

4th International CDIO Conference
ACTIVE ENGINEERING EDUCATION

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University College Ghent
Ghent, Belgium.

Title Strategies for Identifying and Overcoming Barriers to CDIO reform

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Type of Presentation: (check one)

active paper (15-30 min)

poster session (60 min)

advanced workshop (45 min)

round-table session (60 min)

advanced workshop (90 min)

Short Description (50 words or less to be published in the programme, please include the learning objectives for participants in your session)

This session attempts to rationalise the factors which result in resistance toward curriculum reform, and suggest strategies for preventing and dealing with resistance toward CDIO implementation.

Participants will be given opportunity to identify and analyse signs of resistance in their own institution and compare implementation strategies from the perspective of preventing and dealing with resistance.

Relevance to the Conference Theme, Strands, and/or CDIO Initiative

Please indicate (tick) the strand that the presentation most closely relates to.

Application of CDIO to a wide range of disciplines

The involvement of industry

Development of professional competences

Design-implement experiences

Supporting sciences and CDIO

Student involvement

Curriculum and programme design

Technology-enhanced learning

Assessment of professional competences

Facilitating change in engineering education

Evaluating the impact of CDIO Programs

Active and experiential learning

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Abstract (maximum one A4 sheet)

“An historic change is taking place in higher education; teaching is being taken more seriously. At long last, after years of criticism and cries for reform, more and more colleges and universities are re-examining their commitment to teaching and exploring ways to improve and reward it.”

Peter Seldin (2007)

This paper examines resistance toward CDIO curriculum reform and attempts to identify strategies to prevent and deal with resistance within the institution: related to faculty, students, administrators, procedures, rules, traditions etc.

Examples will be given from three institutions, The Royal Institute of Technology (KTH), University of Liverpool and Singapore Polytechnic. The following themes shall govern the study because they are the inherent differences from which the three institutions resonate:

- Leadership culture
- Curriculum Structure
- Faculty Autonomy
- Reform Support/training
- Level of Implementation

Specifically, the paper contains recommendations and strategies for possible solutions to barriers to curriculum innovation efforts. The impact of curriculum reform efforts within the three institutions substantiates the strategies that are suggested in this paper. The purpose is to inform and assist faculty who are planning for CDIO reform and encourage them to take the lead to ensure innovation success.

REFERENCES

1. Seldin, P. 2007. *The Teaching Portfolio - A practical guide to improved performance and promotion/tenure decisions*, 2nd Ed. Jossey-Bass Anker Pub. Co. Inc.
2. Guskin, Alan E. & Marcy, Mary B. 2003. “Dealing with the Future Now: Principles for Creating a Vital Campus in a Climate of Restricted Resources.” *Change*.
3. McClenney, B. (2003). Better links between community colleges and adult education programs needed. *Community college times*, 1014, 7

Active presentation techniques

Describe one or two ways in which you intend to engage the audience (for example, paired discussion, personal response using clickers or flash cards ...). This section is a decisive factor in the acceptance of your proposal and the amount of time you will be allocated.

Active presentation technique(s) to be used:

Session outline:

20 min presentation with PRS activities throughout

10 min sharing of participant's experiences and strategies (group discussion, write strategies on poster, successful or unsuccessful)

Facilities/equipment required (tick all those appropriate)

- √ Computer projector (provided in all locations)
Overhead projector
- √ Flip charts and pens
- √ Clickers (personal response system)
Coloured flash cards
Post-it notes
Other (please describe)

Send all proposals via e-mail as MS Word or pdf files to jgaywood@liv.ac.uk
on or before December 7th 2007