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Features  
Commencement May 2005  
MEPP Class of 2005 celebrates success and looks to the future.
By Wayne Pferdehirt

“In times of change, learners inherit the Earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists.” Eric Hoffer

One thing that excites me about MEPP is that engineers who come into the program are both learned and learners. Although we require at least four years work experience for acceptance into the program, most MEPP students have substantially more. Many engineers entering MEPP hold MS, MBA or even PhD degrees. Some have had more than 30 years of highly challenging engineering responsibilities. A few are even CEOs or members of boards of directors. For each of these engineers, their experiences provided motivation and passion for further learning, not a convenient excuse for resting on past education.

Recently I was asked to speak at a conference in Chicago where the CEOs of the 100 fastest growing architectural and engineering firms in the US were honored. I was asked to speak about the University of Wisconsin-Madison’s efforts in training engineering leaders through the MEPP program. My consistent experience has been that MEPP alumni have the most credible and valuable perspectives on the program. So, I asked Tim Przybylowski, MEPP Class 2004, Vice President and Director of Benatec Associates, what he would share with a group of senior-management peers about his learning experience in MEPP. Tim responded:

“Routine for a 20+ year engineer often represents security and efficiency, acting as a safety net for thought and action. As long as environmental and market variables do not change, the net hold. But when confronted with change, routine becomes unresponsive and inefficient, breaking that net. This affects attitude and performance causing frustration and stress.

MEPP offers a fresh perspective on technical leadership that awakens one’s innovative spirit amid some of this country’s best and brightest engineers. The coursework is intellectually stimulating and goal oriented. Regardless of discipline or business, every course offers a new insight into actual real life problems and business challenges. The cohort’s diversity and experience reveals new and different perspectives on the same problem or solution.

Change is encouraged through continuous improvement applied real time at work and taught to be sustainable beyond MEPP. For a 20+ year engineer, MEPP rejuvenates the soul, improving attitude and performance along the way.”

Awakening one’s innovative spirit and rejuvenating the soul – that’s big stuff. That only happens when one wants to be a learner rather than only learned. Thanks, Tim. And, thanks to each MEPP student who brings your experiences, your energies, and your commitment to excellence to the MEPP learning experience each day.
Welcome, MEPP Class of 2007

By Wayne Pferdehirt

In June 2005, 30 committed engineers joined the ranks of MEPP as the Class of 2007. The Class is an especially strong group of current and aspiring engineering leaders, representing a diverse collection of engineering employers, disciplines, experience and cultures. The Class of ’07 includes the first Canadian resident and several engineering employers represented for the first time in MEPP.

The new students are off to a roaring start based on their performances in their summer and fall courses and the special “chemistry” they exhibited at Summer Residency. Discussions among this group in fall courses reflect a very special wealth of engineering experience, passion for meaningful learning, and appreciation for group support and comraderie. We are pleased and honored to welcome such an exceptional group of engineers to MEPP.
An important course in the MEPP curriculum is Independent Reading and Research in Applied Engineering (IRRAE), which takes place during the second summer of the program. Students choose a research topic and are matched with a UW faculty reviewer with similar research interests. They complete four main project steps: a project proposal with a research plan, a literature review, a project draft, and a final document. IRRAE students present a summary of their projects at the MEPP Summer Residency in August.

The Class of 2006 projects listed below show the diverse range of interests of MEPP students. A special thank you goes out to all UW faculty who served as mentors for these projects.

### Technical and Design
- Design of a Centrifugal Pump Impeller
- Fuel Cells for Aircraft Emergency Power
- Biodiesel to Reduce Harmful Emissions and Decrease Foreign Oil Dependence
- Applications of Particulate Filters to Off-Highway Heavy Duty Diesel Engines
- Cost of Atria in Public Sector Buildings
- Gear Coatings to Increase Power Capacity and Reliability
- Alternative Energy Technologies for Military Ground Vehicles
- A Strategy for Modeling Agricultural Equipment in Pro/Engineer

### Management and Methods
- Integrated Contingency Plan – Spill Prevention and Control, Resource Conservation and Recovery, Storm Water Pollution Prevention
- Developing a Hybrid Technique for Implementing Process Management
- Implementing a Concurrent Engineering Program at LM Tactical Systems
- Increasing Customer Loyalty Equals Increased Sales and Profits
- QRM Gets a Trial Run

### Quality/Testing Methods
- Investigating Bearing Failure Using Prognostic Health Monitoring (PHM) on Aircraft Power Generators
- Non-destructive Testing Methods to Detect Cracks in Aircraft Components
- Infrared Thermography in the Design and Prototyping of Industrial Electronics
- Improving Specs, Design and Testing to Prevent Software Disasters: Four Case Studies
- Software Risk Management for Patient Monitoring Programs

### Human Factors/Training
- Urgency Addiction: Personality Problem or Current Business Culture
- Breaking the Boundaries in the Modern Workplace: A Case for Positive Deviance
- Promoting a Culture of Safety to Improve Test Lab Decisions
- A Proposed Solution for On-the-Job Injuries Among Airplane Baggage Handlers
- Planning and Communicating for a Plant Shutdown

Paul Ross and Jack Quigley have been the instructors for IRRAE. At this year’s Summer Residency, we honored Jack Quigley, who retired from his teaching responsibilities with MEPP. Students presented Jack with a special card and thanks. Paul Ross presented Jack with a copy of Chuck Yeager’s book, Press On, Jack’s favorite phrase. MEPP staff echoed that theme with a framed plaque that superimposed Jack’s face and Bucky Badger, and the words, “Press On, Wisconsin!”
Focus on Alumni

Letter from the Alumni President

Fellow Alumni,

It’s that time again, when the thoughts of making New Year resolutions come to mind. Instead of immediately saying “humbug,” why don’t you try implementing some effective project management techniques (such as those learned in class) and actually plan a future MEPP self-improvement activity in 2006. Be bold, be brave, be proactive—mark it down now on your calendar and begin to visualize how good you are going to feel participating in an outstanding MEPP alumni activity. Rekindle the fire, friendships and passion we had while actively in the program.

The first step is as simple as joining Don Schramm and your fellow alumni in the monthly teleconferences returning in January on the 25th. There will be topics to satisfy everyone’s interest and it is a great way to catch up on the activities and successes of your classmates. Always think—NETWORKING! Start small and you could end up a big winner by attending the Alumni Workshop held during Residence Week in Madison during August. Either way it is a great way to share your valuable knowledge and learn in the process as well.

Think about it, but more importantly act upon it and join us for a MEPP alumni activity during 2006!

On Wisconsin!

Regards,

Don Ritter, Class 2003

MAD5 Spring Webinar Series

January 25: Welcome and OPEN DISCUSSION
February 22: Negotiation Skills, William Cesario
March 22: Information Management and Communication Skills for Distributed Teams, Tom Smith, John Stremikis and others
April 19: Web Page Development for Dummies, John Stremikis
May 10: OPEN DISCUSSION and future planning

These Live Meeting sessions are scheduled for Wednesday evenings, 6:00-9:00 pm (CT). More information is available in the Alumni Forum in MEPP Community.

Ganesh Iyer Receives Second Promotion Since Starting MEPP

By Nancy Rebholz

Congratulations to Ganesh Iyer on his promotion to Global New Product Introduction Manager in the Remanufacturing Services Division of Caterpillar, Inc. In this position Ganesh manages a global group responsible for implementing remanufacturing processes for Caterpillar and its external clients.

A member of the MEPP Class of 2003, Ganesh has received two promotions since starting the program. Reflecting on his MEPP experience and how this prepared him for his newest position, Ganesh said, “MEPP brings perspectives of students from different companies—how they get their jobs done, how they do project management, how they do discounted cash flow analysis and how they make good business decisions. It was very helpful in my job in the Technical Center at Caterpillar, it was very helpful when I went to the Logistics Division and it is now very useful in the Remanufacturing Services Division.”

Project management and the experience of working in global teams on MEPP projects have been particularly important. Ganesh mentioned how participating in a MEPP project with a student who regularly logged in from India provided valuable experience in using the Internet to work together effectively.

Ganesh has MSME and PhD (ME) degrees from Penn State and is a Six Sigma Master Black Belt. He has found MEPP to be a valuable addition to his qualifications and skill set. He said, “It’s been three years since I was in the program, but MEPP has a long-lasting impact on how you function in an organization and how you get the work done. I knew statistics as a Black Belt, but MEPP helped me with the application of my statistical skills.”

In 2004 Ganesh returned to MEPP as a teaching assistant working with Conrad Fung in the Engineering Applications of Statistics course.

On the personal side, Ganesh is from the State of Gujarat in India, where he was a state ping pong champion. He left India in 1990 to do graduate work at Penn State and remains a loyal Penn State football fan (and enjoying a great year as a Nittany Lion fan). He and his wife Anju and daughters Ishira and Aaina live in Peoria, Illinois.
Focus on Faculty

An Interview with Don Schramm

By Nancy Rebholz

Don Schramm teaches the *International Engineering Strategies and Operations* (IESO) course offered in the third semester of the MEPP program. IESO helps students prepare for working with colleagues, customers and vendors from other cultures in and beyond the US. Don hopes students gain an appreciation for the many countries with different ways of doing things, understand that cultural differences do not begin and end at country boundaries, and learn that adapting an engineering operation may be hard or easy—with no single way to do it successfully.

The course can be an eye-opening experience. Don explains, “As they go along students realize that even in their own company or corporation there are a variety of cultures—not just the traditional foreign cultures but there are engineering cultures, accounting cultures. Even those not working overseas find that the whole idea of cultural analysis is a useful tool. And I hear the phrase ‘eye opening’ many times during the course. For most engineers this is the first time they’ve really had the opportunity to take a graduate research seminar where they are looking at a variety of issues and there is not just one answer.”

Teaching IESO has reinforced the value of distance learning for Don. He reflected, “Students have said they’ve had more contact and more learning with instructors and fellow students online than ever in the classroom. It’s a strong affirmation of the fact that distance learning is not only as good as on campus learning but it’s better.”

Don’s work with the UW’s Disaster Management Center often takes him abroad. Thanks to the reliability and flexibility of the MEPP online learning environment, he has been able to teach his courses from many locations throughout the world using facilities in hotels and business centers. Last week while in India he had a rare connection problem but had arranged with MEPP staff member John Stremikis to serve as back-up and the student Live Meeting presentations went on without a hitch.

Don first got involved in distance learning in the 1980s through his work with self-study courses at the Disaster Management Center. This distance learning background along with the experience of traveling and living in numerous countries make him well-suited to be the instructor for the IESO course.

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**Don Schramm**, MS, RA, is a faculty associate with the Department of Engineering Professional Development at the University of Wisconsin-Madison. He has responsibilities for courses in building energy systems, creativity, disaster management, workplace design and distance learning. A registered architect in Wisconsin, he holds an architectural degree from the University of Illinois-Urbana and an MS from UW-Madison. He has been in private practice and taught for a year as a Fulbright professor at universities in Bogotá and Calí, Colombia. He has worked in professional education for two decades throughout the United States and has lived and worked in 40 countries in Latin America, Africa, Asia and Europe. He directs the University of Wisconsin-Disaster Management Center (UW-DMC), a provider of international distance learning programs since 1985.

When asked about the number of disasters in the news recently, Don said that while we hear about more disasters, statistically there have not been more events. There has been an increased interest on the part of industry in disaster management. At a recent meeting in India he saw expanded involvement from the corporate sector in disaster prevention and preparedness. Thinking ahead about what to do to mitigate the impact of disasters on communities and businesses is a critical step in disaster management.

Not surprisingly, Don’s outside interests are traveling and studying different languages and cultures. The recent trip to India was his first time in India and he was happy to finally get there. The next country he wants to explore will always be the one he has yet to visit.
The MEPP program is participating in a year-long Technology Enhanced Learning (TEL) project to learn how to deliver courses to hand-held devices. Because of time and travel pressures, MEPP students have long been requesting that some or all of course materials be accessible to handhelds. Delivering MEPP courses to handhelds is particularly challenging given the diverse tools used to create MEPP’s rich, interactive learning environment. Using the Engineering Problem Solving with Computers course as a test case, the project is looking at how to develop course materials in hand-held formats and how students will use handhelds to access course materials and communicate with others in the program.

The project is targeting VGA-level handhelds with a WiFi connection initially, but will experiment with ¼ VGA-level cell phones in later phases. Learning to date includes:

1. TechSmith Camtasia, used for developing and delivering lecture material, supports the target formats.
2. The MEPP document management system, Xerox DocuShare, is accessible from the target platform. The project team is investigating how much optimization can be accomplished with the current version.
3. The MEPP toolset (WebCT) for threaded discussion, calendaring and e-mail is accessible from the target platform. Interaction is not, however, optimized for handhelds and is difficult.
4. The Webconferencing tool, Microsoft Live Meeting, appears to be accessible from the target platform, but the display is too limited for active participation.

The next phase will investigate what current and competing vendors have planned for hand-held formats. Changes in Web browsers and how this will affect hand-held displays will also be considered. This phase will also include a survey of MEPP students and alumni to see what sort of hand-held devices they now use and what kind of support is provided for them. The survey will also look at future needs and expectations.

MEPP faculty and staff involved in the project are Jake Blanchard, Tom Smith, and John Stremikis. MEPP graduates Nick Thompson (Cingular Wireless) and Bill Gerstein (Hamilton Sundstrand) are providing advice from the industry perspective. MEPP Advisory Committee member Rick Huber (GE Healthcare Systems) and instructor Don Hanna (UW-Extension) are also contributing. The Berndt Foundation provides support to College of Engineering faculty for TEL projects.

Watch for further reports and updates in the next issue of MEPP News or contact Jake Blanchard (blanchard@engr.wisc.edu) or John Stremikis (jrstremi@wisc.edu) for more information.
Congratulations to the recently graduated MEPP Class of 2005. Nearly all graduates and their families enjoyed a great weekend celebrating together May 13-15, 2005. The weekend began with a student-organized party at the Memorial Union on Friday night. Saturday festivities included a time to enjoy memories, future plans, and “awards” from fellow graduates in the afternoon, followed by a staff-organized family picnic Saturday evening.

On Sunday graduates and families were honored at an elegant brunch in the Pyle Center’s Lakeshore Room, overlooking Lake Mendota. The elected student speaker for commencement brunch was Chris “Moose” Skowronski, who noted that all 29 graduates were fulfilling a dream, even though they broke a few of Karen’s “rules” about having babies, changing jobs and relocating during their MEPP studies. Darryl Craig, as this year’s faculty speaker, insightfully examined the investment MEPP students had made over the past two years and examined their collective balance sheet at graduation.

Once again, MEPP commencement weekend was a special weekend to celebrate the hard work of a very special group of engineering leaders.
MEPP Web Site Gets Extreme Makeover

By Nancy Rebholz

The MEPP Web site geared to prospective students has had an extreme makeover. The new Web site features a more user-friendly navigation system and a design that is modeled after the University of Wisconsin–Madison site.

Beyond design features, we’ve included new content that was developed to more fully answer questions of prospective students and their employers. Highlights include:

- **Choosing the Right Degree Program**: Questions and answers to help visitors compare MEPP to other programs and find the best fit with career goals.
- **MEPP Student Profile**: Information about MEPP student job responsibilities, educational background, and experience to help prospective students see how they would fit in the MEPP community.
- **Gaining Employer Support**: Suggestions for receiving financial support and meeting with employers about participating in the MEPP program.
- **Executive Summary for Employers**: A one-page summary about the MEPP program design, curriculum and impact written for the manager’s concerns.
- **Bottom-line Results**: A summary of MEPP completion rates, results in the workplace and awards to make the case for MEPP to managers.
- **FAQs for Employers**: Information about online degrees, comparisons with MBA programs and why MEPP is a degree of difference presented in a question and answer format.
- **Resources for Alumni**: Handy links to MEPP Community, popular UW sites, MEPP News and tell a colleague about MEPP information.

In true MEPP fashion, the makeover was a team effort that included Carl Vieth, Wayne Pferdehirt, Karen Al-Ashkar, Nancy Rebholz and Lauranne Bailey. The goal was to create a site that clearly presents information about MEPP to prospective students and employers with the option to drill deeper for more details and resources. Recognizing that the decision to enroll is complex, we also want the Web site to encourage interested parties to request an information package or to contact us with questions. In the future we hope to add additional graphic elements and photos.

We invite you to explore the new site. Tell us what you think and be sure to share it with colleagues!

http://mepp. engr. wisc. edu
Survey Information Leads to “Change” in QEQM Course

By Amy Shenot

Have you ever wondered what we do with all those surveys you complete? Surveys of employers, students, and alumni help shape changes to the program and curriculum, keeping MEPP on the forefront.

One exciting new change to the curriculum is based on a strong trend in survey responses. Over the past several years we have received numerous recommendations to place more emphasis on management and leadership. In response we have added opportunities in courses for students to lead discussions and to manage teams and projects. Starting this spring, we will also add a module on managing and leading change to the capstone course, *Quality Engineering and Quality Management* (QEQM). This module will replace the current focus on ISO.

In QEQM students lead teams in their organizations, as opposed to leading teams within the cohort as they do in all other MEPP courses. QEQM provides a unique opportunity for candid discussions about the different experiences and challenges faced when leading change and managing a team. The class can openly discuss change management, team dynamics, and interpersonal communications in context.

After the introduction to QEQM at the Summer Residency, Jeff Russell, a Madison-area consultant, led a session on change management. Jeff will facilitate class discussions and participate in Webconferences for the new QEQM module, and students will use Jeff’s book, *Leading Change*. Additional recorded presentations and lesson plans are also underway.

We are happy to announce this update to the curriculum, to welcome Jeff Russell to MEPP, and to show the importance of the survey information you provide. Thank you for your contribution to our continuous improvement efforts.

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**Newsletter Acknowledgments**

Contributors: Karen Al-Ashkar, Amy Shenot, Wayne Pferdehirt, Don Schramm, Don Ritter, Tom Smith

Editing and Layout: Nancy Rebholz

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**News and Announcements**

**Job Changes, Promotions, Kudos**

**Andy Archer (04)** has been promoted to Key Account Manager - Soft Drinks & Bottled Water at Hach Ultra Analytics. He is responsible for soft drink and bottled water applications in North and South America.

**Darin Driessen (03)** accepted a new position as Design Engineer at DRS Power & Control Technologies in Milwaukee, Wisconsin.

**Zack Fijal (06)** has been promoted to the position of Resource Team Leader, Technical Services and Facilities, Melrose Park Plant, International Truck and Engine Corporation.

**Ganesh Iyer (03)** has been promoted to Global New Product Introduction Manager in the Remanufacturing Services Division of Caterpillar, Inc.

**Steve Schapel**, Engineer III, is promoted to Research Scientist within Baby Care Wipes, Kimberly-Clark Corporation. This promotion recognizes Steve’s skill growth with the commercialization of the optimized SPEARS process (pop-up packaging for baby wipes).

**Steve Wachtel (03)** started a contract with a facility in Columbia, South Carolina in October 2005. His new employer is Nuclear Safety Associates, a small contract engineering firm. Steve plans to base in Colorado and travel as necessary.

**Jennifer Culp (03)** recently passed the PMP exam. She found the material in the *Technical Project Management* course was an excellent preparation for the exam and for all the project management work she has gotten involved in. She looks back at MEPP as one of the best professional decisions she ever made.

**MEPP, the Next Generation**

MEPP students continue to be productive in every sense of the word. Congratulations to all. Please let us know if we’ve missed anyone.

**Rudi Friedel (05)**: Tyler Reid Friedel born 11/2/05

**Randy Mesun (06)**: Owen Kenton Joel Mesun (grandson) born 11/18/05

**Jeff Johnson (07)**: Ava Margaret Johnson born 11/11/05

**Jason Jirovsky (07)**: Tate Graham Jirovsky born 11/14/05

**Paul Cheatham (05)**: Krista Lynn Cheatham born 9/14/05

**Jeff Turner (06)**: Caleb Scott Turner born 5/16/05

**Sara Durch (06)**: Margaret Katherine Durch born 8/25/05

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