

Computer Engineering Review Task Force Special Session

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The primary goal is to solicit input from the computing education community on ways to improve the existing "Curriculum Guidelines for Undergraduate Degree Programs in Computer Engineering," also known as CE2004, so that it is current and reflects the state-of-the-art of the practice of computer engineering. A secondary goal is to present to the community the progress made by ACM and the IEEE/CS in transforming CE2004 to a new and contemporary report.

In 2011, the ACM and the IEEE/CS created the CE2004 Review Task Force (RTF) and charged it with the task of reviewing and determining the extent to which the CE2004 document required revisions. The RTF submitted a report in July, 2011 that summarized a survey of academic and industry constituents. It recommended keeping the structure and the vast majority of the content of the original CE2004 document. However, it also recommended that contemporary topics should be strengthened or added while de-emphasizing other topics that appeared to be waning from the curricular mainstream of computer engineering. Additionally, the RTF recommended that the two societies form a joint special-purpose committee to update and edit the earlier document and to seek input and review from the computer engineering industrial and academic communities through workshops co-located at major conferences. This special session will provide insights on the RTF findings and engage the audience on how a future computer engineering report should evolve.

Special Session Agenda

- 0:00 - 0:10: *Dr. John Impagliazzo* will present a brief overview of CE2004 including its evolution and components and focusing on its body of knowledge.
- 0:10 - 0:25: Small group discussions: key technical and non-technical skills needed for computer engineers graduating in the next several years. Groups will share results and the RTF will collect notes from all groups that wish to share them.
- 0:25 - 0:35: *Dr. Mitch Thornton* and *Dr. Eric Durant* will present results of the RTF's surveys of academics and industry.
- 0:35 - 0:50: Small group discussions: specific topic areas that are becoming important for computer engineers. Several groups will share their results, suggesting topic areas that should be seriously considered by all CE curricula.
- 0:50 - 1:00: *Dr. Susan Conry* will discuss how CE2004 and its proposed revision complements the current ABET criteria.
- 1:00 - 1:15: Small group discussions: how the document could serve computer engineering educators best, addressing issues such as the balance between recommended and elective topic

hours, providing model curricula, and examples of ways in which a program might demonstrate it is meeting ABET student outcomes.

- 1:15 – 1:20: *Dr. Andrew McGettrick* and *Dr. Tim Wilson* will describe the activities expected to take place over the next year including how participants can continue to be involved.
- 1:20 – 1:30: Questions and comments from the participants.

Expected outcomes or future work as a result of this session

The RTF will incorporate the feedback gathered at this special session into a draft of the next version of the guidelines document, which will be made available for community review in early 2013 with publication of a final version expected in late 2013.