



UNISA



## PROGRAMME

48th Annual Conference of the Southern African Computer Lecturers' Association  
15 to 17 July 2019

Alpine Heath, Northern Drakensberg, South Africa  
Hosted by the School of Computing, University of South Africa



## Monday 15 July 2019

9:00- 12:00	3 hours	<b>WORKSHOPS</b>	
		Academic Writing for Junior Informaticians / Computer Scientists [Sutherland, 09h00-12h00] South African Computer Accreditation Board - SACAB [Kelly, 11h00-12h00] Amazon Web Services (AWS) Educate and Academy Programs [Gardiner, 09h00-12h00]	
12:00-13:00	1 hour	Arrival, registration	
13:00-14:00	1 hour	Lunch [Le Gruyères Restaurant]	
14:00-14:15	15 minutes	Welcome and opening [Lammergeyer A]	
14:15-15:00	45 minutes	Keynote [Lammergeyer A]	
		<i>Dolf Steyn</i> Is big data a DNA or a diet problem? Either way it does not fit comfortably yet	
15:05-16:35	1 hour 30 mins	<b>PAPER SESSION 1 [LAMMERGEYER A]</b>	<b>PAPER SESSION 2 [LAMMERGEYER B]</b>
		Broad theme: Learning Chair: Alta van der Merwe  <i><u>Adriana Steyn, Carina de Villiers, Joyce Jordaan and Tshegofatso Pitso</u></i> Connecting Generation Z to Technology Through the Task-Technology Fit Theory <i><u>Pakiso J. Khomokhoana and Liezel Nel</u></i> Decoding Source Code Comprehension: Bottlenecks Experienced by Senior Computer Science Students <i><u>Chris Upfold and Kayleigh Bell</u></i> The Influence of Learning Style Theory Within a Blended Learning Environment: A Systematic Review	Broad theme: Teaching Chair: Karen Bradshaw  <i><u>Morné Botha and Lizette Weilbach</u></i> Design Guidelines to Develop e-Textbook Readers: A Task-Technology Fit Approach <i><u>Marisa Venter</u></i> Student's Perceptions of Gamification Mechanics and Dynamics in a Gamified Learning Environment <i><u>Sunet Eybers and Marie Hattingh</u></i> Making Sense of Unstructured Data: An Experiential Learning Approach
16:35-16:50	15 minutes	Tea	
16:40-17:40	1 hour	Waterfall hike	
16:50-17:50	1 hour	HOD meeting [Arbousset], followed by SACLA Exec meeting.	
19:00		Welcome reception [Muzos Studio Bar]	

## Tuesday 16 July 2019

Breakfast [Muzos Studio Bar]			
9:15-09:45	30 minutes	Amazon Web Services (AWS) Educate [Lammergeyer A]	
09:45-11:15	1 hour 30 mins	<b>PAPER SESSION 3 [LAMMERGEYER A]</b>	<b>PAPER SESSION 4 [LAMMERGEYER B]</b>
		Broad theme: Research Chair: Walter Uys  <i><u>Brenda Scholtz and Lynn Futcher</u></i> Investigation into Best Practice Approaches for Computing Research Programmes in South Africa <i><u>Alta Van der Merwe, Aurona Gerber and Hanlie Smuts</u></i> Guidelines for Conducting Design Science Research in Information Systems <i><u>Colin Pilkington and Laurette Pretorius</u></i>	Broad theme: Strategies Chair: Pakiso Khomokhoana  <i><u>Marko Schütz-Schmuck</u></i> Modernizing the Introduction to Software Engineering Course <i><u>Hanlie Smuts and Martina Jordaan</u></i> A Knowledge-Based Service-Learning Framework for Large-Scale Community Projects in Higher Education <i><u>Sifiso Bangani, Lynn Futcher and Johan Van Niekerk</u></i> An Approach Towards Secure Programming in Undergraduate Computing Curricula

		A Connectivist View of a Research Methodology Semantic Wiki	
11:15-11:30	15 minutes	Tea	
11:30-13:00	1 hour 30 mins	<b>PAPER SESSION 5 [LAMMERGEYER A]</b>	<b>PAPER SESSION 6 [LAMMERGEYER A]</b>
		Broad theme: Learning Chair: Adriana Steyn  <i><b>Abueng Molotsi and Leila Goosen</b></i> e-Tutors' Perspectives on the Collaborative Learning Approach as a Means of Computing Student Support Matters of Course! <i><b>Leah Mutanu and Philip Machoka</b></i> Enhancing Computer Students Academic Performance through Explanatory Modelling <i><b>Judy van Biljon, Colin Pilkington and Ronell Van der Merwe</b></i> Cohort Supervision: Towards a Sustainable Model for Distance Learning?	Broad theme: Teaching Chair: Sifiso Bangani  <i><b>Violet Kafa, Marcellus Siegburg and Janis Voigtländer</b></i> Exercise Task Generation for UML Class/Object Diagrams, via Alloy Model Instance Finding <i><b>Karen Bradshaw and Vongai Chindeka</b></i> Detecting similarity in student multi-procedure programs using program structure <i><b>Sandile Ngwenya and Lynn Futcher</b></i> Integrating Secure Coding Principles into Undergraduate Programming Modules
			<b>PAPER SESSION 7 [ARBOUSSET]</b> Broad theme: Tools Chair Brenda Scholtz  <i><b>George Musumba and Ruth Wario</b></i> A Decision-making Approach to Evaluation of Learning Components in Adaptive Educational Systems <i><b>Nobert Jere, Phumeza Hendrick and Nosipho Mavuso</b></i> Evaluation of Tablets for Teaching and Learning for Information Technology Extended Programme at Walter Sisulu University [Short paper] <i><b>Mohammed Ismail and Abejide Ade-Ibijola</b></i> Lecturer-chatbot: An AI for Advising Struggling Students in Introductory Programming [Abstract]
13:00-14:00	1 hour	Lunch [Le Gruyères Restaurant]	
14:00-14:30	30 minutes	IITPSA [Lammergeyer A]	
14:30-15:30	1 hour	<b>PAPER SESSION 8 [LAMMERGEYER A]</b>	<b>PAPER SESSION 9 [LAMMERGEYER B]</b>
		Broad theme: General Chair: George Musumba  <i><b>Leila Goosen and James K. Ngugi</b></i> Innovation for Computing Students Matters, Of Course! <i><b>Amanda Esterhuysen, Andre P. Calitz and Margaret Cullen</b></i> Post-Graduate CS and IS Students' Career Awareness [Abstract]	Broad theme: Teaching Chair: Janis Voigtländer  <i><b>Walter Uys</b></i> Hackathons as a Formal Teaching Approach in Capstone Courses <i><b>Stefan Gruner</b></i> Back to BASIC in Compiler Construction [Short paper]
15:30-15:45	15 minutes	Tea	
15:45-16:45	1 hour	Open discussion [Lammergeyer A]	
		Hosts: <i><b>Wynand van Staden and Colin Pilkington</b></i> The corporatisation of universities	
16:45-17:45	1 hour	AGM [Lammergeyer A]	
19:00-		Gala dinner [Boma]	
<b>Wednesday 17 July 2019</b>			
Breakfast [Muzos Studio Bar]			
9:30-10:00	30 minutes	Oracle Academy [Lammergeyer A]	
10:00-11:30	1 hr 30 minutes	<b>PAPER SESSION 10 [LAMMERGEYER A]</b>	<b>PAPER SESSION 11 [LAMMERGEYER B]</b>
		Broad theme: Curriculum Chair: Sandile Ngwenya	Broad theme: Tools/General Chair: Colin Pilkington

		<p><b><u>Estelle Taylor and Andre Calitz</u></b> The Use of Industry Advisory Boards at Higher Education Institutions in Southern Africa</p> <p><b><u>Roshan Harneker and Adrie Stander</u></b> Developing a Digital Forensics Curriculum: Exploring Trends from 2007 to 2017</p> <p><b><u>Annelee Panday and Marthie Schoeman</u></b> Recommendations for Improvements to the South African IT Curriculum: A Case Study of New Graduates' First Year of Employment. [Abstract]</p> <p><b><u>Sue Petratos and Andre Calitz</u></b> Evaluating Alumni Satisfaction in the School of ICT [Abstract]</p>	<p><b><u>Sonny Kabaso and Abejide Ade-Ibijola</u></b> Synthesis of Social Media Messages and Tweets as Feedback Medium in Introductory Programming</p> <p><b><u>Pariksha Singh and Tania Prinsloo</u></b> The Application of Teaching Interventions in a First-Year Fundamental IT Course in Improving Throughput Using the PAC Framework: 2013 To 2018</p>
11:30-11:45	15 minutes	Tea	
11:45-12:45	1 hour	Open discussion [Lammergeyer A]	
		Host: <i>Stefan Gruner</i> Perspectives for the Establishment of Didactics of Informatics Chairs at South African Universities	
12:45-13:00	15 minutes	Closing [Lammergeyer A]	
13:00-14:00	1 hour	Lunch [Le Gruyères Restaurant]	



With thanks to NEMISA for the use of the digital countdown clocks.