

EE

Electrical Engineering NEWSLETTER

Spring 2005

CHAIR'S CORNER

Mesut Muslu

Greetings to all of you from Platteville.

Let me start with a few new developments in the Department. In order to achieve our goal of "graduating engineers with extensive hands-on laboratory experience ...", the faculty has decided to include LabVIEW experience in our curriculum. We have received funding to obtain a department license for National Instrument's LabVIEW software and also equip the Circuits lab with "ELVIS" stations. ELVIS stations consist of a DC power supply, a function generator, and a breadboard with appropriate interface and data acquisition capabilities so that students can run the experiments from a PC and collect the appropriate data automatically. Faculty will also be developing some experiments in EE2220 and EE3020 in which students will be required to do programming in LabVIEW. Similarly, we are also working on providing MentorGraphics/ LINUX experience to our students. We have purchased MentorGraphics software that runs on PC/LINUX based dual-boot workstations. We are currently testing this system and plan to purchase sufficient numbers of workstations before the end of this year. We believe LabVIEW and MentorGraphics experience, and LINUX exposure will enhance our student's education and improve their marketability.

Congratulations to Dr. Kou, the newest faculty member in the Department, who received the College's Excellence in Teaching award for 2004. He is the first faculty in the College who received this award in his first year at UWP. I am happy to see that his efforts in quality teaching are being recognized.

In the last newsletter, I have mentioned to you that a group of dedicated faculty and students were working on an autonomous robot project in the department. I am happy to report that they will be making their first demonstration to the Industrial Advisory Board members at IAB's Spring meeting on April 1st.

At the university level TSI (Tri-State Initiative) is off to a good start. It looks like the first 200 of these students from Illinois and Iowa will be on campus next semester. The plans to build a new engineering building is in full

swing. We have been informed that the architect will be selected in a few months. As you know, the EE is expecting to move into the new building in Fall 2007.

The College's on-line Master of Engineering (MOE) program is growing nicely. Drs. Safari-Shad and Sharma are currently developing two controls courses to establish a "controls cluster" in MOE program. You may want to visit <http://www.uwplatt.edu/disted/> for more information about distance education programs at UWP.

Again, thank you for your calls and notes. It is always great to hear from Pioneers! I wish you a great Spring and Summer seasons ahead.

Program Assistant

Greetings Everyone!!

Well I have made in the electrical engineering department for one full year, and I am still here! I really enjoy working with all the professors – just a bunch of great guys to work for and with.

We are developing an EE profiles page that will be on our web page. This will give a view of what Electrical Engineering is and what Electrical Engineers do. It is just in the "birth" stages at this time, but should be completed soon. Keep checking our web page for this latest venture.

Have you heard about the new Engineering Building? Electrical Engineering is fortunate to be moving over to the new building sometime in the Fall of 2007. Should be exciting!

EXPO is coming up SOON. Thursday, March 31st is the day, so we are getting geared up for that. Sure would like to see some of you, if it's at all possible!!!

Otherwise on the personal side, our family is growing, my husband and I, together have six kids, (4 for my husband and I have 2) all are grown adults and 8 grandchildren, (ranging from 16 to 3 yrs. of age) and 2 more grandbabies coming this year. Holidays get pretty crowded at our house.

Latest update: March 10th at 3:50 pm their time (3:50 am our) a new grandbaby was born to my son and daughter-in-law in Cambodia. Name is Daniel Althaus and weighted 7.3, has black hair and eyes (like Mom). BUT of course, he's darling!

We have already gone to our FIRST car show of the year. It was a custom street rod/car show in Monticello, IA. What beautiful pieces of “art” are out there! I am glad I was only a spectator and not a judge. It would be very difficult to pick winners.

Let me introduce the assistant to the assistant: Megan Brown is her name. She is from Janesville, WI, a second semester sophomore majoring in Chemistry, preparing for pre-pharmacy. She is really an asset to me and I truly appreciate her!

Well, that’s all for this time! Have to save some for next time.

Call, Write, Visit!!

Rose Durni, Program Assistant
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December 2004 Graduates

	<u>Employer</u>
Chad Balcom	Married 1/15
Eric Baumgart	Bemis
Jesse Carlton	
Ryan Fecteau	
Daniel Heinz	Kimberly Clark
Zachary Hilton	Seiberling Assoc.
Jeffrey Hochtritt	Alliance Laundry
Jonathan Joanis	WPS
Jerold Korinek	
Louis Launderman	
Kevin Neff	Graduate School
Antony Pieper	Has a job in Madison
Edward Snyder	
Todd Tadych	American Transmission Co.

IEEE News

IEEE student branch briefing. Our newly elected President, Andy Owen, is happy to be the Commander and Chief of IEEE. Dan Janetski, the former dictator was overthrown and exiled to Pioneer Tower to do radio shows. Jake Eilders was elected as the new Secretary of State for the regime change. Mike Potts, the former Secretary, was found missing in an undisclosed location off the shore of Cuba...City. Rich Vedvik, Vice President, and Rikki Green, Treasurer, are the only returning officers. We have new parts for our war on circuits, digital and analog alike. The latest addition to our arsenal is surface mount component kits and Signals and Systems packs. As always, we have many calibers of

resistor and capacitors to refill students’ electrical ammo supply. Rikki has minimized our deficit, but costs are high in our endless struggle against the tyranny of electricity. In order to keep morale high, the IEEE Fundraising Committee is now offering juice in our beverage stockpile. Non top-secret work on a “coil gun” has begun in Area 170 for Engineering Expo. If anyone would like to volunteer their expertise in a specific electrical or magnetic field please email President Owen at owenan@uwplatt.edu. The best defense is a good offense and a strong IEEE can lead to the freedom of all electrical engineers. End briefing.

Eta Kappa Nu News (HKN)

Heidi Mikulsky – President
Michael Haas – Vice President
Andy Owen – Treasurer
Bart Grinwald – Secretary
Mark Panzer – Corresponding Secretary

HKN is off and rolling again this semester with a young rookie executive board; four out of five officers are first-time officers and recent initiates, and the returning officer still felt like he was a newbie in the dark.

HKN continues to sell parts and snacks in the Comm Lab. We have expanded our selection to include a new, healthier nourishment alternative - fruit cups. HKN Treasurer Andy Owen has been working with IEEE President Andy Owen (and the rest of IEEE Executive Board) to make some HKN parts conveniently available in the vending machine.

The time-honored highway clean-up is tentatively scheduled for mid April, weather and schedules permitting.

HKN looks to implement the realization of the Centennial Project begun last year. Watch for the HKN display case to go “electronic” sometime in the near future. Also keep your eyes open for some possible publications from certain firebrand pens.

The near future will also bring some substantial changes to our populace. Many familiar faces will be graduating this May. We wish all EE graduates the best in their future pursuits.

Faculty News

David Drury

My teaching assignments this semester are EE 3130 (Solid State Electronics), EE 4050 (Advanced Analog Electronics), and EE 4980 (Microstrip Circuits). I haven’t taught Solid State in three years (Prof. Goomey has been monopolizing it), but solid-state theory is like riding a bicycle — once learned, it’s never forgotten. In EE 4050 I’m teaching analog IC design for the first time. No one

has taught that material at UWP since Dr. Narathong deserted us.

On the “life outside of UWP” front, after twenty years of rejection letters I finally sold a sci-fi novel to a publisher. Really! *All the Gold of Ophir* (according to the publisher, its *tentative* title) is scheduled for release in November. (Don’t hold your breath. The editor assigned to the book is tied up on another project; it might not be on bookstore shelves by Christmas.) Save the receipt — I’m arranging to have the Registrar recall the diplomas of all EE alumni who cannot prove that they have purchased a copy. I expect the EE faculty will make owning a copy a graduation requirement for current students.

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Gang Feng



Hello, everyone! Our robot project is going well. We have put everything together and it can move around! Right now we are still using a joystick to control it. We have also put a program in the controller and let it run autonomously, but since the total weight cannot be exactly distributed on the two wheels, it would make turns even though it is supposed to go straight forward. Our next step will be mounting a few range detector sensors, and hopefully it can automatically adjust the route based on the distance information provided by the sensors. We also plan to mount an 8051 controller on the robot, so that we would be able to control the robot using a universal remote control instead of the joystick. Many of you have helped us to build the robot; I would take the opportunity to thank you, and please let us know if you have any suggestions or ideas for this project.

My research also goes well. Last year I started to shift my research interests from computer networking to sensor networks. I published several conference papers in 2004 and one journal has been accepted. Please visit my web page at <http://www.uwplatt.edu/~fengg/> if you are interested in my research.

This semester I am teaching “Circuit Modeling II” (EE 2210), and “Introduction to Microprocessors” (EE3780). This is the first semester to offer 378 after we change 375 / 376 to 377 / 378. It looks like that now it is much easier to teach assembly languages than it used to be as students now understand what registers are. ☺

Best wish to all of you.

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John Goomey

I’m wrapping up my fifth year at Platteville by teaching Circuits I and Analog Electronics. I’m really enjoying Analog. It was one of my favorite classes as a student, and I am remembering why in teaching it. In a way it really is the first class in the course of EE education that is fun in that practical design possibilities start to take shape.

Well, no birth announcement this newsletter (gasp). Our youngest (Abigail) is walking now and doing her best to keep up with her siblings. John turned two in January and is an absolute tank, both in size and character. I will have to sign him up for football at the earliest opportunity to give him an outlet. Talitha is three going on six. She has found her niche activity and spends at least an hour a day putting together puzzles. She’s up to 100 piece puzzles at this point; hopefully she’ll be satisfied with those for a while. Andrew continues to be the greatest of big brothers. He is doing phenomenally in school. He’s already a grade ahead in math, still getting A’s while scoring “Needs Improvement” in effort. His violin playing is coming along well. He’s about to the point where we can start having jam sessions.

It’s been another great year here at Platteville. The longer I’m doing this job, the more fun it becomes. I mentioned last newsletter that this school really grows on a person, now that I’ve been here as long as most of the students I have to reassert that. By His grace this will continue to be the case.

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Xiaomin Kou

I was the last one to turn in the newsletter article this semester. Rose said if I hadn't written it, she would stop by my office every morning to track me down. Well I'd better do something for the serious boss!

I am currently developing a new course, Motor Drives, for the power program of the EE department. The new course will be offered in Fall 2005 semester. This is a very interesting but challenging topic for both students and teacher. In fact, I feel a little nervous right now because we don't have the related lab equipment yet to support the brand new course. I will have to spend a great amount of time during the summer to develop some simulation and lab materials for the students.

Part of the happiness you can get as a professor is when you get messages from your former students and learn that they are making progress in their jobs and lives. I received a message from Jeremy, who is right now working on a power electronics project for his company. I guess he must be very proud that he can beat me on the wattage levels! A 20MVA above rectifier?! Wow!! Jay helped me arrange a field trip to a power plant last semester which is really a big favor to me. I said I owed him a beer or two but he haven't gotten the chance to claim the "lottery" yet. He showed me his baby's picture the other day when he stopped by as a recruiter on the job fair. What a cute little angel she is! Last semester, I had an excellent German exchange student in two of my classes. He wrote me an email a couple of days ago and said that he was trying to make a decision on several job opportunities. Good for him! Dr. Sealy showed me a post card from Jeanne two weeks ago. He said Jeanne is now working at the "South Pole". At the beginning, I thought the "South Pole" must be a name of a company or a small American town that I don't know, but then I was told that it was the real "South Pole" 4000 miles away from USA. How cool is that! The interesting thing is that a week later, I saw a new documentary movie from CNN (if I am not mistaken) introducing life at the South Pole. USA built a village there. You can find a bar, a simple bowling track and even a Church in the village! I bet Jean must be hidden somewhere there.

Now it is 3:50am in the morning. Got to go to bed for the second round of sleep. Hope that my boss can be happy with this and give me a big raise next year! Chao everybody!

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Yong Li

Spring semester 2005 I am teaching EE3770 Logic and Digital Design and EE4720 Microcomputer Architecture and Interfacing. The courses' names are the same. It looks like I have nothing to report. However, due to the developments of the digital technology, support from the EE department and the EMS College, and the donations from ALTERA and XILINX, we plan to use newer equipments, devices as well as the software tools to improve our hands-on laboratory trainings. In the year of 2005, the digital lab will have several LINUX design workstations with Mentorgraphics design tools. In addition to ALTERA UP-2 boards, we are going to use DIGILAB-S3 and XILINX tools. We can have a Power PC build in the chip to develop embedded systems. I am glad that we are getting progress. It's pretty exciting, isn't it?

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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 topics such as load flow, contingency analysis, and fault analysis, students are also learning a few things about generator reliability and operation of power systems in a deregulated environment. I am bringing Dr. Hari Singh, from American Transmission Company, to talk about "Deregulation and the Operation of Power Systems in a Deregulated Environment." Needless to say, the students are still making presentations to their peers on current topics in power systems.

We are planning to take some part of the next summer and visit our friends and relatives in Turkey. Kutay and Cagla are excited about this already. They are practicing their Turkish more vigorously now. Zehra and I can not see that far ahead yet, but I know it will change as we get to April or May. I will still be visiting a number of companies this summer.

Wishing you the best in the months and years ahead.
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Nader Safari-Shad

Hi everybody,

It is a pleasure to be writing to you once again. Overall, I have had a very nice year. Last February, I

got promoted to Associate Professorship. Also, I have had a good year doing research and continuing my professional activity with Alliant Energy. Last but not least, I have really enjoyed teaching my courses. Signals and systems always challenges me and I love teaching it. My students feel I am a tough instructor, but I hope that one day they realize why I had to teach this course the way I did.

I enjoy the company of my colleagues, new and old! Phil Sealy is always a resource for me when it comes to Labs. Dr. Muslu always pushes me to be more active inside and outside the department and I like his encouragements since otherwise, I would not take on some responsibilities that I do now. Being IEEE student branch advisor is one of these responsibilities that I really enjoy. Interacting with young energetic engineers who are full of rightful ambitions makes me feel young. To me they are like steroids for athletes!

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 safarism@uwplatt.edu.
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Phil Sealy

In January I went skiing with some old buddies in Vilas County. We were cross-country skiing and snowshoeing. The snowshoeing was cool because the brush is covered with snow and the marshes are frozen so you can go pretty much anywhere that you want in the woods. None of the guys I was with were fishermen so we didn't do any ice-fishing (you might wonder why I even hang out with those guys). We skied for two days and I was fine on day one when we stuck to the beginner trails. I haven't been on skis since before I moved to Platteville. I only fell down a couple of times. Then on day two we tried the intermediate trails. After about half an hour I had already lost count of how many times I'd fallen down. I was sore for a couple of days. I fell down so many times that the cans in my backpack got crushed and started spraying their contents all over the

inside of my backpack. I didn't realize this until the other guys stopped for a break (i.e. waited for Sealy to catch up) and I opened my backpack and it was full of my beverage of choice...in an undrinkable form... and starting to freeze. Next year it's the beginner trail for me and if they wanna go on the intermediate trail I'm goin' ice fishin'.

My wife is taking a statistics class online. It's part of her ongoing effort at continuing education. It seems kind of loosely run. It doesn't seem like there is any way the professor can keep the students from sharing answers if they want to. Of course Karen is getting her A the old fashioned way. I am proud to be the husband of such a woman.

Annie got over the mono incident relatively quickly and did well enough last fall to get on the dean's list at UM-Twin Cities. I'm so proud of her I can't stand it. She was here about a week ago and she said she missed us all so much that she has applied to transfer to Madison next fall. That way she could come home pretty much any time she wants to. She misses us... what a great kid.

John just finished the swim season. The boys did great. They won the conference meet and were the conference champs for the first time in history. On one of his first days off after swimming ended he was playing around with his guitar while listening to B. B. King. All of a sudden he starts playing along with B.B. to Lucille. I just about dropped what I was doing. Who taught that boy how to do that? Not me....I'm so proud of that kid.

Olivia is excited about getting a new bed and dresser. She's getting the pre-teen turning into teen room make-over. All the kids' books and stuffed animals went up to the attic last weekend. She helped carry all that stuff while I carried the old bed frame and box spring up those winding stairs. Now her room is a teenage place full of posters of hot guys and bead curtains. She's also learning how to cook and actively seeking to volunteer in the kitchen. I think when she leaves home she'll be the first one of my kids that knows how to take care of herself.

I'm the chair of the College Expo committee again this year. EXPO is Thursday, March 31st. We are always 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 (Steve's Pizza's Bar) on my way home from EXPO (like around 5:00 or 6:00).

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Piyare Sharma

Greetings from Piyare Sharma:

I am teaching Auto Control course to Electrical & Mechanical engineering students. This course includes a major component of PLC applications using Allen Bradley logix5000 PLC'S. Your suggestions for the improvement of this laboratory are greatly needed. Please send your suggestions regarding the enhancement of this lab to me as soon as possible. I am also teaching the DSP course dealing with the analysis and design of DSP Systems, using the fifth generation C50 processors from Texas Instruments.

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New and upgraded EE Equipment/Clyde Holverson or "Killing Two Birds With One Stone"

Some of you may know him, but for those who do not I am introducing Clyde Holverson, the College of EMS "Tech Support" person- the one that fixes/installs just about everything! And the EE dept has kept Clyde busy this semester installing new or upgrading equipment in our labs. Some of the new equipment includes calibration kits for the Comm and Electronics Labs; LC Digital Sourcemeter in the Electronics Lab; Digital Power Analyzer in the Power Lab; RF Power Sensors for Comm Lab and our most expensive piece of equipment is a network analyzer 8.5GHz in the Electronics Lab. See pic.



Network/Spectrum/Impedance Analyzer

We have also added new software and hardware: Virtual Bench, MentorGraphics/LINUX, ELVIS stations and LabVIEW.

SPEAKER PRESENTATIONS:

Alumni are always welcome to come back to UWP and give students a presentation about what you are doing. This is an excellent way to promote yourself and your company. (And most companies will pay your expenses!) Heads up would be appreciated. Consider helping out with this endeavor.

