



The SpartIEEE

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Upcoming Events

- April 5 – Technical Presentation by General Motors. 7:00 pm at the Engineering Building. This event has been organized by IEEE Corporate Relations Chair, John Vilches.
- April 6 – IEEE Spring 2005 South Eastern Michigan Section Conference. See the SEM Website (link below) for details.
- April 14 – Leer, Ford, and Delphi joint presentation at the Engineering Building. This event has been organized by IEEE Blimp Chair, Gavin Mathes.

IBM - Changing the World Everyday

By J. Ross Hamilton

Returning to MSU this year was another speaker beloved by our IEEE chapter was Bill Hall, Operations Manager for IBM's Semiconductor Product Group, and MSU alumnus. The primary focus of this presentation was discussing with students many of the products in which IBM is involved, of which many consumers are unaware. For instance, many consumers would not know, and would be rather confused to realize that IBM is creating processors for the XBOX 360, Playstation 3, and Nintendo Revolution all of which are based on IBM's Power Architecture.

Speaking to a rather intimate crowd, Bill Hall was able to able gather some interaction with students during the presentation. It was not until the presentation was over that this became a memorable IEEE event. After concluding his presentation, Bill noted that he would stick around and answer any questions which people might have; a statement which resulted in Bill staying for nearly another hour.



The presentation left students with heads full of new technologies being developed not only from technology within IBM, but all of the exciting technological revolutions taking place throughout the world. When students asking

Bill how to become involved in such technological, he responded that the most important issue was to be excited about it! Ensuing discussions took place about utilizing the job market or the structure within a company to keep oneself interested and motivated to work. He explained that some of the best advice he could give was to switch around

IEEE Links

MSU Student Chapter

SEM Website

Region 4 Website

IEEE National Website

Further Information

Wavelengths

A newsletter published eight times per year by the Southeastern Michigan Section of IEEE.

The Institute

A report on news around the IEEE.

IEEE Spectrum Online

The member publication of the IEEE.

What's New @ IEEE For Students

Check out this publication that is written monthly for students.

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your responsibility within a company to accomplish this. For instance, if one starts off their career working majority of the time with very technical engineering issues, maybe it would be a bright idea to take a step away after a few years and try something new. If the new opportunity suits oneself even more, then proceed down that road, otherwise either branch out and try another new thing! If all else fails, return to when you were most satisfied with your career and take it from there. Many students who are just now beginning their job searching and starting their careers were intrigued and comforted by hearing this information.

Michigan State University IEEE would like to thank IBM-er, Bill Hall, for taking the time to hold this event with students. Not only were many able to learn about IBM, but also received a significant amount of career advice, a must have for the anxious college student.

For more information on IBM, IBM's Power Architecture, or career opportunities, see www.ibm.com.

IEEE: Working for the Community

By: Ryan Fitch



On October 9th, eight volunteers from MSU's IEEE e-board aided participated in a **Habitat for Humanity** house building project. This particular project involved refurbishing a hundred year-old house in Lansing neighborhood for a woman and her large family. The volunteers were split into two teams and spent the day measuring, cutting and installing dry-wall.



This project marks the first of many charitable events IEEE hopes to participate in this year including fundraisers and a trip to a local high school. The MSU IEEE e-board believes giving back to the community is a vital part of our responsibilities. The board may plan an additional habitat event this year and encourages students to volunteer with us. Or contact Habitat for Humanity of Lansing and participate independently:

Lansing, HFH
1137 Haco Dr Ste 1
Lansing, MI 48912-1659

Phone: (517) 374-1313
Fax: (517) 374-6279
E-mail: habitatlan@aol.com

Contact Us

IEEE-MSU Student Chapter
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(517) 432-3077
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MICROSOFT PRESENTATION

By: Sucheta Sikdar

Jeremy Briggs, the recruiter from Microsoft came to help us with information and professional tips that would help us towards getting a job in Microsoft. He explained that Microsoft is a very good place to work at. This event was organized by IEEE.



First, he told us to prepare a really good resume and have others proof read our resume. He said that our resume should demonstrate skills, experience and should market us. He stressed the importance of having a hook at the beginning of the resume

that is related to what the employer is looking for.

Resumes should always be done on white paper, otherwise it is hard to scan them and keep them in the database.

Some very important facts that should be included in our resume are our major, graduation date, objective, experience, honors, classes, grades and our interests. It is better to put our G.P.A on our resume; otherwise we will be asked our G.P.A.

Experience in our fields will enhance our chances of getting a job. These experiences should always be mentioned in our resume. Research, beefy work experience, big personal projects, tough classes, coop experience, experience in group projects and labs are a few examples of experiences that we can list in our resume. You do not need to worry if you have too much experience to type about since your resume can be as long as you want it to be.

We can include something funny that will catch our reader's attention. Our personality must shine through the resume. We must include what we do in our free time.

Second, he told us how to prepare for a job fair. We should be professionally dressed, look the recruiter in the eye and give him/her a warm handshake. We should tell him/her why we are interested in the company that they are representing. We should always have two questions prepared for the recruiter. At interviews we are normally asked two logic questions regarding our field. He also told us that is a good idea to warm up first with companies that we are not interested in to make us feel less nervous by the time we go to the company that we are really interested in. He also told us to never go to the company we are interested in late i.e. before the job fair closes because the recruiters are tired by then and loose some interest. It is

also a good idea to send thank you e-mails to the recruiter.

Third, Mr. Briggs told us of more about Microsoft Corporation and portrayed the positive image of Microsoft. He encouraged students to get jobs at Microsoft. He told us that Microsoft's mission is to enable people and businesses throughout the world to realize their full potential. Seattle is where the headquarters of Microsoft is located. There are many benefits for working in Microsoft. Microsoft employees get health care, 15 day vacation, relocation, employee stock purchase plan, health club, software and hardware discount, training and development and lots of free beverages.

Microsoft has seven business units:

- Windows Client
- Info Worker
- MSN
- Home & Entertainment
- Win CE Mobility
- Server Tools
- Business Solutions

Microsoft has various technical positions:

- Program Manager.
- Software Design Engineer in Testing
- Software Design Engineer

At the end of the presentation students agreed that Microsoft is indeed a great place to work at. But it is not easy to get employed by Microsoft. There are many steps involved in the employment process. First we submit our resume. If our resume is liked, we get called for an interview. If we do well in our interview, we get flown to Seattle for an onsite interview. If we get selected after the onsite interview, we get to experience our first day at Microsoft.

IEEE Host First Lab Workshop of the Year: "FM Transmitters"

By: **Amit Patel**

On Wednesday, October 12, IEEE (Michigan State University Chapter), held its first soldering lab of the year. This lab was open to all ECE 201 students. This class was targeted because ECE 201 is a beginning circuit course and also happens to be one of the first courses taken by ECE majors. There were 14 spots available in the soldering workshop and admission was granted on a first-to-respond basis. Dr. Hogan, (IEEE faculty advisor), as well as other

Executive Board members were also present to help instruct the students during the course of the workshop.

One of the goals of this lab was to introduce young students to soldering and hobby electronics. Hands-on experience with electronics doesn't come until much later in the ECE curriculum so this lab was a good way to introduce young students ahead of time. The students were introduced to the resistor-color-code and also saw various types of resistors and capacitors. Another goal of the lab was to introduce the students to some of their IEEE representatives and just to have some fun!

The outcome of this lab was an FM transmitter that each student got to take home. Students could speak into a small attached microphone, and their voices would be transmitted over the FM frequency band and they could hear their voices over the radio.

IEEE plans to have a few more labs over the course of this year so anyone who is interested should watch for announcements. Also, if you have an idea for a future lab, please contact Amit Patel at patela13@msu.edu.

Thanks to Dr. Hogan, E-Board members, and our sponsors for making this event possible.

Texas Instruments at MSU: A Company Revealed

By: Erich Hauptli

On the day before the career fair, IEEE brought out Mark Roberts to discuss the trends of semiconductors in the automotive industry and the technical sales program at TI. Mark has been working for TI since he graduated from Michigan State in 1998. He started out in TI's technical sales training program and six years ago he was able to make the move back to Detroit as a TI technical sales representative.

Texas Instruments is a rapidly growing company that mainly produces semiconductors. In fact, of TI's 12.6 billion dollars in revenue, 10.9 billion came from the semiconductor industry. So, though many think of TI as a calculator company, they really are a semiconductor company. TI makes 60% of all DSPs in cell phones, 80% of the DSPs in internet consumer electronics, and 80% of the DSPs used in the top wireless infrastructures. TI also starts

production on a single chip cell phone this year. They combined 4 chips with the capabilities of processing, digital RF, power management, and memory all into one tiny package; allowing cell phones such as the razor to exist.

The semiconductor market is massive. Currently, the analog and microprocessor market makes up about 1/3 of the total semiconductor market. Yet, the semiconductor market consists of many different applications including analog, microprocessor, DRAM, ASIC, DSP, and Standard Logic chips to name a few.

One industry that has a large need for semiconductors is the automotive industry. This industry needs semiconductors to perform digital to analog conversions or vice versa. They need supervising chips to watch currents, voltages and temperatures. They need microprocessors, drivers, regulators, and chips to work RF applications. TI is there to meet these needs. There are TI chips in almost every vehicle maker that you could think of. From GM, Ford, and Chrysler, to Renault, Fiat, and Skoda Auto. Mark is one of the salesmen at TI that helps these and many more automotive companies find the exact chip to meet their specifications. He has to look at system block diagrams and then help his customers find the solutions they need. This is what a technical sales representative does for TI. Thus, a sales rep's role is far more technical than one might first expect.

Once hired as a technical sales rep for TI you don't start selling right out of the gate. TI starts you out in a training program and also rotates you through several of their departments as well. Then, after one to two years, you began working as a sales rep, but not without lots of guidance. TI places you under a mentor and never sends you on cold calls. Companies know TI, so selling their product is relatively easy. Mark stated that to succeed as a sales rep at TI you need to be reliable and knowledgeable about their products. No one personality succeeds, but as a technical sales rep you very well may be on a fast track up the company. Mark said that he was given more responsibility and made more large scale decisions quicker than any other engineering graduate that he knew. These experiences also help move you up the corporate ladder. At TI many of the top executives came out of TI Technical Sales program. So, though you may never have considered technical sales as an option upon graduation, TI makes this option hard not to strongly consider.

For more information please visit

<http://www.ti.com/recruit/docs/tsa.shtml>.