

ESE

Electrical and Software Engineering

NEWSLETTER

Fall 2001

CHAIRS CORNER



Dave Ellestad

Exciting things continue to happen on our campus and in our college and department. As you drive past the stadium on your next visit to Ottensman Hall, look north and observe the new Student/Technology Center rapidly taking shape. It is truly becoming a handsome edifice, which will be worthy of its intended purpose: being a campus center of student gathering and activity. Internal changes are happening also and, even if they are not as obvious, they are perhaps even more important. Enrollment continues very strong. Sixty General Engineering Students completes their requirements and chose to move into the EE program and an additional seven entered the Software Engineering program. Only ME attracted more with a count of 94. As there are still 77 Electrical and 64 Software Engineering bound General Engineering enrollees, the future continues to hold high promise for the quality and volume of our student population.

Electrical Engineering continues as one of the top ten Majors on campus as measured by popularity and Software Engineering is experiencing the most rapid growth in this category. Incidentally, Software Engineering will soon be combining with ComputerScience to form a new department with two programs, which will reside in the

College of Engineering, Mathematics and Science. The EE students and faculty are of two minds about this reorganization. All recognize the advantages in it for SE and CS and we support this move to help them thrive, but we still feel a sense of loss at their departure even as we wish them well. Our laboratories are getting much attention again this year. We have already issued over \$60,000 in purchase requisitions for adding or upgrading computers, power supplies, oscilloscopes, power analyzers and other high quality state-of-the-art equipment for our students to get hands-on preparation for their professional careers. On September 27 we had our 36th annual Employer Fair sponsored by Placement Services. It was the largest ever! Companies who participated went all out and asked whether we could please produce more EEs for them to recruit in such settings. We suffered one loss by resignation from our faculty last spring. Professor Yumin Zhang (better known by colleagues and students as Afisher@) left us to join the faculty at Oklahoma State in Stillwater, Oklahoma. Although sorry to lose him, everyone wished him the best in his new setting. He has reported that the weather is warmer on his new campus but he greatly misses the quality of his UW-Platteville students there. With only a few months to find a replacement instructor, we deferred a search for a tenure-track replacement, and recruited Eric Benedict, a doctoral candidate from UW-Madison ECE Department with all of his PhD requirements met except his dissertation which he continues to pursue with the expectation that it will be complete in time to have his degree conferred in December of 2002. Eric is teaching Analog Electronics and Solid State Devices and Applications for us this semester. He came to campus ready to charge hard having just come off of a summer season of competitive cruiser sailboat racing on Madison's Lake Mendota. We all wanted to see his trophy but he grinned and began telling us about what a good time he had. We have received final written certification from ABET confirming our full accreditation following last year's on-campus inspection which was gratifying to say the least. We have also seen the Fundamentals of Engineering Licensure Examination results from last spring and were gratified to see that UW-P test takers' average scores once again exceeded the Wisconsin averages which, in turn, exceeded the National ones. GO PLATTEVILLE! Thank you all for your continuing support and encouragement, which together with our outstanding students, makes our success possible.

December Graduates 2001

Many of our students that will be graduating in December have already accepted jobs: Kimberly-Clark in AR, Delco Electronics in IN, United Defence in MN , Artesyn Communication Products in Madison

IEEE NEWS & Goals – Exec Committee (President Jill Pamperin)

As is slowly becoming tradition, IEEE is starting off the school year with another membership drive. We have 55 dues paid members and, since the start of the year, we have acquired 27 more. This leaves only 13 new members to go before we get the opportunity to see Professor Benedict's hair change colors. As something new, we started selling resistor kits to the 121 and 221 students. This has been so successful that we will

be working on making capacitor kits for next semester. I will be coming around shortly to ask your advice on what values we should purchase. We apologize for the necessity of raising soda prices this semester; we can document the fact that the price of soda has stayed the same for at least 8 years. Our meetings this year were off to a slow start due to some speaker difficulties, but those should all be solved. We have had two meetings this semester and have another scheduled for November 7th. The first speaker was from BTIO Educational Products and the second was Professor Benedict. Last meeting we finalized a t-shirt design that we will be working on implementing. Be looking for that in the future.

Eta Kappa Nu News

HKN has been busy with our many fundraisers, including keeping the “Little Debbie” snacks stocked, selling parts for laboratory projects, and ordering kits for EE classes. We initiated six new members last semester, and have sent out invitations to initiates for this semester. Later this fall we will be participating in our biannual highway cleanup. We are also considering applying for the “Outstanding Chapter Award” and will be filling out the needed forms this fall. Check out the HKN web page at <http://www.uwplatt.edu/org/hkn>.

FACULTY NEWS

Eric Benedict



As Dave Ellestad mentioned, I'm the new face here in Ottensman Hall this year and I'm teaching the analog circuits classes (302 and 405). I knew Phil Sealy when he was a fellow student at UW-Madison (our offices were across the hall) and after several attempts to get me to come to Platteville, he finally succeeded!

I'm working on finishing up my Ph.D. back at Madison in the power electronics / machine controls area. My research is focused on the control of a transformer-coupled doubly-fed wound-rotor induction machine. My interests are wide and diverse within electrical engineering, but I especially am interested in the history of electronics. A growing collection of old and unique electronic items fills the horizontal surfaces of my

office. When appropriate, items are brought to class as examples of what we are talking about that day.

While at Madison, I taught some basic circuits and electronics courses. Prior to coming to UW-Madison, I was at Purdue University where I got both a BS and MS in EE. When I was at Purdue, I taught courses on electronics, filter theory and ballroom dancing (really!).

My wife, Kassi, and I live in Madison (unfortunately for me, it's Madison's East side) and I am commuting down to Platteville daily. All I can say about the drive is ``Books on Tape" are awesome!

Keeping with a recent Platteville tradition, as the new professor I'll be getting a ``new hair do" if IEEE gets over 40 new members this semester. This should be interesting since I have rather long curly hair pulled back into a pony-tail. The selected new do is a ``rainbow afro" and will be rather colorful I suspect!

Joe Clifton



The changes to the Software Engineering major proposed last year are effective this fall. The Object-Oriented Programming and Data Structures courses are being taught as cross-listed courses in Computer Science and Software Engineering. Furthermore, the Object-Oriented Analysis and Design Course is also being taught as a cross-listed course between Computer Science and Software Engineering. I'm teaching two sections of the former and one section of the latter. There is more emphasis on infusing software-engineering techniques throughout both these courses. I am also teaching a Computer Graphics course. In this course, we focus on implementing graphics algorithms versus using a package to draw things. It is quite heavy on the math, so I'm not sure everyone appreciates that!

On the personal side, my wife and children are doing fine. My oldest son is now attending UWP. He is in general engineering and is not sure what type of engineer he

wants to be. He is leaning towards mechanical or chemical. I'm trying to convince him that software engineering is the way to go. And as for golf - I got my first hole in one on Saturday, September 15, 2001! And there was much rejoicing...

David Drury



I am teaching EE 3130 (Solid State Electronic Devices), EE 4630 (Advanced Communications), and EE 4980 (Microstrip Circuit Design) this semester. I wasn't originally scheduled to teach EE 3130, but when Dr. Zhang defected to Oklahoma State some classes had to be reassigned. Three students in EE 3130 dropped the class as soon as I walked into the classroom instead of Dr. Zhang.

I have chased yet another flight instructor out of Platteville. He took the plane with him when he left, so I won't be able to fly again until a new instructor (with, I hope, a plane) is assigned. The last instructor wasn't certified to give instrument lessons, anyway, so I am looking forward to getting a new instructor in the hope that I will be able to resume progress toward my instrument rating.

Bookbooters.com is still reviewing the novel I sent to them last March (they have a six-to-nine-month backlog of manuscripts), so I doubt you'll see it on their Web site before Christmas. I am currently searching for another Web-based publisher. My third science-fiction novel, *Live by the Sword*, is in the hands of my literary agent. I'm sure she will be just as successful selling *Sword* as she was with my first two novels. In the meantime, I have no plans to quit my day job.

On the home front, I have acquired a kitten, named Midnight, to supplement my other cat, Useless. Useless hates Midnight with a passion. Midnight knocks everything off of my coffee table, end tables, kitchen table, etc., every day. I am too old to keep up with a kitten.

John Goomey



Now in my second academic year as a lecturer, I am teaching the now familiar courses of EE375 and EE376 (the digital logic and microprocessor series). I am working on revamping the courses to more accurately represent currently used technology. I am particularly enjoying this semester, as with my prep time reduced, I am able to devote more time to the students.

Shortly after the beginning of the semester, we were blessed with the addition of a new baby girl, Talitha Charis, to our family. My now seven year-old son is reveling in his new role as a big brother.

Rob Hasker



About all I have to say:

I had a relaxing summer; first summer in over a decade that I didn't have a major project with a tight deadline - almost a sabbatical! This fall, my daughter (2.75) started pre-school and my son (6) started kindergarten; both love it. Now if I could just figure out how to keep them entertained while at home...

Yong Li



The tragic events of September 11, 2001 still weigh heavily on our hearts and minds, and we are greatly saddened that so many have needlessly lost their lives.

This semester Yong is teaching EE475 and EE221B. During this time, we are also going to upgrade our laboratory. Yong would like to hear from you if you have any suggestion and can offer help.

Mesut Muslu



Hello!!! to all of you out there. I hope you are all doing well. I am currently teaching a section of EE221 (the second circuits class) and EE443: Electrical Machines and Power Electronics. I am truly enjoying both classes. Yes, the students in EE221 are again designing this “complicated circuit” called DC power supply. And, the students in EE443 are working on various converter projects.

Last Summer, we have spent about a week in London and about two months in Turkey. We visited our friends and relatives all over Turkey. It was a great vacation. Kutay and Cagla polished their Turkish again. In fact when we returned back, Cagla indicated that she “forgot” English. Isn’t that amazing?

I am planning to visit some companies this Fall. Who knows I may meet with some of you. I received a few notes and comments from some of you recently about the quality of our program here in Platteville. Some of you have also visited us. I certainly appreciate these visits and cherish your comments. Please stop by whenever you are in Platteville.

Phil Sealy



As usual I spent a lot of time in my garden this past summer I had more pumpkins this year than I ever had in past years. The funny thing is that I didn’t plant any pumpkins this year. They just volunteered out of my compost pile.

I also spent some time traveling around northern Wisconsin checking out the waterfalls. My favorites were Amnicon Falls and McKinley Falls (or was it MacKenzie). Amnicon was great because you could get in it just about anywhere and swim all day (go in the summer and on a weekday). McKinley Falls was also very cool because it had an unusual geologic reason for being there and the geology of the falls causes it to run down the face of a cliff diagonally from left to right as you look at it. And you can climb it.

I learned a new shot in foosball. I am the advisor for the Delta Sigs and one night while I was waiting for their program to start I played a few games with the local experts. Long story short - they kicked my butt. The shot they were using was so fast I couldn’t see it. I was talking to one of my other students about six months later and he was describing a shot called “The Snake”. He described it so well that I figured it out on my table at home after a few practices. I’m no expert, but it’s now part of my foosball arsenal (homecoming visitors beware).

I also spent a good deal of my time building a timber frame “shack” in my backyard. My brother-in-law is a boat builder who wanted to learn something new so we decided to put a timber frame building in my yard. For those of you who aren’t familiar with the term think pioneers, Amish, no nails - only pegs (the floors are blind nailed 2" x 6" T & G). The timbers are mostly green white pine 6" x 6" s, some as long as 12 feet. The braces are Douglas fir 4" x 4" s. The cool part was learning how to cut all the mortises and tenons. The structure has some odd angles, which were geometrically challenging, but I could visualize them pretty well in my head. I think my background in 3D electromagnetics helped me to visualize the structure better. The funny thing is that I never thought about the connection between E&M and the building trades. The connection just sprouted out of the compost pile in my head.

Nader Safari-Shad



I spent my summer working for Alliant Energy as a consultant in the area of system protection. I learned a lot about power system protection and met many well-trained engineers at Alliant’s office in Dubuque, Iowa. I am continuing my consulting with them this semester and I am enjoying the world of power system protection.

This semester, I am teaching two courses: EE 331 Automatic control systems, and EE 435 Discrete-Time control systems. I have become more involved in the John Deere’s Lab. In my EE 435, we are doing identification and digital control designs using an inverted-pendulum setup manufactured by Feedback Inc. In my EE 331, I am teaching my students both the theoretical aspects of linear control as well as the practical design and implementation aspects. Finally, I hope that you are happy with whatever you are doing too.

Piyare Sharma



The department is in the process of enhancing the PLC Laboratory. We will replace the PLC-5 Controllers with Rockwell Automations new Control platform namely the ControlLogix 5550. We plan to buy two stations with a grant from the John Deere Inc. This new addition will go along way in meeting the demands of our students and alumni.

David Wood



This year has been a busy one with the introduction of new equipment, The Comm. lab had placed two 3 GHz signal generators and a new 3GHz spectrum analyzer, the Digital lab received two new logic analyzers, the Circuit Lab received 14 new Tektronix 3 MHz Function generators, the Electronics Lab Tektronix TDS220 Oscilloscopes and 4 new SRS function generators. For me these were most welcome additions as the old equipment just was not making it and seemed to be breaking down on a regular basis. To the new faculty, Greetings and I say lets have a GREAT year this year.

Carol Ann Kruse & Angelia Drake



Well, once again school is well under way and we just passed mid term grades. Does that sound familiar? Working on graduation and as we have listed some students already have good job offers. The summer was productive for me, garden wise. I traveled to the Black Hills and spent a weekend in the Wisconsin Dells. I have had my office helper, in the picture, with me for 2 years. She is a Communication major. I hope all is well at your end and keep us informed of new addresses or new jobs.