



# Editorial

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## International Courses

Engineering Education World—the news section of the journal—contains an ever-growing number of items announcing international engineering courses. These courses have been promoted by the EEC ERASMUS and COMETT programmes and are now being extended to the reformed countries in central and eastern Europe. While western Europe has compatibility problems because of the varying lengths in study times between continental Europe and the UK (and the USA), the former communist countries are less concerned with this problem. The incompatibility in the west stems from the die-hard idea that the nominal four-year courses ending with the title *Diplomingenieur* at technical universities are not compatible with the nominal three-year Bachelor courses in the British system. In practice the situation is different. Very few people complete their studies within the prescribed four years on the continent, and in the United Kingdom an internship of one year is often added to the three years of studies—since the polytechnics have become universities this practice is increasingly common. Moreover, to compound the situation, on the continent students who receive their certificates of graduation can call themselves fully fledged professionals, whereas a graduate of three years at say, the University of Cambridge, requires some years in the profession before he or she becomes a chartered engineer. A similar situation exists in the USA, where the Professional Engineer (PE) designation is acquired. Recently, a number of shifts in the situation have occurred. First, the European Commission's credit transfer scheme has prompted many institutions to recognize part of their studies in institutions of education of another member country. Second, the emergence of joint study courses between non-university tertiary education institutions in a number of countries has increased the possibility of acquiring dual or transnationally recognized degrees. In particular, such degrees are attractive in less standardized subject areas not offered by traditional universities, such as environmental technology, vehicle engineering or geographic information systems. The non-university institutions themselves are competing with the universities, and indeed in the UK have become universities themselves with the transformation of the polytechnics into universities. Third, with the reforms in eastern Europe, these countries are adopting the most convenient and probably the best way of reforming their institutions of higher education, and clearly the Anglo-American Bachelor–Master–Ph.D. stream has won. On this level, it is easier to incorporate a credit transfer scheme, shorter study times are feasible, and in many cases the support for further studies in the USA are within reach. Moreover, although US institutions are handling registrations very professionally, special cases and opportunities abound in the US university system, which is less inundated with paralysing study guidelines and regulations. Therefore, as we see in the news section, international English language, joint degrees etc. are a flourishing innovation in higher education, with engineering studies, along with business and computer courses taking a prime place.

The next issue, Volume 9 number 1, is a special issue edited by **Karl Willenbrock** containing the papers presented at the conference '**The Making of an Engineer—Learning from International Comparisons**', held in Santa Barbara, California in August 1992. Contributions to the issue come from leading education experts from both industry and academia in the UK, USA, Germany, Japan and Israel.

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