



July 7, 2016

ANNUAL REPORT
of the
ACM COMMITTEE for COMPUTING EDUCATION in COMMUNITY COLLEGES
for the period FY16: July 1, 2015 - June 30, 2016
<http://ccecc.acm.org/>

Dr. Elizabeth K. Hawthorne, outgoing CCECC Chair and Dr. Cara Tang, incoming CCECC chair provide the following annual report on the milestones and activities of the ACM Committee for Computing Education in Community Colleges (CCECC). Previous annual reports of the CCECC are archived online at <http://ccecc.acm.org/about/reports>.

In 2015, the ACM CCECC celebrated 40 years of service to computing education. Its ruby anniversary! (For further details, see the Community College Corner column in the December 2015 edition of [ACM Inroads](#).)

CCECC GLOBAL MISSION: <http://ccecc.acm.org/about>

The *ACM CCECC* serves and supports community and technical college educators in all aspects of computing education.

CCECC PURPOSE: <http://ccecc.acm.org/about>

The *ACM Committee for Computing Education in Community Colleges (CCECC)* is a standing committee of the ACM Education Board concerned with computing education at associate-degree granting colleges in the United States and similar post-secondary institutions throughout the world. The *Committee* engages in curriculum and assessment development, community building, as well as advises on public policy and advocacy in service to this sector of higher education.

CCECC BRIEF HISTORY: <http://ccecc.acm.org/history>

CCECC CHARTER: <http://ccecc.acm.org/about/charter>

CCECC MEMBERSHIP as of June 30, 2016: <http://ccecc.acm.org/about/members>

Members

- Elizabeth K. Hawthorne, PhD, CCECC Chair; Senior Professor, Union County College, NJ
- Cara Tang, PhD, CCECC Vice-Chair; Faculty and Co-Department Chair, Portland Community College, OR
- Cindy Tucker, CCECC member; Associate Professor, Bluegrass Community and Technical College, KY



CCECC MEMBERSHIP beginning July 1, 2016:

Members

- Cara Tang, PhD, CCECC Chair; Faculty and Co-Department Chair, Portland Community College, OR
- Cindy Tucker, CCECC Vice-Chair; Professor, Bluegrass Community and Technical College, KY
- Elizabeth K. Hawthorne, PhD, CCECC Immediate Past Chair; *ACM Distinguished Educator*, Senior Professor, Union County College, NJ
- Teresa Moore, CCECC member; Associate Professor, Volunteer State Community College, TN
- Christian Servin, PhD CCECC member; Computer Science Faculty, El Paso Community College, TX

Emeriti Members

- Mr. Robert Campbell (former chair)
- Dr. Karl Klee (former chair)
- Dr. John Impagliazzo (founder)
- Dr. Joyce Currie Little (founder)
- Dr. Dick Austing (founder)

The CCECC achieved the following milestones in FY16 (July 1, 2015 – June 30, 2016):

- Made significant progress on revising the 2009 Associate-degree Curricular Guidance in Computer Science (ccecc.acm.org/guidance/computer-science) with contemporary cybersecurity learning outcomes, dubbed *CS-Cyber*.
 - *CS-Cyber* is based on the ACM CS2013 guidelines, the cyber education project learning outcomes, the National CyberWatch Center's mapping to the NICE framework, and the DHS/NSA's KUs for CAE/2Y designation in cybersecurity.
 - Volunteers divided into 3 different *CS-Cyber* teams with a team leader. Teams met virtually from September 2015 to June 2016.
 - Both a special session and a workshop were held at SIGCSE 2016 to engage the community in developing the *CS-Cyber* associate-degree curricular guidelines.
- Completed StrawDog draft version of *CS-Cyber* for public review and comment - ccecc.acm.org/ACMCompSciStrawDog
- Recruited 2 new Committee members (joined July 1, 2016)
 - Teresa Moore, Volunteer State Community College, TN
 - Christian Servin, PhD, El Paso Community College, TX
- At SIGCSE 2016, the CCECC celebrated 40++ years of ACM's commitment to computing education in community colleges. For the celebration, we created coordinated marketing materials that included a new Committee logo, brochure, booth banners, table skirt, and business cards. We also held an evening dessert reception with a drawing for cool tech prizes that was sponsored by Intel Education.



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- Completed comprehensive redesign of the Committee’s website: user interface, backend database, and URL address.
 - capspace.org is now ccecc.acm.org
- Completed migration of CCECC website from Microsoft hosting platform to ACM’s cloud hosting environment.
- Completed migration from the Committee’s collaborative work environment, Microsoft Office 365 Sharepoint for Small Businesses to Google Apps for Non-Profits offered through ACM’s IS Department.
 - New email addresses were established for each *Committee* member.
- Maintained the new website <http://ccecc.acm.org/>
- Maintained CCECC educator database with over 6,000 confirmed email contacts of two-year college computing educators
 - Started using Mail Chimp email service to send messages to educators for improved response rate and database maintenance
- Continued serving on the ACM Education Council and Education Board - www.acm.org/education/education-council-and-education-board
- Continued serving on the ACM Education Policy Committee – acm.org/public-policy/education-policy-committee
- Continued serving on the ACM-W Council – women.acm.org
 - Provided community college contact information in support of several ACM-W Women in Computing Celebrations
 - Attended annual planning meeting in June 2016
 - Shared booth space at SIGCSE 2016
- Continued collaborating with CSTA – csta.acm.org
 - Recommended community college representative to CSTA Standards revision committee
 - Shared booth space at SIGCSE 2016
- Continued serving on the Joint Task Force for Information Technology to develop undergraduate curricular guidelines – <http://it2017.acm.org>
- Invited to serve on the ACM Joint Task Force for Cybersecurity Education to develop undergraduate curricular guidelines - <http://www.csec2017.org/>
- Engaged in a variety of advocacy and outreach efforts on behalf of computing education in the community college sector, including the following conferences: Community College Cybersecurity Summit (3CS) 2015 (July), CSTA Annual Conference 2015 (July), ITiCSE 2015 (July), SIGITE 2015 (October), National Initiative for Cybersecurity Education (NICE) 2015 conference (November), SIGCSE 2016 (March), Women in Cybersecurity conference 2016 (April), NCWIT Summit (May), and Colloquium for Information Systems Security Education (CISSE) 2016 (June).



- Ongoing communications with colleagues via the featured, quarterly Community College Corner column in *ACM Inroads*— columns available in the ACM Digital Library as well as from <http://ccecc.acm.org/literature/publications>.
- Ongoing community-building, dissemination and outreach activities, including periodic mailings and email messages to contacts in the CCECC educator database, website enhancements, articles, conference sessions, and exchanges and collaborations with colleagues.
- Ongoing support for the ACM Education Council and Education Board goals and objectives.

The CCECC plans to pursue the following activities in FY17 (July 1, 2016 – June 30, 2017):

- Finalize the revision to the 2009 Associate-degree Curricular Guidance in Computer Science with contemporary cybersecurity learning outcomes, dubbed *CS-Cyber*.
 - IronDog draft and final versions
- Begin new associate-degree curricular guidance in Cybersecurity based on work of the ACM JTF for Cybersecurity Education
- Continue to grow international perspectives to the Committee’s work
 - ITICSE 2016 invited panel, “Global Perspectives on the Role of Two-Year/Technical/Junior Colleges in Computing Education”
- Continue recruiting and mentoring new CCECC members
- Ongoing maintenance of committee website <http://ccecc.acm.org/>
- Continue maintenance and growth of database contacts of community college computing educators
- Continue serving on the ACM Education Board (Elizabeth Hawthorne)
- Continue serving on the ACM Education Council (Cara Tang)
- Continue serving on the ACM Education Policy Committee (Elizabeth Hawthorne)
- Continue serving on the ACM-W Council (Cindy Tucker) and collaborating with ACM-W
- Continue serving on the JTF for Information Technology (Cara Tang)
- Continue serving on ACM JTF for Cybersecurity Education (Elizabeth Hawthorne)
- Continue collaborating with CSTA
- Continue a variety of advocacy and outreach efforts on behalf of computing education in the community college sector, such as various conferences, articles, meetings, and workshops
- Continue communications with colleagues via the quarterly Community College Corner column in *ACM Inroads*
- Ongoing community-building, outreach, and dissemination activities, including conference sessions, periodic mailings and email messages to contacts in the CCECC educator database, website enhancements, articles, and exchanges and collaborations with colleagues.
- Ongoing support for the ACM Education Council and Education Board goals and objectives.