Chair’s Message

“Leading through Relationship” was one of the kickoff themes as Union University started its new academic year this Fall. It is in this spirit that Union University Department of Engineering inaugurates this newsletter to establish, renew and maintain relationship with the Department’s key Constituencies. In this issue, please find updated information from the various aspects in the life of our Department. As I perused the newsletter myself as it was being put together by our Mrs. Chris Rowland in the department, I was particularly very proud of the many achievements by our graduates and spotlights by Union University Engineering.

Best regards,

Department Spotlight

- Pass rates of the Fundamentals of Engineering (FE) licensing exam administered by the TN Board of Examiners have been excellent:
  
  2008-09: 100%
  2007-08: 88%
  2006-07: 100%

- Placement of engineering graduates has been a blessing:
  
  2008-09: 83%
  2007-08: 80%
  2006-07: 100%

- Average ACT scores of engineering freshmen have been improving:
  
  2009-10: 27.9%
  2008-09: 26.3%
  2007-08: 25.1%
**TENNALUM**

"The Quality Producer of Aluminum Rod and Bar"

309 Industrial Drive, Jackson, TN 38301

Phone: 731-423-2811  Fax: 731-423-2745

**TENNALUM**, a Division of Kaiser Aluminum, was built in 1989. The plant produces aluminum screw machine stock and other hard alloy machining stock, including custom shapes, for automotive and aerospace applications and other industrial uses. Our customers are primarily stocking distributors of all types of metals.

**TENNALUM's** three pronged vision of being the Preferred Supplier of their products, Preferred Employer to their team and Preferred Investment to their owners, is the driving force for the company. The plant culture is built around employee involvement and empowerment and a strong customer focus. The workforce is all salaried, with levels of pay based on a Pay for Skills system. There is also a plant-wide bonus plan based on TENNALUM's return on assets and several key indicators.

In recognition of our commitment to excellence, **TENNALUM** has received numerous awards since opening in Jackson in 1989. They include the Top Operations and Plants Award from *33 Metal Producing*, 21st Century Organizational Excellence Award from Clemson University, *Industry Week's* TOP Operating Plants, Tennessee Quality Interest Award, ISO 9002 and AS 9100 Certifications, Tennessee Quality Achievement Award (2 times), Shingo Prize for Excellence in Manufacturing, and the Madison Award.

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**EAC Academic Committee:** Mr. Beseda (Lockheed Martin), Mr. Breeden (Black & Decker), Mr. Henderson (TLM Associates), Mr. Steps (LyondellBasell), Dr. Berheisel (Union University)

**EAC Development Committee:** Mr. Passey (P & G), Mr. Flew (JEA), Mr. Geibel (ABB), Mr. Nash (Dana Corp), Mr. Hansen (Nortek), Dr. Schwindt (Union University)

**EAC Community Outreach Committee:** Mr. Wood (Black & Decker), Mr. Cole (Tennalum), Mr. King (Birket Engineering), Mr. Matthew (Dana Corp), Mr. Campbell (Panther Oil & Energy), Dr. Russ (Union University)

**EAC Chairman:** Mr. Dement (Dement Construction Co.)
Current Capstone Projects by Graduating Seniors

This year the two teams of graduating seniors will showcase their creativity and problem-solving skills by accepting the design challenge to do the following two projects:

The IEEE Robot Design— the team will conceive, design, build and commission a land-based robot which can autonomously transport toxic containers from multiple locations to a remote processing area according to the specifications given by IEEE Region 5. The competition is set to take place in Dallas, TX on April 16, 2010. The project is electro-mechanical in nature as reflected by the makeup of a multidisciplinary graduating seniors. We wish them well.

The Gas-to-Electric Car Retrofitting Method Development and Implementation—another multidisciplinary team will conceive, develop and implement a practical and economical method to transform a gas engine automobile into one with an electric engine while overcoming a multitude of challenges (shift of center of gravity, friction reduction and controllability, smooth speed and power control, mating of parts and material compatibility, economics, safe operation, minimal maintenance, etc). We wish them success.

Alumni News:

- Congratulations to Will Trautman (’09) for receiving the Elizabeth Tigrett Medal, which has been awarded since 1912 by vote of the entire faculty to an outstanding member of the senior class. Will and Valerie recently moved to Syracuse, NY to accept a position with Lockheed Martin Space Systems Company. He really enjoys his job! As for hobbies, “I've been using a lot of my time to do things like put together a baby crib, swing, changing table, and other furniture, and attend childbirth classes at the hospital!” said a very proud soon-to-be daddy.

- Congratulations to Beau and Christina Wilson (’05) on the birth of their son, Milo Clayton Wilson, born on January 8th, 2009 at 8lbs 9oz and 20.5 inches. Christina is employed with Black & Decker and lives in Jackson, Tennessee.

- Joshua Armacost (’09) is currently studying at Southeastern Baptist Theological Seminary in Wake Forest, NC and working on his Masters of Divinity in International Church Planting. He’s hoping to enroll in the 2+3 program where he will complete two years of on-campus work before being commissioned with the IMB for three years as a missionary apprentice. He declined engineering employment potential to dedicate his life to the work of God to reach those in the furthest reaches of the Earth for the sake of the Gospel.

- Chris Singleton (’09) has recently moved to Greater Cincinnati with Procter and Gamble and has assumed an Upstream Technology Development Role in the Snacks category engineering group. He and his family currently reside in Mason, Ohio.

- Jon Brasher (’06) is a development engineer with ABB in Alamo, Tennessee. He and his wife, Amy, have two children, Ethan (7) and Brayden (2), and reside in Medina, Tennessee. Outside work activities include Sunday school teaching, golf, racquetball and travel.

- Justin Montgomery (08) is with Royal Caribbean Cruise Line as a Superintendent of Technical Services and Hull Performance with Royal Marine Operations. He is supervising the underwater hull painting of the ships and also special projects pertaining to the lifeboats.
Faculty Members

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