



SACLA

CONFERENCE

30 July - 1 Aug 2025

Bloemfontein, South Africa

The 54th Annual Conference of the Southern African Computer Lecturers' Association

Innovation in CS, IS, and IT Education: Navigating the Next Frontier

Venue

Tuscan Rose, 6 Maluti Avenue, Bloemfontein

Sponsors



Conference Programme

Day 1: Wednesday, 30 July 2025	
Time	Description
12h00 – 17h00	Registration (Tuscan Rose – Corporate Hall)
14h00 – 17h00	HoD Colloquium (Corporate Hall)
17h00 – 18h00	SACLA Executive Committee Meeting (Boardroom)
(18h00 for 18h30) 18h30 – 21h00	COCKTAIL FUNCTION Tuscan Rose – Banquet Hall

Day 2: Thursday, 31 July 2025 (Sessions 1 & 2)		
Time	Session(s)	
07h30 - 08h15	Registration & Coffee	
08h15 - 08h30	Opening & Welcome (Plenary session – Corporate Hall)	
08h30 - 09h15	Sponsor Talk: BBD (Plenary session – Corporate Hall)	
09h20 - 10h50	Venue A – Corporate Hall	Venue B - Gallery
	Session 1A: GenAI in Programming (Chair: Prof Liezel Nel)	Session 1B: Equity, Accessibility & Literacy (Chair: Ms Tlholohelo Nkalai)
	10: Leveraging Abstract Syntax Trees To Generate Instructive Hints In Programming (Marc Levin, Herman Kandjimi, and Aslam Safia)	2: Learning and teaching computer programming: A systematic literature review of challenges faced by Deaf students in South Africa and beyond (Alfred Hove Mazorodze)
	20: Evaluating AI-Generated C# Code in Computing Education: Implications for Academic Integrity (Adewuyi Adetayo Adegbite and Eduan Kotzé)	16: Using assistive technology to improve independence in visually impaired students in higher education institutions: A systematic literature review (Katlego Mfekane and Samwel Mwapwele)
10h50 - 11h20	27: Investigating the Internalization of Programming Code Obtained from Generative Artificial Intelligence (Johan Prinsloo, Imelda Smit and Roelien Goede)	21: Gender, Self-Efficacy, and Computer Literacy Acquisition in Marginalised South African Communities (Wynand Nel and Rouxan Fouché)
	Coffee Break	
11h20 - 12h05	Sponsor Talk: Oracle (Plenary session – Corporate Hall)	
12h10 - 13h10	Venue A – Corporate Hall	Venue B - Gallery
	Session 2A: Inclusive Educational Practices (Chair: Prof Tanya Stott)	Session 2B: Gender, Curriculum & Pedagogical Strategies (Chair: Dr Ben Mase)
	11: Beyond Language Barriers: Programme-Specific Effects of English Medium Instruction in South African Computer Science Education (Rouxan Fouché)	15: A Bibliometric Analysis of Existing Literature on the Nexus between Gender and Introductory Computer Programming (Sithandiwe Twetwa-Dube and Courage Matobobo)
	19: Quintuple Helix, the Informal Economy and Sustainable-Smart Innovations: Lessons to be learned from a transdisciplinary student project (Carolien van den Berg and Belinda Verster)	25: Comparing South African Computer Science Curricula Structures using Graph-Theoretic Approaches (Reolyn Heymann, Michael de Jager, and Japie Greeff)
13h10 - 14h00	Lunch Break	

Day 2: Thursday, 31 July 2025 (Sessions 3 & 4)		
14h00 - 15h30	Venue A – Corporate Hall	Venue B - Gallery
	Session 3A: Innovative Pedagogy & AI Integration (Chair: Dr Bennie Botha)	Session 3B: Policy & Practical Implications of AI (Chair: Mr Jay Vieira)
	<p>1: A Phenomenographic Evaluation Approach for Inclusive UX Design Thinking Education (Rennie Naidoo)</p> <p>4: Contextualization, assessment, and generative AI in an online environment: An experiment with a hypothetical case study in Enterprise Architecture (Wesley Moonsamy and Hugo Lotriet)</p> <p>14: A Framework for Integrated Project & Context-Based ICT Education (Jacqui Muller and Japie Greeff)</p>	<p>22: Students' Generative AI Use in Different Levels of Education: A Systematic Review (Suzanne Sackstein and Mukelwe Mdluli)</p> <p>18: The Networks between Students, Academics and Generative AI at a South African University: An Actor Network Theory Perspective (Mikayla Suraya Seedat and Walter Ferreira Uys)</p> <p>33: Adapting the Substitution Augmentation Modification Redefinition (SAMR) Model for Effective Classroom Integration of Generative Artificial Intelligence in a Distributed System Course (Ijeoma Noella Ezeji, Sizakele Mathaba, Nombuso Sibeko and Matthew Adigun)</p>
15h30 - 16h00	Coffee Break	
16h00 - 17h00	Venue A – Corporate Hall	Venue B - Gallery
	Session 4A: Educational Innovations & Industry Alignment (Chair: Ms Reba Phuthi)	Session 4B: Work-in-progress papers (Chair: Prof Liezel Nel)
	<p>13: A Model for Industry Advisory Boards' Effectiveness at Higher Education Institutions (Estelle Taylor, Andre Calitz and Margaret Cullen)</p> <p>23: Innovation in Information and Communication Technology Education: Navigating the Next Frontier by Using an Automated Grading System (Dalize van Heerden and Leila Goosen)</p>	<p>28: Barriers to 4IR/AI Adoption in Zimbabwean Higher and Tertiary Education Institutions (Fungai Nora Mukora, Nobert Rangarirai Jere, Tawanda Mushiri and Hilton Maverengo)</p> <p>35: The use of Generative AI in Sign Language Interpretation to improve classroom engagement for Deaf students in IT education - A Literature Review (Tichaona Chinyerere)</p>
(18h00 for 18h30) 18h30 – Late	Gala Dinner (Tuscan Rose - Banquet Hall)	

Day 3: Friday, 1 August 2025 (Sessions 5 & 6, Corporate Hall)	
Time	Session
07h30 - 08h15	Arrival & Coffee
08h15 - 08h35	Sponsor Talk: IBM
08h40 - 10h10	<p>Session 5: Enhancing Programming through Debugging & AI (Chair: Prof Tanya Stott)</p> <p>34: Overcoming Debugging Challenges: Expert Strategies for Novice Programmers (Tipson Maleti and Liezel Nel)</p> <p>24: Utilising Large Language Models for Automated Evaluation of Introductory HTML and CSS Assignments (Jocelyne Smith, Eduan Kotzé and Liezel Nel)</p> <p>8: Common Code Explaining Errors Made by Novice Programmers: Implications for the Teaching of Introductory Programming (Mokotsolane Ben Mase and Liezel Nel)</p>
10h10 - 10h40	Coffee Break
10h40 - 12h00	<p>Session 6: Curriculum Development & Reflective Practices (Chair: Dr Rouxan Fouché)</p> <p>17: Development of the GE-ARCS-E Model to Evaluate the Impact of Gamification on Programming Students' Motivation and Engagement (Marisa Venter and Lizette de Wet)</p> <p>9: Beyond Knowledge Transfer: A Framework for Creating Cybersecurity Qualifications that Meet Industry Expectations (Tapiwa Gundu)</p> <p>37: Delegates' Perceptions of the SACLA 2024 Conference (André Calitz, Margaret Cullen and Liezel Nel)</p>
12h00 - 13h00	SACLA 2025 AGM
13h00 - 13h10	Closing Remarks & Thanks
13h10 - 14h10	Lunch & Departure