September 2009 Management Division e-Update

Table of Contents

1. Welcome from the Past-Chair

2. Thoughts from the Chair

3. Global Engineering Management Conference (NEW DATE)

4. Call for Volunteers

5. GEMC 2010 Interview Series: Mr. Jean-Charles Bossert

6. Links / Resources / Publications

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1. Welcome from the Past-Chair

Dear Colleagues,

As summer comes to a close and the Labor Day holiday behind us, the start of fall and football beckons us. I hope that each of you took time during the summer months to rest and recharge those batteries as we head into the start of a new academic year. It amazes me each year how quickly summer comes and goes.

The ASME Management Division stayed quite busy this summer. First, it fills me with great pride to hand over the reins of the Management Division to Ted Aanstoos. Ted has been an active Executive Board officer for a decade, most notably managing multiple Engineering & Technology Management tracks during the annual International Mechanical Engineering Conference & Expositions. Ted brings a successful track record of leadership and vision to the Chair position, and will continue moving the Division forward along the Strategic Plan set two years ago.

My two years as Chair have been very fulfilling and rewarding. I am proud of the growth of the Division in regards to the number of active volunteers and programs. Launching the Global Engineering Management Conference is the greatest initiative the Management Division has taken on in the past decade. I will continue to lead the GEMC effort for the next couple years as Ted leads the Division.

At the beginning of July, the GEMC Overall Committee came to a unanimous though difficult decision to postpone the conference until Spring 2010. The decision came after much discussion of the recommendation by the GEMC Advisory Board that the timing of the GEMC in September in the midst of the economic downturn would severely restrict registration. Our tough call reflects the difficult decisions engineering managers face every day. The call to postpone the conference has been validated by our many volunteers, supporters, and presenters. Nearly every presenter, including all keynote

speakers, have readily agreed to support the new date, April 11-14, 2010, in the same location, the Fairmont Hotel in Dallas, TX. The content filled program stays the same and has been vigorously validated by our hardworking Advisory Board. Please make sure to add this important date to your calendar and plan to attend. I promise you will be glad you did.

Thank you very much for your continued support and for making my two-year term as Chair of the Management Division a memorable one. I appreciate all of you who reached out and offered your support and words of wisdom. I look forward to seeing you all in April at the inaugural Global Engineering Management Conference!

Best Wishes,

Howard Berkof
Past-Chair, 2007-09
ASME Management Division
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2. Thoughts from the Chair

Hard Problems, Hard Skills

I tend to think of engineering management as three broad ranges of activity: product and data management, project management, and human resource management. Of course these are not mutually exclusive, but they require quite a diverse set of skills, in areas ranging from business analysis to systems engineering, operations research, conflict resolution, regulatory compliance, risk analysis and management, sustainability, law and ethics, and many others. Add to these the global stage on which engineering is increasingly practiced and the skills required of engineering managers become deeper and broader. We rarely hear “soft skills” used these days to describe the traits of an engineering manager. Hard problems need hard skills.

At some point in their career, most engineers in the workforce today and tomorrow (or, in the future) will find themselves in management roles, whether or not they hold formal titles or positions. This reality is reflected in the high membership numbers of the Management Division within ASME —nearly 23,000. And, while there are many continuing education paths available to engineers seeking management credentials, from various certification programs to full masters’ degree programs, most engineers with management responsibility acquire their needed skill sets via informal means such as on-the-job training, self-study, or simply plodding through.

I am becoming the new Chair of the Management Division at an exciting time. Our long term strategy is to build the MD into a community of practitioners and a resource center

for acquiring, honing, and transferring the tools that engineering managers need. Central to this strategy is the newly developed Global Engineering Management Conference, which will kick off in Dallas, Texas April 11-14, 2010 (http://asmeconferences.org/gemc10/). We've put a lot of thought into designing this conference, and the result is a non-academic, practitioner-focused working conference that delivers hard skills and knowledge to the attendees, documented with CEUs and PDHs. This e-Update includes another article with much more information on the GEMC.

Inherent in our very definition is the fact that engineers develop machines, systems, and processes that address societal problems while economically managing the resources needed for them. The most valuable resource of the Management Division is our membership base. Whether or not you identify with the MD as a primary or secondary member, I hope that you recognize the value our division offers to all engineers faced with management responsibility. With that in mind, we hope all of you will visit our website (http://divisions.asme.org/Management/). Please feel free to contact me directly if you would like to take on a vital and rewarding volunteer role in the Management Division.

Hope to see you in Dallas!

Ted A. Aanstoos, P. E.

Chair, Management Division
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3. Global Engineering Management Conference (NEW DATE)

Tackling today's global management challenges!

Sunday, April 11 - Wednesday, April 14, 2010
The Fairmont, Dallas
Dallas, Texas USA

http://www.asmeconferences.org/gemc10

The pace of technological change, globalization and the softening of the global economy are exerting major changes in the engineering profession. The GEMC will address these issues through four tracks:

*****Managing New Technology
*****Managing & Developing Engineers
*****Supply Chain Management within the Global Market
*****Managing Your Ecological Footprint in the Energy & Environmental Era

The GEMC is a globally-focused event bringing together mid-career engineering managers from targeted industry sectors. Focusing on the transfer of knowledge from best-in-class organizations and emphasizing hands-on experiential learning, the GEMC intends to provide both technical and economic value for those who participate. Programming includes technical sessions, accreditation tutorials, networking events, and other innovative knowledge and professional exchange forums.

Please go to the official GEMC website: http://www.asmeconferences.org/gemc10 for Program, Special Events, Registration, Hotel, and Logistics Information

Questions? Please contact: Howard Berkof at berkofh@asme.org or 585.259.5150.

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4. Call for Volunteers

The GEMC Committees are entering their second year of operation. Each committee is seeking motivated volunteers who have innovative ideas and want to be a part of something great. Please contact Howard Berkof at berkofh@asme.org or (585.259.5150) to join one of the following exciting committees: Marketing/Promotional, Special Events, Exhibits & Sponsorships, and Post-Conference Product committees. Enthusiasm and a commitment of a few hours a month is all that is required. Thank you for your time and consideration.

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5. GEMC 2010 Interview Series: Mr. Jean-Charles Bossert

By Greg Marino, ASME Staff

Mr. Jean-Charles Bossert
Chief Engineering Manager
Applied Materials, Inc.

1. When you became a mechanical engineer, did you envision that your career trajectory would lead to management?

After completing graduate school, I started work at Applied Materials. I really did not know what opportunities lay ahead for me. The company started growing at a record pace in the early 1990's. It was exciting to be part of such a dynamic industry and a great team. At that point in my life, I was looking for challenges and wanted to learn as much as possible about the industry, I really wasn't focusing on management.

2. What logistical factors did you and your colleagues consider when looking to set up new facilities in lower-wage countries?

The logistical factors are the extremely important when setting up new facilities, especially when they are outside the US. Over the last 5 years we have acquired/ expanded facilities in Europe, Asia and North America. We look at different factors

depending on the activity that will take place: factors are very different for a sales office versus a manufacturing or a research and development facility. A manufacturing facility presents its own set of issues. Our latest Singapore facility includes sales and manufacturing activity. We have to look at information technology, supply chain, logistics/transport, Intellectual property protection, trade regulation, and most importantly the availability of local talent. You can never find a perfect solution. You can compromise only on certain things.

3. To what extent has the global economic downturn impacted your ability to sustain profitable operations worldwide?

This latest economic crisis has been very challenging for everyone. SEMI announced 19 fab closings in 2008 followed by 35 in 2009. The downturn has also been very challenging throughout the entire supply chain. The Semiconductor Index hit a seven year low earlier this year. Even during these tough economic times, Applied Materials continues to work on technology innovation. Companies that stop investing fall further behind and never recover.

4. How do you approach managing culturally diverse operations in China and India while also advancing your company's strong commitment to environmental sustainability in your manufacturing processes?

I believe these are two separate things. Applied Materials' commitment to environmental sustainability is firmly engrained in our corporate culture. This culture is very well accepted around the globe. Our latest facility recently won the highest environmental honor by the Singapore Building and Construction Authority (BCA). The facility will feature the largest thin films solar system in Singapore, generating 430 megawatt hours of energy per year. We also improved energy consumption by 34% over traditional construction by using low-e glass, LED and fluorescent lighting, energy efficient air-conditioning system, as well as sophisticated water treatment and rain water capture system.

5. What would you describe to be your greatest challenges in managing multicultural teams, and how have you overcome them, particularly in developing nations?

The biggest challenge that I see is communication. We live in an interconnected high speed world of e-mail, text messages, Twitter, instant messaging, etc… While these tools have allowed us to stay connected real time with everyone, these tools have created their own set of problems. Information gets exchanged rapidly without the appropriate relationship building. The French call it esprit de corps, it cannot be built without spending time face to face building a sense of unity. It is easily done with travel- but travel is not always possible. Without travel, we have to rely heavily on our leadership team to create our esprit de corps.

6. To what degree do your analytical modeling techniques incorporate both technical and managerial functions in addressing the challenges of global manufacturing operations? Lessons learned from globalization in India and China specifically … same recipe can't be applied everywhere local culture, nature of desired activity in the region with respect to R&D … local talent … constantly evaluating strategy during the process … be present, live with them.

7. Based on your experience as a US-based engineer in the semiconductor industry, do your foresee other areas that may be outsourced or in sourced due to the current global economic and political climate?

In source Outsource decisions need to align with corporate strategy, these decisions cannot follow market fluctuation. In source/Outsource decisions have more to do with how much control a company is willing to release in order to focus on their core competency. As a US-based engineer I worry more about government policy trying to fund key initiatives that will keep US technology on the leading edge.

Mr. Jean-Charles Bossert, is a GEMC Advisor and presenter in GEMC Session on Global Manufacturing: Keys To Effective Management. For more info please visit: http://www.asmeconferences.org/gemc09/Tracks.cfm

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6. Links / Resources / Publications

Global Engineering Management Conference: http://www.asmeconferences.org/gemc10

ASME Management Division: http://management.myasme.info & http://divisions.asme.org/management

Center for Engineering Entrepreneurship & Innovation: www.asme.org/Communities/Entrepreneur

IEEE Innovation Institute: www.innovation-institute.org

IEEE Entrepreneurs Village: www.ieeeusa.org/careers/entrepreneurs

American Society for Engineering Management: www.asem.org

American Management Association: www.amanet.org

International Association for Management of Technology: www.iamot.org

Project Management Institute: www.pmi.org