4th International CDIO Conference

ACTIVE ENGINEERING EDUCATION

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

Title
Multidisciplinary role of modern engineers, how CDIO can address this?

Authors and Affiliations
Author who acts as contact person:
 Durga Murti
Asset Integrity Advisor
Chevron Corporation
Kuwait
durga.murti@chevron.com
 + 965 7710964 (Cell)
+ 965 395 1059 (H)

Type of Presentation: (check one)
___   Active paper (15-30 min)
_____ Poster session (60 min)   _____ round-table session (60 min)
_____ advanced workshop (45 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)
The present day trend amongst employers is to employ more of 'well rounded', 'generalist' engineers than specialists. Reputed companies implement cross-functional postings for their engineers to departments as varied as HR (Human Relations) and Finance.
What's the rationale behind and should CDIO pay any heed?
This paper provokes some thoughts on this issue.

 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	Curriculum and programme design
The involvement of industry	Technology-enhanced learning
Development of professional competences	Assessment of professional competences
Design-implement experiences	Facilitating change in engineering education
Supporting sciences and CDIO	Evaluating the impact of CDIO Programs
Student involvement	Active and experiential learning

Abstract

There is a clear shift in employers' expectations of the desirable skills from a fresh graduate. This might be due to shortage of engineers/ technocrats due to demand supply situation and burgeoning economics and industrial growth in most of the countries worldwide.
The focus has shifted on a well rounded engineer who can think 'out of the box', are 'ready-to-go' and know 'a-bit-about-all' and not married to their chosen discipline.

How this could be achieved?

- Provide forums/ curriculum for students to enable them to see the bigger picture.
- Teach them how their discipline/ functions dovetail with others in the institute.
- More involvement in the industries shop- floor and 'hands-on', work-study programs.
- Institute/ industry business partnerships.
- Lecture/ workshops series through school/ industry partnerships.

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:

- Role-play by participants as working in different functions of an oil/ gas industry.
- Break different functions in an industry into jigsaw puzzle pieces, ask the participants to assemble. Participants understand that while each piece of the jigsaw is important, it is more important that they fit together and work as a team to see and make the complete picture to manage the lifecycle of an asset/work executions etc.

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**

• Application of CDIO to a wide range of disciplines
• Curriculum and programme design
• The involvement of industry in engineering education
• Technology-enhanced learning
• Development of professional competences
• Assessment of professional competences
• Design-implement experiences
• Facilitating change in engineering education
• Supporting sciences (maths, physics, chemistry …) and CDIO
• Evaluating the Impact of CDIO Programs
• Student involvement in the development of engineering education
• Active and experiential learning

Deadlines

Call for papers opens	September 30, 2007
Proposal submission deadline	**December 7, 2007**
Notification of acceptance	February 8, 2008
Paper submission deadline	**April 18, 2008**
Slide submission deadline	June 9, 2008

Session Types

Interactive Paper/Presentation 15- 30 min.
The content of papers selected for presentation will be published in the conference proceedings but the presenters are encouraged to present only one or two elements of their paper using interactive techniques.

Poster Session 60 min.
No formal presentation. Authors will be available to answer questions during the poster session. It is possible to include the formal paper or slides in the conference proceedings.

Round-Table Session 60 min.
The panel chairman introduces a topic; the round-table members engage in an informal discussion with a maximum of ten participants and produce a summary report of their conclusions.

Advanced Workshop 45 or 90 min.
The conference programme includes introductory workshops for those new to CDIO. In addition, delegates can present topics for further interactive working sessions. Slides and handouts may be included in the conference proceedings.

Conference At-A-Glance

Monday, June 16, 2008
Start of introductory workshop for those new to CDIO; concurrent conference sessions.

Tuesday, June 17, 2008
Plenary session, round-tables, concurrent sessions, poster session, introductory workshops.

Wednesday, June 18, 2008
Plenary session, concurrent sessions, introductory workshops.

Thursday, June 19, 2008
Business meetings for International Collaborators (open to all conference participants).

Questions

For further details about the conference, go to http://www.cdio.org/meetings
For other questions, contact Janet Gaywood, jgaywood@liv.ac.uk +44 151 794 4664.

Description – a 50-word description of your session to be published in the conference programme. Please take into consideration that you will not have time to present all the details of your written paper and that we will give preference (and more time) to proposals which involve the active participation of the public.

Abstract – a description of your research, project, or programme. You may include results, conclusions and recommendations, but the abstract is limited to one side of an A4 sheet.

Relevance – a brief description of the ways in which your presentation is relevant to the conference theme, strands, or the CDIO Initiative.

Presentation Techniques – a brief description of the active techniques you will be using, e.g., small-group activities, group discussion, clickers. We will provide computer projectors. All slides must be loaded onto these projectors prior to the start of each session. Indicate whether you will need any other equipment.