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SIGCSE News in Brief

Greetings! We have a very full April issue in store for you. We would like to remind you to vote in the SIGCSE Board election by June 14th. The slate of candidates is in this issue, and you should have already received an email from ACM to cast your vote.

There are many articles about the SIGCSE Technical Symposium recently held in Minneapolis, and previews of upcoming events such as ITiCSE, ICER, and WiPSCE.

With this issue we bid farewell to Dr. Leo Porter as the outgoing *Bulletin* co-editor. Many thanks to Leo for his dedicated service and outstanding professionalism serving the SIGCSE Board and community. We welcome Dr. Jeffrey Miller as our incoming *Bulletin* co-editor starting with the July issue. He is an Associate Professor of Engineering Practice in the Computer Science Department at the University of Southern California. He brings a wealth of editorial experience to his new role; he has been an Editor-in-Chief of *IEEE Intelligent Transportation Systems* and an associate editor for multiple other journals.

For our Member Spotlight interview, we spoke with Dr. Maureen Doyle. In our interview, we discuss Maureen's activities to support increasing diversity in CS education. Look to her interview to learn more.

Newsletter Credits

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SIGCSE Technical Symposium 2019 Report

By Elizabeth K. Hawthorne, Manuel A. Pérez-Quiñones, SIGCSE 2019 General Co-Chairs, and Sarah Heckman, Jian Zhang, SIGCSE 2019 Program Co-Chairs

SIGCSE celebrated its 50th Technical Symposium in Minneapolis, Minnesota, USA from February 27 to March 2, 2019. We were delighted to have served as Symposium and Program co-chairs of the symposium. In spite of the historic 30.4 inches of record snowfall during the month of February, the Golden Anniversary of the Technical Symposium broke another record with 1809 attendees!

We also had a record number of submissions and acceptances. We received 994 submissions across all tracks from over 50 countries, with a total of 2668 unique authors representing over 800 organizations. And the participating organizations cover the gamut of K-12, community colleges, public and private universities and colleges, non-profits, corporate entities, government offices, and national laboratories. Paper submissions (526) were up 15% over SIGCSE 2018. We accepted 169 papers across all three paper tracks (CS Education Research, Experience Reports & Tools, and Curricula Initiatives) which was up 5% over SIGCSE 2018, 18 panels, 15 special sessions, 30 workshops, 19 ACM Student Research Competition submissions, 30 Birds of a Feather, 11 Demos, 22 Lightning Talks, 6 Nifty Assignments, and 90 Posters. Papers received at least 5 reviews and all other submissions received at least 3 reviews. All 797 reviewers, along with 69 Associate Program Chairs and 14 Track Chairs, discussed submissions to come to a consensus on to help the Program Chairs select the papers that made up the SIGCSE 2019 technical program. We are grateful for all the members of the SIGCSE community who submitted, reviewed, and contributed to an amazing technical program.

A few papers stood out above the rest. Best papers were identified by having at least one reviewer recommendation for best paper, high

scores for all reviews, and by exemplifying the expectations for papers in that track.

CS Education Research

- **Best paper:** “First Things First: Providing Metacognitive Scaffolding for Interpreting Problem Prompts” by James Prather, Raymond Pettit, Brett A. Becker, Paul Denny, Dastyni Loksa, Alani Peters, Zachary Albrecht, Krista Masci.
- **2nd Best paper:** “Assessing Incremental Testing Practices and Their Impact on Project Outcomes” by Ayaan M. Kazerouni, Clifford A. Shaffer, Stephen H. Edwards, Francisco Servant.
- **3rd Best paper:** “Exploring the Value of Different Data Sources for Predicting Student Performance in Multiple CS Courses” by Soohyun Nam Liao, Daniel Zingaro, Christine Alvarado, William G. Griswold, Leo Porter.

Experience Reports & Tools

- **Best paper:** “Computer Science Principles for Teachers of Blind and Visually Impaired Students” by Andreas Stefik, Richard E. Ladner, William Allee, Sean Mealin.
- **2nd Best paper:** “Developing Soft and Technical Skills Through Multi-Semester, Remotely Mentored, Community-Service Projects” by Janet Davis, Samuel A. Rebelsky.
- **3rd Best paper:** “Visualizing Classic Synchronization Problems: Dining Philosophers, Producers-Consumers, and Readers-Writers” by Joel C. Adams, Elizabeth R. Koning, Christiaan D. Hazlett.

Curricula Initiatives

- **Best paper:** “ ‘);DROP TABLE textbooks;–: An Argument for SQL Injection Coverage in Database Textbooks” by Cynthia Taylor, Saheel Sakharkar.
- **2nd Best paper:** “A Flexible Curriculum for Promoting Inclusion through Peer Mentorship” by Heather Pon-Barry, Audrey St. John, Becky Wai-Ling Packard, Barbara Rotundo.

- **3rd Best paper:** “PythonSneks: An Open-Source, Instructionally-Designed Introductory Curriculum with Action-Design Research” by Austin Cory Bart, Allie Sarver, Michael Friend, Larry Cox.

We continued the Sister Track, where we highlighted papers accepted at other venues that are relevant to the SIGCSE audience. Sister Track papers came from RESPECT, TOCE, SIGGRAPH, Charles Babbage Institute, and SIGCAS. Thank you to all our Sister track chairs and presenters!

In honor of the 50th Technical Symposium, the 50th Celebration Planning Committee of Adrienne Decker, Kurt Eiselt, and Carl Alphonse ran a SIGCSE@50 track. The track featured accepted papers, panels, and special sessions that provided a look back and celebration of the SIGCSE Technical Symposium and the SIGCSE community. After the standard presentation, members of the community led discussions into the topic. Thank you to the 50th Celebration Planning Committee and the presenters and discussants for the SIGCSE@50 track!



50th anniversary cake served during Thursday night's reception. [photo credit: SIGCSE](#)

One big innovation for SIGCSE 2020 was the increase in paper length to a full 6 pages of content and one page for references. The page increase on average provided an additional half page of content, a full page for references, and the opportunity for authors to fully situate their work within the broader literature. Additionally, we moved the Saturday keynote to first thing in the morning, leaving the closing

lunch for recognitions and awards presentations. The ACM Digital Library granted us access to all of the meta-data for all SIGCSE conferences. We put this information to use by summarizing information about the conference history. We collected data on country of origin for authors, program language mentions in paper abstracts, as well as interesting tidbits and trivia from paper submissions. We used some of that trivia to generate questions for our Puzzles and Games activities.

We had an outstanding lineup of plenary speakers.

- Dr. Marie desJardins of Simmons University presented the opening keynote on behalf of Dr. Freeman Habrowski III, President of the University of Maryland, Baltimore County. President Habrowski, unfortunately, fell ill days before presenting “Pursuing the Dream: A 50-Year Perspective on American Society, Technology, and Inclusion in Computing.” We express our sincerest appreciation to Dr. desJardins for substituting with only a 36-hour notice to deliver a well-received presentation!
- Dr. Mark Guzdial, University of Michigan, was the recipient of the annual SIGCSE award for Outstanding Contribution to Computer Science Education. With ukulele and harmonica in hand, Dr. Guzdial provided an entertaining keynote on “Computing Education as a Foundation for 21st Century Literacy.”
- Dr. Gloria Childress Townsend, DePauw University, was the recipient of the annual SIGCSE award for Lifetime Service, and shared her “Top-Ten List for 50 [females] - 50 [males]” at the First Timers' Luncheon.
- Dr. Blair Taylor, Towson University, delivered a thought-provoking closing keynote on “Cybersecurity is Not a Fad: Why Cyber is a Game Changer for Computer Science Education.”

We are very proud of the SIGCSE 2019 Technical Symposium and grateful to the organizing and program committees, authors, reviewers, Associate Program Chairs (APCs), volunteers, presenters, attendees, and staff who make the SIGCSE Technical Symposium such a fantastic event!



The SIGCSE 2019 Organizing Committee in their golden anniversary attire!

[photo credit: SIGCSE](#)

We were privileged to have exhibitors and supporters who champion CS education. This year's supporters include:

- Platinum: GitHub Education, Google, and Microsoft;
- Gold: Codio, Intel, Oracle Academy, Turing's Craft, and zyBooks;
- Silver: ABET, AWS Educate, IBM, Gradescope by Turnitin, Mimir, and Vocareum; and
- Bronze: AnitaB.org.

We look forward to seeing you March 11 to 14, 2020 in Portland, OR, USA for the 51st Technical Symposium, themed "A Vision for the Next 50 Years." The Call for Participation and Reviewer Application is available on <https://sigcse2020.org>. Keep an eye on the SIGCSE 2020 website and social media for detailed Calls for Participation and Reviewer Guidelines in early-summer.

SIGCSE Technical Symposium Programming Languages Mentions by Decade

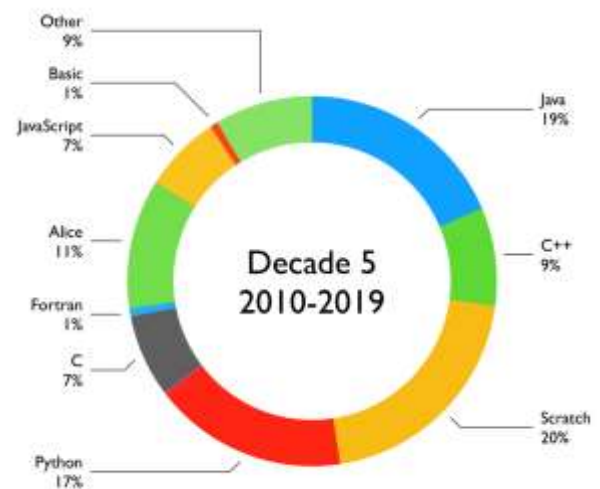
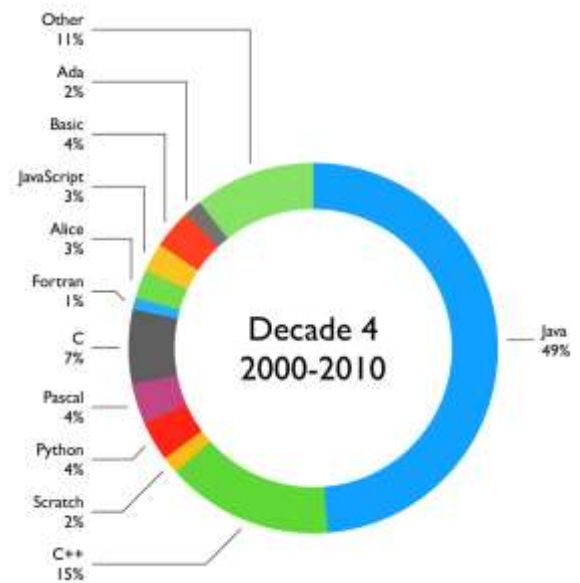
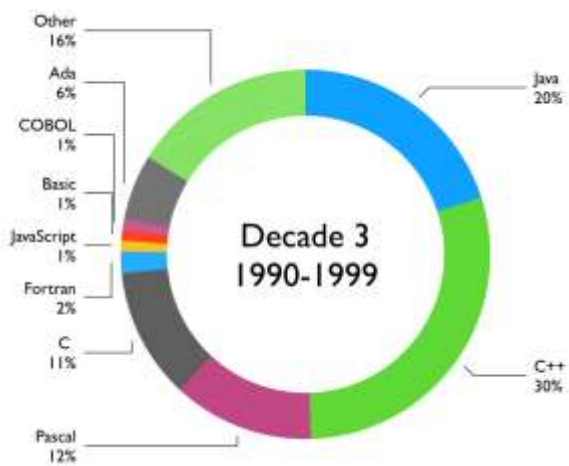
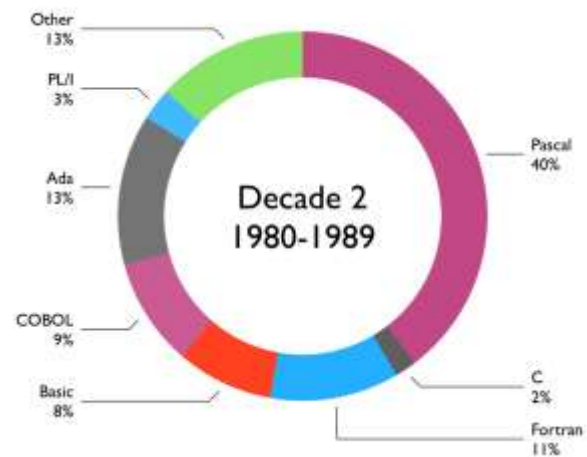
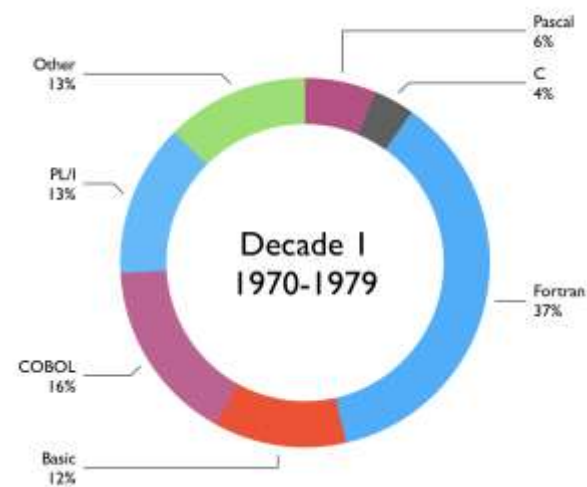
**By Manuel A. Pérez-Quiñones,
SIGCSE 2019 General Co-Chair**

We created a visualization for the languages mentioned in the SIGCSE Technical Symposia abstracts by decade. There is no distinction between papers, posters, special sessions, and other types of submissions archived in the digital library. We included all of them.

We produced a listing of the languages mentioned in abstracts with some context around them, about 15 characters on either side of the mention. We then validated that the mention was indeed referring to a programming language. This eliminated several uses of the word "basic," among others.

Given that the SIGCSE program has grown over the years, we calculated percentage mentions based on the total number of mentions of languages as a way to normalize mentions with respect to the full size of the program.

Data on 2019 was not available at the time of analysis, so this includes only the first 49 Symposia. Finally, our data depended on the meta-data stored in the ACM DL. The years 1985, 1990, 1991, and 1992 did not have abstracts stored in the meta-data and as such are not included in these counts.



ITiCSE 2019 Preview

By Roger McDermott and Bruce Scharlau,
ITiCSE 2019 Conference Chairs

This year, ITiCSE will be held in the North-East of Scotland, hosted by the University of Aberdeen. The Conference programme runs from 15th to 17th July with Working Groups and the Doctoral Consortium starting with a preliminary meeting on the evening of 12th July.

Aberdeen is a medieval university city of about 200,000 people which is the centre of the European Oil and Gas industry. It has excellent air, rail, and road links and is at the heart of an area of outstanding natural beauty which includes Royal Deeside, the Grampian Mountains, and the Aberdeenshire coast. It is also less than 50 miles from Speyside, the heart of the Scotch malt whisky industry, and a departure point to visit the archaeological and historic sites on the islands of Orkney and Shetland.



King's College, Aberdeen

photo credit: VisitAberdeenshire (<https://media.visitabdn.com/>)

This year, an ITiCSE record of 243 papers were submitted, of which 66 were accepted, giving an acceptance rate of 27%. Of these papers, just over half had an author from the United States or Canada, while European authors were represented in about 40% of the papers. We also accepted papers with authors from Central

and South America, China, Japan, Australia, and the Middle East, giving us a truly international flavour of current Computing Education research and practice.

In addition to the Paper, Poster and Panel submissions, and Tips, Techniques and Courseware presentations, we have ten Working Groups investigating topics including fostering program comprehension for novice programmers, data science education, benchmarking K-12 CSEd in schools, developing a model curriculum for cloud computing, and designing better compiler error messages. The reports from these groups will be published in a companion volume to the final proceedings, but the working groups will present preliminary findings during the conference and solicit feedback on their work from conference participants.

This year, ITiCSE will also be running a Doctoral Consortium to provide PhD students studying computing education with an opportunity to explore and develop their research interests in a workshop environment with a panel of established researchers. We hope this event will encourage new members into our academic community where they can feel welcome, and contribute to ongoing work in our area.

We hope you will join us in Aberdeen this July and look forward to seeing you in Scotland.



Dunnottar Castle, Stonehaven, Aberdeenshire

photo credit: VisitAberdeenshire (<https://media.visitabdn.com/>)

ICER 2019 Preview

By Robert McCartney, Andrew Petersen, Anthony Robins, Adon Moskal, ICER 2019 Conference Co-chairs

You are warmly invited to the fifteenth annual ACM International Computing Education Research (ICER) conference, which will be held in Toronto, Canada, 12-14 August 2019. ICER provides a forum for presenting and publishing high-quality research in computing education. ICER 2019 will continue to feature its traditional single-track format, which is designed to encourage the authors and audience to engage in lively discussion about each work presented.



photo credit: Toronto Skyline. Credit: John Vetterli, licensed as CC BY-SA 2.0

We offer a range of submission categories that allow for different types of participation, supporting work at levels ranging from initial ideas to exploratory work to completed research studies. Research studies are the main focus of the conference. Research papers have an 8-page limit excluding references.

To support work in earlier stages, ICER will offer tracks for posters, which allow for individual feedback, and lightning talks, 3-minute presentations to all of the conference attendees at once. Either of these may be used to articulate an idea for a research study, provide an update on current research, or invite collaborators. A Work in Progress Workshop will be held the day before the conference,

providing participants with an opportunity to gain critical and in-depth feedback on their research ideas or projects.

The SIGCSE Doctoral Consortium will also be held the day before the conference. Students accepted for the consortium will participate in an all-day workshop conducted by prominent leaders in the computing education research community. Participants will also present their work at the conference in a dedicated poster session.

In addition to the scheduled activities, we invite proposals for other activities, such as workshops, to be held prior to or after ICER. If you have an idea for an activity that you would like to propose, please contact Jennifer Campbell (campbell@cs.toronto.edu) or Robert McCartney (robert@engr.uconn.edu).

Toronto is the most populous city in Canada, with a well-connected international airport and light rail between the airport and city centre. Toronto is a thriving technology hub, with over 28,000 technology jobs created in 2017, and is consistently rated among the best cities in the world to live. The area is also home to several strong universities, including the University of Toronto. The city is tourist-friendly, with over 80 museums and art galleries, 8 concert halls, a thriving film scene, and proximity to the Niagara wine region and Niagara Falls.

For more details about preparation and submission to ICER 2019, see the conference website: <http://www.icer-conference.org>

We look forward to seeing you in Toronto in August!

WiPSCE 2019 Call for Participation

By Quintin Cutts

WiPSCE 2019 Conference Chair



photo credit: Photographic Unit, University of Glasgow

We invite you to submit a paper, report, or poster for the 14th Workshop in Primary and Secondary Computing Education (WiPSCE 2019) and join us in Glasgow, Scotland, 23-25th October 2019.

While school level computing education has strong ties to national educational systems, its theories, methods, and results are internationally applicable. WiPSCE, the premier international venue for school level computing education, attracts a broad range of researchers and practitioners from both university and school contexts.

Topics of interest include, but are not limited to:

- Learning: attitudes, motivation, misconceptions, learning difficulties, student engagement with educational technology, conceptualization of computing
- Teaching: teaching approaches, teaching methods, teaching with educational technology
- Content: curricular aspects, learning standards, tools, educational approaches, context relevant teaching, assessment
- Institutional aspects: establishing and enhancing computing education, professional development

Submission Categories

Original submissions in all areas related to primary and secondary computing education are invited in the following categories:

- Full Paper (6-10 pages), including theoretically-anchored empirical and theoretical/philosophical research papers.
- Practical Report (4-6 pages), with an emphasis on practical experiences, e.g. evaluating a teaching intervention or curricular initiative, and a solid theoretical basis.
- Work in Progress (3-4 pages), presenting original work in progress related to empirical or theoretical research.
- Demo/Poster Abstract (2 pages). Demo/Poster abstracts should present emerging ideas for future research, teaching practice, or tools.

Why Glasgow?

Scotland has a long history of educational innovation, with the University of Glasgow involved for over 550 years. We host the Centre for CS Education and led on the major revision of the Scottish schools CS curriculum for 3-15 years-olds, and we're looking forward to welcoming teachers and researchers from all over the world. Glasgow itself is a great conference location, full of landmark sites and great atmosphere. Join us for a bit of celtic music and dance at the conference dinner. Stay for a few days to visit nearby castles and glens, or travel into the Highlands on the Road to the Isles, or on the route of the Hogwarts Express!

For more details, see the conference website:

<http://www.wipsce.org>

Member Spotlight

In this feature of the Bulletin, we highlight members of the SIGCSE community. In this issue, Bulletin co-editor Karen Davis interviewed Maureen Doyle.

Maureen Doyle is Professor and Chair of Computer Science at Northern Kentucky University in greater Cincinnati. Maureen currently serves as a co-Chair of the Academic Alliance for NCWIT, serves on the ACM-W TRIWIC conference committee, and is a past co-editor of the SIGCSE Bulletin. Maureen earned a BS in Mathematics from the UMass Lowell and an MS in Mathematics at Northeastern University. At the age of 38, she returned to graduate school so hoping to help others benefit from an education in computing. In 2004, she earned her PhD in Scientific Computing and Computational Mathematics from Stanford.



photo credit: Krista Rayford

KD: I'd like to thank you for your service to the CS education community and your many contributions to Computer Science Education research. Thank you for agreeing to talk with us today. How did you first get involved with the CS education community?

MD: I attended SIGCSE 2007 in Covington, KY. I was living in Covington, so having the conference local allowed a number of faculty from Northern Kentucky University to attend. At the time, NKU faculty were involved in the

cyber community at SIGCSE, so I got to meet a lot of people through my friends at NKU. A number of female CS faculty I admired, who are professors in Kentucky, were also in attendance. I attended a number of different sessions and talks. I brought back new ideas for my teaching! In addition, I admired the attendees' commitment to excellent education and student success, so I submitted a paper, which was accepted for SIGCSE 2008 in Portland and I have never looked back.

KD: Could you describe some of the ways you've been involved in developing and enhancing computer science education?

MD: I am only one of many working regionally as well as at my home institution to enhance CS education. At the national level, my focus is on service. I currently serve as NCWIT's Academic Alliance co-chair and served as co-editor of the SIGCSE Bulletin. I am beginning to get involved with the symposium, and I am looking forward to this work! Regionally, I work with many other awesome technical women and allies to run an ACM-W regional celebration of women in computing conference, TRIWIC, and support Kentucky's community college celebration, KYCC-WiC. I also serve on state committees, as requested, and was part of the team that wrote the Kentucky state CS standards released in February. Finally, I work with Northern Kentucky's K-12 CS faculty in hosting the Northern Kentucky CSTA group.

I have been an administrator at NKU for the past 5+ years, so I have worked to broaden our department's mission to include more community and K-12 outreach. I have also tried to work within the department to broaden participation and support for underrepresented students majoring in CS, CIT, or Data Science. We have implemented co-curricular and evidence-based curricular changes for student success, such as welcome events, extended freshmen orientation, and updating courses with high failure rates. Finally, thanks to a grant from NCWIT, I was able to bring in an NCWIT

social scientist, Angela Arndt, for professional development. Angela is teaching a course on inclusive pedagogy and education research for our college. It has been a great way to involve more faculty in teaching and education issues.

KD: What have you learned during that time?

MD: I have learned so much and the resulting joy in my work and in life has been a surprise. Professionally, I have had to grow and learn more about my own unconscious biases, how to set up legitimate CS education research studies, and how to communicate more effectively with peers, students, and the community. The latter, improving my communication skills, has helped me personally too. Learning to advocate properly has significantly reduced the chip on my shoulder related to my upbringing and gender.

Some key lessons that provided nuance and gray areas in my direction and focus were (and I paraphrase from Jan Cuny): “If you don’t work on K-12 education, where will your majors come from?” From an NCWIT keynote: “When CS is no longer identified as male, the pay and prestige will likely go down.” Finally, from a good friend: “Work for the world you want, and it isn’t important whether you get there or not. It is only important that you work for it.” These lessons have led to working more in K-12 and with programs for underrepresented students, as well as remaining optimistic enough to solve the problems I can solve today and having a longer view to solving the ones I can’t solve today.

KD: Based on your experiences, where do you feel computer science education is?

MD: Computer science education is the study of how students learn and how we effectively teach. I think it includes sharing successes and experiences, as well as building a corpus of work equivalent to what has been done in mathematics education.

KD: You’ve been involved in a number of initiatives to make computer science education

more inclusive for underrepresented groups. Based on what you’ve learned in those initiatives, what advice would you give the community?

MD: I began being involved in women in computing recruitment when I was still working in industry! I think my first talk was “Barbie has traded in her convertible for a computer.” I love this work and have volunteered for various conferences (GHC, TRIWIC, KYCC-WiC) and camps, but I am not qualified to give advice. I can suggest it has been helpful to continue learning about folks different from me, keeping up hope, and work for the long view. I also want to encourage folks to not give up. For example, I write at least one NSF proposal per year. I know this is a drop in the bucket for larger schools, but for my school, this is considered great. I haven’t been awarded a grant this decade. I keep trying and learn from my efforts. I know I won’t win if I don’t try.

KD: What are the biggest challenges for diversity, equity, and inclusion in CSE today?

MD: I will mention two challenges. First, we have a long way to go in diversity, equity and inclusion. I know I understand only part of this problem. I have yet to be fully informed in multiple areas. The second challenge is me. I often lose patience being involved in discussions around gender and tech that I have been having since the early ‘80s. I know that conversation and respect can result in change, but there are times I just get frustrated and rant at folks. It feels good, but I haven’t helped.

KD: What do you enjoy doing when you are not working?

MD: I enjoy reading and knitting, and I am learning how to bake macaroons. Most of my extended family is back in greater Boston, so I go back there at least twice a year. I plan to get a kayak to enjoy all the waterways near me.

KD: Thanks, Maureen! Keep up the great work you are doing!

Vote for the next SIGCSE Board

By Susan Rodger, SIGCSE Past Chair

The election for the next SIGCSE Board is upon us. The candidate slate was announced by ACM in January, appeared in the SIGCSE *Bulletin* January 2019 edition, and is listed below. SIGCSE members should have received an email from ACM on April 2 to start voting. This email included biographical information and a statement from each candidate. The voting period will last through June 14. The new officers will be announced about ten days later. The new officers will take office starting July 1, 2019. The new board's term will run through June 2022 of SIGCSE. ACM included instructions when it sent out the slate to SIGCSE members at the beginning of April.

Chair (select one)

Tiffany Barnes
Adrienne Decker
Judy Sheard

Vice-Chair (select one)

Dennis Bouvier
Dan Garcia
Briana Morrison

Secretary (select one)

Steve Cooper
Tyler Menezes
Leo Porter

Treasurer (select one)

Andrew Luxton-Reilly
Bruce Scharlau
Mark Zarb

Member At-large (select three)

Steven Bradley
Kevin Buffardi
MaryAnne Egan
Amardeep Kahlon
Viraj Kumar
Laurie Murphy
Manuel Pérez Quiñones
Jennifer Roscoe
Ben Stephenson

The current SIGCSE Board Chair, Amber Settle, will continue on the SIGCSE Board as the Immediate Past Chair.



SIGCSE 2018 Travel Grant Program

Awards

By Adrienne Decker, SIGCSE Board Treasurer

The SIGCSE Board is pleased to announce the recipients of the 2018 Travel Grant Program awards (to attend SIGCSE Technical Symposium 2019). The Travel Grant Program was created thanks to the generosity of Henry Walker and provides faculty and teachers who have not previously attended the Symposium with up to \$500 in travel support to do so. This year, to honor the 50th anniversary of the Technical Symposium, the SIGCSE Board authorized additional funds to allow for the awarding of 50 travel grants.

The travel grant recipients included pre-college teachers, community college teachers, program coordinators, graduate students, postdocs, and college/university faculty from around the globe. We welcome these 50 awardees to our SIGCSE community.

- Dewan Tanvir Ahmed
University of North Carolina at Charlotte, USA
- Kristof Aldenderfer
American University, USA
- Mark Allison
University of Michigan – Flint, USA
- Jared Amalong
Sacramento County Office of Education, USA
- Amadeo Argüelles
Instituto Politecnico Nacional, Mexico
- Dennis Asamoah Owusu
Ashesi University, Ghana
- Jakob Barnard
University of Jamestown, USA
- Sherrene Bogle
Humboldt State University, USA
- Emily Burkett
Sheffield Junior High School, USA
- Vasanta Chaganti
Swarthmore College, USA
- Yisong Chang
University of Chinese Academy of Sciences, China
- Qiong Cheng
University of North Carolina at Charlotte, USA
- Barun Dandapat
Rowan College at Gloucester County, USA
- Kristin Davidson
University of Mississippi, USA
- Ray DiVenuto
St. Joseph's College, USA
- JonAlf Dyrland-Weaver
Stuyvesant High School, USA
- Daniel Ellsworth
Colorado College, USA
- Adam Gaweda
NC State University, USA
- Sara Ghadami
California State University of Fullerton / Orange Coast College, USA
- Olga Glebova
Georgia State University, USA
- Mark Gondree
Sonoma State University, USA
- Bo Gorcesky
Horry County Schools, USA
- Deborah Gray
Alabama School of Math and Science, USA
- Grant Hutchison
Malvern Collegiate Institute, Canada
- Andrea E Johnson
Spelman College, USA

- Angie Kalthoff
ISD 742 St.Cloud Area School District, USA
- David Largent
Ball State University, USA
- Sa Liu
Harrisburg University of Science and Technology, USA
- Lauren Margulieux
Georgia State University, USA
- Chao Mbogo
Kenya Methodist University, Kenya
- Karina Mochetti
Universidade Federal Fluminense, Brazil
- Niema Moshiri
University of California, San Diego, USA
- Jaye Nias
Spelman College, USA
- Hyesung Park
Georgia Gwinnett College, USA
- Nea Pirttinen
University of Helsinki, Finland
- Keith Quille
TU Dublin, Tallaght Campus, Ireland
- Audrey Rorrer
University of North Carolina at Charlotte, USA
- Jeremy Sarachan
St. John Fisher College, USA
- Sharif Mohammad Shahnewaz Ferdous
The College of New Jersey, USA
- Ben Rydal Shapiro
Georgia Institute of Technology, USA
- Bonita Sharif
University of Nebraska – Lincoln, USA
- Shubbhi Taneja
Sonoma State University, USA

- Eleson Tanton
Admiral Moorer Middle School, USA
- Ann Thomas
Lafayette County School District, USA
- Pamela Thompson
Catawba College, USA
- Farah Tokmic
University of North Carolina at Charlotte, USA
- Kim W. Tracy
Rose-Hulman Institute of Technology, USA
- Yongge Wang
University of North Carolina at Charlotte, USA
- Pamela Wiese
Mt Hood Community College, USA
- Shirley Harriet Yera Surender
Faulkner University, USA



Travel grant recipients attending SIGCSE 2019.
photo credit: InHouseMedia

Congratulations to all the recipients! The next round of applications will be reviewed in October 2019. Please see <https://sigcse.org/sigcse/programs/travel-grants> for more information.

SIGCSE Top Ten Symposium Papers of All Time Award Winners

By Adrienne Decker, SIGCSE Board Treasurer and Top Ten Committee Chair

The SIGCSE Board created the SIGCSE Top Ten Symposium Papers of all Time Award to commemorate the 50th SIGCSE Technical Symposium held in Minneapolis, MN February 27-March 2, 2019. This award was created to recognize the outstanding papers published in the first 49 proceedings of the Annual ACM Technical Symposium on Computer Science Education.

Nominations from the community were solicited and the nominations committee considered nominations and other factors of impact to determine the top 20 papers. The announcement of the 20 candidate papers started a community voting period where SIGCSE members were asked to rank their top 10 choices. The twenty nominated papers are available [here](#). The members of the award committee were:

- Ashish Aggarwal, University of Florida, USA
- Brett A. Becker, University College Dublin, Ireland
- Virginia Carneiro de Paula, Palm Beach State College, USA
- Adrienne Decker, University at Buffalo, USA [chair]
- Sonia Golemme, Amazon, USA
- Becky Grasser, Lakeland Community College, USA
- Cody Henrichsen, Canyons Technical Education Center, USA
- Cay Horstmann, San Jose State University, USA
- Petri Ihantola, University of Helsinki, Finland
- Andrew Luxton-Reilly, The University of Auckland, New Zealand

- Laurence D. Merkle, Air Force Institute of Technology, USA
- Manuel Pérez-Quinones, UNC Charlotte, USA
- Andrew Petersen, University of Toronto, Canada
- Simon, University of Newcastle, Australia
- Andreas Stefik, University of Nevada Las Vegas, USA
- Andrea Tartaro, Furman University, USA
- Jan Vahrenhold, University of Münster, Germany

On Saturday, March 2 at the SIGCSE Technical Symposium, the final ranking and Top 10 were announced. The Top 10 papers were:

Rank	Year	Title	Authors
1	2010	Identifying student misconceptions of programming https://dl.acm.org/citation.cfm?id=1734299	Lisa C. Kaczmarczyk, Elizabeth R. Petrick, <i>University of California, San Diego</i> ; Philip East, <i>University of Northern Iowa</i> ; Geoffrey L. Herman, <i>University of Illinois at Urbana-Champaign</i>
2	2003	Improving the CS1 experience with pair programming https://dl.acm.org/citation.cfm?id=612006	Nachiappan Nagappan, Laurie Williams, Miriam Ferzli, Eric Wiebe, Kai Yang, Carol Miller, Suzanne Balik, <i>North Carolina State University</i>
3	1997	Undergraduate women in computer science: experience, motivation and culture https://dl.acm.org/citation.cfm?id=268127	Allan Fisher, Jane Margolis, Faye Miller, <i>Carnegie Mellon University</i>
4	2016	A Multi-institutional Study of Peer Instruction in Introductory Computing https://dl.acm.org/citation.cfm?id=2844642	Leo Porter, Beth Simon, <i>University of California, San Diego</i> ; Dennis Bouvier, <i>Southern Illinois University</i> ; Quintin Cutts, <i>University of Glasgow</i> ; Scott Grissom, <i>Grand Valley State University</i> ; Cynthia Lee, <i>Stanford University</i> ; Robert McCartney, <i>University of Connecticut</i> ; Daniel

			Zingaro, <i>University of Toronto</i>
5	1978	The introductory programming course in computer science: ten principles https://dl.acm.org/citation.cfm?id=990598	G. Michael Schneider, <i>University of Minnesota</i>
6	1998	Constructivism in computer science education https://dl.acm.org/citation.cfm?id=274308	Mordechai Ben-Ari, <i>Weizmann Institute of Science</i>
7	2004	Using software testing to move students from trial-and-error to reflection-in-action https://dl.acm.org/citation.cfm?id=971300.971312	Stephen H. Edwards, <i>Virginia Tech</i>
8	1974	What should we teach in an introductory programming course? https://dl.acm.org/citation.cfm?id=810447	David Gries, <i>Cornell University</i>
9	2001	Contributing to success in an introductory computer science course: a study of twelve factors https://dl.acm.org/citation.cfm?id=364581	Brenda Cantwell Wilson, <i>Murray State University</i> ; Sharon Shrock, <i>Southern Illinois University</i>
10	2003	Teaching objects-first in introductory computer science https://dl.acm.org/citation.cfm?id=611966	Stephen Cooper, <i>Saint Joseph's University</i> ; Wanda Dann, <i>Ithaca College</i> ; Randy Pausch, <i>Carnegie Mellon University</i>

The full ACM Press Release is available [here](#).
Congratulations to all the authors!

Special Projects Grants

By Judithe Sheard, SIGCSE Board Member

The SIGCSE Board invites applications for the next round of SIGCSE Special Project Grants. The deadline for this round is May 15 2019.

Special Project Grants of up to US\$5000 are awarded to support projects that will bring some clear benefit to the computing education community in the form of new knowledge, developing or sharing of a resource, or good practice in learning, teaching, or assessment.

The Special Project Grants are competitive and only available to SIGCSE members. An indication of the range of possibilities for projects may be gained from the descriptions of projects that have been funded in previous rounds (see <http://sigcse.org/sigcse/programs/special/awards>).

In addition to the normal Special Projects proposals, for this round applicants may also choose to address a theme “SIGCSE: 50 Years and Beyond” in celebration of the 50th anniversary of SIGCSE. The aim of this theme is to assess our current knowledge of computing education and identify possible future needs or trends. We are looking for projects that will investigate some aspect of work within the SIGCSE community during the past 50 years, report on what has been achieved, and move the work forward in some significant way.

Some suggestions for the type of project we might fund:

- Systematic literature review of a current “grand challenge” with the aim of recommending directions for future work.
- Reviewing the origins of and challenging ideas that have become part of our folk wisdom.

- Then, now, and the future: Investigate the evolution of an aspect of computing education with the aim of identifying the next important research questions to address.

Projects for this theme are expected to lead to a peer reviewed publication.

Details of the Special Projects Grant program, application process and a link to the application form are available at

<http://sigcse.org/sigcse/programs/special>.

Special Project Grants are competitive and only available to SIGCSE members. The review process aims for a fast turnaround and applicants will be notified around four to six weeks after applications close. Limited feedback may be given to unsuccessful applicants. Applicants have the option of re-submitting in a future round.

Questions about the grant or application process are welcome and may be directed to the Special Projects review panel at apply@sigcse.org.



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Volunteering with SIGCSE

By Amber Settle, Sue Fitzgerald, and Briana Morrison, SIGCSE Board Members

Like all Association for Computing Machinery Special Interest Groups (SIGs), SIGCSE relies heavily on volunteers for the work it does. Luckily, SIGCSE has a strong base of volunteers willing to help the SIG in its mission of providing a global forum for computing educators. A focus of the current SIGCSE Board has been to make the selection of volunteers for SIGCSE positions as open and inclusive as possible in order to nurture the development of future community leaders. As part of that work, the SIGCSE Board now posts open calls for all Board-approved positions and has held sessions at the 2018 and 2019 Technical Symposium to discuss volunteer opportunities. The slides from the 2019 session can be found here:

<https://sigcse.org/sigcse/about/volunteers>

One of the most obvious ways to volunteer with SIGCSE is to help with one of its conferences. SIGCSE has four conferences: the Technical Symposium, held in North America and the oldest and largest of the four; ITiCSE, the second oldest conference now held exclusively in Europe; CompEd, the newest conference, to be held in areas of the globe not currently served by a SIGCSE conference; and ICER, a computing education research-focused conference. Each of the conferences has slight differences in what types of sessions are offered, but most offer opportunities for reviewers, program committee membership, web site creation and maintenance, submission/database administration, registration, and evaluations. Reviewing, some program committee positions, and web site creation are excellent ways for people new to SIGCSE, or those interested in eventual conference leadership positions to get involved. ITiCSE and CompEd also have steering committees, which are good opportunities for people who already know the conference well to provide more extensive service. People who

are already involved with ITiCSE, CompEd, and ICER well are also encouraged to consider applying to host one of the conferences.

There are also opportunities to help SIGCSE beyond volunteering to help with the four conferences. This SIGCSE publication, the *Bulletin*, has two volunteers who serve as editors soliciting and editing articles about SIG activities. SIGCSE has a listserv, website, and social media accounts and serving as a coordinator for each is a good way for people new to volunteering to get involved. SIGCSE is increasingly involved in documenting our history, and we have created a volunteer historian position. We offer grants for travel to the Technical Symposium, research projects that would benefit the SIG and community, and speakers at in-cooperation conferences. Reviewing for each of these grant programs is important SIGCSE service. While not a SIGCSE publication, ACM *Inroads* has a strong focus on the community and serving as one of its editors can be a good way for more established SIGCSE members to serve. SIGCSE holds events in conjunction with its conferences that are organized independently, including the Doctoral Consortium, the New Educators' Workshop, and the Chairs' Roundtable, and coordinating those events is important service to the community. Finally, standing for election to the SIGCSE Board is a way to represent the SIG and become involved in all aspects of its work.

If you want to help with conference organization it's best to reach out to the current and future organizers of the conference most of interest to you. Those people will be listed on the conference web page. Talking to a SIGCSE Board member is a great way to find out more about general SIGCSE volunteering. A list of the current Board members can be found at <https://sigcse.org/sigcse/about/board>. Wherever your interest lies, we hope all SIGCSE members will find a way to contribute to our community. For more information, visit our web page on [Getting Involved](#).

Announcing the SIGCSE Test of Time Award

By Adrienne Decker, Mark Allen Weiss, Judithe Sheard, SIGCSE Board Members

The SIGCSE Board is pleased to announce the creation of an ACM-approved SIG award, the SIGCSE Test of Time Award. This award will recognize an outstanding paper published in the SIGCSE community that has had meaningful impact on computing education practice and research. Unlike the Top Ten Symposium Papers award, this award will not be restricted to Technical Symposium papers; however, papers will need to have been published at least ten years prior to the award.

Additional criterion and award nomination procedure information will be made available in August 2019 with an application deadline of October 1. This will be an annual award with the first award presented at a SIGCSE-sponsored conference in 2020, respecting the preferences of the recipient and practical limitations. All authors of the awarded paper will receive a plaque and up to \$2,000 will be available to the authors to assist in travel costs to attend the award ceremony.

Please look for information in the SIGCSE Bulletin, the SIGCSE-members and SIGCSE-announce listservs. Details will also be posted to <https://sigcse.org/sigcse/programs/test-of-time>.



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Deadlines and Upcoming Dates!

May 1	<u>ICER 2019</u> Doctoral Consortium submissions are due
May 17-19	<u>CompEd 2019</u> Chengdu, China
Jun 7	<u>ICER 2019</u> Lightning talks, poster proposals, Work in Progress workshop applications are due
Jun 14	Ballots for voting on the next SIGCSE Board are due
Jul 15-17	<u>ITiCSE 2019</u> Aberdeen, Scotland, UK
Aug 12-14	<u>ICER 2019</u> Toronto, Canada
Oct. 23-25	<u>WiPSCE 2019</u> Glasgow, Scotland, UK
