A Critical Review on the Effectiveness of HKIE Training Scheme ‘A’ for Civil Engineering Graduates

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by

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Abstract

The Hong Kong Institution of Engineers (HKIE) is the local qualifying body for engineers in Hong Kong. It’s Training Scheme ‘A’ (Civil) has been providing formal training to civil engineering graduates since 1984. Each trainee shall have his/her on-the-job practical training supervised by the assigned Engineering Supervisor and Training Tutor for a period of three years. Upon completion of the Training Scheme, he/she can apply for HKIE’s Professional Assessment the following year and become professionally qualified if successful.

The study investigated whether civil engineering graduates trained under the Training Scheme had reasonable Professional Assessment results and the major factors attributed to these results. This involved an in-depth review of the contents, process and implementation of the Training Scheme as well as the sufficiency of Professional Assessment in determining whether a civil engineer is good enough for professional qualification.

A major portion of the study was to evaluate whether the Training Scheme has been fulfilling the purpose of producing quality professional civil engineers. Apart from comparing other civil engineering graduate training schemes of similar standing, particularly the one administered by the Institution of Civil Engineers from which the HKIE Training Scheme was originated, much references were made to the expected competencies of a professional civil engineer as stipulated by the HKIE’s definition of a professional engineer and the UK’s series of related investigation reports and policy statements in the past three decades.
In determining the effectiveness in the implementation of the Training Scheme, much data and observations were collected in private interviews with the stakeholders. They included trainees and Engineering Supervisors/Training Tutors who are currently or were recently involved in the Training Scheme, and the Professional Assessors. Observations on whether the trainees and their trainers had been spending reasonable effort within the Training Scheme period were presented in a visible model.

As a result of the study, practical improvements to the existing Training Scheme were identified and proposed. The major elements of an effective engineering training scheme were also listed to serve as useful references for countries, places or institutions where engineering training schemes are yet to be established.
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