

ANNUAL REPORT
of the
ACM COMMITTEE for COMPUTING EDUCATION in COMMUNITY COLLEGES
for the period FY18: July 1, 2017 - June 30, 2018
ccecc.acm.org

Dr. Cara Tang, CCECC chair, provides the following annual report on the activities of the ACM Committee for Computing Education in Community Colleges (CCECC). Previous annual reports of the CCECC are archived online at ccecc.acm.org/about/reports.

CCECC GLOBAL MISSION: ccecc.acm.org/about

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

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

Members

- Cara Tang, PhD, CCECC Chair; Department Chair and Faculty, Portland Community College, OR
- Cindy Tucker, CCECC Vice-Chair; Professor, Bluegrass Community and Technical College, KY
- Christian Servin, PhD, CCECC member; Professor, El Paso Community College, TX
- Markus Geissler, PhD, CCECC member; Professor, Cosumnes River College, CA
- **New member as of July 1, 2018:** Melissa Stange, PhD, CCECC member; Professor, Lord Fairfax Community College, VA

Dr. Elizabeth Hawthorne was voted as a Member Emeritus of the CCECC.

Emeriti Members

- Dr. Elizabeth K. Hawthorne (former chair)
- 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 FY18 (July 1, 2017 – June 30, 2018):

- Disseminated *Computer Science Curricular Guidance for Associate-Degree Transfer Programs with Infused Cybersecurity* (CSTransfer2017):
 - Available at ccecc.acm.org/CSTransfer2017
 - Based on the ACM CS2013 guidelines, with cybersecurity infused
 - Panel session at Community College Cybersecurity Summit (3CS), June 2017
 - Paper presentation at SIGCSE, Feb 2018
 - Recording available on CCECC YouTube Channel
 - Presentation at Tri-State Women in Computing Celebration, Feb 2018
 - Presentation at Fast Track to Success, April 2018
 - Panel at Cyber Education Workshop, April 2018
- Contributed Community College Exemplars to CSEC2017
 - Curriculum exemplar: Portland Community College, OR
 - 4-Course Exemplar: El Paso Community College, TX
 - Course Exemplar: Cosumnes River College, CA
- Launched CSEC2Y project to develop curriculum guidelines for 2-year programs in cybersecurity
 - Based on ACM's CSEC2017 curriculum guidelines
 - Task group made up of 10 community college educators representing a variety of expertise areas within cybersecurity, and geographic distribution across the U.S.
 - Advisory group of 10 experts including representation from industry, government, 4-year schools, cybersecurity organizations, and the CSEC2017 task group
- Formed task group in preparation for beginning IT Transfer project to develop guidance for IT transfer programs based on IT2017.
- Contributed to efforts on Broadening Participation in Computing
 - Participated in October 2017 CS Education Summit: Addressing the Challenges of Increasing Interest in Computing at the Undergraduate Level through Institutional Transformation

- Participated in January 2018 workshop on Authentic Inclusion of Community Colleges in National Efforts to Broaden Participation in Computing
- Supported ACM Education Policy Committee's Community College Transfer Pathways Report
 - Identified schools for case studies
 - Reviewed draft report and offered feedback
- Added members from Colombia, Brazil, and Greece to our international advisory group, ccecc.acm.org/about/advisors
- At SIGITE 2017,
 - Hosted a community college reception for the third year in a row;
 - Supported the conference with a table, engaging with attendees on community college computing issues and distributing curricular guidelines.
- At SIGCSE 2018,
 - Hosted an evening dessert reception for community college educators and friends for the third year in a row, with three sponsors, and a drawing for tech prizes;
 - Hosted a breakfast for community college educators and friends for the first time, facilitating table discussion on issues important to community college educators.
 - Engaged with the community, spreading awareness of CTransfer2017 guidelines through a paper presentation;
 - Staffed a booth in the exhibit hall to facilitate interactions with the community.
- Supported connections with the community through social media, including Twitter, Facebook, and YouTube.
 - Utilized Facebook LIVE to broadcast CCECC presentations and informal presence at SIGCSE and 3CS.
 - Created an [ACM CCECC YouTube Channel](#) for posting presentations and other relevant videos, starting with our SIGCSE 2018 paper presentation
- Recruited one new Committee member (joined July 1, 2018)
 - Melissa Stange, Lord Fairfax Community College, VA
- Maintained the website (ccecc.acm.org) with updated committee publications and conference events.
- Maintained CCECC educator database with over 5,000 email contacts of two-year college computing educators
- Continued serving on the ACM Education Council - www.acm.org/education/education-council-and-education-board
- Continued serving on the ACM-W Council – women.acm.org
 - Shared booth space at SIGCSE 2018
- Continued to support increasing community college participation in ACM-W work.

- Continued to use our educator database to generate lists of community college faculty located near ACM Women in Computing (WIC) celebrations, and provide customized lists to each U.S. WIC coordinator to facilitate personalized invitations to the events. In 2017-2018, lists were generated for 11 WICs across the U.S.
- Serving on the newly formed ACM Task Force for Data Science to develop undergraduate curricular guidelines for computing Data Science programs
- Participated in the American Statistical Association’s Two-Year College Data Science Summit, May 2018, representing the computing discipline and ACM.
- 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) 2017 (June), SIGITE 2017 (October), SIGCSE 2018 (February), Fast Track to Success (April 2018), Cybersecurity Education Workshop (April 2018), NCWIT Summit (May 2018).
- 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 ccecc.acm.org/literature/publications.
- Contributed an article on SIGCSE and two-year schools to the Inroads special section celebrating 50 years of SIGCSE.
- Ongoing 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 FY19 (July 1, 2018 – June 30, 2019):

- Continue to disseminate and collect program examples for CTransfer2017 guidelines
- Continue the CSEC2Y project developing associate-degree curricular guidance in Cybersecurity based on CSEC2017. Tentative timeline:
 - Feb 2019: Release StrawDog draft for public review and comment
 - July 2019: Release IronDog draft for public review and comment
 - Dec 2019: Final version available
- Begin the IT Transfer project developing guidance for IT transfer programs based on IT2017
- Update and grow the database of community college computing educators
- Continue to seek international perspectives to the Committee’s work
- Continue recruiting and mentoring new CCECC members

- Continue engaging with the community through social media channels, and utilizing the new CCECC YouTube channel
- Ongoing maintenance of committee website ccecc.acm.org
- Continue serving on the ACM Education Council (Cara Tang)
- Continue supporting the ACM Education Policy Committee in community college-related work.
- Continue serving on the ACM-W Council (Cindy Tucker) and collaborating with ACM-W
- Continue serving on task force for Data Science Curriculum Guidelines (Christian Servin)
- Continue collaborating with CSTA
- Continue communications with colleagues via the quarterly Community College Corner column in *ACM Inroads*
- 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.
- Ongoing community-building, outreach, and dissemination activities, including conference sessions, periodic email messages to contacts in the CCECC educator database, social media engagement, website enhancements, articles, and exchanges and collaborations with colleagues.
- Ongoing support for the ACM Education Council and Education Board goals and objectives.