

Letter from the Chair: Osama M. Ettouney

Greetings everyone and welcome again to your newsletter! Another exciting year is upon us and since we met here last fall 06, a busy and successful year has just passed by.

Last year, I was writing to you about our move to the new engineering building and this year, we are celebrating our first year anniversary in the building; we moved in last September 29th, 2006! We love our new building: the comfortable and inviting space, the beautiful labs, the modern classrooms, and the fabulous offices! Our students, faculty and staff are having a ball and everyone who visits is in awe of the magnificent structure and state-of-the-art facilities. We had our formal dedication last spring and it was a great time with dear old friends and colleagues, such as our beloved Tony Esposito and his lovely wife, Mary, and new ones from everywhere in Ohio and the country. We had some of our alumni drop by and many more sent their best wishes and salutations. If you have not seen it yet please come and see for yourself, and I am sure you will be proud of our new home.

What else besides the new building, you would ask, and here are some of the highlights: we are now the biggest department in the School of Engineering and Applied Science (SEAS)! We have approximately 380-390 students: 240-250 of whom are mechanical engineering majors, 100 engineering management with manufacturing engineering focus, and about 40 manufacturing engineering majors. We added a new full-time faculty, Dr. Andrew Sommers, who specializes in the thermal and fluid area, which make us 10 full-time faculty and about 5 part-time and visiting faculty.

Although we are larger now, we still provide the same quality education to our students with small labs and lectures, with faculty teaching classes and labs, and with personalized advising. Don't worry, we are not giving up, ever, our quality education for size; we will still be the Miami model in engineering education that you loved and remember with fond memories!

And as you will read in more detail in the next few pages, all of which are organized and prepared by our wonderful colleague and Administrative Assistant, Mrs. Pam Messer (thank you, Pam for another great production), our students and grads are doing great! Two teams competed in the Mini Baja and Formula SAE National Competitions and did very well. Our grads are finding excellent jobs and progressing nicely in the business world; and those who chose graduate schools are faring very well in attending some of the best graduate programs in the country.

Thank you, our alumni, for being part of this success, and for your continuous help and support. Please continue to keep in touch and share with us your success stories in society. Send us your business cards so we can display them proudly on our alumni bulletin board in the NEW ENGINEERING BUILDING and stay well and as I always say do not forget to continue to have fun, in whatever you're doing, and learn something new!

Osama



Samples from the NEW Rapid Prototyping and Fabrication Laboratory



See back page for more details on the new lab.



Gifts to the Department

Our thanks to those listed below whom have contributed to our scholarship accounts, for the upgrade of our labs, or just generally to the department. Your generosity is greatly appreciated.

David Ahlers, 1998
Ferd Bach, Advisory Council
Brian Carl, 1999
Robert & Shelby Crain, Project Support - Hueston Woods
Errol & Nancy Gundler, 1964
Daniel Listerman, 1976 - Advisory Council
Mr & Mrs John Paloian, Project Support - Baja
Keith Petty, 1993
Thomas Peyton, Friend of the Department
Duane & Joan Sigmund, Project Support - Baja
James Silvestro, Project Support - Baja
Nicole Smith, Advisory Council
Mark Sroka, 1998
Charles-Etienne Visconti, 2005
Walter & Marcia Wood, 1972/1973

Donations received to directly enhance our senior design projects are noted above as Project Support and the name of the project that was supported.

The MME Department appreciates these donations. All donations are used in direct support of undergraduate education. Thank you for keeping the tradition going!

The Department recently received a donation from Mr. Norman Sherman to purchase a new Haas Mill/Lathe CNC. We are so excited with the new machine. Thank you Mr. Sherman for your generous gift!



Current MME Majors

Mechanical Engineering - 247
Engineering Management - Manufacturing - 99
Manufacturing Engineering - 41
Total Majors - 387

Degrees Awarded 2006-2007

25 - Engineering Management-Manufacturing Engineering
7 - Manufacturing Engineering
24 - Mechanical Engineering

New Faces in the Department

Andrew David Sommers graduated summa cum laude with his B.S. degree in mechanical engineering from Clemson University in South Carolina in May 2001. While attending Clemson, Andrew performed a 3-D unsteady CFD simulation of trailing edge film cooling over a turbine blade as part of an undergraduate honors research project and served as a co-op engineer at Celanese Acetate in Narrows, VA. After graduating from Clemson University, he



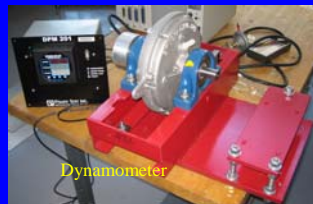
moved to Champaign, IL to pursue his doctorate at the University of Illinois under the auspices of the Air Conditioning and Refrigeration Center (ACRC) and the supervision of Dr. Anthony Jacobi. In 2003, he completed his M.S. degree which focused on the air-side heat transfer enhancement of vortex generators applied to an evaporator under frosting conditions. For his doctoral work, Andrew shifted his research to the creation of novel, micro-structured aluminum surfaces—surfaces that exhibit an unusual, anisotropic wettability that aids in reducing water retention. Andrew completed his Ph.D. in mechanical engineering from the University of Illinois this past summer. While at Illinois, he served as a Department of Mechanical Science and Engineering Teaching Fellow and co-authored three archival journal articles and multiple conference proceedings.

Andrew recently moved to southwest Ohio with his wife Allison after joining our department as an assistant professor. He enjoys running, playing basketball, watching college football, and traveling. This last hobby has led Andrew to such places as Loch Ness in Scotland, the Cinque Terre in Italy, and the top of Mt. Fuji in Japan. His current research interests include nanofluids, air-side heat transfer, micro-structured surfaces, surface wettability, and refrigeration systems. Go Redhawks! (...and go Tigers and Illini!!)

Do you receive our *Spring Updater*? It's all about you and what you are doing, it's you taking the opportunity to share with your fellow alumni what you are doing now. If you'd like to have something included in the next Updater, send it to Pam Messer at messerpm@muohio.edu.

New Thermal / Fluid Laboratory

The MME Department received funding last year from Miami & SEAS to create a new Thermal/Fluid Lab. Examples of equipment purchased are pictured here. The Department appreciates the support of the administration in improving our lab opportunities.



May / August 2007 Graduates

Michael Anderson; MFG, MCH;
Timothy Baldwin; MCH; Military - ROTC
William Balzer; EGM;
Matt Barczewski; EGM; Management Development Program, Quality Engineer, Ellison Group (Surface Technologies), Mason, OH
Richard Boonstra; EGM; Stock Building Supply, Indianapolis, IN
Lauren Bruns; EGM, MCH; Systems Analyst, Deloitte Consulting, Cleveland, OH
Sarah Crush; MCH; Consultant, Deloitte, Cleveland, OH
Robert Egli; EGM; Systems Analyst, Deloitte, Cincinnati, OH
Bethany Fralick; EGM; Graduate School – ME (FSW), U of South Carolina
Joseph Frantz; MCH;
Michael Gedeon; EGM;
Eric Gordy; MCH;
Richard Haas; MCH; Electromechanical Engineer, Triad Technology, Englewood, OH
Richard Hanneken; EGM; Engineer, General Dynamics, Groton, CT
Andrew Herrmann; EGM; Manufacturing Professionals Development Program, Caterpillar, Inc., Peoria, IL
Robert Hudak; MCH;
James Orbon; MCH;
Chris Janus; MCH; Debt Capital Market Analyst Program, SunTrust Banks, Atlanta, GA
Michael Johnson; EGM; Manager, Aeropostale
Alexander Larsen; EGM; Design Engineer, Humanscale, NY, NY
Peter Lewis; EGM; Research Assistant, Neuroscience Dept., Yale University
Jonathan McCarren; MCH;
Michael Meier; EGM;
Benjamin Miller; EGM; Leadership Program Integrated Supply Chain, Textron
Michael Mukai; MCH; Technical Sales, W.R. Grace, Cambridge, MA
Tim Muller; MFG;
Ross Owen; EGM; Mechanical Engineer (R&D), Process Technology, Mentor, OH
David Payne; EGM; Looking – geographic specific
Adam Popilowski; MCH; Parts Quality Engineer, Honda of America Manufacturing, Marysville, OH
Matthew Ruza; MFG;
Matt Samborsky; MCH;
Allison Stusick; MCH; WTEP Engineer, Whirlpool Corporation, Benton Harbor, MI
Joseph Sweeney; MCH; Systems Engineer Associate, Lockheed Martin Mission Services, Springfield, VA
Adam Tishok; EGM;
Michael Wade; EGM; Graduate School – ME (FSW), U of South Carolina (USMC)
Michael Yambor; EGM; Looking – geographic specific

Formula SAE

Congratulations to the Miami University FSAE Team. 2007 marked the first year that Miami has entered and competed in the Society of Automotive Engineers (SAE) Formula competition. A Formula SAE race car is a single seat open wheeled race car that has restrictions placed on it to test the students' creativeness. Every year 130 teams from around the globe convene in Detroit, Michigan to compete in both dynamic and static events. This competition is considered the definitive collegiate engineering competition because not only must students design and build a race car, but they must also acquire all the resources to do so on their own. This gives the student members great hands on experience in the engineering and business world.



Redhawk Racing is Miami University's Formula SAE team name. Redhawk Racing finished 84th out of 106 cars. The team did a great job and we are proud of these students. The students are already working and planning for the 2008 race. To keep up to date on their efforts, visit www.miamiredhawkracing.com.

Congratulations on a job well done!

If you haven't already done so, please send us two of your updated business cards - one that we will post on our alumni bulletin board and one for the notebook we keep that we share with our prospective students when they inquire about what our graduates do and where our graduates are employed.

Mali Project—Senior Design

Are you interested in supporting a senior design project? This year we have a team once again working on the Mini Baja Project. We also have a team working on a Mali Water Pump Project. This project's mission is to design, fabricate, and install a self-sustaining human powered water pump and storage tank in the village of Gwele Kon, Mali. The design must be simple enough that the villagers will be able to maintain it after installation. Students will travel to Mali in May to install the pump and storage tank. A list of all of this year's senior design projects will be listed on our website under student projects in the near future. Donations may be sent directly to the department (made out to Miami University) and indicate the project you wish to support. If just general lab support is preferred, note that as well.



Rapid Prototyping and Fabrication Laboratory

An interdisciplinary team consisting of faculty from MME (Michael Bailey-Van Kuren), Interactive Media Studies, and Computer Science & Systems Analysis, recently received funding from the **Parsons Corporation** to create a new "Rapid Prototyping & Fabrication Lab". We are excited about the new equipment and opportunities afforded by this generous grant. The lab is located in the Engineering Bldg and Dr. BVK has been creating some really neat things as seen in some of the pictures below. Our thanks to **Parsons Corporation** for supporting engineering at Miami!



Mechanical and Manufacturing Engineering Faculty/Staff for 2007-2008

Osama M. Ettouney, Ph.D., Minnesota, Department Chair, ettounom@muohio.edu

Errol A. Gundler, MBA, Miami University, Assistant Chair, gundleea@muohio.edu

Pam Messer, Administrative Assistant, messerpm@muohio.edu

Michael Bailey-Van Kuren, Ph.D., Georgia Institute of Technology, Associate Professor, baileym@muohio.edu

Anna Dollár, Ph.D., Krakow University of Technology, Associate Professor, dollara@muohio.edu

B. Carter Hamilton, Ph.D., Georgia Institute of Technology, Assistant Professor, hamiltbc@muohio.edu

Fazeel Khan, Ph.D., Rensselaer Polytechnic Institute, Assistant Professor, khanfj@muohio.edu

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