Guest Editorial

Traditional engineering education strategies focus largely on the delivery of fundamental engineering principles of core and important subjects which are subsequently leveraged on in the design of new products and technological solutions. With rapid advancement of new technologies, increase in global and accelerated time-based competitions, high density of population and demand for complex solutions, such approaches have become questionable in terms of the production of engineers with keen eyes for problems and a strong aptitude to design solutions around them.

A design-centric education encompasses multiple disciplines and focuses project development driven by clear design objectives. It is an innovative learning pathway to educate engineers of tomorrow such that they are well-equipped to lead in solving complex and multi-disciplinary problems associated with major challenges facing the world today. Thus, approaches in engineering education programs need to be devised or aligned to provide students with extensive exposure to real-life issues and problems, in which students learn to recognize the problems or difficulties, formulate project objectives from the identified problems, analyse and diagnose the problems and devise a most appropriate solution.

This special issue is intended to collate achievable ideas as well as models and tested implementations of a design-centric engineering education.

The response to the call for papers for this special issue has been very encouraging. 32 submissions were received, out of which 16 manuscripts have been selected for publication in this issue, focusing on different facets of design-centric education worldwide. We hope that the special issue will be a useful collation of outreach experience for colleagues embarking or already immersed in these educational programs. Happy reading!

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