

## **The development of design directed engineering curriculum based on the CDIO framework**

**Peihua Gu, Xiaohua Lu, Guangjin Xiong, Shengping Li & Minfen Shen**

Shantou University  
Shantou, People's Republic of China

**ABSTRACT:** Economic reform in China has made significant progress in the last 25 years. It has now been recognised that there is an urgent need to reform the higher education system in order to better serve the increasing needs of society and industry. The College of Engineering at Shantou University in Shantou, China, adopted a *Conceive – Design – Implement – Operate* (CDIO) education framework to redesign its engineering programmes. A design directed engineering education approach based on the CDIO framework has been developed in the redesign of the curricula and course contents. Since this is a college-wide implementation of a new engineering education paradigm, detailed steps have been undertaken to ensure a smooth transition from the current curricula to the new curricula. In this article, the authors discuss the implementation process and progress, as well as potential challenges.