

College of Engineering and Computer Science Susamma Barua, Dean P.O. Box 6870 Fullerton, CA 92834 657-278-3362

Date: April 22, 2019

To: Kiran George, Coordinator

Computer Engineering Program

From: Susamma Barua, Dean

College of Engineering and Computer Science

Subject: Dean's Review of the PPR Report, MS in Computer Engineering

The PPR Self-Study Report, External Review Team Report and the Response from the Program Coordinator to the External Review Committee Recommendations for the MS degree program in Computer Engineering have been reviewed at the Dean's level. Here are the findings and follow up activities:

The Review Committee identified the following four aspects as the Program strengths:

- 1. Curriculum structure and flexibility provided to students
- 2. Commitment and dedication of faculty members to teaching
- 3. Faculty research expertise and activities
- 4. Support from the Dean's office

While the Computer Engineering Program offers a high quality graduate program, the recommendations given by the Review Team will allow the Program to better prepare the students to meet the workforce needs of the computer engineering industry and for advanced studies.

## 1. Curriculum Enhancement

The curriculum currently requires six required core and four elective courses. The electives offer students with a wide range of topics, including courses from computer science and electrical engineering, to choose from. However, the current focus of all six core courses on IC design presents a one dimensional approach in preparing the students for the diverse technical needs of the industry.

One solution is to develop an additional core focus area comprising of three core courses. The curriculum can then be redesigned to require the same number of required core courses, but now focused on two distinct areas of three courses each.



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The second option is to reduce the number of required core courses and increase the number of elective courses, thereby allowing students to make their own selections on the areas they want to focus.

2. Provide students with opportunity to work on real-world technical challenges and projects

There are numerous ways in which this can be accomplished. Faculty members are encouraged to reach out to computer engineering alumni, Industry Advisory Board members and members of the College Corporate Partners program for ideas for class projects and assign these projects in the graduate courses. Our labs support several industry standard Electronic Design Standard tools and can be used to give the hands-on experience the students will need. In addition, the Program faculty is encouraged to collaborate with the College Development Team comprising of the Senior Development Director, Mike Karg, and the Associate Director of Corporate and Foundation Relations, Nicole Bailey, to secure industry sponsored projects through the ECS Corporate Partners Program. These projects provide real-world industry challenges for students to work on under the supervision of a faculty advisor and an industry mentor.

3. Encourage students to take advantage of the project and thesis options in the curriculum

I concur with the suggestions presented by the Program Coordinator to accomplish this goal. In addition, graduate academic advisors must provide information about the project and thesis options during advising sessions and students must be strongly encouraged to consider this option instead of taking all 10 courses.

The Dean's office continues to support the Program by compensating the Coordinator's administrative responsibilities with six WTUs release time each semester and supporting the Graduate Advisor with three WTUs assigned time per semester. The recommendations provided here along with the response from the Program Coordinator establish a viable roadmap for addressing the findings of the External Review Team.