The meeting was called to order at 8:40 a.m. in the MSOE Alumni Partnership Center.

Introductions were made.

Minutes from the January 26, 2007, meeting were reviewed. Comments should be sent to Dr. Durant.

All members should have received emails regarding the CE IAC listserv. Messages/replies to that list will reach all members. Jason Buttron will be added to the list, along with Scott Gleason.

**Student statistics:** Last fall (2006), the CE program had 121 students (50 freshmen). Five graduated in fall, with a net loss of only those five from fall to winter. Winter to spring saw an increase of one. We are interested to see how many 2006 freshmen return this fall. This was the first year of a major curriculum change—six classes of engineering content in the freshman year, which we hope will help with retention.

Numbers for fall 2007 are up from last year, which is true schoolwide. Last year at this time, we had 46 deposits compared to 53 this year. We are predicting a freshman class of close to 60. Software Engineering is up too, with 8 or 10 less than CE.

**Senior design show today.** All are invited to stay after the meeting to tour the projects. All CE projects except one are being displayed on the ground floor of the CC building.

**High school programs** will be held in July. In the “Discover” program, students are exposed to a variety of engineering disciplines throughout the week. In the “Focus” program, students
spend all week on one discipline. This has been a good recruiting tool, and many participants return as freshmen.

**Summer open house, July 14.** Tom Kraus, GE Medical, volunteered to participate in the July 14 open house. Direct Supply did this at the April open house, and it went very well. It is good for prospective students to have direct contact with future potential employer. It reinforces the concept that grads are immediately productive in the workforce. Groups of students are taken on a tour specific to CE. The industry rep is stationed in a lab, where he/she will talk with students for a few minutes, perhaps run a demo of some kind. We run four open houses per year; only one rep is needed each time. Jeff Zingsheim also indicated interest.

**CE student event**—A student “networking” event was held in the middle of the spring quarter. Based on discussions with this group and students, its goal was to help students connect with each other, build community with upper classmen, network with industry reps, and get to know faculty. It was an evening event and included free food, student-designed T-shirts, and door prizes. Greg Treichel attended and gave a presentation on Direct Supply, with a question and answer period. Turnout was great, with over 70 of the 112 students attending. We will do this again at beginning of winter quarter. Students suggested having a panel discussion on selected topics. Industry volunteers are welcome!

**Senior debriefing summary**—Graduating seniors were surveyed about meeting program outcomes, specific classes, facilities, etc. In the debriefing session, results were shared and responses discussed. Of note:
- All students took the survey, which is outstanding.
- They were “completely” confident that they met the program outcomes.
- Faculty were “adequate” to “very” in helping them meet the outcomes.
- Oral communication skills need more support. We will look at where we can reinforce this.
- Embedded systems were strong, which is key to the program.
- Professional/ethical issues could use strengthening – more connection with IAC will help in this area. Some classes have been redesigned to address professional/ethical issues more.
- Don’t teach how to do physical layout of PCBs. IAC members agreed this is learned on the job.
- Comments regarding specific faculty are discussed between Eric Durant and the department chair, and addressed as well as possible.
- Facilities concerns are already being addressed.
- Make sure courses use textbooks that students are required to purchase.

Other plans for program enhancement include:
- Add more design to CE4920 to address more “real life” aspects.
- Especially in lower levels, labs may be conducted individually, not in teams, to make sure every student is forced to learn core material. Teams appear in upper classes.
- We are looking at ways to integrate entrepreneurship into the curriculum by working with the Rader School of Business.
• Include more specific industry standards in the courses, i.e., laws, regulations, IP. Traditional business law course doesn’t include things strictly for engineers. We hope to develop a new course with engineering-related legal issues that students may take instead of business law.

The challenge is: What do you expose them to? Every industry has its own standards. We need to find balance over all areas. Patents and IP are important. Engineers don’t know how to handle patent applications. Jeff Zingsheim suggested having students write an invention disclosure as an exercise, as if giving to a patent attorney. Do after design, before implementation (perhaps in first quarter of senior design or OR3000).

Matt Riggs said most seniors have jobs; in fact most had multiple offers.

Fall meeting date: Eric Durant suggested November 16, November 30, or December 7, 8 to 11 a.m. He will contact members for their choices in the next week or so. Following that meeting, we will have another student forum. (during 11 a.m. free hour) Despite bad weather last year, we had a good turnout.

General discussion included the following:
• Include more of the business perspective in courses (e.g., cost versus earnings, market demand, invention disclosure, product portfolio management, market research). Include these topics throughout the curriculum, not just in one course. Faculty could add topics to various assignments. Examples:
  o Lab assignment – Let students select three assignments out of 10 choices, and require them to pitch why they chose which ones.
  o Product portfolio management – Provide too many project choices, students pick top ones to work on. How pick right ones?
  o Require senior design to look more in depth into competition.

Some of these items could be targeted for forum/panel discussions at winter student event.

• It is important that students have solid understanding of CMM for industry; more important than PSP. Challenge to find out where and how to do it. It will be included in a new sophomore-level SE course being developed this summer.

• Matt Riggs said he thought the ethics covered in the modeling simulation class were more useful than those in HU432. If every class had a day or part of a day of ethics applied to that course’s topic, that would be more helpful.