

## SIGCSE *Bulletin* Vol. 56, No. 1

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- Editors: Julie M. Smith and Charles Wallace
- Contributors: Alison Clear, Jamie Payton, Ben Stephenson, Jeffrey A. Stone, Lina Battestilli, Samuel A. Rebelsky, Libby Shoop, Mary Smith, Judithe Sheard, Andreas Mühling, Ilkka Jormanainen, Ismaila Sanusi
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#### **SIGCSE Board**

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#### **SIGCSE** News in Brief

Welcome to the January issue of the SIGCSE Bulletin for 2024. We hope the new year brings you many good things. We're excited to feature Ismaila Sanusi, of the School of Computing at the University of Eastern Finland, as our member spotlight this month.

We also have an update about the RESPECT Conference, calls for submissions to ITiCSE and EduPar, a recap of Koli Calling, and important information for those planning on attending the Technical Symposium in March.

As always, we invite you to contribute to future issues of the Bulletin, by sending brief pieces of general SIGCSE interest to the co-editors.

#### **Upcoming Dates and Deadlines**

Conference	Location	Dates	Submission Deadline
SIGCSE TS	Portland, OR, US	Mar 20 – 23, 2024 (hybrid)	
RESPECT	Atlanta, GA, US	May 16 – 17, 2024 (on-site)	Abstracts due January 25; papers due February 1
<u>ITiCSE</u>	Milan, Italy	July 8 – 10, 2024 (on-site)	Abstracts due January 14; papers due January 21
<u>ICER</u>	Melbourne, Australia	August 9 – 12, 2024 (on-site)	Abstracts due March 22; papers due March 29

Other conferences operate in cooperation with SIGCSE and are posted on the SIGCSE web site at sigcse.org/events/incoop.html.

#### RESPECT Is Now a SIGCSE Conference By Alison Clear, Chair ACM SIGCSE and Jamie Payton, Chair, RESPECT

On behalf of ACM SIGCSE and the highly regarded RESPECT (Research on Equity and Participation Engineering, Sustained in Computing, and Technology) community, we are happy to announce that the RESPECT conference will now be integrated as one of the flagship conferences under the ACM SIGCSE umbrella. The Conference, recognized for its dedication to explore and promote diversity. equity, and inclusion in the fields of engineering, computing, and technology, aligns seamlessly with ACM SIGCSE's mission to foster innovation and excellence in computer science education worldwide.

This integration underscores the commitment of both organizations to drive positive change and create an inclusive environment within the realm of computing education. By combining resources, expertise, and networks, ACM SIGCSE and the RESPECT Conference aim to elevate their collective impact on shaping the future of computer science education.

The RESPECT Conference, now an integral part of ACM SIGCSE's conference series, will continue to provide a platform for researchers, educators, and practitioners to engage in meaningful discussions, present cutting-edge

research, and share best practices that contribute to creating a more equitable and inclusive computing education landscape.

The next RESPECT conference will be held on May 16th & 17th at the Georgia Tech Conference Center & Hotel in Atlanta, GA, USA.

We are delighted to welcome the RESPECT conference into the SIGCSE family. This integration represents a significant step forward in our shared commitment to promoting diversity, equity and inclusion in computing education. By joining forces, we can amplify our efforts, share valuable insights, and collaborate more effectively to address critical challenges facing our community.

## SIGCSE Technical Symposium 2024: Information for Attendees

By Ben Stephenson and Jeffrey A. Stone, SIGCSE TS 2024 Symposium Co-Chairs and Lina Battestilli, Samuel A. Rebelsky, and Libby Shoop, SIGCSE TS 2024 Program Co-Chairs

The 2024 SIGCSE Technical Symposium is approaching rapidly! This year we will return to the Oregon Convention Center in Portland, Oregon, and we look forward to welcoming you there from March 20 to 23, 2024. The symposium's program is now available on the sigcse2024.sigcse.org website. It is the largest SIGCSE Technical Symposium program ever

with 216 papers and many, many presentations in its other tracks. With so much innovative work to see we're confident that there is something for everyone and we're sure that you will have no trouble finding interesting and informative sessions to attend. In fact, your biggest challenge may be deciding which of the many parallel sessions is the best choice!

Four highly deserving SIGCSE award winners will be recognized at this year's Technical Symposium. The 2024 SIGCSE Outstanding Contribution to Computer Science Education Award will be presented to Michael E. Casperson, while the 2024 SIGCSE Award for Lifetime Service will be presented to Chris Stephenson. Jan Plane will receive the 2024 SIGCSE Award for Broadening Participation in Computing. Finally, the 2024 SIGCSE Test of Time Award will be awarded to "Evaluating a New Exam Question: Parsons Problems" by Paul Denny, Andrew Luxton-Reilly and Beth Simon. Congratulations to all of the award winners!

This year's symposium program is longer than it has been in recent years in order to accommodate the increased number submissions. Wednesday will continue to be a day filled with affiliated events, followed by an evening of workshops. Advanced registration is required for workshops and many affiliated events. You can register for the workshops that are of interest to you while registering for the The Symposium. registration Technical instructions for affiliated events can be found through their entries in the online program (https://www.sigcse2024.org/program/programsigcse-ts-2024/). Thursday and Friday will be very full days with numerous presentations and sessions. including a new flock ofbirds-of-a-feather sessions Friday on lunchtime. Saturday's program will run until 3:00pm with workshops following at 3:30pm. The Saturday program will include Dr. Rachel Rose's keynote address at the opening plenary session, a set of morning parallel sessions,

Michael E. Casperson's Outstanding Contribution to Computer Science Education Award presentation at lunch time, and a set of afternoon parallel sessions (including the Nifty Assignments session). We encourage you to plan to stay for the entire day on Saturday so that you can enjoy all of these sessions and continue to connect with colleagues from around the world.

The SIGCSE Technical Symposium continues to be a hybrid event in 2024. This year's hybrid experience is smaller and more affordable than in year's past. It includes live online streaming of the keynote presentations, some of the award winner presentations, seven panels/special sessions, the Nifty Assignments session, and 24 papers that are being presented remotely by their authors. There will also be five online workshops, and the SIGCSE Coffee Break show will continue to entertain during the breaks. This year's online experience will not include any (pre-)recorded content, and no content will be streamed from any of the other tracks. Our hope is that this online experience will provide people that are unable to attend in-person with some access to the Technical Symposium's exceptional content at affordable price without overworking volunteers that make the online experience possible.

Those of you that have been to Portland before know that it is an excellent city to visit for a convention. It's known for its exceptional coffee. many excellent restaurants. the world-famous Powell's Books, and an extensive public transit system that makes it easy to get around the city. The red line extends all the way to the airport allowing one to travel directly from the airport to the Oregon Convention Center in approximately minutes for only \$2.50. One can also use a taxi or rideshare service to reach the convention center from the airport, but this is only marginally faster while being substantially more expensive.

This year's official conference hotels are the DoubleTree by Hilton Portland, the Courtyard by Marriott Portland Downtown/Convention Center, and the Hyatt Regency Portland. The DoubleTree is the most affordable option, with a conference rate of \$179 + tax per night. The conference rate at the Marriott and the Hyatt is \$219 + tax per night. Unfortunately, there are no hotels that are directly connected to the convention center in Portland so an outside walk is required regardless of where you stay. The Hvatt is across the street from the convention center while the other hotels are approximately 5 to 10 minute walk away. If you don't have a preference regarding hotels, we'd ask that you please consider staying at the Marriott as that is the property where we are currently furthest from meeting our booking obligations.

COVID-19 continues to be a consideration when planning large events, and the health and safety of everyone involved in the conference remains a top priority. Anyone who wishes to wear a face mask during the conference is welcome to do so, and we ask that all attendees respect each individual's choice about whether or not to wear a mask. Buttons and/or stickers will be available, similar to what has been provided in recent years, to indicate your preference for handshakes, elbow bumps, or no physical contact. Please respect the preferences that other attendees are indicating. In 2023 in-person attendees were required to attest to being fully vaccinated. We will not be continuing that practice in 2024. At the present time there are no public health restrictions in effect in Portland that impact our ability to meet in person. We will update our policies and procedures to conform with local requirements if new restrictions come into effect between now and the symposium.

Registration for the 2024 SIGCSE Technical Symposium is open now for both in-person and online attendees. The registration link can be

found on the symposium's registration page: https://www.sigcse2024.org/attending/Registrat <u>ion</u>. We encourage you to register by February 2, 2024, so that you can take advantage of the early registration rate. Registration rates for most in-person attendee categories increase by \$100 on February 3, and again on March 2. The rates for online attendees rise by a more modest \$25 on each of those dates, but we still encourage you to register by the early registration deadline if possible. Registration remains open until the end of the symposium on March 23. Presenters must register by March 1. Kids' Camp will continue to be available in 2024. Information about registering children for the camp can be found on the SIGCSE 2024 website.

Finally, we'd like to take a moment to thank all of the dedicated volunteers that make the SIGCSE Technical Symposium a success. The members of the organizing, program, and hybrid experience committees have all made substantial contributions of both time and energy, as have all of the associate program chairs and reviewers. Organizing this event simply wouldn't be possible without their volunteer efforts. Similarly, we'd also like to thank all of the authors who submitted work to the Technical Symposium. Your contributions are greatly appreciated.

We hope that you are as excited about the upcoming symposium as we are. We look forward to seeing you in March, either in Portland or online.

Call for Papers: EduPar 2024 By Mary Smith, Program Chair

Parallel and Distributed Computing (PDC) is widespread in modern computing devices, such as PCs, laptops, and handheld devices, featuring multiple cores and GPUs. The dependence on web and cloud services and the

rising demand for PDC solutions in addressing data-intensive challenges like Big Data highlights the importance of integrating PDC into computing curricula. The rapid advancements in PDC-related technologies present ongoing challenges in curriculum development, emphasizing the need to integrate PDC into existing and new courses seamlessly. This integration is essential to prepare students for careers increasingly focused on Parallel and Distributed Computing.

The EduPar workshop is designed in coordination with the NSF/TCPP curriculum Parallel and Distributed initiative on Computing (http://tcpp.cs.gsu.edu/curriculum) and the Center for Parallel and Distributed Curriculum Development and Educational Resources (CDER). Held with (www.ipdps.org) on May 27th, 2024, in San Francisco, CA, US, EduPar brings together individuals from academia, industry, and other educational and research institutes to explore new ideas, challenges, and experiences related to PDC pedagogy, curricula, and workforce development.

EduPar invites unpublished manuscripts from individuals or teams from academia, industry, and other educational and research institutes from all over the world on topics about the teaching of PDC topics in the Computer Science and Computer Engineering curriculum as well as in domain-specific computational and data science and engineering curricula.

We are accepting submissions for:

- Papers in two tracks:
  - Track 1: Educational Research (6-8 pages)
  - o Track 2 (new): Research to Education (3-4 pages)
- Posters (2-page abstract)
- Peachy Parallel Assignments (cool and inspirational assignments ready for others to adopt; 2-page abstract).

Please look at the conference website (<a href="https://tcpp.cs.gsu.edu/curriculum/?q=edupar2">https://tcpp.cs.gsu.edu/curriculum/?q=edupar2</a>
4) for details on topics of interest and submission types.

#### Important dates:

- Papers, Posters, and Peachy Assignments due: January 14, 2024
- Author Notification: February 18, 2024
- Camera-ready papers due: February 29, 2024
- Final versions of Poster abstracts and Peachy Assignments due: February 22, 2024

Contact Mary Smith (mlsmith@hpu.edu) with any questions.

#### ITiCSE 2024: Call for Submissions By Judithe Sheard, Program Chair

We are delighted to call for submissions to ITiCSE 2024, which will be held in Milan, Italy, from 5 July to 10 July 2024. ITiCSE is a computing education conference held annually in Europe, sponsored by ACM SIGCSE and supported by the ACM Europe Council and Informatics Europe. ITiCSE 2024 will be an in-person conference.

We are seeking submissions for papers, panels, working group proposals, doctoral consortium, and posters, tips, techniques, & courseware.

Full papers are submitted at two deadlines, a week apart. The title, authors, and abstract are due by Sunday 14 January 2024. Papers that do not have these details submitted by this deadline will not be considered. The complete paper is due a week later, by Sunday 21 January 2024, for dual-anonymous review.

Proposals for working groups, an integral feature of ITiCSE, are also due by Sunday 21 January 2024. Submissions for panels, posters,

the doctoral consortium, and tips, techniques, & courseware will be due by Sunday 10 March 2024.

All details are at the conference website, <a href="https://iticse.acm.org/2024/">https://iticse.acm.org/2024/</a>

## **Koli Calling Conference Recap**By Andreas Mühling and Ilkka Jormanainen

Koli Calling is a single-track conference covering a range of topics related to education in the computing disciplines. The 23rd Koli Calling International Conference on Computing Education Research was held both online from November 13-14, 2023, and then in-person, once again in the beautiful Koli National Park, from November 16-19, 2023. In between these two parts, a doctoral consortium was organised. The conference was held in cooperation with the ACM and SIGCSE and was organised by the University of Eastern Finland and the Leibniz Institute for Science and Mathematics Education (Germany).

This year, Koli welcomed 27 attendees in the online part and 51 persons for the in-person part, 11 of them attendees of the doctoral consortium. Twenty-one full papers were presented in the online part, in addition to a keynote from Teemu Roos. The in-person participants attended the lively discussions of 12 discussion papers, 11 posters and the poster presentations of the Doctoral Consortium, in addition to a keynote from Mark Guzdial. Of course the usual Koli activities of Sauna time and a hike through snowy Koli were also part of the program.



The snowy landscape of Koli from this year Photo credit: Ilkka Jormanainen

This year, we had an online keynote presentation by Teemu Roos, Professor of Computer Science, from the University of Helsinki and the Finnish Center for AI (FCAI) on his work about AI education for the future generation. In addition, there was an in-person keynote by Mark Guzdial, Professor at the University of Michigan and Director of the Program in Computing for the Arts and Sciences (PCAS), on his current work of making computer science relevant and accessible for everyone.

The Best Paper Award was won by Liat Nakar, Mor Friebroon and Michal Armoni for their full paper "From Modelling to Assessing Algorithmic Abstraction – the Missing Dimension." Additionally, the Best Discussion Paper was awarded to Mark Guzdial and August Evrard for their paper "Identifying the Computing Education Needs of Liberal Arts and Sciences Students." Finally, the Best Poster Award was won by Viktoriya Olari, Till Zoppke, Martin Reger, Evgenia Samoilova, Martin Kandlhofer, Valentina Dagiene and Ralf Romeike for their work titled "Introduction of Artificial Intelligence Literacy and Data Literacy in Computer Science Teacher Education."

The conference could not have been held without strong support from the local organising committee, once again led by Samuel Yigzaw. The local committee provided a welcoming environment for both in-person

and virtual attendees. The conference is also indebted to Otto Seppälä for his support in configuring the online environment and ensuring a smooth arrival of a group of in-person participants. We are truly thankful for their service to the Koli community.

We look forward to welcoming the community back to Koli in 2024 that will adapt some changes from this year's feedback and will also host a Doctoral Consortium.

We hope to see you at Koli!

#### Member Spotlight: Ismaila Sanusi By Julie M. Smith and Charles Wallace, SIGCSE Bulletin Co-Editors; Ismaila Sanusi

Ismaila Sanusi is a Doctoral Researcher, Faculty of Science, Forestry and Technology, School of Computing, at the University of Eastern Finland.

## How did you first get involved with the CS education community?

I am passionate about teaching, possibly because my parents were teachers, now retired secondary and primary school heads. With a bachelor's degree in educational technology, I started as a science teacher in middle school. My role includes taking students through various computing concepts and demonstrating how available technologies work. This practice and constant urge to utilize innovative approaches and introduce emerging technologies to my students gave me a sense that I need the proper knowledge and tools to support their learning. My enrollment in a PhD program in the Technologies for Learning and Development research group at the School of Computing, University of Eastern Finland launched me into CS education. My doctoral research, which focused on teaching machine learning (ML) to young learners considering ethical and societal implications has fully integrated me into the community.



Photo credit: Salewa Sanusi

#### Can you describe some of the ways you have been involved in developing and enhancing computer science education?

Through my current research interest in AI and ML education for K12 students, I have been able to (with other collaborators) create outreach programs and curriculum materials. among other learning resources. I have achieved and implemented these initiatives across context, including some African countries. I have worked with teachers (both pre-service and in-service), students and parents, and published my findings in the CS education community. SIGCSE, through its Special Project grant has also funded my research on integrating ML into core subjects, where we worked with a few selected teachers in the USA. The report of the findings are underway and will be published in the CS community.

I was involved in a 2023 ITiCSE working group led by Monica McGill and Sarah Heckman (McGill et al., 2023), where we built

recommendations for conducting equity-focused, high-quality computer science education research. As a result of the ITiCSE working group collaboration, we [held] a panel discussion tagged "Meeting the Needs of All through High-Quality Learners Computing Education Research" at CompEd 2023. I will continue to invest in creating opportunities for CS for learning considering varying diversity dimensions, including working with populations in Africa.

## Where do you think computer science education is headed in the next 5-10 years?

I am of the opinion that computer science education in the next 5-10 years will be more embraced by all. The increasing prominence of generative AI and large language models, including regenerative AI has implications for the CS community. As effort continues to be geared towards broadening participation in computing, we will continue to uncover the need to cater for varying diversity dimensions in the community.

From the global south perspective, there will be increasing output, especially in Africa, where there is a paucity of evidence on how educators and students teach and learn computing. Based on anecdotal evidence, there is currently a lack of awareness regarding computing education research in Africa, which accounts for the low turnout of scientific output. I am aware that the CSE teacher preparation program has existed in some Nigerian universities for over a decade, but there is limited information about CSE practices in the region. With the birth of CompEd created to be typically hosted outside North America or Europe, there may be representation. Perhaps increasing the Computing Education Research in Africa (CERiA) conference may be created, taking a cue from UKICER. It is not doubtful that having a network like SIGCSE has done much in promoting computing education.

## What do you think are the biggest challenges facing the community?

There is a continuous call for computing education for all learners, yet there appears to be limited discussion about the educators to teach the learners. Would there be a need for concerns about CS educators at all levels? I am aware of concerns about a shortage of reviewers for manuscripts submitted to some of the publication's outlets in the community. I hold the view so strongly that CS education is a welcoming community, however, how are the issues of reviewers being addressed? Would we have to patiently wait till our interesting findings are published after a year or more (especially in journals)?

# What are the biggest challenges for diversity, equity, and inclusion in CS education today? And what can CS educators do to help encourage diversity?

To my knowledge, no scientific evidence exists that learners from a certain region or geographical location cannot participate in learning computing or would perform better. While efforts are ongoing to address underrepresented and underserved groups within the CS education community, there is a need to explore more diverse learning needs. What do we know about neurodiversity and how they can be supported in learning computing? Even though they may exist in an out-of-school system, what do we know about street-connected children in the context of computing education?

## What do you enjoy doing when you are not working?

I enjoy watching comedy films or shows. I also listen to any genre of music including Fújì and Afrobeat. My wife and I have two beautiful kids, and I enjoy hanging out with them.

#### Reference

McGill, M. M., Heckman, S., Chytas, C., Diaz, L., Liut, M., Kazakova, V., Sanusi, I.T., Shah, S.M. & Szabo, C. (2023). Building Recommendations for Conducting

Equity-Focused, High-Quality K-12 Computer Science Education Research. In Proceedings of the 2023 Conference on Innovation and Technology in Computer Science Education V. 2 (pp. 565-566).