

1st World Conference on Technology and Engineering Education

Preface

These Proceedings include papers submitted for the *1st World Conference on Technology and Engineering Education* (1WCTEE). The Conference was organised by the World Institute for Engineering and Technology Education (WIETE) in collaboration with the Department of Electrical and Power Engineering (DEPE) in the Faculty of Electrical Engineering, Automatics, IT and Electronics at AGH University of Science and Technology, Kraków, Poland, and held at this University between 14 and 17 September 2010.

This *1st World Conference on Technology and Engineering Education* was built on a series of extremely successful events, such as the World Conference on Engineering Education (Sydney 1989, Portsmouth 1992, Minneapolis - St Paul 1995); East-West Congress on Engineering Education (Kraków 1991, Łódź 1993, Gdynia 1996); and then the Global Congress on Engineering Education (Kraków 1998, Wismar 2000, Glasgow 2002, Bangkok 2004 and New York 2006).

Based on extensive experience gained earlier in conducting research, development and promotional activities in the international arena, the principal strategy envisaged for the WIETE is to create an independent, interactive and friendly international environment in which academics, industry leaders and members of the global community can freely express their views and develop ideas without prejudice or discrimination. Organised conferences are one of the ways in which the WIETE intends to fulfil this important goal.

The important and prevailing aim of the Conference was to raise the profile of technology and engineering education further and to provide an international forum for the exchange of information on research and developmental achievements in technology and engineering education. The Conference aimed to air, address and discuss fundamental issues, opportunities and challenges that contemporary academia faces in its efforts to prepare future technologists and engineers capable of taking on the increasingly advanced, complex and sophisticated technology and production processes. The Conference was a showcase of research and development activities carried out by academics in the Department of Electrical and Power Engineering (DEPE).

Highlights of the Conference included the launch of the *Mediterranean Centre for Engineering and Technology Education* (MCETE), the first of the WIETE *satellite centres*, as they are known, that will be based at the Technological Education Institute (TEI-Piraeus) in Piraeus-Athens, Greece. The launch was conducted by Prof. George Metaxas, Dean of the Faculty of Engineering at the TEI-Piraeus. The second highlight was the re-launch of the *Global Journal of Engineering Education* (GJEE), which has begun to operate after a break caused by the closure of the UNESCO International Centre for Engineering Education (UICEE) in 2008, the founder of the GJEE in 1997.

These Proceedings include 19 fully peer-refereed insightful papers from authors based in 9 countries worldwide. The authors come from a variety of backgrounds and the papers cover a wide range of challenges and opportunities faced by academics involved in engineering and technology education. Several articles deal with cross-disciplinary matters to promote and encourage interdisciplinary research, development and international collaboration.

On behalf of members and associates of the WIETE, we would like to express our sincere gratitude to the authors of these papers, especially for their willingness to share their research accomplishments and to the referees, who volunteered their precious time to refereeing the papers included in these Proceedings. Also, we wish to thank others who represent the WIETE in Melbourne and the DEPE in Kraków, for their support in staging the Conference, as well for their priceless assistance in publishing these Proceedings.

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