



Global Engineering Management Conference

Tackling today's global management challenges.

GEMC 2010 Interview Series:

Dr. Jerry Westbrook

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1. To what extent did your experience as a practicing electrical engineer lead to your dedicated interest in engineering management?

It was obvious early on that capable engineers didn't necessarily make good engineering managers. The thought occurred to me that there is some way to prepare engineers to make them better managers. It took a lot of years to resolve that issue. The engineer focuses on physical aspects of a job where an engineering manager must focus equally on people - team members, customers, suppliers - a lot of people. Most engineers are not prepared for this and it is a bit foreign to them. The "people" focus is the heart of engineering management.

2. In building the Department of Engineering Management at the University of Alabama in Huntsville, did your "conventional" engineering colleagues collaborate and facilitate introduction of the field to area practitioners, such as those at NASA and the Tennessee Valley Authority?

Actually, when I moved to UAH, I joined the Department of Industrial and Systems Engineering. With the growth of engineer management, two years later the name was changed to the Department of Industrial and Systems Engineering and Engineering Management, easily the longest departmental name on campus.

I felt very welcomed by the faculty at UAH. They voted 35 to 30 to provide me an office in the College of Engineering. It was a good thing that the Electrical Engineering Department was on a retreat.- attempting to figure out how to deal with the coming of engineering management program. Fortunately, it didn't actually happen that way. The more senior faculty members from the main line departments welcomed the engineering management effort. They looked on it as a positive entrepreneurial move for the college.

The "main line engineering departments" did not assist in the student recruitment effort. It wasn't needed. Students employed by NASA, the Army and government contractors found the EM program. EM was soon the largest graduate program on campus. The shift to management is something most engineers know they have to deal with. Good engineering management programs are in demand and the type of student seeking such a program is among the best in the country as they are among the best engineers in the country.

3. Would you say that engineering management can be universally applied anywhere in the world, in much the same way that business schools say the MBA can?

The growing economies of the world are being driven by technological innovation. That means that engineers are taking on a larger role in those societies. Engineering management will continue to grow as its value is increasingly recognized. US universities are getting requests to bring EM programs to China, Saudi Arabia and many other parts of the world. As EM continues to gain momentum, let us hope that we don't screw up the economies of the globe as much as the business graduates have. I don't think that is possible anyway.

4. During the conference you will be delivering three tutorials, focusing on strategic management, organization structure, and motivating knowledge workers. Many engineers traditionally cringe at the prospect of learning more about these important non-technical issues, however prevalent they may be in their own organizational environments. Given the success of the in-company engineering management certificate program you helped to create for the American Society of Engineering Management, would you please shed some light on how you have broken through to skeptics in your midst?

In too many engineering companies, the primary way of getting a promotion is by getting into management. This process reduces the number of good engineers available to solve technical problems and it produces a lot of inadequate engineering managers. Those engineers who want to move into management don't have to be convinced of the value of a good engineering management program, whether academic or seminar. It is this second group that ASEM programs try to appeal to, with good success. We have even converted a few engineers that had managerial ability but were not aware of it until they saw the concepts that are available to them.

It has been my experience that most engineers come to national conferences to have a good time. If they happen to learn something, that is even better. That is the how the tutorials are organized - to have a good time and learn something important in the process of having a good time.

5. With the renewed interest in nuclear technologies and the onset of alternative energy development (e.g., wind, solar, biofuels), do you foresee greater demand for more dedicated investment in engineering management training by companies who will hire and need to retain knowledge workers across engineering and technical disciplines?

Alternative energy programs have the potential for bankrupting the world. They will require innovative, cost effective designs that are implemented as efficiently as possible with effective workers and talented oversight. Does that sound like engineering management will be needed? I thought so.

Dr. Jerry Westbrook, has published numerous articles on the management of knowledge workers and has extensive experience consulting for private and government technical and engineering organizations. For GEMC 2010, Dr. Westbrook will be leading the CEU Accreditation Courses on the subjects of: Strategic Management, Organization Structure and Motivating Knowledge Workers. For more info see:

<http://www.asmeconferences.org/gemc09/courses.cfm>