



Practice Periodical – Articles for the Practicing Engineering Manager

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In This Issue

- [ASEM Delegation at International Forum in China](#)
- [ASEM Webinar Series on Error Management](#)
- [A Conversation About Ethics](#)
- [Professional Membership](#)
- [Western Michigan to Offer MSEM Program in Florida](#)
- [2017 International Annual Conference](#)
- [Graduation and Beyond](#)

Welcome to the Practice Periodical

ASEM Delegation at International Forum in Beijing, China

By Simon Philbin

A delegation representing ASEM recently attended the 2017 International Top-Level Forum on Engineering Science and Technology Development Strategy in Beijing, China that was organized by the Chinese Academy of Engineering (CAE) and the Shenhua Group. The delegation members were guests of the CAE and the visit was part of ASEM's ongoing strategic partnership with CAE.

The members of the delegation included Dr Paul Kauffmann (ASEM Executive Director and East Carolina University) and Dr David Wyrick (ASEM Associate Executive Director and West Virginia University), Dr Simon Philbin (ASEM International Director and Imperial College London), Dr Steve Wang (University of Alaska Anchorage) and Dr Tarek Abdel-Salam (East Carolina University).

The theme of the event was 'Clean Energy Technology and Engineering Management', which provided an ideal opportunity for members of the delegation to give presentations on their own research endeavours and showcase the scope and objectives of ASEM. Members of the delegation presented keynote speeches and conference presentations, participated in a plenary interview session and chaired a presentation session. The conference included keynote speeches and presentations given by speakers from a broad range of subject areas, including engineering areas related to fossil fuels and mining, engineering management through to chemistry and biomedical science – the list of presenters even included three Nobel Laureates. In fact Drs Kauffmann and Wyrick had the pleasure of taking part in a plenary interview session with not one but two Nobel Laureates in Chemistry!



Picture – from left to right: He Jishan (interview session chair, standing), C C Chan, Huang Qili, Richard Royce Schrock (Nobel Laureate – Chemistry 2005), Sir James Fraser Stoddart (Nobel Laureate – Chemistry 2016), Paul Kauffmann and David Wyrick

An important part of the visit was to have continued discussions between ASEM and CAE in regard to advancing the strategic partnership between the two organizations. The discussions included planning for a new ASEM section in China as well as further discussions on ASEM's collaboration with the CAE on development of the CAE journal, *Frontiers in Engineering Management*. The delegation discussed with the CAE strategies to enable the promotion of engineering management as a discipline in China as well as options to support promotion of ASEM at Chinese universities that have EM programs. Finally, there were discussions on the translation of ASEM's Engineering Management Body of Knowledge (EMBoK) into Chinese and the plans for publication of the translated book in China. The conference allowed ASEM to continue developing this important strategic partnership with CAE that not only supports continued growth of ASEM but also helps to promote the international advancement of the engineering management discipline.



Picture – from left to right: Steve Wang, David Wyrick, Paul Kauffmann and Simon Philbin

NOTE: Dr Ertunga Ozelkan (University of North Carolina at Charlotte) had also planned to attend the conference but unfortunately was not able to visit China due to travel difficulties.

To read more about this conference and the global perspective on engineering management, please visit the ASEM website at <https://www.asem.org/blog/4890113> (copy/paste link into your browser)

ASEM Webinar Series on Error Management

What happens if someone makes a mistake or takes the wrong decision? The issue here is not intentional misconduct, fraudulent behaviour, gross negligence or large-scale mismanagement, but the little mistakes, errors and poor decisions that occur every single day. Mostly, errors are the result of momentary blackouts, a temporary short circuit in the brain, false impressions, deceptive memories, dots wrongly joined, fragments of conversation that we interpret incorrectly, prejudices, momentary feelings of mental imbalance, disorientation, stress and other disturbances.

What does this mean for larger organizations? From research we know that speaking-up when spotting errors is not the norm in organizations. Mistakes

are still associated with shame and embarrassment. Yet factual error management can work and be successful as can be seen by studying high reliability organizations such as aviation, medicine, and the nuclear industry.

In the webinar series on error management we will look into the practices and learnings from these high reliability organizations. Apart from the specifics of the different industries we will reflect on what is necessary to establish an effective open error culture. This includes psychological safety to enable communication across hierarchical levels, a system of error reporting, a leadership culture, where people are empowered to speak up, and how humans interact in complex systems.

The speakers are either researchers or practitioners and provide insights into lessons learned from their field. The series will explore how these learnings may be applied in other organizations.

Webinar Series

The webinar series is scheduled as follows. Please note that EACH webinar has its own URL for registration.



June 20- Introduction to error management (Jan Hagen, ESMT Berlin) - 1:00 PM EDT
Register here: <https://www.asem.org/event-2566166>
(copy/paste link into your browser)



July 11- Error management and reporting culture in aviation (Thomas Wilpert, Air Berlin) - 1:00 PM EDT
Register here: <https://www.asem.org/event-2568371>
(copy/paste link into your browser)



July 25- Empowerment as tool for error management in medicine (Jan Brommundt, University Medical Center Groningen) - 1:00 PM EDT
Register here: <https://www.asem.org/event-2568393>
(copy/paste link into your browser)



August 8- Management practices of learning from errors in high risk industries (Nicolas Dechy, Institut de Radioprotection et de Sûreté Nucléaire) - 1:00 PM EDT
Register here: <https://www.asem.org/event-2568621>
(copy/paste link into your browser)

A Conversation About Ethics

By Charles Daniels

I begin every morning by pouring a cup of coffee and reading the latest news articles. One of the things that have come to my attention in the last several years is the frequency of articles about ethical issues, and in particular about matters related to engineering. We have seen issues ranging from the Volkswagen anti-pollution software scandal to the Thernaos Inc. scandal related to faulty (or fraudulent) blood testing practices. These scandals illustrate the importance of ethical behavior in engineering and often reveal that the engineers working in organizations with questionable behavior are often unaware of their obligations, not only to their employer but also to the engineering profession and society.

Engineering has a profound effect on society. While the technology we create offers tremendous benefits to society, it also places special obligations on each engineer to follow our codes of ethics and to keep uppermost in our minds the health, safety, and welfare of the public. With these thoughts in mind, ASEM will begin a concentrated focus on educating our members on the ethical obligations of engineers, while at the same time offering educational opportunities and advice on how to navigate the moral dilemmas that occur so frequently in our profession. Stay tuned for more details about our engineering ethics initiative.

Professional Membership

Beginning July 1, 2017, professional membership will increase to \$135 per year. Please take advantage of this special option to renew for the coming year at the \$125 rate.

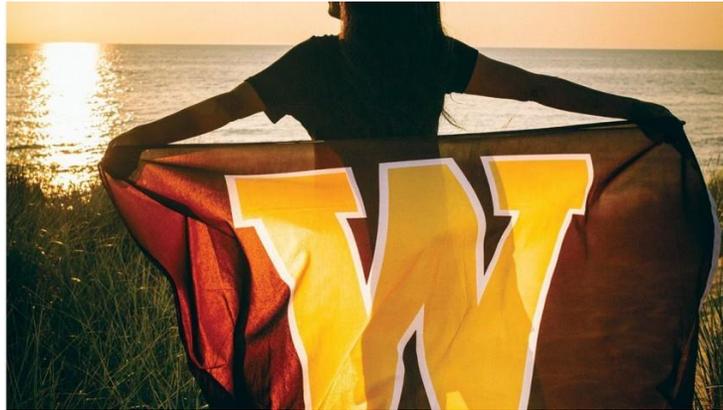
Network with engineering management professionals

Membership in the American Society for Engineering Management as an industry practitioner or faculty member provides unique opportunities to collaborate with a global network of engineering management professionals and direct access to the most up-to-date discussions of the engineering management field.

Membership is open to anyone committed to the mission and vision of the society and the promotion of the engineering management profession.

Western Michigan to Offer MSEM Program in Florida

By Larry Mallak



Western Michigan University's M.S. in Engineering Management is starting up in Southwest Florida later this year. Recently, WMU opened two regional centers in Florida as part of its Extended University Programs (EUP). One center is located at the WMU-Cooley Law School in Riverview, on the outskirts of Tampa. The second center is located at Florida Southwestern State College in Punta Gorda. The MSEM program offers a mix of hybrid, online, and in-person courses and experiences.

The soft launch in fall 2017 features a course focused on organizational behavior for engineers titled "Concepts and Principles of Engineering Management," taught by Dr. Larry Mallak (ASEM North Central Regional Director) and a course on industrial engineering topics taught by Dr. Azim Houshyar. Both of these initial course offerings will have in-person and online class meetings. The program seeks to cover a relatively underserved market in southwest Florida as well as provide a "destination program" for engineering professionals throughout North America.

The program has been approved by the Florida Department of Education and the Higher Learning Commission. By fall 2017, the program should carry the ASEM Graduate Program Certification as the program is preparing its self-study in advance of an anticipated summer certification visit. Graduates of the program will receive AEM certification and 36 PDUs from the Project Management Institute.

The Engineering Management program joins Aviation as WMU programs approved for the Florida locations. The MSEM is a 30-credit master's program having seven core courses and three electives. Full details are at <http://www.wmich.edu/ieem/academics/masters> (copy/paste link into your browser). Contact Larry Mallak (larry.mallak@wmich.edu) for more information on the program, including registration.

2017 International Annual Conference



ASEM is happy to announce that the 2017 International Annual Conference (IAC) of the American Society for Engineering Management (ASEM) will be held in Huntsville at the Marriott next to the Space and Rocket Center from October 18-21, 2017. This event offers a rare chance for regional industry to take advantage of the professional development and outreach opportunities this conference provides.

On Wednesday, October 18, industry tours will be conducted to several sites in the Huntsville area. This is a unique opportunity to network and learn how various industries operate.

The conference provides sessions on over 100 papers and presents the unique opportunity to hear presentations on state of the art topics such as systems engineering, engineering leadership, ethics, and other areas key to the engineering and technical management profession.

The conference has a number of panel discussions and sessions on topics such as risk management, ISO standards, and systems engineering management among others.

If you are planning future hiring, the conference provides access to and potential recruitment of student leaders in engineering management programs.

Graduation and Beyond

The society has developed a two-step program to support the transition from student to professional membership.

As you enter the engineering management profession, you will find that it is essential to continue your professional development and involvement in the larger engineering management community. By continuing your membership in ASEM, you demonstrate to your current and future employers that you are willing to continue to grow in your knowledge and skills. To help with this process, ASEM initiated a special transition rate for students who are moving into full-time professional careers:

- The “Student to Professional” program allows student members to extend membership into the professional category for a special one year transition rate of only \$30, the same rate as students. Please contact ASEM World Headquarters at asem-hq@asem.org for the *Student to Professional* discount code to register online, or mail in this form (link: https://www.asem.org/resources/Website/Membership/Student_Membership/2017-0522%20Fillable%20Professional%20Mail-In%20Renewal%20Form.pdf - copy/paste link into your browser)
- After the first year as a “Student to Professional” member, the “Young EM Professional” program allows you to join for two more years at half the normal professional rate. Please contact ASEM World Headquarters at asem-hq@asem.org for the *Young EM Professional* discount code.

The bottom line is that the society strongly supports the involvement and participation of recent students moving into the professional membership category. You can take advantage of both of these options and have three years of membership for less than half the regular cost.