

The Challenge of Civil Engineering Technician Training Personal, Practical, Professional

Fred Kirman

Abstract

All civil engineering businesses want well trained, qualified staff and for decades at the technician level the recognised qualification has been the New Zealand Certificate in Engineering (Civil). The NZCE(Civil) was a qualification that had credibility both nationally and internationally. Its global acceptance was due to its structure, its rigorous academic content and its three year work experience requirement.

However in 2000, the situation changed when a new qualification for civil engineering technicians was offered as the replacement qualification for the NZCE(Civil).

In 1998 a consortium of eight polytechnics throughout New Zealand was formed to enable the Diploma in Engineering (Civil) qualification to be developed and delivered nationally. To retain credibility with industry, the new qualification had to be equivalent to, or better than, the NZCE(Civil), as this had always been seen as, and still is in some organisations, the industry benchmark for New Zealand Civil Engineering technicians.

Today, the civil engineering industry in general is still inadequately informed about the replacement qualification and the intention of this paper is to clarify the role and standing of the DipEng(Civil). At the same time the paper will give an overview of what drove the development and implementation of the current civil engineering technician qualification and why it will have the same global recognition as the NZCE(Civil).

In summary, this paper will cover significant points such as:

- How the NZQA Framework is applicable to technician training.
- Why the NZCE(Civil) qualification was replaced with a Level 6 Diploma.
- Reasons for the DipEng(Civil) not being delivered in Unit Standard format.
- Who the current Consortium members are and how they can be contacted.
- How the Consortium operates, what its quality management requirements are and who it is responsible to.
- How the DipEng(Civil) qualification compares with the United Kingdom's Higher National Diploma.
- The demise or otherwise of the work experience component of the NZCE(Civil) – **(Jim Muir to cover in his paper – which complements this one)**
- The future of the Diploma programme – the 'New Zealand Title'.
- The entry requirements for the DipEng(Civil) programme and the availability of bridging courses.
- The arrangements that exist for DipEng(Civil) graduates staircasing into Bachelor of Engineering Degrees at either Auckland or Canterbury.
- The arrangements that exist for DipEng(Civil) graduates staircasing into Bachelor of Engineering Technology programmes.
- Other Civil Engineering Technician training available in New Zealand.

- Why there is still confusion about the NZCE(Civil) within the Civil Engineering industry.
- Professional bodies which recognise the DipEng(Civil) qualification in New Zealand.
- The need for industry and IPENZ to get more involved in the promotion and administration of technician training in New Zealand.
- The Dublin Accord and why it's important to New Zealand Technicians.

At the end of this presentation, INGENIUM members and industry will have a greater understanding of the current Civil Engineering Technician training environment within New Zealand.

Bio

Fred Kirman is employed as a Programme Director in the School of the Built Environment at Unitec New Zealand, where he is responsible for technician training in Civil Engineering. Fred was part of the programme development team for the Diploma in Engineering (Civil) and is Unitec's representative on the Diploma in Engineering (Civil) Consortium and the Diploma in Engineering (Civil) National Advisory Committee.