

Editorial

Engineering Education communities?

In order to establish engineering education research an engineering education research community needs to be existent. Evidence for this community, which is an integral part of any established research discipline, is not yet discernible. The creation of engineering education departments, and the increased emphasis on interdisciplinary connections, studies and globalization of dissemination and cooperation activities is a sign that something is brewing in the direction of a community of engineering education which tries to find its feet. There are however, a number of perturbations to the growing together of an engineering education research community. First, and to my mind foremost—there is too little coherence between the varying constituents and stakeholders—there is no clear repository of accumulated research and there is no accepted definition of what engineering education research is really supposed to be about. Conferences on engineering education have mushroomed in recent years. Still, almost all of these are compartmentalised, and attended by a non-coherent group of academics. There is little cross fertilization between the various organisations sponsoring such conferences. The impression is that they are competing in different markets, The American Society for Engineering Education—the largest of these organisational sponsors is still, in spite of efforts to go global—very much a US affair, similarly the European Society of Engineering Education. Then there are other competing organisers such as ICEE (iNEER) as well as the various professional societies—where IEEE is in the forefront. Even with these organisations, there are competing elements within the organisations between the education branches and the subject specific branches for engineering education conferences and individual sessions. Unless we can establish a world community of engineering education research where the stakeholders are defined and well versed in each others work we cannot yet claim that engineering education research is an established discipline or multidisciplinary legitimate research area. It needs to be recognized by sponsoring and funding organizations that investment in engineering education research in order to optimize the education systems for engineers is a sound investment as good as any sound investment in university research.

One consistently valuable thematic conference on engineering education is the Harvey-Mudd workshop which takes place bi-annually in Claremont California. It gathers top researchers and enthusiasts around topics related to engineering design. This issue, containing updated and revised papers from the conference, is continuing the series of issues emanating from this excellent, compact and intensive conference. The leading organiser of these workshops is Clive Dym who consistently manages to collect leading scientists in a pleasant location just outside Los Angeles. I am most grateful to Clive, the organisers and the authors contributing to this issue for the varied and intriguing contributions.

Michael Wald

Postscript:

We have just learned that John McMasters, one of the motors of the Harvey-Mudd workshops is no longer with us. John had a very special educational mission at Boeing—holding a unique position as an engineering educator in industry. He was a brilliant and visionary engineer based in the design arena. He was broadly educated with many interests in engineering and the humanities. A brilliant presenter, he was also noted for his humour and cartoonist gifts. He is often referred to in this issue. He was a regular contributor and supporter of this journal.

He is sadly missed.