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## Guest Editorial

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In the current environment of intense global competition, the deployment of technology has become crucial to the economic success of nations and industries. Increasingly successful companies are those that incorporate into their organisation strategic collaborations with industry, government and higher education. This will result in the enhanced transfer of technology and workforce development activities.

With this swift advancement of technology, employers are now looking for individuals with the technical know-how and skills needed for a high quality workforce in the 21<sup>st</sup> Century. To respond to these changing and expanding challenges in this new era, educational institutions and colleges are partnering with business, industry, and government to provide innovative programmes, applied research and high-technology based educational programmes. Partnering means a renewed emphasis on human resource development to facilitate the application of technology for continued productivity, quality and global competition.

In addition, the world has already made considerable progress on the way to a knowledge and information society. In this expanding society, the demands on our professional engineers and technologists are continually changing and evolving. Therefore, in the higher engineering and technology education process, we must develop new teaching and learning strategies to enable our future engineers and technologists to acquire new knowledge with the help of new information technologies as a tool on a daily basis. We have to develop the ability to comprehend, access and apply new knowledge appropriately.

The collection of papers included in this Special Edition intends to address these issues by presenting a wide range of research and development activities that have been carried out at the National Changhua University of Education (NCUE), located in Changhua, Taiwan, in collaboration with, and input from, several individuals from other institutions closely related to the NCUE.

I hope that readers will find this effort of interest to their professional endeavours in the field of engineering and technology education as we advance into this new era of the global knowledge economy.

**David W-S. Tai**

