

School of Engineering

CHRISTIAN BROTHERS UNIVERSITY

News - April 2003

STUDENT NEWS Congratulations to **Peter Hall, Juan Guitierrez, J.T. Malasri, and Colby Jones** for winning **First Place** in the Water Resources Competition at the 2003 ASCE Southeast Regional Conference. Peter Hall and Jeremy Frulla also received Third Place in Concrete Dome Design Competition at the conference. The conference was held in Miami, Florida, on March 13-15, 2003.



From Left: Peter Hall, Colby Jones, J.T. Malasri, Juan Guitierrez

Lisa Lavie won **First Place** and \$800 in the Student Paper Contest at the 2003 IEEE Southeast Conference. She presented her senior project entitled "Electrical Safety for an Offshore Power System." The conference was held in Ocho Rios, Jamaica, April 4-6, 2003. Wow! Great job, Lisa!



Lisa Lavie with IEEE Faculty Advisor, John Ventura

At the ASME Region XI Regional Student Conference in Miami, Florida, April 3-5, 2003, **Justin Moderow** took **First Place** in the Old Guard Poster Competition for his entry on finite-element heat transfer calculations using a spreadsheet. In addition, CBU ASME Student Chapter also won the award for the highest percentage for attending the conference. Marvelous!



Justin Moderow

Each year the Memphis Chemical Association, Inc., awards a \$2,000 scholarship to foster the undergraduate education in chemistry and chemical engineering. Local chemistry and chemical engineering departments nominate a junior student to compete for the scholarship. The competition is based on academic performance, extra curriculum activities, and career objective. Congratulations to **Kyle Dorgan**, CBU ChE student, for being named as the recipient of this year's scholarship.

Congratulations to our ChE seniors, **Jyoti Gupta** and **Shawna Roussel**, for receiving **First Place** in the Annual Student Paper Contest in Oxford, Mississippi, on April 16. Jyoti and Shawna presented their senior project, competing with chemical engineering students from other schools in the Mid-south. The AIChE local section also awarded them a \$300 check.



Jyoti Gupta and Shawna Roussel

Congratulations to the following seniors who made their final senior project presentations recently:

Mechanical Engineering - March 22, 2003

- *Analysis of Sightglass Leakage Issue* by **Ariel Wessel** (Sponsor: Parker Hannifin)
- *Convective Heat Transfer Correlation* by **Richard Doerr** and **Justin Moderow** (Sponsor: Christian Brothers University)
- *Oil Tanker Leakage Containment System* by **James Steven Fuss** and **Daniel Valentine** (Sponsors: New Air Manufacturing / Unique Investment LLC)
- *Metrology for Scalpel Blade Sharpness* by **Danielle Guerre** and **Sergio Vergara-Reyes** (Sponsor: Gyrus ENT)
- *Alpha 4: The Great Moonbuggy Race 2003* by **Joseph Green**, **Justin Ivancic**, **Timothy Petteys**, and **Albert Waineo** (Sponsors: Christian Brothers University, et al.)

Chemical Engineering - April 5, 2003

- *Investigating Seal Strength for Sterile Biomedical Packaging* by **Denise Mondragon** (Sponsor: Wright Medical Technology)
- *Installation and Validation of Level Control System for the Distillation Column at the Chemical Engineering Lab at CBU* by **Hussein Wada** (Sponsor: Christian Brothers University)
- *Analysis of Naturewood Production Process to Determine Raw Material Usage and Losses* by **Shawna Roussel** (Sponsor: Osmose, Inc.)
- *Waste Water Treatment System Upgrade at the Diesel Recon Facility* by **Jyoti Gupta** (Sponsor: Cummins Engine Company)

Civil Engineering – April 5, 2003

- *Design and Construction of the Concrete Canoe* by **Josh Giannini** and **Peter Hall** (Practitioner: Becky Bailey, E.I.I., Engineering Department, City of Bartlett)
- *Intersection Redesign – Humphreys Blvd. & Walnut Grove, Structural Design of Bridge over Wolf River and Humphreys Blvd* by **Melissa Johnson** (Practitioner: John Jernigan, Ph.D., P.E., Ellers, Oakley, Chester, & Rike)
- *Intersection Redesign – Humphreys Blvd. & Walnut Grove Traffic Considerations* by **Roy Lamica** and **Nathan C. Luce** (Practitioners: Stan Klenk, P.E., Allen & Hoshall, and John Pankey, Fisher & Arnold)
- *Intersection Redesign – Humphreys Blvd. & Walnut Grove, Drainage Design & Environmental Impact* by **Andrew T. Mullis** & **Neko Sharkey** (Practitioners: Michael F. Tooley, P.E., Environmental Testing & Consulting of the Americas, Inc., R. Andy Gaines, Ph.D., P.E., and Dewey Jones P.E., US Army Corps of Engineers)
- *Seismic Retrofit of Benilde Hall, CBU Campus* by **Heather M. Smith** and **Kristin Louise Teague** (Practitioner: Bob Paullus, P.E., Askew, Hargraves, & Harcourt & Associates, Inc.)

FACULTY NEWS

A paper entitled "Conditions for Self-Sustained Oscillations in Feedback Control of AC Motor Speed by Power Electronic Controllers" was presented by **Dr. Robert L. Drake** (ECE) at the 35th Southeastern Symposium on System Theory at West Virginia University, Morgantown, West Virginia, on March 16-18, 2003. The paper appears in the conference proceedings.

John Ventura (ECE) delivered a paper –"Curriculum Development for Lecture-Based Course Utilizing Web-Based Technology to Supplement Instructional Delivery," at the Institute of Electrical and Electronic Engineers' Southeast Conference 2003 held in Ocho Rios, Jamaica, from April 4 to 6, 2003.

Dr. Randel Price (ChE) visited Ridgeway High School and spoke to an advanced chemistry class on March 27 on the topic "Careers in Chemical Engineering."

MISCELLANEOUS **Dr. Sombat Thiratrakoolchai** gave a lecture entitled "The Future of the Local Thai Intelligence and the Global Architecture" at the School of Engineering on January 31, 2003. He is Dean of Architecture at Chiang Mai University, Thailand. Dr. Sombat visited various U.S. universities, including Arizona State University and CBU, under Visiting Fulbright Scholar Program for a period of six months.



*From Left: Dr. Paul Shiue, Dr. L. Yu Lin, Dr. Evelyn McDonald, Dr. Neal Jackson, **Dr. Sombat Thiratrakookchai**, Dr. Siripong Malasri, Mr. John Ventura*

Benilde Hall is now under construction and will finish in late August. Thanks to **Eric Barnhart** (CE'82) of Barnhart Crane & Rigging Co. for bringing his crews and equipment in early April to move heavy equipment out of the building free of charge. Pictures of the renovation are being posted on the web at www.cbu.edu/engineering/Benilde. More pictures will be added on a timely basis to show the progress of the project. Check it out!

Congratulations to the following winners of the First Annual High School Competition hosted by the School of Engineering on April 3, 2003:

- **First Place** Egg Drop Competition – **Mark Lingerfelt** of White Station High School
- **Second Place** Egg Drop Competition – **John McLaughlin** of Dyersburg High School
- **Third Place** Egg Drop Competition – **Jason Blank** of Munford High School

- **First Place** Balsa Wood Bridge Competition – **Daniel Hochstein** of Houston High School
- **Second Place** Balsa Wood Bridge Competition – **John Laird** of Houston High School
- **Third Place** Balsa Wood Bridge Competition – **Cecil DeVilbiss** of St. Benedict High School

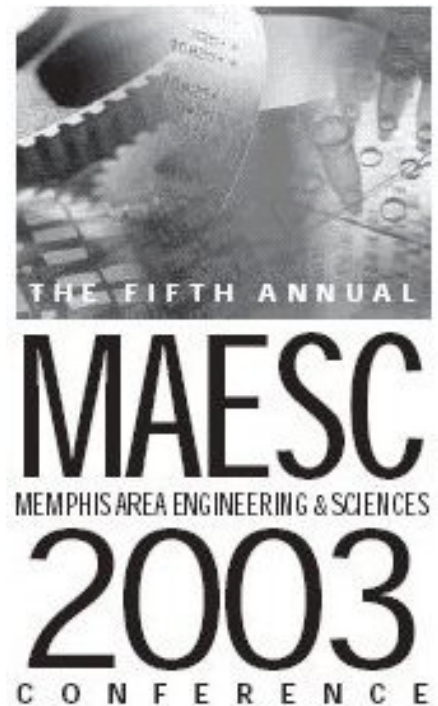
Seventy-two high school students participated in the competition.

Thanks to the following award donors: Br. Louis Althuas, CBU Academic VP (\$750), the Mid-South Chapter of the Institute of Packaging Professionals (\$300), and Wright Medical Technology (\$100).



MAESC Conference is just around the corner – May 15 @ CBU. A conference program can be downloaded from the conference website at <http://www.cbu.edu/engineering/maesc>.

Register by April 30 and get the Early Registration Fee of \$150 per person. The regular registration fee is \$200 per person. If your firm would like to have a table at the conference exhibit area and/or want to put an advertisement in the Conference Abstract Book, please contact Dr. Siripong Malasri at (901) 321-3419 or pong@cbu.edu. CBU Students: We need about 10 volunteers to help out at the conference. If you would like to volunteer, please contact Dr. Malasri at pong@cbu.edu.



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