

The International Journal of
**ENGINEERING
EDUCATION**

CALL FOR PAPERS
SPECIAL ISSUE ON

DESIGN-CENTRIC ENGINEERING EDUCATION

Contributions are invited to a special issue of the International Journal of Engineering Education (IJEE) conforming to the theme of Design-Centric Engineering Education.

Traditional engineering education strategies focus largely on the delivery of fundamental engineering principles of core and important subjects which are subsequently leveraged on in the design of new products and technological solutions. With rapid advancement of new technologies, increase in global and accelerated time-based competitions, high density of population and demand for complex solutions, such approaches have become questionable in terms of the production of engineers with keen eyes for problems and a strong aptitude to design solutions around them.

A design-centric education encompasses multiple disciplines and focuses project development driven by clear design objectives. It is an innovative learning pathway to educate engineers of tomorrow such that they are well-equipped to lead in solving complex and multi-disciplinary problems associated with major challenges facing the world today. Thus, approaches in engineering education programs need to be devised or aligned to provide students with extensive exposure to real-life issues and problems, in which, students learn to recognize the problems or difficulties, formulate project objectives from the identified problems, analyse and diagnose the problems and devise a most appropriate solution.

This special issue is intended to collate realisable ideas as well as models and tested implementations of a design-centric engineering education. Examples of topics of interest include, but not limited to:

- Design-centric programs and delivery;
- Assessment methods for these programs;
- Comparison of different approaches with design-centric curriculum;
- Coordination of students and facilities;

- Impact of design-centric curriculum on traditional learning pathway;
- Difficulties with implanting design-centric programs in engineering education;
- Pedagogical, philosophical and historical reflections on design-centric approaches;
- Economic studies of design-centric approach in education systems;
- Examples of design-centric project implementation.

Important Deadlines

Extended abstracts (around 2 pages) June 30, 2011

Notification of acceptance July 31, 2011

Submission of manuscripts September 15, 2011

Reviewers' feedback November 30, 2011

Submission of final manuscripts January 15, 2012

Submissions are to be sent by e-mail in MSWord to Professor Kok Kiong, Tan, Dr Hwee Choo, Liaw, or Professor Huixing, Zhou. The mailing addresses of the guest editors are as follow:

Prof. Kok Kiong, Tan
 Department of Electrical and Computer Engineering, Faculty of Engineering, National University of Singapore, 4 Engineering Drive 3, Singapore 117576
eletankk@nus.edu.sg

Dr Hwee Choo, Liaw
 Engineering Dean's Office, Faculty of Engineering, National University of Singapore, 9 Engineering Drive 1, Singapore 117576
englhc@nus.edu.sg

Prof Huixing, Zhou
 College of Engineering, China Agricultural University, 42-2-1901, 17 Qinghua Donglu Haidian District, Beijing, P.R. China, Postal code 100083
hzhou@cau.edu.cn

General information and guidelines are available on the IJEE Web site: www.ijee.ie.
 Formatting guidelines for the final manuscript can be found at <http://www.ijee.ie/GuideForAuthorsNov09.html>.