

Institutional Speaker

Mr Hee Joh Liang

Singapore Polytechnic, Singapore

Mr Hee Joh Liang joined the Singapore Polytechnic (SP) in Feb 2009 as Dy Principal (Corporate Development). Prior to joining SP, he worked in the education industry in the public and private sectors. He was the Senior Director of National Computer Board in charge all the 11 clusters, including Education Cluster. He was the master planner for the IT in Education Master Plan for the entire nation. He worked very closely with the Ministry of Education in implementing the ambitious \$2 billion Masterplan for IT in Education. He is currently Deputy Principal (Development). This portfolio cover the operations of four departments, SP International and User Experience Centre (UXC).



Mr Hee plays an important role as a change agent. Having championed the adoption of Design Thinking (DT) within the institution, he helped SP establish DWS which assists local enterprises using the fundamental principles of design to solve business challenges. Through these efforts, the local enterprises gain new insights, perspectives and possibilities for future strategic growth and success.

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Institutional Presentation

PolyMall: A Joint Polytechnic Learning Management System to Encourage Lifelong Learning

Mr Hee Joh Liang

Singapore Polytechnic, Singapore

In 2016, 96,000 students and staff from the 5 polytechnics in Singapore were able to access modules offered by the other Polytechnics on a common Learning Management System called PolyMall. Conceptualized in 2014, this mega learning management system (LMS) was jointly developed by the 5 polytechnics. To set up the LMS in the shortest time period, an Off-the-Shelf Software as a Service solution was chosen based on its ability to meet the learning experiences the polytechnics wanted for their students. The system was configured to meet the stringent data privacy laws that governed the polytechnics while allowing for public access and browsing of content.

The objectives of the joint LMS was to enrich the students' learning experiences and encourage them to go beyond their course of study to explore topics and subjects that they are interested in. Hence, while the students are pre-enrolled into modules related to their course of study, they can self-enroll into other modules available on PolyMall that interest them. In addition, through the catalogue and search features, they can browse advanced modules that are taught to working adults, thus encouraging students to adopt a lifelong learning habit of mind.

PolyMall showcases the collaboration of both technical and educational specialists in the polytechnics. It involved five different sub-committees that focused on the system's Technical development, Functional capabilities, Pre-employment module development, Content for Continuous Education, and Online Professional Development workshops for faculty. Each sub-committee was led by one polytechnic but had members from all polytechnics. The presenter will share the details of the co-ordination and collaboration among the members that were of utmost importance to the successful implementation of PolyMall

Institutional Speaker

Dr. Shigeru Tadano

National Institute of Technology (NIT), Japan

Dr. Shigeru Tadano is currently the executive director of National Institute of Technology NIT and in charge of education reform. He is also the President of NIT Hakodate College in Hokkaido. Formerly he was a professor of Mechanical Engineering in Hokkaido University, Japan. He moved to NIT Hakodate College in 2015. He is currently an adjunct and visiting professor of School of Health Science in Hokkaido University. His main area of research interest is biomechanics on orthopedic medicine and bio-medical engineering. In Hokkaido University, he was the director of Creative Research Institute Organization (2012-2014), the executive advisor on research strategy (2010-2013), a member of University Council Committee (2008-2010), Vice Dean of Faculty of Engineering (2006-2010), the executive advisor on planning and management (2004-2006), etc. In major academic societies, he is a member of SCJ (Science Council of Japan), JSME (Japan Society for Mechanical Engineers), ASME (American Society for Mechanical Engineers), ISB (International Society for Biomechanics), ESB (European Society for Biomechanics), etc.



Institutional Presentation

Quality Assurance System for Engineering Education in KOSEN

Dr. Shigeru Tadano

National Institute of Technology (NIT), Japan

The National Institute of Technology NIT, Japan, organizes 51 colleges established in all over the country (KOSEN, 55 campuses, including 5 College of Maritime Technology), and provides the unified and successful higher-education system of five years for young students of fifteen years old in all campus, under close cooperation with industry, to bring up top-level practical and creative engineers. The quality assurance for the KOSEN education is strongly expected to establish as an institution of higher engineering education. It is important to clarify the education outcomes to inside and outside community and industry. In this report, I will introduce an update system of KOSEN aimed to the quality assurance of education. These systems are based on the Model Core Curriculum (MCC), which is composed in some subject groups for cross-sectional skills for engineer requirements, basic skills for any fields, specialized skills for expertise. MCC is covered in 60-70% for whole curriculum in every college. The PDCA cycle performs in four stages. (Plan) the syllabus including rubric is provided in Web site. (Do) education, lesson, training and practice learning. (Check) Computer Based Testing CBT is for the evaluation of performance level of knowledge and experimental skill. (Action) education reform and faculty development feed backed from the evaluation. At next year 2018, MCC will start in all college.

Institutional Speaker

Mr Jimmy TANG

Institute of Vocational Education (IVE), Hong Kong

Jimmy TANG received a bachelor degree in Mechanical Engineering from the University of Sheffield, UK, in 1989, a master degree in Mechanical Engineering from the University of Hong Kong and a master degree in Computing in Hong Kong Baptist University, in 1993 and 2004 respectively.



In 1990, he joined the Hong Kong Aircraft Engineering Company Limited (HAECO), as Graduate Trainee and in 1993 became Engineer. Since 1997, he has been employed by the Vocational Training Council (VTC), where he was a Lecture, became a Senior Lecture, and a Project Manager at the Engineering Discipline of the Institute of Vocational Education (IVE) in 2016.

In VTC, he has also hold concurrent posts as the Training Quality Manager and Training Manager at IVE(Tsing Yi) respectively under the Hong Kong Aviation Requirement-147. His major duties include overseeing development of aviation and aircraft maintenance programmes and training facilities. He is a Member of the Royal Aeronautical Society (RAeS), the Institution of Mechanical Engineers (IMechE) and the Hong Kong Institution of Engineers (HKIE), a Specialist of The Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ) and an Assessor of the Hong Kong Laboratory Accreditation Scheme (HOKLAS).

He currently serves as a Committee Member of the Royal Aeronautical Society (HK Branch) and the Hong Kong Institution of Engineers (HKIE) for the Aircraft Discipline, the Aircraft Division, the Continuing Professional Development Committee and the Training Committee respectively.

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Institutional Presentation

Aircraft Maintenance Training for Young Talent in Hong Kong

Mr Jimmy TANG

Institute of Vocational Education (IVE), Hong Kong

The aviation industry is a key contributor to Hong Kong's economy. The Government has announced in its Policy Address to strengthen Hong Kong's edge as a major aviation hub in the region. There will be 123,000 direct jobs associated with Hong Kong International Airport (HKIA) including aircraft maintenance after completion of the Three-runway System in 2024.

As a leading provider of vocational and professional education and training (VPET) in Hong Kong, Vocational Training Council (VTC) has addressed the demands of the talent to meet the rapid growth of new aircraft fleets in coming decade. The Hong Kong Institute of Vocational Education (Tsing Yi), IVE(TY), of VTC holding the Hong Kong Aviation Requirement-147 Approved Aircraft Maintenance Training Organisation status has developed the training scopes for the aircraft maintenance licence of Category A1, B1.1 and B2* since 2003. To enhance the learning outcomes, students are arranged to receive practical training in actual maintenance environment in Hong Kong and Mainland China respectively. Virtual reality (VR) technology has also been introduced to the programmes for learning enhancement. Students can be exposed to a wide range of simulation experiences in working on aircraft with more interactive learning. To meet the changing technology of new aircraft types, IVE(TY) has commenced to develop a state-of-the-art training center for aircraft maintenance.

Over the years, IVE (TY) of VTC has produced a number of high quality graduates for air maintenance industry.