

Academy of Electrical and Computer Engineering (AECE)
Minutes of Annual Business Meeting
Thursday, April 14, 2011

Members Attending:

Max Anderson	Michael Apprill	Richard Arnold	Eric Aschinger
Edward Bradley	Lloyd Brunkhorst	James Eckhoff	Richard Eimer
Michael Emanuel	Kelvin Erickson	James Fricke	William Herron
William Hord	Leonard Laskowski	Dennis Letterman	James Leonard
Steven McNabb	Joe Monie, Jr.	J. Derald Morgan	Paul Nauert
Michael Perry	David Raterman	Walter Reed	Joseph Ruder
Neal Schaeffer	David Schepers	George Schindler	Kirit Kumar Shah
Donald Shaw	John Skain	Keith Stanek	Paul Stigall
Thomas Sweeney	Cynthia Tang	William Thompson	George Tomazi
Thomas Van Doren	Jon Vaninger	Roger Volk	Ronald Willoughby

The annual Meeting of the Academy of Electrical and Computer Engineering was held Thursday, April 14, 2011 and called to order at 8:00 a.m. The meeting was held in the Faculty Lounge located in Emerson Electric Company Hall. President Richard Eimer chaired the meeting.

Dr. Kelvin Erickson, Department Chair, welcomed the Academy members. He reported that the new entrance to the building had just recently been completed. The carpet was removed and the concrete was painted.

Dr. Kurt Kosbar gave a report for the Scholarship Committee. He reported that the Academy awarded a total of ten scholarships this year. Four scholarships were awarded from the endowed scholarship account, totaling \$5,500. These scholarships are awarded to students who have completed a FASFA form (application for federal student financial aid) and have a combined household income of less than 40k. The recipients were: Kenneth Scott Campbell (\$1,500), Corbin LeGrand (\$1,500), Krystal Thomason (\$1,500) and Jason W. Buchanan (\$1,000). Six scholarships were awarded from the non-endowed account for \$1,500 each. These scholarships are awarded to students based on need and academic performance. The recipients were: Mike Carte, Andrew Meyer, Bradley Trapp, Kathleen Venhaus, Derek Welty and Kathleen Venhaus.

Dr. Kosbar reported that while \$1,500 assists the students, it is less than ten percent of the cost of tuition per year. He stated that most students did not view this amount as a decision making offer, but as additional assistance. He asked that the Academy think about whether it would be better to keep the dollar amount low and award more scholarships or raise the dollar amount and award fewer scholarships.

The Academy members then heard presentations from some of the scholarship recipients.

Janell Woolsey is the youngest of three children from Blue Springs, MO. She chose S&T after visiting and falling in love with the campus. Janell began her S&T career as an aerospace engineering student, but after working on a research project last summer decided she enjoyed the

electrical part of physics more so she changed her program to electrical engineering. Her current activities include Student Union Board, Society of Women Engineers, and Chi Omega Fraternity. She plans to pledge to HKN (EE honor Society) this fall. Janell has secured a summer internship with General Electric. Her hobbies include reading, drawing, listening to music and she enjoys all outdoor activities. She hopes to obtain her B.S. degree in EE and then possibly pursue graduate school.

Bradley Trapp is the youngest of three children from O'Fallon, MO. His hobbies include sports, playing video games, and hanging out with friends. Bradley is currently pursuing a B.S. degree in computer engineering. He chose computer engineering because he loves computers, enjoys math, and likes the logic of computer science. His future plans include obtaining an internship or co-op for the summer.

Derek Welty is the middle of three children from St. Charles, MO. He currently holds a position as a graphic designer with the Interdisciplinary Design Collaborative (on campus), with two apps available in the app store and two more in process. His current activities include Student Union Board, The Missouri Miner and Eta Kappa Nu. Derek chose S&T because of its reputation as a great engineering school, which he confirmed while attending the Jackling Intro to Engineering program. He plans to obtain his B.S. degree in computer engineering with a minor in mathematics and then secure a job working with communication or audio signals. He has secured a co-op position for next semester with Cargill.

Kathleen Venhaus is the oldest of four children from St. Louis, MO. She chose S&T after attending one of the summer camps, and decided on computer engineering after a high school engineering class trip to Walt Disney World. Kathleen has secured an internship with the National Geospatial Intelligence Agency. Her current campus activities include the Chancellor's Leadership Academy, Eta Kappa Nu, and work on the 'Automatic Partial Credit Grader Research Project'. She enjoys softball, volleyball and is an avid St. Louis Cardinals fan. Kathleen plans to graduate with a dual degree in computer engineering and computer science.

Andrew Meyer is the third of four children from Washington, MO. He is a 2008 graduate of East Central College (ECC) and is currently pursuing a dual degree in electrical and computer engineering with a minor in pre-law. Andrew's decision to attend S&T was partially due to the great transfer program with ECC. His current campus activities include the Associate Students of the University of Missouri, Intercampus Student Council, New Student Programs – PRO Leader, Eta Kappa Nu and Tau Beta Pi. Andrew plans to graduate in May and then return to Washington, MO, where he has accepted a position as a Controls Engineer with Melton Machine and Control Company. His future plans include working in different areas (outside of design engineering), possibly attending law school, and becoming an active alumnus and donor to S&T.

Mike Carte grew up on a farm in the small town of Green City, MO. He enjoys movies, video games, computers, music, playing the tuba for various campus bands, and traveling. Mike is a huge fan of basketball and he loves the Cubs. He chose S&T because of the campus size, scholarships, and the fact that it was the perfect distance from home. Mike chose computer engineering because of his love for video games as a child. This interest evolved into a respect for the work that went into them. Mike plans to graduate in May with a B.S. in computer

engineering and a minor in computer science. He has accepted a position as an Associate Engineer in Process Automation for Arcelor-Mittal in Burns Harbor, IN. His future plans include attending graduate school (through his employer) to obtain his M.S. and then possibly moving onto a larger computer corporation, such as Intel.

Greg Harris, Development Officer, provided a campus update. He reported that the new Vice Chancellor for University Advancement, Joan Nesbitt, just took office earlier this week. Mr. Harris informed the members of two important capital project opportunities. The first was the Geothermal Energy Project (priced at \$32.4 million) and the second was the new construction of a chemical and biological engineering building and the rehabilitation of Schrenk Hall East and Schrenk Hall West (priced at \$51.2 million). The Geothermal Energy Project is estimated to be a five year project.

Mr. Harris also reported that in 2010 over 550 different employers (over 2,000 visits) recruited at S&T for full-time, co-op, and intern positions. The employers were from 42 different states and three international locations (57% of the employers were from outside the state of Missouri).

The Council for the Advancement and Support of Education Competition (CASE) resulted in S&T receiving 15 different awards for excellence in alumni relations, fundraising, media relations, advertising, graphic design, and student recruitment marketing. For the fifth year in a row, S&T also brought home the Sweepstakes Award for best overall institutional advancement program in the enrollment category of 5,000 – 7,499 students.

In 2010, the American Society for Engineering Education ranked S&T 19th in the nation in the number of engineering bachelor's degrees awarded; 16th in the nation in the number of engineering bachelor's degrees awarded to women; and 17th in the nation in the number of engineering bachelor's degrees awarded to African-Americans.

Mr. Harris shared photos of some recently completed construction projects including the Kummer Student Design Center, the new indoor practice facility, and Innovation Park. He then briefly spoke of the ongoing effort to raise funds for the Hasselmann Alumni House (which has \$3,090,000 worth of naming opportunities).

Dr. Randy Moss, Professor of Electrical and Computer Engineering, then addressed the members about the opportunity to assist three graduate students who will be without funding during the fall semester. ECE faculty members, Drs. Randy H. Moss, R. Joe Stanley, and Bijaya Shrestha, along with dermatologist, Dr. William V. Stoecker submitted a proposal to the National Institute of Health (NIH) to better diagnose skin cancer using a computer assisted diagnosis. The proposal received a good score and would have been funded in past years, but wasn't because of the NIH budget being too tight. They plan to revise the proposal and re-submit in August, but this will cause three graduate students to be unfunded for the fall semester. Dr. Moss asked that the Academy as a group, or individual members, consider supporting the three graduate students. Stoecker & Associates has agreed to match support for these graduate students for funds contributed prior to the start of the fall 2011 semester. The members agreed to discuss the possibility during their business meeting.

Dr. Erickson then asked the members to review the information they were provided about Vision 2020. He stated that he sees this as an opportunity to involve alumni input in the department plan. After the members reviewed the material and discussed what it meant to the department, it was decided to form a small committee of 3-4 members to assist with Vision 2020. The following members agreed to serve on the committee: Max Anderson, Thomas Sweeney, J. Derald Morgan, and John Skain.

The academy members then heard a presentation from the final scholarship recipient.

Jason Buchanan grew up on the family dairy farm with his two younger brothers. He is married (10 years) and has two children. Jason had five years of real-world experience before an injury (followed by two surgeries and three years of rehabilitation) sent him back to school. He will graduate in May 2012 with a B.S. in Electrical Engineering. He is a member of Tau Beta Pi Honor Society.

Richard Eimer called the afternoon business meeting to order by welcoming the new inductees that were present.

George Tomazi made a motion to approve the minutes from the April 2010 meeting. Dennis Leitterman seconded the motion. Motion carried.

Roger Volk explained the endowed scholarship budget for March 1, 2010 through February 28, 2011. The budget for the endowed scholarship is strictly informational so no vote was required.

He then reviewed the 2011-2012 Proposed Budget that included two recent changes. The first change was the addition of one \$4,000 scholarship annually to an incoming freshman. The second was a one-time gift of \$4,500 (\$1,500 each) to the three unfunded students involved in Dr. Moss' research. Donald Shaw made a motion to amend the amount of the gift to the three graduate students to \$2,000. Walt Reed seconded the motion. Motion carried.

George Schindler made a motion to approve the amended budget. James Eckhoff seconded the motion. Motion carried.

Jim Fricke made the call for nominations to fill three vacant seats on the Board of Directors. Two seats will have terms expiring in 2014 and the third will fill the seat vacated by George Schindler (new Secretary/Treasurer) with the term set to expire in 2012.

Donald Shaw made the motion to elect Russell Monie and Jim Fricke to fill the two seats with terms expiring in 2014 and Donald Shaw to fill the seat with the term set to expire in 2012. George Tomazi seconded the motion. Motion carried.

George Schindler gave a report for the Membership Committee. He reported that Michael Perry has agreed to take over as Membership Chair.

Dennis Lettermann reported that the bylaws are being updated. The updates include: allowing ballots to be submitted electronically, officers and directors are also members of the board, and changing the name (university). Please send Dennis any suggestions.

Richard Eimer reported for the Chancellor's Academy Presidents Forum that the next capital campaign is scheduled to begin in 2013.

Dr. Erickson gave a department update. He reported that for Fall 2010 the department had 378 undergraduate students (131 CpE, 247 EE) and 161 graduate students (23 CpE, 138 EE). The department had 30 faculty members, 4 assistant teaching professors, and 14 staff members. Research expenditures totaled \$9M.

Our students won the HKN Outstanding Chapter Award and placed third in the IEEE Blackbox Competition. Gina Hentschke and Kathryn Rodhouse both received the IEC William L. Everitt Student Award of Excellence.

The department has one new faculty member, Dr. Yiyu Shi (computer engineering). Faculty awards were given to: Dr. Chengshan Xiao (Faculty Research Award); Dr. Steve Watkins (Faculty Service Award); Dr. Bijaya Shrestha (Faculty Achievement Award); Dr. Mariesa Crow, Dr. Kurt Kosbar, Dr. Reza Zoughi (Outstanding Teaching Awards); Serigiy Kharkivskiy (IEEE Fellow); Dr. Reza Zoughi (2011 IEEE Joseph F. Keithley Award in Instrumentation and Measurement); and Dr. Ganesh K. Venayagamoorthy (2010 IEEE Region 5 Outstanding Member Award). Two patents were also issued – U.S. Patent No. 7,746,266, Microwave and Millimeter Wave Imaging System (R. Zoughi, M. Abou-Khousa, M. Ghasr, S. Kharkovsky and D. Pommerenke) and U.S. Patent No. 7,853,437, Electromagnetic Emissions Stimulations and Detection System (S. A. Seguin, D. G. Beetner, T. H. Hubing).

Faculty Senate approved the deletion of the FE exam as part of the degree requirements for both computer and electrical engineering effective fall 2010. About 1/3 of the students took the exam in fall 2010 and the pass rate was about the same.

Future curriculum changes will be renumbering the course using a 4-digit system. Example: 1xxx – 4xxx are undergraduate courses and 5xxx – 6xxx are graduate courses. This has been postponed until 2013.

The department strategic plan includes:

- working toward being ranked as top 25 in the nation
- establishing endowed teaching chair in circuits and computer engineering
- establishing a laboratory equipment endowment and senior design project endowment
- department to support 3 teams not in Student Design Center
- increase undergraduate and graduate enrollment
- offer more on-line courses
- increase female and minority faculty to 6
- increase scholarship/fellowship endowment
- expand research
- funding for new building addition

- three campus corporate partners on Academy
- support start-up and commercialization efforts of faculty and students

New initiatives include:

- Replace seats in four classrooms
- Lab equipment updates
- Classroom technology updates
- S&T Bot
- Cooperative program with MSU
- CpE and EE minors

Feedback from members:

- Possibly collect dues/voluntary dues request in the fall.
- Set up webinar/conference call so that more members can participate in meetings.
- Offer continuing education seminars.
- More communication to members.

Richard Eimer noted that the date for the 2012 OGS meeting had not yet been set. Leonard Laskowski made a motion to set the next meeting to be the Thursday of OGS. Donald Shaw seconded the motion. Motion carried.

Richard Eimer made a motion to send a thank you note to Dr. Stoecker for his support of the university, department, and program and to announce the awarding of funds for the graduate students discussed earlier in the meeting. Dennis Leitnerman seconded the motion. Motion carried.

Jim Fricke moved that the meeting be adjourned at 3:35 p.m. Dennis Leitnerman seconded the motion. Motion carried.

Minutes submitted by Roger Volk

June 20, 2011

The next AECE Meeting and Banquet of the Academy of Electrical and Computer Engineering will be Thursday, April 19, 2012. Mark your calendars and plan to attend.