

Proposal for 4th International CDIO Conference
ACTIVE ENGINEERING EDUCATION

June 16-19, 2008
University College Ghent
Ghent, Belgium.

Title

Advanced Workshop for pedagogical professionals on supporting CDIO development

Authors and Affiliations

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In addition, members of the CDIO Teaching, Learning, and Assessment Theme group will help to organize and facilitate the workshop.

Type of Presentation

_____ active paper (15-30 min)

_____ poster session (60 min)

_____ advanced workshop (45 min)

_____ round-table session (60 min)

 X advanced workshop (90 min)

Short Description

This workshop will be guided by the principles of good teaching, learning, and assessment. This highly interactive workshop will actively engage participants and give them ample opportunity to share their expertise with each other. Participants will learn how to implement these principles from pedagogical experts and leaders of support centres.

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

Abstract

See attached

Active presentation techniques

Active presentation technique(s) to be used:

Think-Pare-Share to identify local and general impediments to pedagogical improvement;

Case studies of Pedagogical Support Centres and Programs;

Environmental scan intended to identify participants' institutional readiness to adopt the CDIO approach to teaching, learning and assessment (i.e., standards);

Exercises to provide basis and format for draft plans for pedagogical improvement relevant to local engineering education contexts based on the principles of good teaching, learning, and assessment;

Practical materials and references for further exploration and development;

Use of the CDIO teaching, learning, and assessment theme group as a "learning community" after the conference to share ideas and help solve problems

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)

Abstract

Title Advanced Workshop for pedagogical professionals on supporting CDIO development

Leaders

The members of the CDIO Teaching, Learning, and Assessment Theme group have extensive experience in developing and implementing pedagogical improvement programs and centres. They will be involved in planning and conducting the workshop.

Goals

This advanced workshop is intended to:

- (1) bring together pedagogical professionals who are associated with CDIO engineering education reform efforts,
- (2) serve as a forum for sharing experiences regarding pedagogical improvement, and
- (3) provide a means for ongoing collaboration through the CDIO Teaching, Learning, and Assessment Theme group

Learning outcomes

Participants will:

- (1) gain knowledge and skills related to the adoption of the CDIO through a planned change process; and
- (2) learn how to create plans for enhancing teaching, learning, and assessment in local CDIO engineering education programs.

Workshop Agenda

Introduction (10 minutes): Overview of workshop and introduction of leaders and participants (this will be done by having groups of three introduce themselves to each other and then introduce their team members to the larger group)

Think-Pare-Share Exercise (20 minutes): Each participant will identify local impediments to pedagogical improvement. They will share their thinking with one-or two partners and together they will come up with a more general list which will then be shared with the whole group to develop a master list of impediments

Case studies of pedagogical support centres and programs (30 minutes): workshop leaders and selected participants with extensive experience in pedagogical improvement will lead the discussion of ways to organize improvement efforts;

Environmental scan and planning for improvement (30 minutes): Participant will begin the process of planned change regarding the adoption of CDIO as an innovation. They will be provided with worksheets to help them, first, identify their institutions' level of readiness to adopt the CDIO approach to teaching, learning and assessment (i.e., standards) and, second, develop plans for pedagogical improvement relevant to local CDIO engineering education contexts based on the principles of good teaching, learning, and assessment.

Take aways: Practical materials and references for further exploration and development; Introduction of the CDIO Teaching, Learning, and Assessment theme group as a "learning community" to share ideas and help solve pedagogical problems after the conference.