

**Beyond the Global Economic Downturn: University Globalization Issues in
Engineering Education and Research**

**Comments by Doh-Yeon Kim, President, University of Ulsan, Ulsan, Korea
at**

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It is true that the financial crisis is a big issue of today and we have to concern it in Engineering Education. It is also always true that we have to prepare tomorrow in Education. In this respect, the discussion about the issues beyond the economic downturn seems quite useful. However, let us think the students presently at the university. They will surely be active up to 50 years from now. Therefore, I think it is better to think a more long range future rather than the immediate one. Immediately, economic downturn is a big problem without any doubts. The job opening has been decreased and the students are suffering. Although, it is hard to find what to do, the university should find the way for helping the students.

During the last century, the engineering disciplines, which had been mainly civil and mechanical, had expanded and broadened with the addition of number of sectors such as metallurgical, electrical, chemical and information etc.. With this evolution, engineering has changed the quality of life and engineers have made a wonderful world. There's no doubt about it. Education in each engineering discipline has been deepened and sharpened and we made our students a very specialist.

Now I believe it is time to think again whether our current engineering education is effective for the students who will be working up to 50 years from now. During their life, they will probably change their jobs at least 3~5 times. And we all know that the future task, for instance, the development of solar energy power system, is no more belonged to one discipline. It is indeed electrical, mechanical, materials as well as chemical engineering. Therefore, the engineering education, particularly for top-ranked and research oriented universities should be interdisciplinary. The students should also have an occasion to study humanity, social sciences and management.

Almost always and almost everywhere, the professors want to maintain the tradition and this is a good point for the university. But for interdisciplinary education, the

professors should be changed. Changing or innovation in education is difficult for the faculty group so that the engineering deans and school management staffs are important. They have to persuade the faculties for the interdisciplinary education. In conclusion, I suggest that the traditional engineering education for making a specialist should be changed to a rather interdisciplinary mode. This is for our students who will live maybe up to the 22nd century.

Last but not the least is that we have to educate our students as global people. For that, I think the internet system, which is one of the most important innovations achieved in the 20th century, should be more actively used in education. Let us encourage the lecture change in real time through internet between universities of different countries. It is not expensive but quite effective.