

Christian Brothers University

SCHOOL OF ENGINEERING



Chemical



Civil



Electrical



Mechanical



Graduate Engineering

Engineering Newsletters

February 2005

GRADE SCHOOL OUTREACH ACTIVITIES

Packaging Summer Program for High School Students

The 2nd Packaging Summer Program, funded by International Paper Foundation, will be held at CBU from June 6th-10th, 2005. Information and application forms can now be downloaded from the CBU Engineering homepage at: <http://www.cbu.edu/engineering>. If you are currently a high school student and did not attend the Packaging Summer Program in 2004, you are eligible to apply.

The Third Annual High School Competition

The 3rd Annual High School Competition has been scheduled for Thursday, April 7th, 2005. There will be four different competitions: Egg Drop, Balsa Wood Bridge, CO2 Car, and Electric Air Vehicle. Rules and entry form can now be downloaded at the competition web site at: http://www.cbu.edu/engineering/hs_comp_2005.html. If you have any questions about the competition or if teachers/groups would like a professor to visit and discuss the competition, please email questions/requests to HSCompetition@cbu.edu.

Mathcounts

The School of Engineering at CBU co-hosted the 2005 Regional Mathcounts with the Memphis Chapter of the Tennessee Society of Professional Engineers on Saturday, February 5th. Mathcounts is the nationwide math coaching and competition program for 7th and 8th grade students. It promotes students' interest in math by making math achievement as challenging, exciting, and prestigious as a school sport. Students compete individually and as teams in written and fast-paced oral competitions. Thanks to the following Tau Beta Pi students and engineering professors who helped at the event: **Jose Garcia, Josh Holtgrewe, Garrett House, Jeffrey King, Leslie O'Neal, Ben Reves, John Wall, Andrew Warren, Nathan Webb, Zach Wilkinson, Dr. Ali Pourhashemi, Dr. Randel Price, Mr. John Ventura, and Dr. Siripong Malasri.**

Engineers Week Student Contest

Dr. Randel Price (ChE), **Mr. Floyd Munn** (Admissions), and **Dr. Siripong Malasri** (Dean) staffed the CBU table at the Engineers Week Student Contest on February 19th. The contest was held at Southwest Tennessee Community College, Macon Cove Campus, and was sponsored by the Memphis-Area Joint Engineers Council. The Engineers Week Student Contest is an opportunity for middle and high school students to express their creativity and demonstrate their ingenuity by working on concept projects designed to improve our quality of life. Judging criteria include: benefit to society, creativity, feasibility, and presentation. Monetary awards are given to the winning schools.

OPTIONS Students

OPTIONS is a Shelby County Schools program for female students who are interested in science and engineering. The program funding came from the National Science Foundation. In February, the School of Engineering at CBU hosted two open houses for them. On February 10th, students from Arlington, Bartlett, Bolton, and Millington high schools visited campus. Other groups from Bolton, Collierville, Germantown, and Houston high schools were on campus on February 15th. **Dr. Randel Price** (ChE), **Dr. Louie Lin** (CEE), **Dr. Bob Drake** (ECE), **Dr. Ali Pourhashemi** (ChE), **Dr. Asit Ray** (ChE), **Dr. Paul Shiue** (ME), **Dr. Siripong Malasri** (Dean), **Matt Shaver**

(ChE student), and **Julie Newman** (ChE Student) provided various demonstrations in Saint Benilde Hall.

Discover IT Day @ CBU

CBU hosted “Discover IT Day” for high school students on February 21st. Visitors explored three computer-related majors offered at CBU, i.e., computer engineering, information technology management, and computer science. On the computer engineering section, **Dr. Eric Welch** (ECE Chair), **Mr. John Ventura** (ECE), **Dr. Bob Drake** (ECE), **Dr. Paul Shiue** (ME), and **Dr. Randel Price** (ChE) showed various applications of information technology in engineering to students in Saint Benilde Hall.

Do you know that it is possible to get a B.S. in Electrical Engineering with a Computer Engineering Emphasis, a B.S. in Computer Science, and a Mathematics minor for a total of 140 credits within four years, including summers? For more information, please contact Dr. Eric Welch (ECE Chair) at ewelch@cbu.edu or Dr. Pascal Bedrossian (Math/CS Chair) at pbedross@cbu.edu.

High School Visits

- **Dr. Bob Drake** (ECE) and **Dr. Randel Price**(ChE) each participated in the East High Career Day on February 22nd.
- **Dr. Randel Price** (ChE) visited Kingsbury High School on February 25th and spoke to about 20 junior and senior students. The topic was the upcoming CBU high school competition.

STUDENT NEWS

On February 2nd, several biochemical engineering track students visited the Lurgi-PSI biodiesel skid mounted compact plant along with **Dr. Randel Price** and **Dr. Ali Pourhashemi**. This small-scale plant is capable of producing about 2.5 MM gal/year of methyl Ester, used as biodiesel fuel from edible oils and fat (vegetable and animal). Mr. Ray Jones (Lead Process Engineer) and Mr. Hamid Naderi (Principle Engineer of Civil & Structures) gave the group a tour.

Elin Thorsteinsdottir, J.T. Malasri, Wes Templeton, and Lee Schumann from the Department of Civil & Environmental Engineering recently attended the 2005 ASCE Workshop for Student Chapter Leaders in Orlando, Florida.

Leslie O'Neal, Jeffrey King, Jonathan Allen, Bruce "The Showstopper" Luong from Tau Beta Pi and **Mr. Gene McGinnis** (faculty advisor) recently attended the 2005 Tau Beta Pi District VI Conference at the University of South Alabama's Brookley Center in Mobile, Alabama.

The Alpha Delta Chapter of Epsilon Mu Eta, the Engineering Management Honor Society, held its second annual induction of new members on Friday, February 18, 2005. Membership in this national honor society is awarded in recognition of superior academic achievement and excellent character. Those selected for membership were: **Susan Bell** (Quality Manager, Special Projects, Smith and Nephew Orthopaedics), **Morgan Jones** (Statistician, U.S. Department of Agriculture), **Scot McMinn** (Senior Manufacturing Engineering, Carrier Corporation), and **Kirstin Widding** (Project Manager, Knee Marketing, Smith and Nephew Orthopaedics). Congratulations!



From Left: Susan Bell, Morgan Jones, Scot McMinn, Kirstin Widding

Tau Beta Pi hosted an Engineering Futures Session on February 19th. Participants learned the “soft skills” that employers look for when hiring engineers. This particular session addressed problem identification and solutions while maintaining relationships with others.

Three CE majors; **Brad Loeffel, Nick Marasa, Sam Vitale, and Gene McGinnis** (CEE Chair) were inducted into the Order of the Engineer at the Order of Engineer Ceremony on February 23rd. The West Tennessee Branch of American Society of Civil Engineers organized the event. The Order of the Engineer is the roster of engineers in the United States who have participated in an Engineer's Ring Ceremony and who have publicly accepted the “Obligation of an Engineer,” which states an engineer's responsibilities to the public and to the profession.

To celebrate Engineers Week, the following students were recognized by their respective departments:

- **Benjamin T. Reves**, 2005 Featured ChE Student
- **Elin Thorsteinsdottir**, 2005 Featured CEE Student
- **Marnelli Pascual**, 2005 Featured ECE Student
- **Jeffrey D. King**, 2005 Featured ME Student

Congratulations to **Marnelli Pascual** (ECE) for being named the 2005 CBU Featured Engineering Student. She was recognized at the Engineers Week Banquet on February 24th at Germantown Country Club. The event was hosted by the Memphis Chapter of Tennessee Society of Professional Engineers. Marnelli came to CBU in August 2001 after earning an Associate of Applied Science in Electrical Engineering Technology from Southwest Tennessee Community College. At CBU, her GPA is close to a 4.0. She is a member of Tau Beta Pi Engineering Honor Society, Alpha Chi Honor Society, and IEEE. She has four years of experience in electrical, gas, and water system design and one year of experience in gas cathodic protection with MLGW. Currently she is Residential Designer with MLGW and will be promoted to Staff Engineer upon her graduation in May 2005. **Dr. Eric Welch** (ECE Chair) presented the award to her at the banquet. **Mr. John Ventura** (ECE) also attended the banquet.



Dr. Eric Welch presented the 2005 CBU Featured Engineering Student Award to Ms. Marnelli Pascual

ALUMNI NEWS

Joan McGrory (EE'88, MBA'96) completed her Ph.D. in Information Systems at Nova Southeastern University in January 2005. Her dissertation, titled *Model for Planning, Designing and Implementing a Wireless Local Area Network in a University Classroom*, described an 802.11b implementation in the School of Engineering at CBU. Dr. McGrory completed her research while working as an adjunct for the CBU School of Engineering ECE Department. Engineering faculty members, students, and IT Support Staff supported this dissertation research by participating in a user needs analysis and satisfaction survey. Joan McGrory graduated from CBU in 1988 with a BSEE and in 1996 with an MBA. She served as an adjunct faculty member in the School of Business from 1998-2002 and then in the School of Engineering from 2002 to 2003. Currently, Dr. McGrory is an Assistant Professor at Southwest Tennessee Community College in the Computer Technologies Department.

On Monday, Jan 31st, **Carol Tsagarakis**, P.E. (ChE'84) of D&W Plating Co. spoke to the CHE 491 Air Pollution Control class. She discussed the Clean Air Act and the regulatory process in Tennessee. Thanks!

Attention Alumni! Don't miss the two upcoming events:

- **Monday, March 14**, 12 noon, CBU Engineering Day @ Engineers' Club of Memphis Meeting, Holiday Inn, I-240 & Mt. Moriah. Dr. Siripong Malasri (Dean) and Dr. Neal Jackson (MEM Director) will update local engineers on CBU Engineering. For more information, please contact Dr. Siripong Malasri at

pong@cbu.edu or Engineers' Club of Memphis at (901) 680-0751. A great opportunity for alumni to get an update of our school and meet with other alumni! The cost of lunch is \$10.00. There is no reservation needed!

- **Friday, April 1, 7 p.m. – 9 p.m.**, CBU Faculty/Staff Talent Show, CBU Theatre. Several CBU faculty/staff will perform/demonstrate their talents on April Fools' Day. The event is free but donations will be accepted. The event will raise money for Holy Names Catholic School (<http://www.holynamesmemphis.org/index.htm>). There will also be an auction at the event to raise money. If you want to donate items for the auction or sponsor the event, please contact Dr. Siripong Malasri at pong@cbu.edu. A great opportunity to see some of your former professors and staff making fools of themselves on April Fool Day!!!

FACULTY NEWS

Dr. L. Yu Lin (CEE) taught a 3-day workshop for the American Society of Civil Engineers, West Tennessee Branch, in February. The workshop covered fundamental knowledge of the computer program HEC-RAS. There were eleven civil engineers from private and government sectors at the workshop. He also recently received a donation of Spatial Analysis and ArcGIS 3D lab packs from ESRI, the leading GIS software vendor in the world. The software will benefit civil engineering majors and support faculty research.

As part of Engineers Week Celebration, each engineering department honors one of its faculty members each year. Congratulations to this year's honorees:

- 2005 ChE Featured Engineer: **Dr. Randel Price**
- 2005 CEE Featured Engineer: **Mr. Fred Sock**
- 2005 ECE Featured Engineer: **Dr. Eric Welch**
- 2005 ME Featured Engineer: **Dr. Ray Brown**
- 2005 MEM Featured Engineer: **Dr. Neal Jackson**

Congratulations to **Dr. Randel Price** (ChE) for being named the 2005 CBU Featured Engineer. He was recognized at the Engineers Week Kickoff Luncheon on February 21st at the Airport Radisson Hotel. He joined the ChE Department in spring 2003 as Associate Professor. Dr. Price earned his B.S, M.S., and Ph.D. in Chemical Engineering from the University of Missouri (Columbia), University of Arkansas, and Lehigh University, respectively. His past experiences include Process Engineer at Conoco, Inc., Summer Faculty Researcher at USAF Armstrong Laboratory, and Assistant Professor at University of Mississippi. Recently, he authored a chapter on "Engineering Process Control of Bioseparation Processes" in the Handbook of Bioseparations, which was published by Academic Press At CBU Dr. Price has been very

active in recruiting. He currently serves as chair of the Engineering Enrollment Committee, coordinates the upcoming 3rd Annual High School Competition, visits high schools, and organizes engineering open houses. Dr. Price taught several courses at CBU including Thermodynamics, Mass Transfer & Separation, Process Control, Air Pollution, and Material & Energy Balances. He is also very active with the Mid-South Section of AIChE and currently serves as its secretary. **Dr. Ali Pourhashemi (ChE), Dr. Asit Ray (ChE), Dr. Fred Terry (ECE), Mr. John Ventura (ECE), and Dr. Siripong Malasri (Dean)** attended the Kickoff Luncheon with Dr. Price.



Standing from left: John Ventura, Asit Ray, and Pong Malasri
Sitting from left: Fred Terry, Randel Price, and Ali Pourhashemi

Dr. Siripong Malasri (Dean), Dr. Asit Ray (ChE/Packaging Program Coordinator), and Mr. Yongquan Zhou of FedEx (Packaging Adjunct) recently received a \$10,000 grant from Medtronic Foundation to promote and expand the packaging program at CBU. This is the 3rd grant from the foundation. Activities will include packaging lab development and the high school summer program in summer 2006. Thanks to Lisa Bell, Director of Grants Management, for helping with the proposal.

MAESC 2005 CALL FOR PARTICIPATION – LAST CALL



The abstract submission deadline for MAESC 2005 is February 28, 2005. If you cannot make the deadline and need an extension, please notify the Organizing Committee immediately by sending an email to abstract@cbu.edu. We would like to know the tentative title of your presentation so we can start working on the conference program.

The theme of the MAESC 2005 Conference is "Engineering Management: Leadership in Engineering Practice & Education." As with previous conferences, it will include papers and presentations on many diverse technical fields. If enough abstracts are received on a topic to fill an entire session, a session will be formed. MAESC 2005 will also have a poster session for those papers that cannot be placed into existing sessions. At least a full track will be devoted to engineering management, the theme of the conference.

Other important deadlines/dates:

- Author Registration: **April 15, 2005**
- Early Registration: **April 27, 2005**
- Regular Registration: **May 4, 2005**
- Conference Day: **May 11, 2005**
- Post-Conference Proceedings Materials Submission: **May 31, 2005**

For more information, check the conference web site at: <http://www.cbu.edu/engineering/maesc>

PE REVIEW SURVEY

The Memphis Chapter of Tennessee Society of Professional Engineers and the CBU School of Engineering plan to offer PE Reviews. The review for each discipline will be approximately 50-60 hours. If you are interested in attending any of the reviews, please let Dr. Siripong Malasri know which discipline you are in via email at pong@cbu.edu.