Attendees:

Prof. William Barnekow – MSOE CE Faculty
Dr. Steve Barnicki – MSOE CE Faculty
Dr. Eric Durant – MSOE CE Program Director
Dr. Russell Meier – MSOE CE Faculty

Mr. Josh Cochrane – MSOE Student Representative
Ms. Elyse Hobson – MSOE Student Representative
Mr. Harrison Palzewicz – MSOE Student Representative
Mr. Dmitry Tchaikovsky – MSOE Student Representative
Mr. RJ Wright – MSOE Student Representative

Mr. Jim Conigliaro – Journal Sentinel
Mr. James Grant – Direct Supply
Mr. Joe Izzo – Rockwell Automation
Mr. Tom Kraus – GE Healthcare
Mr. Mark Krueger – NVIDIA
Mr. Steve Mueller – Johnson Controls
Terry Sherman – Plexus
Mr. Greg Treichel
Mr. Jeff Zingsheim – Honeywell (IAC Chair)

Welcome and Introductions – given by Mr. Zingsheim

Program Information

- **Meeting Minutes** – last spring’s meeting minutes can be found in folder. Please send any updates to Dr. Durant.
- **Student Statistics** – print out of graph can be found in folder: sophomore class size was 72 as incoming freshmen, which is a high enrollment; freshman class size is 53 for winter quarter. This is the second year that MSOE enrollment standards are more competitive – stronger students should supplement our other efforts and equal greater student retention. 150-160 students total in CE program.

Review of Events - Recent

- Student events strengthen communication between industry and students.
- **FedEx** sponsored an event this fall in September
- **IEEEExtreme programming competition** was in October- MSOE team of three sophomores ranked about 125 out of 700 worldwide. MSOE was about sixth in our region.
- **Op Computer Competition** was in November – 92 students participated. Hand out is in folder showing which high schools participated and how they ranked. This competition is a good means of communication between MSOE and high schoolers.
Review of Events – Upcoming

- **Plexus-sponsored EECS Embedded Design Competition:** Running now through spring quarter. Student teams of 1, 2 or 3 (if group of three, then one must be a freshman) have until the end of spring quarter to develop an embedded design from a kit. Teams with a freshman on them are given bonus points. One goal is to involve freshmen early on in hands-on/real world application of major. More details of competition are in folder. Alumni will be invited to judge and Dr. Durant will ensure that all alumni on the IAC are invited to judge. Dr. Durant will also pass along the suggestion that all IAC members could perhaps be invited to judge and, if a outside mentoring aspect is added, the IAC members should be invited to participate.

Mr. Sherman: It is good to have students interact with faculty. In some ways this is similar to the senior design project, but students are able to experience it earlier on in academic career and to partner with industry.

Discussion followed:
- Students are excited about opportunity to be hands-on early in academic career and to learn about companies.
- Great concept to get freshman involved.
- Competition is above and beyond curriculum; apply what’s been learned/being taught.
- Can these designs (including video) be documented on a website for reference and marketing?
- Can industry mentor students on embedded design project?

- **Open House** – About 15 prospective students are signed up with interest in CE who are attending the open house tomorrow (12/5). Next April is another open house more geared towards attracting juniors in high school. Industry is invited to bring demos.

- **CE Student Event in March** – Senior design show follows the student event. Seeking a sponsor. The industry sponsor is invited to send a speaker. All IAC members are invited to attend and mix with the students.

Discussion followed:
- In fall seniors can present their design plan and then, in spring, show their nearly completed project to the younger students.
- Good opportunity for upperclassmen to interact with underclassmen within CE major and discuss ideas – helps unify the students.
- Industry sponsorship promotes company’s image to the students – for students to see where their education can take them – helps them apply what they’re learning now to a ‘real world’ job.

Dr. Durant: emails will be sent out regarding the Spring Senior Design show to all committee members. It will be held on Friday, May 28, 2010. The next IAC meeting in Spring will be missed by Dr. Durant due to his EMBA Hong Kong and Vietnam trip. This year’s graduates are the first to graduate under the new 3.x curriculum.

Dr. Durant asked if anyone could identify employees in their companies who might be interested in teaching part-time. MSOE likes to combine industry experience with teaching to broaden the learning
A master’s degree is required. Contact Eric Durant if you know of anyone. Scheduling is flexible as to days or evenings and which academic quarter or quarters.

**Activities at Your Site**

- **IAC Meeting off-site proposed for next winter quarter** – if interested in hosting, please contact Dr. Durant by January 10, 2010 – let him know if you want to host next winter, or some other time in the future. We would rotate those interested in hosting.

  Discussion followed:
  - Drawback is that there wouldn’t be a student forum.
  - Tour at site should focus on what MSOE alumni and interns are doing at the company.
  - Some industry members felt that a student forum held at another date would work easily enough if around the lunch hour – the four-hour commitment is a lot for this meeting along with the forum.
  - Drawback is that some companies would be excluded (e.g., NVIDIA since headquartered in CA).
  - Benefit – faculty would be more informed on each company by visiting their site, having a tour and/or presentation.
  - Some were surprised this idea hasn’t surfaced before since EE does this and it works well.
  - Allows greater peer networking.
  - Good opportunity for CE student representatives to give feedback to other CE students about companies.
  - Drawback is that most faculty wouldn’t be able to attend.

- **Student tours and working with IEEE student group**
  Dr. Meier: students network differently now – value of professional networking had waned, but now is making comeback. New group, ACM (Association for Computing Machinery) is being organized. IEEE group visited GE, Harley and Plexus last academic year for tours. Students like to tour production facility if there is one.

**General Discussion** (by students and industry)

Mr. Sherman: made aware that there is a FIRST robotics competition in March where college students can be mentors to high school students on their projects

Mr. Grant: is there value to holding an Evening with Executives? (executives speaking to students)

Mr. Cochrane: bringing in an industry rep or executive to discuss industry trends would be valuable both to the student and to faculty regarding what is expected as a knowledge-base of graduates to succeed in industry today.

Ms. Hobson: any student interaction with industry is positive both for the student in connecting engineering to a ‘real world’ job and for the company in getting their ‘face’ out there.

Mr. Grant: SPIN meeting encourages student involvement as well as a JAVA group to make connections.

Dr. Meier: getting students to KNOW about these groups is the key issue. IEEE should be working to let students know about other groups they can be in to broaden their networking connections.

Ms. Hobson: spreading the word through social networking sites might be beneficial.
Discussion:
- Participation of industry important in showing students how what they are learning at MSOE is applied at their company – helps drive motivation since they can see how it is applied.
- Career fairs are important in helping students figure out which direction they want to take their education.
- It would be helpful to have a repository of information on companies for students to access and to also ask questions/discuss academics and future work possibilities: ideas included – a LinkedIn site, a facebook group, or a blog. Any of these would take time and effort in order to be effective and beneficial. It was also suggested that all EECS students, alumni and industry be invited and involved in order to make it as successful and beneficial as possible. Many of the industry members lean towards using LinkedIn since they are already users. Dr. Durant will schedule a meeting with the IAC students members to discuss this further.
- It was also suggested that for student forums that other EECS majors be invited since most of what is discussed applies to them as well.

Mr. Tchaikovsky: Are specific standards, such as USB, covered in the CE curriculum?

Mr. Zingsheim: your ability to learn technology is the key to success because technology changes so quickly.

Meeting Wrap-up
Contact Dr. Durant if you are interested in hosting next fall’s IAC meeting – let him know by January 10, 2010
A one hour Student Forum follows this meeting in S-341 – all industry reps are invited to attend