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March 24 13:30 ~ 15:00 Bldg.#6 Sakai Memorial Hall

Plenary Session 1

Masakatsu Matsuishi

Director, Project Education Center,
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Masakatsu Matsuishi graduated in 1964, received a Master of Science degree in 1966 and received a doctorate of Engineering in 1969 at Osaka University, Japan. As a research scientist, he visited the Hydraulics Laboratory at the University of Iowa, USA in 1984. In his professional career, he was a manager of the Electronics & Information Laboratory and Director of the Planning Office of New Business & Products Hitachi Zosen Corporation from 1966 to 1998, and a principal engineer at Hitachi Zosen Information Systems, Inc. in 1999. His research interests are engineering education, engineering design, structural mechanics, and reliability engineering. Professional engineering educator.

The Factory for Dreams and Ideas: Workspaces to Support and Encourage Hands-on and Experiential Learning of C-D-I-O

Kanazawa Institute of Technology (KIT) is concentrating on developing self-directed, innovative, and productive engineers. KIT established the Factory for Dreams and Ideas (Yumekobo) in 1993. The mission of Yumekobo is to enhance students' motivation and creativity, and to develop technical competence and professional skills through hands-on and experiential learning activities. Yumekobo is designed to be available to the entire campus population all through the year. Yumekobo offers technical courses and safety training so that any students can produce models/prototypes safely and easily. Over 50% of KIT students (approx. 3,500) work at Yumekobo at least once a year. Yumekobo supports 14 students' projects (Yumekobo projects). Yumekobo project is defined as a student project in which students experience the full creative process of planning, market survey, design, fabrication, operation, and troubleshooting in team work. Although students do not get any credits for Yumekobo project activities, they are eager to perform creative and innovative activities in a team. And in doing so, Yumekobo project enable students to enhance their technical capability and personal/interpersonal skills.

This paper discusses the details of hands-on and experiential learning activities at Yumekobo, students' achievement of educational objectives, and continuous improvement program of Yumekobo.