

Annual Report
The College Committee of the ACM Education Board

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Over the last year, the work of the College Committee has focused on four areas:

1. The rapid emergence of degree programs in Information Technology.
2. The creation of the Computing Curricula Overview Volume.
3. Building a stronger relationship with the IEEE-Computer Society.
4. The ongoing health of CSAB.

Activity in each area is summarized below.

Issues related to degree programs in Information Technology:

The recent and continuing explosion of undergraduate degree programs in Information Technology (IT) is a dramatic development. The College Committee has been actively addressing both the opportunities and concerns this trend implies.

- We had earlier noted the emergence of a grass-roots organization of faculty who were rapidly working to build a professional organization for IT educators. We had provided them with guidance and encouragement re: the development of curriculum guidelines and accreditation criteria. We also had provided them with information, guidance, and encouragement viz. opportunities for their rapidly growing group to form an ACM SIG. This year, we were pleased to see the creation of SIGITE, the Special Interest Group for Information Technology Education, which was made possible by the gracious help of the SIG Board.
- We have worked with the Curriculum Committee of the group that has become SIGITE and encouraged them to work with us to prepare an IT Volume within the multi-volume structure called for by the CC2001 Task Force. We expect to see an IT2004 Volume sometime in the coming year. We have also included SIGITE representatives in the group creating the CC Overview Volume (see next section).
- We have worked with the Accreditation Committee of the group that has become SIGITE and served as a bridge to CSAB. A SIGITE member has been appointed to participate within CSAB as an Alternate Director representing the ACM.
- The College Committee chair participated by invitation in an ABET workshop on the accreditation of IT degree programs and will chair a special session on this topic at the annual ABET meeting later this Fall.

Creating the Computing Curricula Overview Volume:

The joint ACM/IEEE-CS CC2001 Task Force produced the CS2001 Volume and called for the development of similar volumes for each of Information Systems (IS), Computer Engineering (CE), and Software Engineering (SE) within a structure that could accommodate additional volumes in other areas of computing curricula. It also called for the creation of an Overview Volume that would provide a synthesis of the information provided in the discipline-specific volumes. The call for an Overview Volume was a response to pleas from computing educators who articulated a variety of needs for such a volume.

The Overview Volume was seen from the outset as a second-order artifact that could be created only after inspection of the various discipline-specific volumes. Only the CS2001 and IS2002 volumes have been published to date. However, we expect to see the SE2004, CE2004, and IT2004 volumes each appear during the coming year, and the body of knowledge for each one of these three expected volumes has already been largely defined. This permitted us to begin work on the Overview Volume in January 2003. Initially undertaken by Ed Board volunteers, the group has since been expanded to include representatives from the IEEE-CS, the AIS, and SIGITE.

At the first meeting we decided that our work actually involves two related projects, which have since been known informally as the small and large projects. The goal of the small project is to identify intersections among the various discipline-specific volumes and to characterize the similarities and differences among the respective disciplines. It will fill the roll envisioned in the CC2001 call for an Overview Volume. The goal of the large project is to map the superset body of knowledge formed by the union of the various volumes and to develop effective ways to use the resulting schema to help economize the work of ongoing curriculum development in our growing family of related-but-different computing disciplines.

Since that time, we have produced an initial working draft for the small project volume. We will present the Strawman Draft of the CC2004-Overview Volume at FIE this November for review and comment. We expect to do the same with a subsequent draft at SIGCSE early next year. We have also prepared a proposal to NSF requesting support for ongoing large project work. Preliminary response has been encouraging. We expect to hear word from NSF in response to that project proposal before November.

Building a stronger relationship with the IEEE-Computer Society:

Ed Board volunteers have worked with counterparts from the IEEE-Computer Society on various curriculum projects and continue to do so re: the CE, SE, and Overview volumes. Along the way, various issues and opportunities have arisen concerning how the two groups might best work together to achieve common goals.

The College Committee has taken the lead in trying to build a stronger relationship between the Ed Board and the IEEE-CS. The College Committee chair has had conversations with the IEEE-CS VP of Education on a regular basis, and these have proved to be fruitful. To date, the following has been achieved:

- The IEEE-CS assigned new personnel to the joint task force working on the SE Volume. Notable positive results have resulted.
- The IEEE-CS VP of Education and the incoming Ed Board Chair have each agreed to invite the other to participate in their group's respective meetings.
- The IEEE-CS and the Ed Board are planning a joint meeting of the two groups to occur in the coming year. In his new role as incoming Ed Board chair, the

current College Committee chair has begun working with the IEEE-CS VP of Education on goals and agenda for such a meeting.

The Health of CSAB:

In the aftermath of the recent organizational merger in which CSAB became part of ABET, it has become clear that there are serious challenges to the ongoing fiscal viability of CSAB. The College Committee chair participated as an ACM member of a committee intended to determine the nature and scope of this challenge and to identify possible resolutions to it. We were able to identify the nature and scope of the challenge; we were able to identify only one possible viable resolution of it.

- Nature of the problem: Prior to the merger, CSAB's financial model was based on revenue from three sources: (1) fees paid by applicant schools to support visits by CSAB personnel, (2) annual maintenance fees paid by accredited programs, and (3) annual subsidies from both the ACM and the IEEE-CS. CSAB projections indicated that the first two sources would soon be sufficient to permit the subsidies from ACM and IEEE-CS to be abandoned. With the merger, that model was immediately abandoned and the replaced by the existing ABET model. In the ABET model, ABET receives the fees for visits, not CSAB. In addition, ABET does not permit the billing of an annual maintenance fee to accredited institutions. The change in financial model thus eliminated two of CSAB's three sources of revenue, leaving subsidy by ACM and other member organizations as CSAB's only source of funding. It also implies that CSAB subsidize each accredited program rather than bill each program an annual fee.
- Scope of the problem: The immediate effect was to increase the subsidy expected ACM from ~\$70,000 to ~\$100,000. We expect the expected subsidy to soon increase again to ~\$125,000. Furthermore, with the emergence of IT degree programs and the anticipated demand for the accreditation of such programs, the future looks bleak. The change in the financial model means that (a) CSAB will lose money on each accredited program (primarily due to the shifting of the maintenance expense from accredited programs to CSAB), and (b) the anticipated demand for IT accreditation means that the number of accredited programs for which CSAB is expected to provide an annual maintenance subsidy will rise dramatically.
- Resolution of the problem: The committee considered various ideas as possible ways for CSAB to create additional sources of revenue. While some might prove useful, none are expected to adequately address the problem. The core problem is the arbitrary adoption of the ABET financial model without due consideration of the various differences between the traditional organizations and programs associated with ABET and those associated with CSAB. We believe the only viable solution is to (a) work to obtain acknowledgement from ABET that its traditional financial model for accreditation does not adequately apply to CSAB constituents, then (b) negotiate a revised financial model that restores the funding previously provided to CSAB by its nominal annual maintenance fee.