

23rd Koli Calling International Conference on Computing Education Research

Tentative program for the online part of the conference (updated October 27, 2023)

All times are in EET (Helsinki, UTC+2)

Monday November 13th

15:00 Opening and keynote (60 minutes)

What about a Ploughman or a Keeper at the Zoo: Survival (Thinking) Tools for the Generation AI
Professor Teemu Roos, University of Helsinki

16:00 Session 1 - Programming (90 minutes)

Xinying Hou, Barbara Ericson and Xu Wang	Understanding the Effects of Using Parsons Problems to Scaffold Code Writing for Students with Varying CS Self-Efficacy Levels
Nynne Grauslund Kristiansen, Sebastian Mateos Nicolajsen and Claus Brabrand	Feedback on Student Programming Assignments: Teaching Assistants vs Automated Assessment Tool
Majeed Kazemitabaar, Xinying Hou, Austin Henley, Barbara Ericson, David Weintrop and Tovi Grossman	How Novices Use LLM-based Code Generators to Solve CS1 Coding Tasks in a Self-Paced Learning Environment

17:30 Short break

17:45 Session 2 - Assessment and Competencies (90 minutes)

Liat Nakar, Mor Friebronn and Michal Armoni	From Modelling to Assessing Algorithmic Abstraction – the Missing Dimension
Miranda Parker, Matt Davidson, Yvonne Kao, Lauren Margulieux, Zachary Tidler and Jan Vahrenhold	Toward CS1 Content Subscales: A Mixed-Methods Analysis of an Introductory Computing Assessment
Kamilla Tenório and Ralf Romeike	AI Competencies for non-computer science students in undergraduate education: Towards a competency framework

19:15 Short break

19:30 Session 3 - Systems and Tools (90 minutes)

Matthias Linhuber, Jan Philip Bernius and Stephan Krusche	Constructive Alignment in Modern Computing Education: An Open-Source Computer-Based Examination System
Mark Liffiton, Brad Sheese, Jaromir Savelka and Paul Denny	Balancing Assistance and Learning: Large Language Models with Guardrails for Scalable Support in Programming Classes
Sören Sparmann, Sven Hüsing and Carsten Schulte	JuGaze: A Cell-based Eye Tracking and Logging Tool for Jupyter Notebooks

21:00 Closing Day 1

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Tuesday November 14th

15:00 Session 4 - Barriers (90 minutes)

Daphne Miedema, Michael Liut, George H. L. Fletcher and Efthimia Aivaloglou	"There is no ambiguity on what to return": Investigating the Prevalence of SQL Misconceptions
Renato Zimmermann, Sonya Allin and Lisa Zhang	Common Errors in Machine Learning Projects: A Second Look
Syed Sajid Hussain, Morteza Moalagh and Babak A. Farshchian	What Challenges do Computing Students Face While Learning Empirical Research Methods? A Quest for Threshold Concepts

16:30 Short break

16:45 Session 5 - Students (90 minutes)

Angela Zavaleta Bernuy, Runlong Ye, Elexandra Tran, Naaz Sibia, Abhijoy Mandal, Hammad Shaikh, Bogdan Simion, Michael Liut, Andrew Petersen and Joseph Jay Williams	Do Students Read Instructor Emails? A Case Study of Intervention Email Open Rates
Sadia Sharmin, Sicong Huang and Robert Soden	Impact of Research Workshops for Undergraduate Students from Underrepresented Communities on Sense of Belonging and Self-Efficacy
Ebrahim Rahimi, Harrie Passier and Sylvia Stuurman	Exploring Factors Influencing the Satisfaction of Adult Software Engineering Students with Teamwork in Distance Education

18:15 Short break

18:30 Session 6 - Computing Education (90 minutes)

Kathryn Cunningham, Miranda Parker and Jonathan Zhang	The Landscape of Computer Science Education Courses: A Syllabi Analysis
Lauri Malmi, Judy Sheard, Jane Sinclair, Päivi Kinnunen and Simon	Domain-Specific Theories of Teaching Computing: Do they Inform Practice?
Michael Johnson, Rachel Baker, Christopher Hovey and Betsy DiSalvo	Keeping Mindful of Modality: A Comparison of Computer Science Education Resources for Learning

20:00 Closing session for the online part (60 minutes)

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Thursday November 16th

17:30 Shuttle bus to Koli (train IC5, flight AY345), arrival and check-in at 19:30

19:30 Shuttle bus to Koli (train Pendolino 7), arrival and check-in at 21:30

20:00 Buffet dinner available upon arrival

Friday November 17th

07:00 Breakfast available in the hotel

09:00 Opening session: Andreas Mühling and Ilkka Jormanainen

09:15 Session 1: New Perspectives (90 minutes)

Mark Guzdial and August Evrard	Identifying the Computing Education Needs of Liberal Arts and Sciences Students
Roger McDermott, Mats Daniels and Stephen Frezza	Steps Towards a Philosophy of Computing Education
Felix Winkelkemper and Carsten Schulte	Reconstructing the Digital – An Architectural Perspective for Non-Engineers

10:45 Short break

11:00 Session 2: Discussing systems and tools, part 1 (60 minutes)

Florian Wörister and Maria Knobelsdorf	A Block-Based Programming Environment for Teaching Low-Level Computing
Lassi Haaranen, Lukas Ahrenberg and Arto Hellas	Decades of Experience in Building and Using Learning Content and Systems for Computing Education: Eventual Misery Is The Only Constant

12:00 Lunch

13:00 Session 3: Discussing systems and tools, part 2 (60 minutes)

Yoshi Malaise and Beat Signer	Explorotron: An IDE Extension for Guided and Independent Code Exploration and Learning
Karolina Miková, Zuzana Kubincová and Barbora Stenova	Appropriateness of a New Programmable Robotics Kit – Preliminary Results

14:00 Short break

14:15 Session 4: Introductory programming (60 minutes)

Mohammed Foughali	Some thoughts on teaching introductory programming and the first language dilemma
Erkki Kaila, Antti Laaksonen, Kjell Lemström and Matti Luukkainen	On Changing the Curriculum Programming Language from Java to Python

15:15 Short break (coffee available)

15:30 Session 5: Doctoral consortium (posters and coffee), 60 min

16:30 Program ends

16:45 Social program: Koli Relax Spa

19:00 Dinner

Saturday November 18th

07:30 Breakfast available

09:00 Keynote and discussion (75 minutes)

10:15 Short break

10:30 Session 6: Beyond programming (90 minutes)

Johan Jeuring, Roel Groot and Hieke Keuning	What Skills Do You Need When Developing Software Using ChatGPT?
Jane Waite, Eirini Kolaiti, Meurig Thomas and Karl Maton	Exploring feedback for MCQ wrong answers using semantic profiling (using database and SQL pilot questions for 17 to 18-year-olds)
Fiona Fairlie	Encouraging the Development of Computational Thinking Skills through Structured Dance Activities

12:00 Lunch

13:00 Social program: Koli Calling Nature walk / free time for discussions

15:00 Session 7: Posters (including afternoon coffee), 60 minutes

Juho Kahila, Eetu Arkko and Anssi Lin	How we taught AI concepts, workflows, and ethics to 200 schoolchildren
Nea Pirttinen and Juho Leinonen	Could ChatGPT Be Used for Reviewing Learnersourced Exercises?
Carol Zander, Lynda Thomas, Jan Erik Moström, Robert McCartney and Anna Eckerdal	Pseudocode: scaffolding student object-oriented software design
Lauri Malmi, Arto Hellas and Kate Sanders	Understanding Pathways to Computing Education Research (CER)

Fitsum Gizachew, Ismaila Sanusi and Amos Sunday	Enhancing Computer Programming Education using ChatGPT- A Mini Review
Johan Snider, Olle Bälter and Daniel Bosk	Edit, Run, Error, Repeat: A Longitudinal Analysis of Time-on-Task and Error Quotient
Hilma Aludhilu and Erkki Sutinen	Developing a software Testing Training approach for Namibian Startups
Viktoriya Olari, Till Zoppke, Martin Reger, Evgenia Samoilova, Martin Kandlhofer, Valentina Dagiene and Ralf Romeike	Introduction of Artificial Intelligence Literacy and Data Literacy in Computer Science Teacher Education
Maria Ntinda and Erkki Sutinen	Deep Talk: Ascertain Soft Skills in Graduates to Improve Computing Education
Anton Limbo, Maria Ntinda, Lannie Uwu-Khaeb, Annastasia Shipepe, David Ruwodo and Erkki Sutinen	Integration Dimensions of Programming Education in Namibia
Michael Guerzhoy	``Medium-n studies'' in computing education conferences
Tomi Suovuo, Erkki Sutinen and Lannie Uwu-Khaeb	Sustainability Engineering in Computing

16:00 Panel: Koli Calling, where are you heading to?

16:45 Program ends

17:00 Program committee meeting

19:00 Dinner and awards

21:00 Sauna available until 23:00 (split 1 hr for women, 1 hr for men)

Sunday November 19th

07:30 Breakfast available

09:30 Complete check-out and boarding to the bus

10:00 Bus depart from Koli

11:30 Arrival to the Joensuu Railway Station

12:11 InterCity 8 departs from Joensuu