KOSEN graduates.
3. Bachelor degree course at KOSEN
4. Playing an important role of not only industrial field but academic filed
5. Discussion

Institutional Speaker

Dr Somyot Kaitwanidvilai

King Mongkut's Institute of Technology Ladkrabang (KMITL), Thailand

Somyot Kaitwanidvilai received the B.Eng. degree in Electrical Engineering from KMITL in 1996, M. Eng. degree in Electrical Engineering from KMITL in 2000 and D. Eng. degree in Mechatronics Engineering from AIT in 2005. His research interests include Power Electronics, Artificial Intelligence in Power Electronics, Power System Applications, Robust and Adaptive Control, Neural Network and Fuzzy Logic Control and Mechatronics. He actively participated as the Vice President for the Thai Robotic Society. Now he works as an Associate Professor in Electrical Engineering at the Department of Electrical Engineering. In terms of administrative responsibility, he was assigned as the Head of Department of Electrical Engineering and Computer, Assistant Dean for Academic Affairs, and also the Assistant Dean for Administration at Naresuan University. He held the position of the Vice Dean for Research at the College of Advanced Manufacturing Innovation, KMITL as well. Currently he is the Vice Dean for Academic Affairs at Faculty of Engineering, KMITL.



Institutional Presentation

KMITL “The Master of Innovation”

Dr Somyot Kaitwanidvilai

King Mongkut’s Institute of Technology Ladkrabang (KMITL), Thailand

King Mongkut’s Institute of Technology Ladkrabang (KMITL) was firstly introduced in 1960 as the Nonthaburi Telecommunication Training Center and become Nonthaburi Institute of Telecommunication (NIT) a few years later. With the donation of vast land and grants, the institute had become the full-state university in 1985. Currently, the university has expanded into 12 faculties and colleges and Faculty of Engineering is the largest unit in term of the number of students, faculties, and programs. Faculty of Engineering is the engineering school with more than 90% graduate employability within an academic year. There are over 20,000 undergraduate students and more than 3,500 graduate students on the campus. The goal of the university is to become the premier education institute with the emphasis on research in science and technology, creating innovation and knowledge for nation’s development and toward international success. KMITL has steered toward a top ten science and technology university in ASEAN by 2020. KMITL has extended its research and development in the industrial sector with the highest number of collaborative activities and obtained the highest research grants from industries. In addition, KMITL has joined with more than 50 international universities and companies around the world ever since 2012. With these collaborative establishments in research and education, KMITL has been recognized as one of the leading science and technology universities in ASEAN.

Institutional Speaker

Ms Anne Norström

Turku University of Applied Sciences, Finland

Anne Norström, is the Head of Education and Research in the Department of Chemical Engineering at the Faculty of Business, ICT and Chemical Engineering in Turku University of Applied Sciences. She received the M.Sc. degree in Chemical Engineering from the Åbo Akademi University in 1993 and the Lic. Tech degree in Physical Chemistry from the same university in 1997. Previously she worked as a Senior Lecturer and Project Manager at the department of Biotechnology and Life Sciences in the same university. Before joining Turku University of Applied Sciences she has over 10 years of experience from the chemical industry, developing coating chemicals for as well as the paper and the glass fibre industries. Her research interests include i.e. surface modification and characterization of inorganic materials for enhanced functionality. During her industry career, Lean philosophy was applied in the business. Anne has been applying Lean principles to the university and especially focusing on the activities in the research laboratories.



Institutional Presentation

Lean Principles Applied to University for Enhanced Student Flow

Ms Anne Norström

Turku University of Applied Sciences, Finland

Lean is generally known as a management philosophy from late 19th- and 20th-century industrial engineering. The aim of lean was to eliminate wasteful practices and to deliver increased value to the customer. Lean practices have over the decades evolved to become easy to apply into various fields. It has been reported that lean principles have been applied in higher education both within university administration and academic services.

This paper presents how Lean principles were applied into the Department of Chemical Engineering daily activities. The project started with a value stream mapping and definition of the key activity processes. All definition work was made with the student in the focus. There were two main initiatives for the project. The first initiative was the students' progress in the studies. The yearly target of 55 ECTS per student seemed hard to achieve. A concern acknowledged was also that the yearly amount of graduated students in the program did not meet the set targets. The second initiative was the work load of the personnel. Focusing the resources on value adding activities will result in a smaller workload for the teachers. For example was the intense informatics email traffic among the personnel remarkably decreased by initiating 15 min daily meetings.

The department research laboratories are an essential learning environment for the students. The challenges in the laboratory environment are introduced every fall by approximatively 70 newcomers beginning their studies there. No former working experience in such environment introduce issues for the students such as safety, housekeeping, reporting and maintenance. Lean 5S program has successfully been applied to the research laboratories and the procedures are maintained by the student groups.