



Engineering Management Program at California State University Northridge

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Biography

Ileana Costea is currently Professor of Automation Engineering and Chair of the Manufacturing Systems Engineering Department, College of Engineering and Computer Science, California State University, Northridge (CSUN). Ileana has a Ph.D., in Decision Analysis/Operations Research from the University of California, Los Angeles (UCLA). She has done undergraduate instruction in Manufacturing Systems Engineering and Engineering Management and graduate instruction in Manufacturing Systems Engineering. Professionally active internationally, including Visiting Professor appointments at several universities in Europe and membership on organizing committees for international conferences. Researched and published extensively on artificial intelligence, interactive computer graphics, and other areas associated with CAD/CAM/CAE, and recipient of the Engineer's Council Merit Award for work in these areas. She was a reviewer for NSF and IEEE and editor of several special journal issues. She has been actively involved with the WESTEC manufacturing Trade Show and Conference of the Society of Manufacturing Engineers (SME). She has organized numerous technical sessions and session tracks at various national and international events, and has been a judge several years for the Manufacturing Challenge student competition of SME. Ileana is a member of ASEE, ASQ and SME.

Modifications of Engineering Management Program at California State University Northridge

This paper discusses an innovative restructuring of the graduate program in Engineering Management (EM) at California State University, Northridge (CSUN) which includes revised requirements as well as new methods of teaching. A number of new core and elective courses have been introduced, at the graduate level, to shift our old program from an emphasis on theories that are typically learnt in traditional Engineering Management programs, to skills that engineers need for managing technical professionals in modern corporations. Some of our new courses focus on globalization of engineering practices as well as other industry requirements, which would expose students more to real-life situations and thus make them more marketable.

Our EM delivery techniques are also switching the focus from teaching by lecturing, to learning by application. This is done by splitting our courses into a number of mini projects; any theory that our students need to learn will be taught as one or several of the mini projects analyzed. The mini-projects are intentionally selected to contain a lot of data and information, not necessarily all of which are used for addressing the key questions about the project. This will help our students to gain hands-on experience and confidence in tackling the challenges that the ambiguity of real-world problems present.

The authors also discuss in this paper their experience in creating a student association of EM named Engineering Management Student's Association (EMSA) which promotes establishing relationship of practitioners of EM in industry with EM students/faculty at CSUN. Among other activities, EMSA has so far conducted a number of seminars and workshops at CSUN by inviting prominent figures in industry to come to campus present their industry experiences to classes in our program.