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SPECIAL EDITION

Conceive – Design – Implement – Operate (CDIO) Initiative

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Editorial

The UICEE is pleased and, indeed, honoured to be able to release this Special Edition of the *World Transactions on Engineering and Technology Education (WTE&TE)*, marked Vol.5, No.2, and titled: *Conceive – Design – Implement – Operate (CDIO) Initiative*, for a worldwide distribution.

A few months ago, we were approached by members of the Management Team of the CDIO Initiative, based at Massachusetts Institute of Technology (MIT), Boston, USA, whether we would be interested in publishing a selection of articles concerning the current status, activities and achievements of those institutions and individuals who are involved in this Initiative. Since the UICEE endeavours to be in the forefront of modern developments concerning engineering and technology education, since the UICEE commission includes the promotion of new international ideas and developments, and since the UICEE has already published several papers by members of the CDIO Initiative, we were delighted by this offer and decided to undertake this important responsibility.

Over the last few years, there have been several international initiatives that intend to modernise and advance engineering and technology education, and the CDIO Initiative seems to be the most prominent one, which involves several outstanding academic establishments based in highly developed countries, where engineering and technology education has a long history of spectacular achievements. With the major changes in higher education coming from the enormous technological advancements and the process of globalisation, the CDIO Initiative, through its Syllabus and the CDIO Standards, goes down straight to the very core of engineering and technology education that is by offering a holistic approach to the design of a modern curriculum in engineering and technology education, including all the stakeholders involved in this process. Moreover, it seems that the CDIO Initiative may have a tremendous impact on the global process of accreditation of engineering and technology programmes, and may lay the foundation for the development and advancement of a global accreditation system principally based on the CDIO Standards.

This Special Edition is a collection of articles presented at the two most recent CDIO conferences, held last year in Kingston, Canada, and in June this year in Linköping, Sweden, and includes 27 most informative articles coming from representatives of 16 academic institutions in 10 countries worldwide. As it has been emphasised by the international referees, the quality of these articles is very high, and the articles address a wide range of ideas and issues related to engineering and technology education in those academic institutions that decided to accept this new CDIO Initiative in their teaching/learning programmes. It is believed that the articles included in this Special Edition, being revised and expanded versions of the papers presented at the meetings mentioned above, offer the most significant contribution to the field of engineering and technology education, and, as such, deserve a wide global distribution.

On this occasion, the UICEE wishes to express its sincere gratitude to Prof. Johan Malmqvist of Chalmers University of Technology, Göteborg, Sweden, for accepting the duty of the Guest Editor and one of the international peer referees of this Special Edition, a task which he performed in a highly professional manner. Hence, the quality of this Edition is due to this exceptional job carried out by Prof. Malmqvist.

Special thanks are directed towards the UICEE international referees without whom the process of publication of this Special Edition would not have been possible as, despite their day-to-day commitments, they have performed this tedious and time consuming duty in a short span of time. On this occasion, the UICEE international referees were:

- Prof. Colin U. Chisholm, Glasgow Caledonian University, Glasgow, Scotland, UK
- Prof. Nikos J. Mourtos, San José State University, San José, USA
- Prof. Derek O. Northwood, University of Windsor, Windsor, Canada
- Prof. Remigiusz Sosnowski, Silesian University of Technology, Gliwice, Poland

In conclusion, I would like to say that the UICEE is proud and privileged to have been able to undertake the publication of these articles in its WTE&TE journal and, generally, to be associated with the CDIO Initiative, which involves so many outstanding international engineering schools and individual academics. I am absolutely convinced that this Special Edition will become an important source of information on engineering and technology education in the years to come, and will promote the CDIO philosophy further on a global scene. Also, it is my pleasant duty to congratulate the authors of the papers included in this Special Edition for their tremendous academic achievements, and I wish to thank all the authors of the articles for their willingness to share their ideas and accomplishments with others.