

Guest Editorial

It is a privilege to be invited to coordinate and edit this special issue of the *International Journal of Engineering Education*. It is a very demanding task. The major tasks in this issue involved not only the selection and the reviewing of the papers but also the preparation of a CD-ROM version of the issue, which includes the texts and the sample virtual instruments (VIs) used in the papers.

The principal aim of this issue is to provide some background knowledge about technology-intensive and alternative engineering education solutions, and is to inspire and encourage others. The issue is not intended to convert teaching and learning to be purely technology driven; instead it aims to show the potential applications in engineering and the new role of the educators in this information age.

The issue includes eleven papers. The first paper highlights some of the engineering applications and provides some basic knowledge about the software LabVIEWTM and gives some future directions. The following papers focus on the major engineering disciplines and provide very valuable implementation details highlighting educational outcomes. The topics of the papers included in the issue are: teaching PID and fuzzy logic controllers, distance laboratory applications and real-time control, biomedical engineering laboratory, interdisciplinary hands-on learning

approaches, vision-based experiments, instrumentations and electrical engineering laboratory, and teaching engineering with Lego/LabVIEW interfaces.

I would like to acknowledge the following people for their support, which made this special issue possible: the editor Prof. Michael Wald for his encouragement and understanding, Prof. Jim Henry for his contribution as a Guest Editor for USA papers and for his valuable comments, and the authors for their contributions and patience. I also would like to thank to Mr Ravi Marawar of National Instruments Corp. for his logistic support, providing valuable advice and organising the CD-ROM production.

Finally, please remember that the LabVIEW applications are open-ended. In the development stage of your specific application(s), the sample virtual instruments included in the CD-ROM may provide very valuable information. I will also encourage you to contact the authors and refer to the other applications for further details, of which some are listed in the survey paper together with the WWW addresses. I hope that the applications presented in this issue will be a source of inspiration and a valuable reference for the readers.

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