EDITORIAL PREFACE

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It is with immense pleasure and enthusiasm that we, the Journals’ editors, editorial board members, and publishers, welcome readers, authors, and contributors to the inaugural issue of the International Journal of Quality Assurance in Engineering and Technology Education (IJQAETE). We are confident that the IJQAETE will be an outstanding place for publishing research, and findings of practice, particularly in the area of quality assurance of engineering and technology education.

The International Journal of Quality Assurance in Engineering and Technology Education (IJQAETE) is an international refereed journal committed to advancing theory, research and practices in the field of engineering and technology education quality assurance. The Journal also provides a platform to all stakeholders for international exchange of scholarly and practical insights to improve quality assurance of engineering and technology education. The publication of the IJQAETE is very timely since engineering and technology education is striving for the quality of educational outcomes. Currently, there is no Journal available that focuses solely on quality of engineering and technology education. As a result, the IJQAETE will be first of its kind and a benchmarking journal which will provide valuable resources in quality assurance of engineering and technology education for academics and experts for the coming years.

This first issue consists of six invited peer reviewed articles and a book review from leading experts, policy makers, academics and researchers in the area of engineering and technology education. I am sure that this issue will give you a taste of the excellence and affluence that you may expect from the IJQAETE.

I would like to thank our passionate and very supportive IJQAETE Editorial Board team consisting of Associate Editors, International Editorial Review Board members and International Advisory Board members. All these members are senior academics and experts in the area of engineering education quality assurance from various countries covering almost all continents of the globe. Special thanks to our indefatigable IGI Global Publishing Team, especially, Erika Carter, Acquisitions Editor, Heather Probst, Director of Journal Publications and Jamie Wilson, Journal Development Editor. Without their consistent support this publication would not have been possible.

I hope you will like the first issue and far into future. Please look for our next issue in June. In addition to the regular issues, there will be special issues on various themes (topics) in engineering and technology education quality assurance (for example: Accreditation...
and Professional Recognition in Engineering Education, Outcomes-Based Engineering Education, Problem-Based Learning in Engineering Education, etc.) as and when required and agreed upon by editorial board.

The inaugural issue of the International Journal of Quality Assurance in Engineering and Technology Education (IJQAETE) includes six outstanding and diverse articles by ten authors representing six countries and four continents. Each of the articles demonstrates the high degree of excellence expected in the improvement of quality assurance of engineering and technology education. The issue also includes a book review by Richard T. Hezel of Hezel Associates, LLC, USA. The contributed articles and a book review will provide a rich tapestry of engineering and technology education, ranging from, local and institutional issues to political aspects and students’ feedback to professional developments and problem-based learning.

The history of quality assurance in higher education shows that competition for control has always created tensions. The issue starts with an article by Peter J. Gray, Higher and Engineering Education Quality Assurance: Past, Present, and Future which provides comprehensive historical and current perspectives on higher education quality assurance. The article also outlines important issues of accreditation and quality assurance at local, institutional and national level as well as provides a glimpse of future QA directives.

The article Engineering Professional Development Related to Sustainability of Quality by George Burns and Colin U. Chisohlh, outlines and describes the relationship between employability, professionalism and routes to chartered engineer for engineering graduates in relation to the sustainability of quality and standards. A model and work related framework, which provides a common global system of professional formation, has also been proposed in the article in order to achieve the solution to many of the tensions related to professional development in a global context.

It is essential to establish adequate standards and regulations within the university which will help to facilitate continuous improvement of the educational process in order to manage the quality of higher education. An article by Chuchalin and Zamyatin (Higher Education Institution Integrated Quality Management System) proposes an integrated approach to management of higher education institutions’ educational activities that aimed at establishing the regulations of main processes (educational), conditions and incentives to facilitate diversity and creativity at different levels of a contemporary university. This approach has been the basis for quality systems development at the Tomsk Polytechnic University (TPU), Tomsk, Russia which has established its own QA standards to support teachers to develop, implement, control and improve academic programmes meeting the adequate needs of all stakeholders.

As an important milestone of European higher education, in March 2010, the 47 signatory countries (of the ‘Bologna Process) formally launched the European Higher Education Area (EHEA) which aims at fostering mobility and cooperation within Europe and creating more transparent and attractive conditions for other countries to cooperate with European Universities. The existing “general” quality assurance approaches and systems within the Europe and globally lead to paying more attention to the “educational process” than to the “content” and “job relevance” of the education and hence the relevance of specific learning outcomes (LO) became recognized as essential tools in the global QA processes. In the article Qualification Frameworks and Field-specific Approaches to Quality Assurance: Initiatives in Engineering and Technical Education, Giuliano Augusti and Sebastiao Feyo de Azevedo elaborate on several issues in developing and implementing field-specific strategies and methodologies for QA that must be supported by related sectoral descriptors of qualifications. The article has attempted interrelated issues of qualification framework and
quality assurance with particular emphasis on engineering education as well as discussed its “accreditation” as entry route for the profession with several significant examples of on-going initiatives in designing Sectoral Frameworks and Field-specific quality assurance methodologies.

There are increasing and clear evidences that students’ feedback can foster teaching effectiveness. The article, Students’ Feedback: An Imperative to Enhance Quality of Engineering Education by Nair presents an overview of the importance of student feedback and evaluations and a case study that illustrates how student evaluations can enhance the quality of learning and teaching in engineering education. The article also elaborates that an effective quality assurance system relies on the effectiveness of the student evaluation system, the evaluation instrument itself, and the actions that follow. Furthermore, universities must comprehend that students’ feedback is an important and integral part of the quality cycle that provides reliable and valuable information upon which a University must act to better meet the needs of its students. The article concludes with proposing important guidelines for good evaluation practice form the basis of an effective quality improvement system.

The challenges for universities worldwide is to retain the innovativeness of engineering projects in order to make them more interesting and to reduce the attrition in engineering courses. The article, Quality Assurance through Innovation Policy: The Pedagogical Implications on Engineering Education, by Marlia Puteh and Kamsiah Mohd Ismail outlines the study that attempts to investigate the critical role of science, technology and innovation to a country’s economy. The study also examines the extent to which the engineering educational approach is coherent with the national system of innovation; exposing students with real perspectives for future workplace. No doubts, that university are also facing the challenges to immerse students in intellectually stimulating projects, apart from developing realistic students’ projects, especially for classes with large number of students. The article also proposes that project-based approach (PJBL) be applied as an intervention prior to the introduction of the CDIO initiative in any institutions which have problems in implementing the whole CDIO model.

I believe that readers of this inaugural issue of IJQAETE will definitely attain worldwide, diverse, in-depth and balanced viewpoint on engineering educational quality assurance.

Arun Patil
Editor-in-Chief
IJQAETE

Arun Patil is a lecturer in Engineering at CQUniversity (Mackay Campus, Australia). Prior to this position, he was a project officer and a research scholar in the Faculty of Engineering at Monash University and has innovative experience in engineering education project administration and research. Dr. Patil has a rich record of over fifteen dynamic years teaching in further and engineering education. Dr. Patil’s doctorate research project primarily focuses on the development of a global accreditation model for the quality assurance of higher education, with engineering courses as a case study. He holds three postgraduate qualifications, of which two are from Monash University (Australia) in the field of Web-based engineering education and quality assurance of engineering education. He is an active member of several professional organizations, including the Engineers Australia (EA), The Australasian Association for Engi-
neering Education (AaeE), and The Australian Association for Research in Education (AARE).

In 2004, Dr. Patil received a Silver Badge of Honour for his significant contribution to global engineering education. Dr. Patil has a substantial publication record including, an edited book (Engineering Education Quality Assurance: A Global Perspective: Patil, Arun S.; Gray, Peter J. (Eds.), Springer), book chapters, international conference proceeding papers, and academic journals, as well as newspapers and commemorative magazines. He has initiated, planned, coordinated, and successfully organized numerous international conferences and academic workshops in several countries around the globe.