

KEYNOTE TALK 1

STRENGTHENING THE STRUCTURE OF ENGINEERING EDUCATION IN LINE WITH SDGS

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ABSTRACT

Recently, the International Engineering Alliance has explicitly introduced Sustainable Development Goals (SDG) in the Graduate Attributes or Programme Outcomes of engineering graduates produced by the signatories of the Washington, Sydney and Dublin Accords. This requirement needs serious thinking to migrate all engineering programmes that were to be accredited by the signatories to include the SDG components and conditions in the academic curriculum. Every one of the goals of the SDG is likely linked to science, engineering and technology. The Malaysian Council of Engineering Deans provides a platform to help build knowledge, experience and appropriate approaches to enhance the technical capacity of engineers in order to adapt engineering-related infrastructures to SDGs. The standard of engineering education must be correct for nation-building; hence, developing and implementing solutions involving SDG in the academic curriculum with the right approach is necessary. This paper's objective is to share the MCED experience in approaching the way forward towards the adoption of the requirement of the inclusion of the SDG explicitly in the academic curriculum. The sharing includes the planning, timeline, and possible approaches to reach the set goals. It is hoped that the sharing will benefit participants attending this symposium.



Wan Hamidon Wan Badaruzzaman is currently the Chairman of the Smart and Sustainable Township Research Centre (SUTRA), Universiti Kebangsaan Malaysia. He is also a Professor in Structural Engineering at Universiti Kebangsaan Malaysia. His main research areas in terms of publication output are on composite structures especially on Profiled Steel Sheeting Dry Board, a lightweight structural composite system that has been applied as floor, wall and roof panels in buildings; infilled cold formed steel tube structural elements strengthened with CFRP sheets; and composite plate girders. He has published over 200 journal and conference articles. Prof. Wan has won numerous research awards including the Winner of CIDB Construction Innovation and Design Award (2001), Gold Medal for 26th International Exhibition of Inventions, Geneva, Institute for Industrial Patents of Switzerland (Association Suisse des Conseils Propriete Indust) (1998), International National Inventor's Award, MOSTE (1998), Gold Medal for the Best Overall Invention, MINDEX/INNOTEX Design & Invention Exhibition, WIPO (1997), and Design & Invention Exhibition, MOSTE, SIRIM, and MINDS (1997). He was also the past Director of the Engineering Accreditation Department, Board of Engineers, Malaysia.