

# Editorial

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This issue stems from a conference which invited selected delegates to discuss the **Making of an Engineer—Learning from International Comparisons**. The conference was sponsored by the Engineering Foundation and was held in Santa Barbara, California in August 1992. Karl Willenbrock chaired the proceedings and is responsible for the presentation of the papers. It is rare that engineering education can muster the invited expertise of a selected group of leading educators and industrialists. In contrast to research-sponsored meetings, engineering education is only just beginning to draw such support in modest but increasing amounts.

This journal has been trying to carve a new path for the recognition of engineering education activities somewhat akin to a scientific discipline, without claiming to be one. Education *and* engineering can separately muster faculty recognition and research support. Engineering education is, of course, related to both disciplines, but is not an integral part of either. As engineering is a technical-scientific subject and education is largely a humanities-based discipline, incorporation of the two into an engineering education discipline is problematical. This journal has a mix of contributions, ranging from analytical educational technology papers to engineering policy papers. With the amount and level of work invested in educational technology work, the contributions to the journal have demonstrated that the innovations produced are worthy of serious engineering and scientific recognition. Also, the educational aspects—in particular the many analytical papers, educational policy, and survey papers—show that these educational aspects of engineering are a fertile area for educational research.

Engineering education, then, is a mix between engineering as applied to education of engineers and education as applied to the development of sensible engineering programs. The international aspects of engineering education have been another area of involvement pioneered by this journal since it was launched in 1985. We have come a long way in this time. The papers in this issue are a manifestation of the tremendously increased awareness of the salient features of engineering education in different countries which is emerging in recent years. The systems in Japan, the USA, Canada, Israel, the UK and Germany display three main blocks, and as Karl Willenbrock points out, are also dependent on the societies and cultures in which they developed. Reform of the engineering education systems is a permanent task with which all these education systems are constantly occupied. Learning from each other facilitates this development, by offering comparisons of experience, and indicating where the pitfalls may be. The issue of engineering education quality is an example that springs to mind. Ten years ago concern with quality may have been isolated to a single system; today, concern with quality is a feature of all systems. This can only be a result of communication and increased awareness. Starting in the USA and the UK, the concern with quality has now spread to other countries. Not that quality was ignored in those countries before, but the elements of public inquiry, ranking and student evaluation—and possibly in the future, validation—have been actively taken up from the US- and UK-based systems. The papers in this issue offer a further opportunity of learning from each other—the very essence of the ‘International’ component of this journal. I would like to express my thanks and appreciation to Karl Willenbrock and to the contributors for allowing us to publish this unique collection of papers.

Michael S. Wald