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Wen-ling Hong graduated in 1993 from National Taiwan University and received a Master of Science and Engineering Degree and received a PhD in 2000 from University of Michigan, Ann Arbor, USA. She had a background in experimental fluid dynamics. After joining the faculty of NKMU, she has been involved with interdisciplinary teaching and research since 2007. She is particularly interested in the role of engineering practice in today's complex environments. Her research interests include engineering education reform, engineering ethics, the making of technocrats and experts in Environmental Impact Assessments, public participation on pollution and remediation issues in local communities, industrial heritage, and gender in science and technology. She and her colleagues have organized a yearly national students' competition on handmade ship models since 2006, under the sponsorship of the National Science Council. The courses she has offered include Engineering Project for 1st Year Students, Engineering, Ethics and Society, English and Technical Presentation for Engineers, Engineering Laboratory. Currently, she also serves as the Dean's assistant to handle the student and international affairs for the College of Engineering, NKMU.

Reshaping Engineering Learning from a Social Design Perspective

Engineering disciplines are diverse in terms of their science, materials, scales and applications. However, it is commonly accepted that engineering learning involves theories, calculation, practices and design, for example. However, efforts to bridge the gap between skills building and applying them to the real world have been challenging for the engineering educators. The speaker proposes reshaping the engineering learning through designing a social world in engineering schools for spontaneous development of technical competence and understanding of the real world problems. People, interactions and materials are some of the main entities in a social world. Many ways have been put forward by engineering educators around the globe and implemented. Such as, carefully created space can facilitate more discussions and team works. Community based engineering projects encourage students to learn skills in accessing the needs from the citizens and design for the society. New engineering curriculums incorporate real world issues such as engineering ethics and effective communication into traditional courses. Engineering educator can adapt the social design concepts to reshape the social world in their teaching circumstance instead of focusing on individual pedagogical strategies.