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**Part 1**

**Special Issue on Designing Engineering Education**

**Guest Editor**

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**Part 2**

**Contributions on Engineering Education Policy,  
Visualisation, Assessment in Software Engineering,  
Engineering Mechanics, Electronic Engineering**

# The International Journal of ENGINEERING EDUCATION

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**M. S. Wald**, Dublin Institute of Technology, Bolton Street, Dublin, Ireland  
Tel: (International) +353 27 61400; Fax: (+353 1) 4023999; E-Mail: ijee@eircom.net  
Website: <http://www.ijee.dit.ie>. Editor's direct phone: (+353 27) 61400.

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# The International Journal of ENGINEERING EDUCATION

## AIMS AND SCOPE

This journal serves as an international interdisciplinary forum and source of reference for engineering education. A balance between papers on developments in educational methods and technology, case studies, laboratory applications, new theoretical approaches, educational policy and survey papers is aimed for. Comprehensive coverage of new education schemes and techniques makes the journal a unique source of ideas for engineering educators who are keen to keep abreast with latest developments in educational applications in all fields of engineering. The journal will cover engineering education news and open debates on engineering education policy related topics of transnational interest.

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News items of transnational interest, including courses and workshops, should be submitted to the Editor-in-Chief, **Dr. Michael Wald** [ijee@eircom.net](mailto:ijee@eircom.net)

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**Ruiz**—Learning Engineering as Art: An Invention Center

**Barak**—Systematic approaches for inventive thinking and problem solving: implications for engineering education

**Johnstone**—A University project to produce an analogue robot kit for schools: Do customer-based projects affect student motivation?

**Xu**—Computer-Aided Concurrent Environment for Manufacturing Education

**Liu, Landers**—Integrated Modular Machine Tool Simulation for Education in Manufacturing Automation

**El-Hajj, Kabalan**—The Use of Spreadsheets to Calculate the Convolution Sum of Two Finite Sequences

**Simpson-IME, Inc.**—A New Course for Integrating Design, Manufacturing, and Production into the Engineering Curriculum

**Liu, Schonwetter**—Teaching Creativity in Engineering

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**Grimheden, Stromdahl**—The Challenge of Distance: Opportunity Learning in Transnational Collaborative Educational Settings

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**Qu**—Using XML/Java to Enhance Online Learning Architecture in Engineering Education

**O'Doherty**—Working as part of a balanced team

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**Ball**—A Student Learning Environment without the overhead? Reviewing Costs and Benefits of CAL Within a Manufacturing Course

**Salama**—A Model Project for Screening and Assessing ECE Capstone Senior Design: Video Compression and Error Concealment Over the Internet