ECE Curriculum Committee Meeting Minutes for Nov. 7, 2012

Members AY 2011-12: Stephen Levinson (chair), Juliy Baryshnikov, Tangul Basar, Andreas Cangellaris (ex-officio), Ann Catrina Coleman, Brian Cunningham, John Dallesasse, Alejandro Dominguez-Garcia, Yih-Chun Hu, Seth Hutchinson, Erhan Kudeki (ex-officio), Gang Liu, Steven Lumetta, Jonathan Makela, Sayan Mitra, Michael Oelze, Gabriel Popescu, Maxim Raginsky, Paris Smaragdis, Rayadurgam Srikant, Nitin Vaidya, Daniel Wasserman

Attendees:
Levinson, Kudeki, Makela, Basar, Hutchinson, Dallesasse, Raginsky, Srikant, Baryshnikov, Mitra

The meeting was called to order at 2:10 PM.

Minutes of Oct. 31, 2012 were approved with revisions.

The prerequisite revision for BIOE 414 was approved. The chair will ask the BICA group if BIOE414 should continue to be cross listed as ECE414.

The committee reviewed an alumni comment solicited by Andreas on the PEOs to be included in the upcoming ABET report. In particular the comment suggested that ECE should structure the curriculum to include both specific technical courses and fundamental courses that would enhance the students' ability to adapt to rapidly evolving technology. It was suggested that more required courses in control and communication are needed. This observation is addressed in plans for the new CompE curriculum presently under discussion.

Lumetta was again not able to attend to present a draft proposal of the CompE curriculum. It should be available at the next meeting. In the meanwhile the discussion continued on several key issues. Mitra reviewed the current status of the proposal from the CompE Tech. Area Committee.

Erhan circulated the course notes for Phys 214 as requested last week for discussion of the CompE course requirements.

The current form of the CompE curriculum proposal is as follows:

- A definition of the CompE technical area.
- Increased emphasis on design and algorithms.
- A restructured core
- More flexibility in terms of technical electives. CompE presently has fewer options than EE.
- The current introductory sequence of 190, 290, 385 are to be reworked into a 2XX sequence based on the experimental 198JL and 198KL courses.
- The core would include +3 hours of EE foundations possibly based on a revised Phys 214 and a new course devoted to EM, solid state physics, communications, digital

signal processing and control. There would be 4 hours of (software) design. There would be 6 hours on algorithms possibly including an highly restructured CS225.

- ECE329, 340 and 411 would be moved from the core to the advanced core possibly on an m-of-n list along with 310, 330, 361, and 486.
- All of the above would result in required hours being reduced fro 72 to 69 allowing for another tech elective

The chair will convene a meeting of interested faculty from the Physical Electronics and CompE areas to discuss the proposal prior to a full faculty discussion which Andreas plans to hold before the Fall '12 term ends.

The meeting was adjourned at 3:05 PM.

These minutes drafted by S. E. Levinson, Nov. 8, 2012; revised Nov. 15, 2012.