

# School of Engineering

CHRISTIAN BROTHERS UNIVERSITY

## News - March 2003

### ECE FINAL SENIOR PROJECT PRESENTATIONS

Congratulations to the following ECE seniors for the job well done on their final senior presentation on Saturday, March 1st. Thanks to the sponsors of these projects.

- Solar Powered Cell Phone Charger by **Brandon Culley** and **Bennett Wetherald**. Sponsored by Walgreen's (Summer & Perkins)
- Control System for Ruberg Mixers by **Anita Gail Vickery**. Sponsored by AZO, Inc.
- English to Vietnamese Translator Software by **Hai Nguyen** and **Phillip Tran**. Sponsored by Mr. Mike Hoang
- Current and Temperature Data Acquisition by **Jeffrey Alan Dettelbach**. Sponsored by Memphis Light Gas & Water
- Electrical Safety for an Offshore Power System by **Lisa Marie Lavie**. Sponsored by Shell Exploration & Production Company
- PID Speed Control of a DC Motor by **Stephen Michael Avanzi**. Sponsored by Cummins Diesel Recon
- Route Selection Using a Genetic Algorithm by **Robert Collin Seely**. Sponsored by Dr. Siripong Malasri, CBU
- Electrostatic Levitation by **Michael Bagley** and **Herb Petermann**. Sponsored by Physics Department, CBU
- Tom's Town by **Rama Menon** and **Amit Tugnait**. Sponsored by Tom's Town
- Telecommunications Network Design by **Nyaniki Quarmyne**. Sponsored by BellSouth Telecommunications
- Integrated Circuit Tester Using a Computer Interface by **Ayan Mitra**. Sponsored by Dr. Robert Drake, CBU
- Residential Wiring Design by **Truc Nguyen**. Sponsored by Matthew Adkins and Ty Babb
- Analysis of Multiple Node Parallel Computation with a Linux Beowulf by **Matt Osborne**. Sponsored by Dr. Eric Welch, CBU
- A Mobile Biomedical Skin Temperature Monitor "UBQTherm Monitor 1.0" by **Eric Morris**. Sponsored by Dr. Michael Neuman, University of Memphis



## STUDENT/ FACULTY NEWS

Congratulations to **Lisa Lavie** (ECE) for being selected as one of the top ten finalists in the Region 3 Student Paper Contest for her presentation entitled "Electrical Safety for an Offshore Power System." She will compete in the next round at SoutheastCon 2003 on April 5th in Rio Ochos, Jamaica.

Thanks to **Dr. Denise Theobald-Roberts** (ME) and **Mr. Gene McGinnis** (CEE) for hosting a group of girl scouts on campus on December 15, 2002. They learned about the profession of engineering and how to test their creative talents. The girls were divided into groups. Each group was given a plastic bag that contained materials (a styrofoam cup, plastic straws, index cards, paper clips, and rubber bands) that the girls were to use to construct a water tower in twenty minutes. The winner was the team that carried the most water over the distance with the shortest time. Only one group was able to successfully transport a significant amount of water; but they all had a good time. They also designed a turbine that would lift a weight into the air. The group that lifted the highest weight in the shortest amount of time was declared the winner.



*A Group of Girl Scouts*

Welcome aboard! **Dr. Randel Price** joins the ChE Department this spring as Associate Professor. Dr. Price earned his B.S, M.S., and Ph.D. in Chemical Engineering from 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.



*Dr. Randel Price*

**Dr. Randel Price** (ChE), **Dr. Ali Pourhashemi** (ChE), **Mr. Fred Sock** (CEE), **Dr. Eric Welch** (ECE), **Dr. Bernard Beard** (ME), **Dr. Paul Shiue** (ME), and **Dr. Siripong Malasri** (Dean) talked to three groups of students who are interested in engineering at East High School from February 27 – March 7. They covered various topics in engineering including engineering as a career, evolution of computer systems and networks, structures, Balsa wood bridge, jet engine design, manufacturing, everyday chemical engineering, and biochemical engineering.

**Dr. Fred Terry** (ECE) gave a one-PDH seminar on Engineering Ethics on March 17, 2003, for the Engineers' Club of Memphis, Inc. The seminar was well attended and received.

Congratulations to **Dr. Paul Shiue** (ME) and **Dr. Neal Jackson** (MEM) for being promoted to the rank of Professor. Their profiles will be given in the next issue.

## **HOMILY FOR BROTHER PHILIP MORGAN (1919-2002)**

Below is the homily for **Brother Philip Morgan** given by **Brother Armand Alcazar** on Friday, January 3, 2003.

What information is the most accurate, what story the most telling, which segment of a life of 83 years, which of the 70 years with the Brothers if we include the Juniorate, or 45 years in Memphis, do we address to tell of our brother, Philip Morgan?

I've chosen to use three lines from the scriptures as my guide today, and will read them where appropriate.

Phil was neither a person to "hang his heart in his sleeve" nor a person to ever be accused of giving "TMI" too much information. Instead, he was a man of few words, wry wit, and bottom lines; possibly, typical virtues of many an engineer! Yet, Brother Philip was a man of a strong will who always managed to get his message across. Phil was also a beatitudinal Brother, especially the 2nd and 3rd beatitudes of Matthean account which we just heard. Early on he had many reasons to mourn; later on, his mourning turned to meekness.

**Matthew 5th chapter: Blessed are those who mourn, for they will be comforted.**

Phil was the third of nine children, and the only one of the first four to live until his 21st birthday. In all, five of Phil's eight brothers and sisters would precede him to the next life.

Phil was a postulant in Glencoe while his older Brother, Bud, the first Brother Philip, was a novice. Of course, novices were not allowed to talk with Postulants, so the two brothers, though in the same place could not speak to one another. In addition, the novices had to practice what was known as "The Grand Silence." No talking from evening prayer, or Compline @ 9:00 p.m. until mid-morning the next day. Bud, as a novice, was not allowed mail. So Phil, receiving word from home, managed to pass his Brother at morning mental prayer and without raising his eyes or his voice simply whispered: "Mom just had another boy," and moved on, only barely breaking the Grand Silence.

Monica and Regis, Phil's sister and brother, both said that they all learned what faith was from their parents. During that same year that both Bud and Phil were in Glencoe, Bud was in a fatal accident. While riding on the back of one of the trucks, Bud was crushed. Panic was struck into the young novices and postulants who were on hand, except for one. Phil stepped up, went with his brother in the hospital and stayed with him at his side, steadily and calmly. When his parents arrived, Bud had already died, but they weren't interested in who was driving the truck or in assigning any kind of blame. Mrs. Morgan addressed the young brothers who were traumatized, telling them that Bud had often mentioned that he loved Glencoe and was not looking forward to leaving the place after the Novitiate. She told them that he both received his wish and that he was now in a better place. This was their message of parents upon losing their fifth child. The Morgan's surviving children never forgot that testimony of faith from their parents. 27 days after Bud's death, his family returned to Glencoe to witness the newest Brother Lawrence Philip received the robe. Phil took the name of his deceased Brother. His name was very important to him.

**Book of Daniel chapter 12 paraphrased by SJBDS: They that instruct many unto justice shall shine as stars for all eternity.**



Most of us know or have read of Brother Philip's many contributions to the University. He loved CBU. Along with his good friend, Jim Guy, Phil was a founder of the Electrical Engineering Department and served as its head from 1952-1967. During many years, he taught three courses: Sophomore Circuits, Senior Energy Conversion and Senior Seminar. Sophomores knew him as tough and exacting. He only needed to shift his eyes your way and roll the chalk in his hand. One could say that he demanded your attention. By the time those sophomores were seniors they wondered if there may not be another teacher, one less exacting and maybe less frightening from whom they could take for Energy Conversion or Seminar. However, time and again, these former sophomores were surprised to find that as seniors Phil was now their mentor and friend readying them for excellence, particularly in their papers where Phil's students regularly won first, second and third place honors for the IEEE student paper contests for the Southeast Region of the United States.



**Matthew 5: Blessed are the meek, for they shall inherit the earth.**

Phil was always "on the move." In the house here, he was known for leaving one event early in order to be at the next. He must have taken the old adage that, "idle hands (or minds) are the devil's workshop" because even when his hands were unsteady, he longed to build or fix or create. During the last number of years he was known to memorialize special events for others. If your picture made the newspaper or the *BellTower*, you were likely to have that framed by Brother Philip and receive it as a gift. Brothers who would pass away, students, friends who received some honor were all recipients of one of Philip's "framing jobs". Not uncommonly, he would cut himself or even fall in the preparation of these gifts. None of us ever heard Phil complain. When the Parkinson's first began to take control of Phil's coordination, (who, by the way, was a tremendous athlete) I can remember him getting angry with himself at knocking over a drink or placing a glass or plate where he thought there was a table. Simultaneous with his Parkinson's, he had an eye condition that caused him to see in triplicate. After one of his many operations, I asked him how the surgery on his eyes went. He said, "The surgery was fantastic. The images I saw used to shake and I'd see in triplicate. Now the images are still and I only see double." His eyes kept that sparkle and his mouth the little smile until only recently.

About five years ago when Phil's speech began to get softer, I asked him if he would like to be taped about his life. His answer: "for what?" I said, so that we can remember you on tape. His answer, "Whatever you know about me right now is just

fine.”

After one of his many visits to the doctors while still here at Lambert Hall, I asked Phil how he was doing, what did the doctor say? Typical of Phil, he said as if he were reading the sports page: “The doctor said that my heart is irregular and my kidney’s are shot and won’t last. I’ll probably die within a few years.” Concerned and serious I leaned forward and said, “Really, Phil? I’m so sorry.” “Yeah,” he said, “the doctor told me that 50 years ago, said I’d never reach 40. So, you ask how I’m doing? With that prognosis, I have to say I’m doing just fine.”

Brother Philip loved being with us, his Brothers. No matter what, whenever he could he would join us for Mass or particularly the “C” or celebration before dinner. When we would have events here at the house and he was at St. Peter’s we never had to convince him to be with us. Despite the hassle it would take just to get dressed, shaved, bathed and moved, he’d be here in the twinkle of an eye.

I will end by returning to the beginning of Phil’s life as a teacher, with a message that we received Randy Davidson, one of Brother Philip’s early students from Price College in Texas, Phil’s first assignment.

“I began my high school life under Brother Philip’s direction and was blessed for having known him for sixty years... and the images and memories are graphic. He was always providing challenges for me and giving me strength and courage, as a Christian Brother is meant to do. He did so at every turn. He was there for my First Communion, he helped me when I was boy scout master with my lads, he allowed me the greatest latitude with the managing of all the sports at Price. He was there when I needed him and he was always supportive in all my endeavors, as I went from 13-19 years of age. He was a Brother (large “b”) and a brother (small b). I am, at this moment, devastated, but filled with duplicate joy that he is with God who sent him to us at just the right moment in my life. He was there. He will always be there for me, I expect: in the tears, in the triumphs and when I go to join him and the others I knew back at Price and in the monks. I am sure St. John Baptiste de La Salle is welcoming him, as are tens of thousands of others. I shall miss him and he will be with me.

However one gets this message to the Morgans, please do so. Brother Lawrence Philip was one of my very first teachers at Price College. His example was enough to make me want to be a Brother and a Catholic. A great Brother, a man that was so patient with me a little Jewish lad, in my first Catholic School.

He taught me and gave me more opportunities to develop and had great confidence in me in all I did. I have never forgotten this great Christian Brother who was an example to everyone of us who were at Price. An incredible man, Brother, coach, teacher, a man who was in my prayers and whom I know will continue to influence my life and my work. We are fortunate to have known and worked with him all those years. To the family and Brother Regis, all the love and prayers from the Davidson’s.”

Live Jesus in our hearts.