

EE

Electrical Engineering NEWSLETTER

Spring 2007

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.

Let me start with the news that we had a nice ABET (Accreditation Board for Engineering and Technology) visit at the end of October last year. The visit went very well. The EE program reviewer evaluated how well our program meets the ABET requirements with respect to curriculum, laboratories, faculty, students, and funding. Although the initial report from ABET is due in a couple of weeks and final report is due in July, we expect to have full accreditation from ABET.

I am happy to report to you that the EE collaborative programs at UW-Fox Valley and UW-Rock County are growing. Currently we have about 25 students in Fox Valley program and 35 in Janesville. We have completed the faculty search to hire a second faculty in Janesville. Dr. Liya (Grace) Ni will be joining the faculty starting fall 2007. I hope that some of you who live close to these locations will stop by and introduce yourselves to faculty/staff in these locations.

Congratulations to Dr. Feng who is the recipient of the Tau Beta Pi's "Excellence in Teaching Award" in EMS last year. We are very happy that his efforts and accomplishments as an outstanding teacher are being recognized.

EMS EXPO is set for March 22nd (Thursday) this year. 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.

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

EE News Items

December 2006 Graduates

	<u>Employer</u>
<i>Peter Barth</i>	<i>Stanley Consultants</i>
<i>Joe Berry</i>	<i>Alliant Energy</i>
<i>Chris Campfield</i>	
<i>Mike Everhart</i>	<i>Pieper Electric, Inc.</i>
<i>Tony Gregerson</i>	<i>Grad School</i>
<i>Gus Hammer</i>	<i>Durrant Group</i>
<i>Kevin Ho</i>	<i>ACSCM</i>
<i>Caio Martins</i>	
<i>Jared Schmidt</i>	<i>KJWW Engineering</i>
<i>Sebastian Sholl</i>	
<i>Der Vang</i>	<i>GE Oil & Gas</i>

Eta Kappa Nu News

Eta Kappa Nu (HKN) UW-Platteville's Electrical Engineering continues to serve the community and our fellow electrical engineers through service activities and by providing quality snack food and electronic parts for labs. As in previous years, HKN has assisted the Digital and Microprocessors classes, by providing the 8051 micro controller kit and general purpose logic kits utilized by these classes. Many of our members have served the community by aiding in our once a semester Adopt-a-Highway cleanup project along a 1 mile stretch of Highway 151.

In addition to our previous community outreach programs, HKN is also working on modifying the current EE department robot to add new functionality. With the success of the new "autonomous follow" mode, we plan on exploring new options including the use of wireless cameras, two way audio, and even the addition of a robotic arm. These additions will be made in an attempt to fulfill the robot's original design goal of acting as an "automated tour guide." It is also hoped that these additions will help generate interest in the electrical engineering program at UWP when the robot is used in future exhibitions.

Current officers are: Patrick Marshall, President, Austin Burgener, Vice President, Mike Robinson, Treasurer, Jeff Theusch, Recording Secretary and Shawn Glaser, Correspondence Secretary.

IEEE NEWS

The IEEE executive staff has been very active this semester. We have done many things to try and boost our fundraising efforts, such as beginning to sell pizzas and hot pockets along with the soda in the communications laboratory, running a food stand at the annual engineering expo and also ordering IEEE polo shirts. Electrical Engineering t-shirts are also in the planning process.

The “executive staff” consists of: Dan Winter, President, Adam Nelson, Vice President, Ryan McConnell, Secretary and Greg Hallingstad, Treasurer.

We have also contacted numerous EE alumnus in an attempt to get more speakers with more of a variety of speech topics for our meetings and have also scheduled a visit to AT&T and CenturyTel with other visits pending. Also after many previous attempts, a bookshelf full of donated textbooks is now located between the circuits and signals lab. There is a wide variety of books available for anyone’s use.

Faculty News

Dave Drury

As I write this, the wind is howling over the skylight in the Otts atrium and a massive winter storm is approaching from the southwest. We might have an additional foot of snow in the next twenty-four hours. Is Wisconsin a wonderful place to live, or what?

This semester I am teaching EE 3020 (Analog Electronics) for the first time in three years. It’s fun to play with BJT’s and MOSFETs again. I’m also teaching EE 3610 (Communication Systems), in which I get to teach all the material the students have forgotten since taking Signals and Systems. (Professors call this propensity for students to forget what they have learned “job security.”) Nobody registered for my 1-credit UHF class this semester, which is just as well because I am the chair of the Department’s Curriculum Committee and we have a lot of work to do.

I’m in the process of reviewing the printing proofs of my second s-f / mystery novel, *Jupiter’s Shadow*. The book is on schedule for publication in September. My agent has not been successful in finding a trade-paperback publisher for my first novel, *All the Gold of Ophir*; as soon as I get the sales figures from the last half of 2006 I will go in search of a mass-market-paperback publisher myself.

Gang Feng

Hi, there. I just want to update the information about the robot project. Starting from last semester, the HKN started to take full charge of the robot. In Fall 2006, Shawn Glaser and Sarah Bins worked on a final project (for EE3780) which added one more mode (called “Follow the leader”) to the robot. With the

new mode, the robot can detect a moving object in front of it and try to follow.

This semester I have a really crazy schedule. In addition to teaching EE3780 and EE1210, I am teaching two sections of GE1030. I am having a total of about 130 students. Grading and course preparation have taken all of my time. What makes my situation even worse is I have to drive back and forth between Platteville and Verona everyday. Dealing with the snow on road is really a painful experience.

John Goomey

Greetings everyone, we are finishing another school year. This semester I am teaching solid state and advanced analog. This is the first time I’ve taught advanced analog. It’s also the first 400 level class I’ve taught. I’m enjoying being able to teach a higher level of material. I also have a couple sections of engineering projects (formerly known as introduction to engineering).

Deb is continuing to homeschool Talitha (5) and John (4). Talitha is a very bright little girl and is doing very well. John, in addition to homeschooling, is going to the local elementary school one day a week to help him pronounce his g’s and d’s, also his k’s and t’s. Abigail (2) is a happy ball of energy. As I am writing, this past weekend she took a spill on some ice and split her chin open. Not her first big fall, and I’m sure it won’t be her last. Ketura (11 mo.) is doing her little monster walk (if you’ve seen children right as they’re starting to walk you will know what I mean) all over the house. The hardwood floors (with socks on her feet) provide a lot of extra challenge for her. Andrew (12) has made the honor roll last semester, and when he decides to do his school work, he does well.

Everything seems to be going pretty well right now. Our next daughter, Miriam, should be born in about a month. I would’ve thought a few years back that by the time we’ve had five children the whole thing would have become a little routine. It hasn’t. I still get both excited and nervous as I think about it.

Life on campus and off is going well. I hope the same is true for all of you.

Xiaomin Kou

The past year was very fruitful. I have spent a lot of time on updating the power lab. Many of the equipment in the power lab were out of date. I recently received about \$70,000 from the DIN fund, which allowed me to purchase two sets of state-of-the-art educational testing bench from LabVolt. Students can perform AC/DC power circuits, transformers, motors and generators related fundamental experiments on these benches. Students can also perform power electronics and motor drives related advanced experiments using the benches. With additional modules, it is also possible for students to test advanced power applications such as power transmission lines and relay protection etc.

I have started to use the equipment in EE3410 (baby power) this semester. Students seemed to like them very much. They requested more laboratory work on the LabVolt equipment. I have also tried a demonstration lab to the Circuits II students using the LabVolt systems. I have received very positive feedbacks. Next semester, I will teach EE4440 Motor Drives again. This will give me an opportunity to utilize the advanced functions of the LabVolt testing benches. I am really excited about it.

Because we only have 2 sets of the equipment, I have to repeat the same lab 3 or more times. This increases my working load significantly. I hope I can install 5 sets of the LabVolt testing benches to the power lab in the future. But where is the money?! Looks like I will have to keep working on it.

Yong Li

This semester besides teaching the Digital and Computer Engineering courses I am working on a streaming video project. The purpose of the project is to serve our students better especially for those who take the class off Platteville campus. I understand to have a right tool is the key for this kind of projects. And some of you may already have experiences of Streaming Video and/or Virtual Classroom. I am glad to hear from you any suggestion. It will be very helpful for the summer EE3770 Digital and Logic Design course.

Mesut Muslu

Hello again. 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. We have visited the 138 KV Hillman substation and also Montfort Wind Farm this year. I am working with Keith Jonas, American Transmission Company (ATC), to team-teach the course. He will be giving an overview of how a power system operates. He also has provided a design projects for the class where the students have to come up with a system expansion plan for ATC high voltage transmission system. Students are excited about the project and are looking forward to Mr. Jonas and his presentations.

I am also chairing a committee to establish a possible university-wide major/minor in energy area. The committee already talked to many companies to see what the need is. We will be reporting our recommendations to the University by the end of this semester.

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

On the family front, Kutay is freshman in high school and doing very well. Although he enjoys math and science, his true interest is in soccer. He is hoping to be in the varsity team next year. Cagla is in 7th grade and doing very well in all areas. She started playing basketball this year but had an injury and stayed away for about three weeks. Zehra continues her teaching in Math Department and also taking MOE courses to finish her masters degree. We are looking forward to summer. Zehra, Kutay, and Cagla will be leaving for Turkey early June. I will be joining them in July and we will be returning back in mid August. That means a lot of opportunities for Kutay and Cagla to practice their Turkish, and also a lot of swimming, and playing with friends.

Wishing you a wonderful spring and summer season.

Mesut

Nader Safari-Shad,

Greetings everybody,

I hope you are all well and happy. I had a very exciting fall semester teaching GE 1000 and EE 1210. This semester, I am teaching EE 1210 for the third time, and GE 2310 Static course for the first time. It is really challenging for me since I had this course about two decades ago! However, I enjoy challenging myself.

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.

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 safarishn@uwplatt.edu. Have a great spring!

Phil Sealy

Karen mentioned going to Iraq last week to work in a MASH unit. Mo talked her out of it by making her imagine Mo and I sitting in our own filth because no one would clean up after us (speaking for herself only of course). I don't like the idea but she is an independent woman and it will ultimately be her decision.

Annie is going to Europe this Spring. It started out as a class and has become a vacation. I wish I could afford a trip to Europe. Maybe my priorities are just screwed up.

John likes his classes and is doing well in Madison. He and I (and maybe a few others) are planning a wilderness trip this summer. We haven't decided about whether it is a backpacking trip to the Porcupine Mountains or a canoe trip on the Willow Flowage. I don't want to try something like the Boundary Waters until we have completed this trip first.

I have discovered a great use for all the toilet paper that Mo attracts to our house. I filled a 40 gallon trash can with it and I use it to clean up the messes that our 4 cats make in the basement. So far I think I'll have enough to last me until next homecoming.

I chaired a Search and Screen Committee last Fall and this Spring. I would like to thank everyone on that committee but especially Mesut Muslu and Rose Durni for all of their help. The search turned out to be very successful and we are looking forward to working with a new Professor at the Rock County location. I can't say any more than that because all the paper work isn't done.

We are in the middle of a curriculum revision discussion. Please send me your comments about what was good and what wasn't (please make it constructive) and let me know if you think we were missing something or if you think we covered some stuff that was totally unnecessary. (See email address below).

I'm the co-chair of the College Expo committee again this year (and again and again). Expo is Thursday, March 22. 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 (and maybe I'll buy pizza too). By the way, this year we will have about 20 EE alumni judging at EXPO. That's more than half of the judges. No wonder our students do so well in the EXPO contests. Thanks to all of you.

Piyare Sharma

I am teaching EE3310/ME4330 (Automatic Controls) and EE4320 (Digital Signal Processing) courses this spring. We are trying to update the PLC laboratory in the Control course and hope that our alumni keep in touch with me regarding any improvements to the PLC Lab.

Academic Dept Associate

Rose Durni

Greetings everyone! Soon it will be spring (even in WI). I think we are being punished for the nice weather we had back in Dec. & Jan. Feb. was bitter cold and snowy (lots). But we all know it won't be long before it warms up, grass will be showing, and birds singing. As you can tell I am not a winter person. We are anxious to get the old convertible out and cruiz around – as this maybe our last year – we are contemplating selling the “boat”, but it's kinda hard giving up part of your family.

Speaking of family – everyone is healthy and thank God, even with my son and his family in Cambodia, Sovann, his wife, had a spell of malaria fever, which as you all know can be deadly. Grandkids are growing like weeds, into many activities, wrestling, basketball, dance, and the list goes on. We had our 13th one in December, a boy, and that makes 8 boys and 5 girls. I don't know if 13 is a good number or not.

What a year it has been for EE!



Back in Oct, the EE dept. hosted Heinz Schmidt-Walter, a faculty member at the Darmstadt University in Germany for a week's visit here. Discussion of curriculum plans and collaborations between UWP and Darmstadt took place with the hope to encourage future student exchange between the universities.

2006 Homecoming festivities was very exciting for the dept. College of EMS honored Frank Lofy, EE emeritus professor (1984 -1995). And Clint Hanson, a 1995 EE grad for their outstanding contributions to UWP, the community and industry.



December brought graduation to 11 EEs. One of grads (Anthony Gregerson) earned high cumulative GPA all his undergrad years and carried the banner for EMS. Sorry we didn't have a picture of Tony carrying the banner. Tony we are ever so proud!



There's more—“Torgerson receives outstanding Recent Alumnus Award” Nate Torgerson, a 1992 UWP grad earned

his degree in EE with emphasis in controls, digital and communications.

This award recognizes UWP alumnus who have gained excellent professional accomplishment since graduating from UWP within the last 15 years.

Nate is a senior principal systems engineer at Medtronic Neurological Division, Minneapolis, MN. His work has been focused on projects and devices that employ neurostimulation to treat chronic pain. To date, he has been issued nine patents, the most recent in 2006.

And more—“Two UWP students receive Alliant/Energy Erroll B. Davis Jr. Award”. Two UWP students are among four within the UW System to receive an achievement award that honors Erroll B. Davis, a former member of UWP Board of Regents and a former chief executive of Alliant Energy. This award, which is being given for the first time, recognizes the outstanding scholarship and community-service efforts of students from traditionally underrepresented minority groups.

Der Vang, a 2006 EE grad was one of the recipients, honored Feb. 9th at the Pyle Center in Madison. Der was president of Hmong Club for 2 years. In 2006 he received the Multicultural Student of the Year Award and Multicultural Leadership Award.

Provost Carol Sue Butts, along with other members of UWP faculty attended the ceremony. “We are very proud of the two UWP students who received this award. They not only distinguished themselves academically in their majors, but were also leaders on campus. They are excellent student role models representing UW-Platteville,” said Butts.



Der on left.

Looks like there are some big shoes to fill after all of this.



artist's rendition

A look at the future \$27.5 million engineering building to be constructed near Southwest Hall by January 2009.

The New Engineering Building has some exciting news to share as well. Ground breaking will be May 18, 2007, with completion by Nov. 2008 and occupancy by Jan. 2009. One last thing—take a look at our new web site (uwplatt.edu/ee). Thanks to Xiaomin (Simon) Kou - we know it took a great number of hours, but sure looks good. Thanks Simon!

Don't forget ANYTIME you re in the neighborhood, would love to meet you, visit with you and catch up on the latest. STOP IN TO SEE US!

Whew—guess I got a little windy this time.

News from UW-Rock County

Dale Buechler

The beginning of this semester has been a busy one for me. In addition to the two classes that I am teaching (Circuit Modeling II (EE 221) and Differential Equations (MAT 271 at UW-Rock County), I am 2007 ASEE Mathematics Division Chair, and I was a member of two successful search and screen committees. On March 15th we will be holding groundbreaking at UW-Rock County for the new home of the Rock County Engineering Program beginning in the fall. In addition to the new facility, we will have two fall faculty additions to the engineering program here: an Assistant Professor UW-Platteville in Electrical Engineering and an Assistant Professor UW-Rock County in Mechanical Engineering

News from UW-Fox Valley

Fox Valley Engineering Program

The EE program at Fox Valley is slowly growing. We now have 15 general engineering students (who have chosen the EE major) and 5 electrical engineering students. We are offering EE 2210 this semester and are hoping to offer EE 3770 this summer.

Cathy Bronold is now working with our program part-time as the Student Services Coordinator. She was the original

program manager when the Fox Valley program started in 2002. She is working afternoon and evening hours to be available to students before and in between classes. She is married and has two small children, so is very busy!

Jenny is looking forward to a trip to Hungary this spring with her son. She has a sister living in Budapest, so is looking forward to seeing her and eating good Hungarian food!



Steven Popovich

Going into my second semester of teaching, things are going well. It’s much easier teaching a course the second time through. I enjoy seeing students pick up on new material and especially their enthusiasm to progress. My colleagues on the Mechanical Engineering side are great coworkers and have been helpful in accommodating the new EE program in every way. One of them recently gave me a canister of Turkish coffee for my wife and I to try and this stuff will wake you up in the morning. I have a great job! I am also staying involved at Oshkosh Truck working on subsystems for the next generation of hybrid vehicles.

On the personal side, now that we finally received some winter weather (and...snow shoveling), I had my first try at ice fishing during a recent trip to northern Wisconsin. My wife and daughter have been making blankets for the “KareKovers” at the AMC Hospital for cancer patients and trying to keep up with our 9 month old Dachshund. Over the summer, we’re looking forward to some gardening and landscaping improvements to our home, along with a trip to Alaska.

Steven Popovich

**MOE – is now MSEngr
Master of Engineering**

Interested in furthering your education?

UW-Platteville now offers a Master of Science in Engineering (MSEngr) with a controls emphasis. The UWP EE Dept. has developed a cluster of courses for the program including Control Systems Engineering, Modern Control Systems and Digital Control Systems. The MSEngr program also offers an emphasis in Engineering Management and Engineering Design. Courses are offered completely on-line with convenience and flexibility allowing students to maintain their career and personal life obligations. For further information on MSEngr, please visit the web site: <http://www.uwplatt.edu/disted/degrees/eng/index.html> or contact Mary Jo Stutenberg at 608.342.1625 or at stutenbm@uwplatt.edu.

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