EDITORIAL PREFACE

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I would, with a great pleasure, like to present Volume 3, Issue 3 of the *International Journal of Quality Assurance in Engineering and Technology Education* (IJQAETE) to our readers and contributors.

This issue contains five scholarly papers in the discipline of engineering and technology education contributed from around the globe.

A paper by Louis Abrahamson and Corey Brady (*A Brief History of Networked Classrooms to 2013 - Effects, Cases, Pedagogy, and Implications with New Developments*) tries to relate the past in order to look towards the future of network technology in education. Beginning with a brief history of early response systems, this paper takes up the story from the first author's own experience leading a team through hardware barriers, misconceptions about pedagogy, and subsequent classroom successes, to summarize the variety of uses of classroom networks, and how they can lead to improved teaching and learning. The paper then describes the struggles to evolve the technology from 1st to 2nd generation, and a subsequent nationwide randomized control trial in the teaching of Algebra, which has enhanced significant student learning. Finally, the paper describes growing revelations that show why this is such a potentially important area of study for improving education, and why more powerful types of modern systems appear imminent.

This issue includes two scholarly articles on work-integrated learning, in undergraduate and postgraduate learning environment.

A paper, *the strengths and weaknesses of a 'Learning While Earning' variation of work-integrated learning (WIL)*, by Kaye Clark, focuses on work-integrated learning of undergraduate Built Environment programs at Central Queensland University, Australia. The paper has also discussed relevant background theories of philosophy and the more recent manifestations of work-integrated learning at length in considering the strengths and weaknesses of the formal and informal opportunities for putting theory into practice in our alternative form of work integrated learning.

A paper by Kin Wai Michael Siu, *Problems and Possibilities for Enhancing Non-local Work-Integrated Learning Experience for Postgraduate Design Research*, elaborates a collaboration of work-integrated learning for postgraduate design research students between the Chinese mainland and Hong Kong as a case study. In recent years, postgraduate research students have been more expected to gain knowledge and experience through work-integrated learning. The key advantages of work-integrated

learning include non-conventional university support and facility for research. Students can also gain alternative and other in-depth and comprehensive experience in the research area. This off-campus learning also provides opportunities for students to explore other research interests. On the other hand, work-integrated learning has its deficiencies and limitations. Since the learning is conducted outside the university, it is difficult to make arrangement and be available, in particular most of the time not the best available locally. The paper identifies some key issues and problems of work-integrated learning and also discusses possibilities for improvement and directions for further investigation.

Gary Hill and Scott Turner have elaborated outlined the need to focus initial programming education on problem-solving, prior to the teaching of programming syntax and software design methodology in their paper, Problems First, Second and Third. The paper has also discussed the benefits to students, including students' statements that this approach, using robots, which provides a method to visually and physically see the outcome of a problem. The importance of linking the problem-solving robot activity and the programming assignment, whilst maintaining the visual nature of the problem, has also discussed, together with the comparison of this work with similar work reported by other authors relating to teaching programming using robots. Finally, the limitations to access the physical robots and the alternative attempts to simulate the robots are discussed.

Educational programs must incorporate graduate attributes in order to program accredited by professional bodies, such as Engineers Australia, Australia, Accreditation Board of Engineering and Technology (ABET) in the United States, and the European Accreditation of Engineering Programs (EUR-ACE) in Europe. A paper, *Aligning Engineering Design Education with Accreditation Requirements*, by Chandrasekaran, Than Oo, Littlefair and Stojcevski, focuses on aligning engineering design with accreditation requirements in engineering education at Deakin University, Australia. This paper evaluates the program educational objectives, student outcomes, assessment methods and educational outcome of undergraduate engineering programs. The paper also assessed how engineering design is practiced and incorporated as an important element of the graduate attributes through project oriented design based learning curriculum (PODBL) aligned with professional accreditation requirements.

I would like to thank Journal Editorial Board members and reviewers for their support in reviewing process of this issue. The IGI Global Publishing Team and Journal Development Team have provided consistent and timely support for this issue. I am sure that readers will find this scholarly issue extremely useful for their research and professional development.

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Editor-in-Chief
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