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March 26 9:10 ~ 10:00

Bldg.#23, Innovation and Design Studio

Plenary Session

Johan Malmqvist

Professor, Product Development,
Chalmers University of Technology, Gothenburg, Sweden
Co-leader and Co-founder of the CDIO Initiatives



Johan Malmqvist obtained his PhD from Chalmers in 1993 and was appointed professor in 2005. His research focuses on development methodologies and IT support for product development (PLM). His current projects investigate methods and tools for development of product-service systems and knowledge-based engineering tools. He is also heavily engaged in the renewal of engineering education. As a dean of education, he is responsible for Chalmers education programmes in mechanical, automation, industrial design engineering as well as the naval programmes. He was one of the co-founders of the Conceive-Design-Implement-Operate Initiative, an international effort that aims to develop a new vision for engineering education. The approach towards engineering education that has been developed by the CDIO Initiative has been adapted by a large number of international universities.

Sustaining educational change – The case of a strategic and long-term CDIO implementation at Chalmers University of Technology

Education development is sometimes seen as a “project” where a reform is initiated and implemented during a period of a few years. However, one can also argue that the project phase should be seen as merely the start of a long-term development process, and that a large potential for improvement lies in the ability to sustain an enduring improvement process, resembling industrial continuous improvement approaches mastered by leading manufacturing firms such as Toyota.

The presentation will start from a case study of a strategic and long-term CDIO implementation project at Chalmers University of Technology. A set of success factors for sustainable education will be identified. Finally, a process for education change management will be presented, providing both a roadmap for long-term educational reform and concrete advice for specific steps.