

EE

Electrical Engineering NEWSLETTER

CHAIRS CORNER

Mesut Muslu

I would like to begin with wishing all of you a wonderful spring season. I hope all of you and your families are doing great.

We are in the final preparations for an ABET (Accreditation Board for Engineering and Technology) visit in the Fall 2006. We are putting final touches on the report we send them. The EE Curriculum and Assessment Committees are heavily involved in this process. The primary focus of ABET is to see if we are meeting the educational objectives and student learning outcomes that we set for the EE program. An important part of this evaluation is the feedback that we receive from our alumni and their employers. I want to express my thanks and appreciation to you for filling out and returning these assessment surveys. We are in the process of sending them to our 2nd and 5th year graduates.

As I have mentioned in the last newsletter, we are in the last stages of hiring three faculty members, two for UW-Rock County (Janesville), and one for UW-Fox Valley (Menasha) for our collaborative programs with them. We are already teaching the first EE course (EE1210) in Fox Valley this fall. I hope that some of you who live close to these locations will stop by and introduce yourselves to faculty in these locations.

EMS EXPO is set for March 30th (Thursday). Students are ready to showcase their projects to visitors. I hope some of you will have time to stop by and visit us at that time. Better yet, I hope some of you will be judging the projects. I am sure Dr. Sealy is in contact with some of you about this.

I am sure some of you are aware of the Master of Engineering (MOE) program (on-line graduate engineering program) that we have in Platteville. We have developed a “controls cluster” for the MOE program. In other words, now you have the option of furthering your education by getting a masters degree in MOE with controls emphasis. For further information on MOE, please visit the web site:

<http://www.uwplatt.edu/disted/degrees/index.html>. Please note that controls cluster is new and the web site may not be updated to include the new courses.

Again, thank you for your visits, calls, and emails. I am looking forward to seeing some of you at the EXPO. Another great day to be a PIONEER!!!

DEPARTMENT NEWS ITEMS

December 2005 Graduates

<u>Name</u>	<u>Employer</u>
Jake Eilder	Honeywell, Inc.
Allie Farid	ARF Discount Clothing
Rikki Green	ATC
John Graczkowski	
Matthew Hedlund	
Crystal Imhof	John Deere
Robert Keys	
Clint Kowalski	
Brendan McGovern	KJWW
Andrew Owen	Grad School
Chris Schoenmann	Volt/John Deere
Brandon Speilman	Miller Electric
Steve Samson	
Tou Yang	

Eta Kappa Nu News

The new exec board members of HKN consist of Debbie Cottrill (Vice President), Tony Gregerson

(Recording Secretary), Mike Robinson (Corresponding Secretary) and Sebastian Sholl (Treasurer). Heidi Mikulsky is the only returning exec board member as President. At the first meeting HKN completed the Second Century Project Phase One. Recently the new initiate's letters have been sent out which totaled 12. We plan to do the Highway clean-up again as well as continuing to provide the snacks in the Comm Lab, 170.

IEEE News

Michael Everhart and Heidi Mikulsky have taken new roles as President and Secretary for IEEE. Adam Wakerhauser, Treasurer, Jon Wegenka, Vice President, and Justin Spaeth, Special Liason, are returning exec board members. Overall the exec board is doing a great job at distributing parts for EE classes, invitation of five speakers, initiating a new mentor program and having the soda available in the Comm lab, 170.

FACULTY NEWS

David Drury

This semester I am teaching EE 4050 (Advanced Analog Electronics), EE 4020 (UHF Oscillators) and (are you ready for this?) GE 2130 (Statics — ugh). The students in Advanced Analog will be doing a semester project to replace the purchased RF remote control for the EE Department robot with a UWP-designed RF link. I've never taught Statics before, and if I behave myself, and don't swear, and give generously to the poor, I might never have to teach it again. (I was scheduled to teach EE 3130 Solid State Devices, but only 2 students enrolled in it. That's only partially my fault, but the complete story is too long for this newsletter.)

Now that my plane has had a transfusion of an overhauled engine and \$19k, it is working perfectly. My publisher hasn't decided whether or not to publish *any* science fiction this year, so I've not submitted either of the two manuscripts I have ready. *All the Gold of Ophir*, my first s-f novel, has been selling three copies per day since it was published. At that rate, I'll be able to retire in 2054 — the year in which the novel is set.

Gang Feng

Hello, everyone! I really do not have too much news for you, but our robot is still working very well. We had a couple of demos last year for the Woman in Engineering Program. In Fall 2005, John Graczkowski successfully tested a magnetic sensor, and this semester Ryan Stone is working with me again and trying to put the magnetic sensor on the robot. Hopefully the robot will be able to automatically navigate using the magnetic sensor, while avoiding collision using the ultrasonic sensors. Dr. David Drury is also asking his students in *Advanced Analog Circuits* to make a radio communication circuit to replace the radio module we purchased before.

I am continuing to put a lot of efforts in my research. Just one week before I am writing this newsletter, I submitted a proposal to NSF, trying to get some funds to build a wireless sensor network. If lucky I will get the project funded, I will be able to deploy some sensors on the Pioneer Farm to assist application research projects in agriculture. I am also expecting to hire at least two students each Fall/Spring semester and one student each summer between 2007 and 2009 to work on that project.

This semester I am teaching "Circuit Modeling II" (EE 2210), and "Introduction to Microprocessors" (EE3780). This is the second time I am teaching 221 and the third time teaching 3780. Everything goes very well, and right now I am enjoying teaching so much here!

Best wish to all of you.

John Goomey

The adventure this semester is the beginning of the UW Platteville at the Fox Valley. We are offering Circuit Modeling I up in Menasha for the first time this semester. There are only two students this semester but I expect that to increase as awareness of the program increases. Down in Platteville we are also offering a course in MEMS (Micro-Electro-Mechanical Systems) for the first time. It is a survey course taught by a bunch of people. I gave the lectures on microelectronics for this class. The challenge in teaching this class was

the varied background of the students. There are students from chemistry and biology in addition to the engineers in the room, so finding a common starting point for the subject was challenging. These two classes are in addition to the normal teaching load. I am also teaching Analog, Circuits I and Applications of Electrical Engineering this semester.

On the family front we will have a new addition to our family in April. As number five is on the way we are finally buying a house (as I write this we are less than two weeks from closing). Andrew (11) is finishing out grade school this year. He recently placed high enough in the district's math contest to move on to the regional event. Talitha (4) is doing well with her schooling and will finish her first grade material soon. John (3) increasingly is fascinated with tools and projects. Our apartment building was recently resided and he would spend hours watching the workers. He would then dress up as a worker and "reside" his bunk bed. Abigail will be two in May. She is a bright, happy little girl who is fascinated with any type of animal. I can't wait to take her to the zoo when the weather warms up a bit.

Teaching here is still a blast and seems to get more fun each year. I find myself looking forward to each semester to meet the new groups of students.

I hope things are going well for all of you out there.

Xiaomin Kou

My weight control game seems to be working, thanks to the substitution of Slim Fast for lunch and the salad feast at night. I don't know how long I can hold it but I am still trying, despite the fact that chicken fries were all over my mind sometimes. My cure for this is my awareness of and hatred towards the Bird Flu. My wife doesn't like my approach at all. She wants me to practice Tai Kwan Do, or, play tennis with her when it's warmer outside. I hate them both. I figured I would have to pick up some sport after this semester, for instance, kick-boxing. I don't want to be beaten up by my black-belt-to-be wife in the coming future. Life is hard!

Talking about my research, one of my papers was rejected last year by a journal. Two reviewers: one likes it the other hates it. One of the funny reasons for the rejection is that the reviewer doesn't think our lab data is from a scope. I doubt if he had used the new generation of the oscilloscope which allows the lab data to be downloaded to the computer for processing. He must be an old fashion guy! The consequence is that they have just rejected an award-winning paper that has been presented in a conference they sponsored. Well, there is good news: after a long reviewing period, I do have another paper accepted by the IEEE Transactions on Industry Applications. This is a prestigious journal and I am really excited about it. The paper is scheduled for publication in the middle of this year. I am also working on a paper on gate drivers with two former UWP students, John Graczkowski and Kevin Neff. I have submitted it to a conference. If it is accepted, some of us will have a chance to visit Shanghai, an exiting city in the Far East!

Last semester I taught a new course, Motor Drives. I really enjoyed the class. Students said I almost killed them in the oral exams. Oops, sorry! However, the end results are pretty well. In the coming Engineering EXPO, you may see quite a few interesting projects coming from the Motor Drives class. I would hope this course be offered every year. I like to teach 400-level classes!

Yong Li

It is the fifteenth years since I work here in the UW-Platteville, sometimes I feel it has been a long time. On the other hand, I feel in order to catch up with the development of the technology, not enough time to do things I have planned.

This semester I am teaching "Logic and Digital Design" (EE 3770), and "Microcomputer Architecture and Interfacing" (EE 4720). In EE 3770, I tried to put more emphasis on the sequential logic and state machine design. In upper level digital course, I try to introduce QUARTUS II, METOR GRAPHICS in the design process. Our Computer Engineering Lab is adding dual display window based stations and Linux Stations. This fall we plan to let each student in

the upper level digital classes use UP3 Education Kit replacing currently used UP2 Kit.

During my grandson's elementary school's Spring break, my son will bring him to Platteville. My wife and I are excited about their visitation.

Mesut Muslu

Hello!!! to all of you out there. I hope you and your families are all doing well. I am teaching my regular power course (EE4450: Power Systems Analysis and Design) this semester. As always, I am enjoying it tremendously. In addition to the regular lectures, I have arranged a "power systems lecture series" this year. As a part of this "lecture series", I am bringing an engineer from Alliant Energy who will talk about the operation of power systems in a deregulated environment, another engineer from Wisconsin Energy who will talk about distribution systems and substation design. I am working with American Transmission Company (ATC) to bring a third speaker for the lecture series. I feel that these are great opportunities for students to see what kind of problems power engineers deal with after graduation. Also, students are excited about (I hope!) designing a power system, expansion plan for part of Wisconsin system.

I am looking forward to the Electrical and Computer Engineering Department Heads Association (ECEDHA) meeting in Hawaii next week. It is a good opportunity to see and discuss what other EE programs are doing and what the trends are in the Nation.

On the family front, Kutay is getting ready for high school and says "he likes math and science". Maybe we have some influence (we wish!!!). Cagla will be in 7th grade and doing well in all areas, but her love of animals will determine (I think) what she will do in the future. Zehra, as if teaching and being a mother is not enough, decided to get an MOE degree. She is working hard to finish the second course. Everyone seems to be so busy that we all are looking forward to this summer. No plans to go anywhere this summer.

Wishing you the best in the months and years ahead.

Mesut

Nader Safari-Shad,

Hello everybody,

I hope you are all well and happy. I had a very routine fall semester. But this semester, I am teaching Circuit Modeling I (EE 1210) for the first time. It is really challenging for me. However, I enjoy it a lot. All circuit theory tools are coming back to me after so many years. I also enjoy working in the labs with freshman or sophomore level students.

Advising IEEE student branch is another enjoyable duty for me. Please let me know if you want to come and give presentation about the interesting aspects of your job, any research you are doing, etc.

Well enough from my corner, I'd like to hear from your corner whenever you feel you have few minutes to write an e-mail and share some thoughts. My e-mail address is safarish@uwplatt.edu. Have a great fall!

Phil Sealy

Karen is struggling with a nursing theory course about "different ways of knowing". She asks me to read some of the assigned reading so I can get a feel for her frustration. Most of it would be really silly if the people who wrote it weren't actually serious about it. One of the articles talks about how the whole world is subjective. They say there are no objective definitions of words. They then go on to define a few words that will be used in the text and then they use the words in ways which obviously defy their own definitions. I guess that proves their point. The whole thing reminds me of a Monty Python skit.

Annie has changed her major again (twice). She started this semester thinking she would go into biology. She hates the intro to biology class that she is taking. She loves the Latin class and the classical mythology class. She seems to have a gift for languages. I think she's going to end up as a museum curator or a UN translator. She got a

job as a lifeguard at Madison West High School and she teaches swimming on Saturday mornings. She'll also be a lifeguard for the Madison Parks and Recreation Dept. next summer. On top of that she is looking for a job in a biology lab. I think she hasn't really decided what she wants to do yet. John is eighteen. My, how time flies. He's taller than I am and soon he will weigh more than I do. Of course his weight is distributed better than mine and he seems to enjoy telling me so. He did get accepted to Madison. Now I'll have twice as many reasons to go to the big city. John has decided that he wants to be a lawyer. It's difficult for me to deal with this. He is a talented math and science guy and we have so few of them around. It's hard to watch someone who could be an excellent engineer or scientist become a disciple of evil. Just kidding. Sort of. He's still playing guitar and he even sits in with our rock band. He plays better than any of us. I still sing better.

Olivia (Mo) is in eighth grade now, which is the top of the middle school. She is currently upset that the middle school has cancelled the eighth grade graduation dance. I guess the dance was getting out of hand. Kids were renting tuxes and buying prom dresses and hiring limos. Why do people want to grow up so fast? She decided not to keep playing cello next year but she is in the school choir and she wants to keep doing that. She has the best singing voice of my kids. Next year she will be taking the drivers ed class at the high school. It's always scary to see your kids in a car driven by a child, especially if it is your own child. The microwave special topics course went reasonably well last fall. I wish I had more time to spend on it. I am trying to get a research project started that will use some of the equipment. One of our alums is a graduate student in chemistry now and we are talking about doing some research into the electrical characteristics of long-chain polymers. The structure of these polymers is such that they may be used as molecular transistors some day. But first somebody has to determine ϵ , κ , and μ in the bulk polymer and relate the macroscopic parameters to the microscopic structure. It would be nice to get some students involved in a research project or two. Of course, first I have to find time to figure out how this is done.

That's pretty hard when I'm teaching two classes and I'm on one university committee, four college committees (co-chair of one) and three department committees (chair of one). That means an average of about six hours of meetings a week and about four to six hours of work outside the conference room each week. I gotta get out of some of those committees. One of the department committees is the search and screen committee. We had over 250 applicants for 3 new tenure track positions and each of the people on the committee had to read all of their resumes. That took way longer than I expected. On the positive side - I know how to write a resume now. The three positions are for the Fox Valley Initiative and the Rock County Initiative. If you have a few hours someday I'll explain all that.

I'm the chair of the College Expo committee again this year. Expo is Thursday, March 30th. As always, we are looking for people to come back and visit for a day and act as judges for the projects. It usually only takes an hour or so to do the judging. If you're still in the area and are interested drop me an email at sealy@uwplatt.edu. It'd be nice to see some alumni here to represent the industries that hire Platteville EEs. Here's the deal: If you were in one of my classes and you come back to judge, I'll buy you a beer at The Perfect Pint on my way home from Expo.

Piyare Sharma

I am teaching EE3310/ME4330 (Control course for EE & ME students) and EE4320 (DSP Course) this semester. We are still using TMS320C50 DSP chip in the DSP laboratory and expect to introduce TMS320C7611 starter kit in the near future. We are making good progress in adding more applications of Logix5000 controllers in the controls laboratory. Once again I would like you to send me suggestions for the improvement of our PLC lab.

Dr Piyare Lal Sharma

Professor of Electrical Engineering UW-Platteville, Platteville, WI, 53818

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Academic Dept Associate

Rose Durni

Here we are again-Spring break @UWP-for faculty and students, not me. But it is quiet

around here, guess that's grounds for getting a lot of things done.

That means that the semester is half over with—sure goes fast. Registration for the fall is right around the corner.

The EE department has been very busy this semester with ABET, the hiring of three new faculty, plans for the new Engineering building, EXPO and then there are the normal every day to day activities.

On the personal side, as you may not know, I was out for 6 weeks last fall – had total knee replacement on one knee, but “recup” was what took a long time! It was nice of Nader Safari-Shad and Mesut to visit me in the hospital and the many phone calls, I think they just wanted to make sure I would come back and the sooner the better. But let me tell you, if you don't have a hobby, children to watch or lots of money to travel, you might as well keep right on working as there is NOTHING on TV.

Looks like my daughter and family will be moving closer (I hope) to us. As her husband works in Dodgeville and her in Middleton, so they have sold their house in Sun Prairie and are looking this direction.

My husband's daughter is planning a wedding (March, 2007) to guy who has a one and half year old, so it looks our family is picking up another one. What's one more!

Looking forward to warmer temperatures to get out and enjoy that old car! We went to our first Buick show last fall in northern Illinois, didn't win any prizes, but met some wonderful people and saw some great cars.

Well, that's all for now. Catch ya in the Fall.

Anytime you are in the “neighborhood”, please stop in, introduce yourself. Or call, (608)342-1536, email: durnir@uwplatt.edu. I love hearing from EE alumni!

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