
Editorial

Early September 1998 saw a new venture for the UNESCO International Centre for Engineering Education (UICEE) take shape in the glorious city of Cracow, Poland, in the form of the first *Global Congress on Engineering Education*. This inaugural Congress incorporated the *4th East-West Congress on Engineering Education*, the *5th World Conference on Engineering Education* and the *1998 International Congress of Engineering Deans and Industry Leaders*, and was attended by more than 150 participants from 30 countries.

The main objective of this first *Global Congress on Engineering Education* was to bring together academic, industry and governmental leaders and to confront them with contemporary problems and challenges of engineering education and industrial training. Particular emphasis was placed on how best to assist education institutions in developing countries and countries in social, political and economic transition in their efforts to restructure and modernise their university engineering education. A number of papers included in this special edition of the journal directly contribute to this important task.

Close to 20 keynote addresses, major contributions to engineering education by outstanding international academics, along with 120 regular papers, were presented at the Congress, all of which are collated in a hard-bound volume of Congress Proceedings, a substantial tome that should prove to be an essential reference for some time to come. The papers present and discuss research and developmental activities in engineering education carried out throughout the world. Particular emphasis was placed on globalisation of engineering education to stress the importance and relevance of collaboration between universities worldwide. Of particular interest and value are the many papers from authors in developing countries and countries in political, economic and social transition. Some of these papers present considerable achievements made over the last few years, while others demonstrate that some of these countries still grapple with fundamental changes to be made to their systems of engineering education.

This special edition of the *Global Journal of Engineering Education* (GJEE) collects revised and expanded versions of selected keynote addresses and lead papers, as well as UICEE award winning papers. The latter are democratically selected by registered participants for their significant contribution to engineering education. Typically, five awards are presented in the diamond, platinum, gold, silver and bronze categories, but with joint first place shared by three outstanding papers, and the bronze award shared by two papers, six awards were presented in the diamond, silver and bronze categories. The six papers are:

- Diamond *Broad-based collaborative partnerships for technical interaction between academia, industry and non-engineering sectors*, by R. Kasuba and P. Vohra, Northern Illinois University, DeKalb, Illinois, USA.
- Diamond *New curricula of engineering directed to global engineering or to promote international co-operation of engineering education?*, by K. Detert, University of Siegen, Siegen, Federal Republic of Germany.
- Diamond *Educating engineers for the environment: a pilot study on how students assess the concept in engineering curricula*, by D.Q. Nguyen and Z.J. Pudlowski, Monash University, Melbourne, Australia.
- Silver *Multivariable control system design: making it more transparent*, by H.M. Schaedel and R. Bartz, University of Applied Sciences Köln, Köln, Federal Republic of Germany.
- Bronze *The computer is critical for globalisation of engineering education*, by B.L. Crynes, University of Oklahoma, Oklahoma, USA.
- Bronze *Cross-border engineering practice*, by R.C. Jones, (formerly) National Society of Professional Engineers, Alexandria, Virginia, USA.

As Director of the UICEE, I declined to accept the diamond award, which was accepted by Ms Duyen Nguyen, co-author of the paper.

The last paper included in this edition of the journal is by Dr Russel C. Jones and represents his personal overview of the Congress and its outcomes. Although the paper was presented at the 2nd UICEE Annual

Conference on Engineering Education held at the Auckland Institute of Technology, Auckland, New Zealand, from 10-13 February 1999, it was thought to be appropriate to include it here.

It should be noted that several important initiatives that may have a strong impact on the status and quality of engineering education and training in the world have been formulated and will be undertaken as a consequence of the Global Congress. This includes research on a global curriculum so needed for developing countries. It is also hoped that many new activities will emerge in the near future in consequence of the Congress. The publication and distribution in the GJEE of these Congress papers ensures that the value of their contribution to engineering education continues beyond the event itself.

I wish to thank my international colleagues for their contribution to the *Global Congress on Engineering Education*, and, indeed, to this Special Edition of the GJEE.

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