New Structure for the PhD Qualifier Exam
March 26, 2004

The exam shall have two parts, named Fundamentals and Specialization, respectively. Students must pass both parts to pass the exam, though they can pass each part individually. Time allotments shall be:

- Fundamentals 4 hours (exam to be targeted at 3 hours; 45 minutes for each of four questions)
- Specialization 3 hours (exam to be targeted at 2 hours; 45 minutes for each of three questions)

For the Fundamentals part, students must choose four topics from among six areas tied to courses. Faculty asked to write a topic area exam question shall follow the established course outcomes when developing the question. The topic areas on the list would be:

- Digital Design (EE 2369)
- Software Design (EE 2372)
- Microprocessors (EE 3376)
- Electronic Networks (EE 3438)
- Signals and Systems (EE 3353)
- Probability (EE 3384)

All these questions will always be provided and students can decide at the time of the exam which four of the six they wish to attempt.

For the Specialization section, a student must have chosen a Focus Area and an advisor. Below are the Focus Areas:

- Computers
- Electronics, Fields, and Devices
- Systems and Communications

Students will be asked prior to the exam which questions they wish to answer from a menu of courses at the graduate level. The question lists will be generated by the Focus Area Committees. Courses can belong to more than one Focus Area. Students must choose three questions, including at least two questions from their selected Focus Area. Students may choose one outside the area with approval of the Major and Graduate Advisors. Students must answer the questions they requested.

Faculty will write the questions based on established course outcomes which will be published and made available to the students.

Students shall have two opportunities to pass the exam.

For Fall 2004 only, students who have taken one time and not passed the qualifier under the previous exam structure may choose to repeat the old structure.

A meeting will be held with students preparing to take the exam, at least three months before each qualifier to discuss the exam and our expectations. All exam topic areas will have outcomes statements that allow students to focus their preparation efforts and will ensure that the questions prepared are consistent with our expressed intent.