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Keiichi Sato graduated in 1972 and received a doctorate in engineering in 1977 from Tohoku University, Japan. His current research focuses on cavitation phenomena and waterjet technology in fluids engineering as well as on active learning methodology in engineering education. He is one of the main members on the CDIO Committee of Kanazawa Institute of Technology. Professional engineering educator.

Innovative Engineering Education with Community-Based Projects at Kanazawa Institute of Technology

Kanazawa Institute of Technology (KIT) has carried out several educational reforms since 1995. Key features of KIT's educational program include an active learning system based on CLIP (Comprehensive Learning Initiative Process), engineering design education as the main pillar of the curriculum, and work spaces such as the "Factory for Dreams and Ideas". The educational goal of KIT is to foster "engineers who can act with initiative based on well-informed decisions." To achieve the goal, KIT has endeavored to establish an educational program in which students can cultivate a "comprehensive competency" which consists of academic skills combined with personal and interpersonal skills. At KIT, the latter skills are considered to consist of five competencies: independence/autonomy, leadership, communication, presentation, and collaboration. Learners advance in professional abilities as the two kinds of skills mutually reinforce each other. This KIT learning model, in which the personal and interpersonal skills are interwoven with the academic program, is called CLIP. In this presentation, the framework of KIT engineering education will be explained together with examples of KIT community-based projects, which have an important role at KIT in providing a real-world context and motivating the students.