



UNIVERSITY  
OF  
JOHANNESBURG

DEPARTMENT OF APPLIED  
INFORMATION SYSTEMS

# CONFERENCE PROGRAMME

The Future  
Reimagined

## The 4th International Conference on the Internet, Cyber Security and Information Systems (ICICIS) 2019

**Theme: Business Information Security  
and Digital Transformation in the  
Fourth Industrial Revolution**

**31 October - 1 November 2019**  
**Johannesburg, South Africa**  
**Sunnyside Park Hotel**



# Conference Program

## DAY 1

Thursday 31st Oct 2019

09:00 - 09:15	<b>REGISTRATION</b> (Ask for directions at the front desk)			
09:15 - 10:00	<b>OFFICIAL WELCOMING</b> <b>Plenary room - Ballroom A</b> <b>Prof Kennedy Njenga</b> (Conference Chair) <b>Mrs Stella Bvuma</b> (Head of Department Applied Information Systems) <b>Prof Mercy Mpinganjira</b> (Director of the School of Consumer Intelligence and Information Systems) <b>Prof. Daneel van Lill</b> (Executive Dean: College for Business & Economics)			
	<b>KEYNOTE ADDRESS</b>			
10:00 - 10:30	<b>Prof Manoj Maharaj</b> Professor of Information Systems & Technology, School of Management, IT and Governance, UKZN.		<i><b>Title: From Scytale to the ECDSA, a brief overview of cryptography.</b></i>	
10:30	<b>TEA BREAK</b>			
<b>Parallel sessions</b>				
	<b>SESSION 1: Ballroom A</b>		<b>SESSION 2: Ballroom B</b>	
	<b>CYBERSECURITY</b> <i>Session Chair: Tapiwa Gundu</i>		<b>E-HEALTH AND TECHNOLOGY ENHANCED HEALTHCARE</b> <i>Session Chair: Patrick Ndayizigamiye</i>	
11:00 - 11:20	Seapei Nozimbali Mogoane and Salah Kabanda <b>University of Cape Town</b>	<i>Challenges in Information and Cybersecurity program offering at Higher Education Institutions</i>	Tope Samuel Adeyelure and Billy Mathias Kalema <b>Tshwane University of Technology</b>	<i>An exploratory study on Telemedicine in the South African Public Health Sector: A case of Gauteng Province</i>
11:25 - 11:45	Tapiwa Gundu <b>Sol Plaatje University</b>  Mark Maronga and Duane Boucher <b>University of Fort Hare</b>	<i>Industry 4.0 Business Perspective: Fostering a Cyber Security Culture in a Culturally Diverse workplace</i>	Liezel Cilliers and Dolly Posiliti <b>University of Fort Hare</b>	<i>An Investigation of the Level of E-health Literacy in South Africa</i>

11:50 - 12:10	Pieter Potgieter Central <b>University of Technology, Free State</b>	<i>The Awareness Behaviour of Students on Cyber Security Awareness by Using Social Media Platforms: A Case Study at Central University of Technology</i>	Itulelo Matiyabu Imaja <b>University of KwaZulu-Natal</b>  Patrick Ndayizigamiye <b>University of Johannesburg</b>	<i>The potential use of Social Media for Healthcare Advocacy in the Democratic Republic of Congo</i>
12:15 - 12:35	Nthabiseng Modiba <b>Sol Plaatje University</b>  Sunday Ojo <b>Tshwane University of Technology</b>  Zenzo Ncube <b>University of Mpumalanga</b>	<i>An Ontology Based Model for Cyber Security Awareness Education</i>	Oluwaseyi Ogundele and Liezel Cilliers <b>University of Fort Hare</b>	<i>Privacy concerns of overweight adults to use wear-able devices for sustained health monitoring</i>
12:40 - 13:00	Talifhani Sikhitha and Maureen van Den Bergh <b>University of Johannesburg</b>	<i>Office 365 SharePoint Online: Establishing Content Security Awareness with End-Users using Campaigns</i>	Abdul Kader Saiod and Darelle Van Greunen <b>Nelson Mandela University</b>	<i>Cloud Integration for eHealth Data</i>
<b>13:00 - 13:45</b>	<b>LUNCH BREAK</b>			
<b>Parallel sessions</b>				
	<b>SESSION 3: Ballroom A</b>		<b>SESSION 4: Ballroom B</b>	
	<b>ALGORITHMS AND INTELLIGENT SYSTEMS</b> <i>Session Chair: George Anderson</i>		<b>INFORMATION TECHNOLOGY IN SOCIETY</b> <i>Session Chair: Willie Chinyamurindi</i>	
13:50 - 14:10	Peter Awon-Natemi Agbedem nab, Edward Yellakuor Baagyere and Mohammed Ibrahim Daabo <b>University for Development Studies, Ghana</b>	<i>A Novel Text Encryption and Decryption Scheme using the Genetic Algorithm and Residual Numbers</i>	Philile Thusi and Daniel K. Maduku <b>University of Johannesburg</b>	<i>Dimensions of perceived risk of mobile banking apps: An empirical investigation of South African retail banking customers.</i>

14:15 - 14:35	Luqman Achmat and Irwin Brown <b>University of Cape Town</b>	<i>Artificial Intelligence Affordances for Business Innovation: A Systematic Review of Literature</i>	Willie Chinyamurindi, Liezel Cilliers and Babalwa Solani <b>University of Fort Hare</b>	<i>Determinants of attitudes towards social networking advertising: The role of social capital affinity</i>
14:40 - 15:00	Ofentse Rice, George Anderson and Tallman Nkgau <b>University of Botswana</b>	<i>Cost Implications for a Discrete Mathematics Intelligent Tutoring System</i>	Tinofirei Museba <b>University of Johannesburg</b>	<i>The impact of ensemble diversity on learning big data in dynamic environments</i>
15:05 - 15:25	Hosiah Masha <b>Mpumalanga Provincial Government</b>  Dr Tope Samuel Adeyelure <b>Tshwane University of Technology</b>  Osden Jokonya <b>North West University</b>	<i>Adoption of Business Intelligence in the South African public social sector Department</i>	Grant Oosterwyk, Irwin Brown and Sharon Geeling <b>University of Cape Town</b>	<i>A Synthesis of Literature Review Guidelines from Information Systems Journals</i>
<b>15:30 - 15:45</b>	<b>TEA BREAK</b>			
	<b>SESSION 5: Ballroom A</b>			
	<b>TECHNOLOGY USE IN EDUCATION</b> <i>Session Chair: Thabo J. Gopane</i>			
15:50 - 16:10	B-Abee Toperesu, Jean-Paul Van Belle <b>University of Cape Town</b>  Marita Turpin <b>University of Pretoria</b>		<i>Impacts and Satisfaction of Using Smartphones for Learning in a University Context</i>	
16:15 - 16:35	Mncedisi Mabhele and Jean-Paul Van Belle <b>University of Cape Town</b>		<i>A Conceptual Model for Institutional Adoption of Learning Technologies in Higher Education</i>	
16:40 - 17:00	Thabo J. Gopane <b>University of South Africa (UNISA)</b>		<i>The 4th Industrial Revolution, Blockchain Technology, and Smart Universities</i>	
17:05 - 17:25	Wame Raseonyana, George Anderson and Tallman Nkgau <b>University of Botswana</b>		<i>Cost Implications for an In-House University Timetabling System</i>	

## DAY 2

Friday 1st November 2019

KEYNOTE ADDRESS		
Plenary room - Ballroom A		
09:00 - 09:30	<b>Prof Josef Langerman</b> Professor of Practice and Group Head: IT Strategy, Enterprise Architecture and Organizational Change, Standard Bank	<i>Title: <b>Becoming Future Fit.</b></i>
09:30 - 10:00	<b>Mr Rudi Ricks</b> Director Cyber Security at Checkmark, Johannesburg South Africa.	<i>Title: <b>"Hacking humans" - real world social engineering.</b></i>
<b>10:00 - 10:25</b>	<b>TEA BREAK</b>	
<b>SESSION 6: Ballroom A</b>		
<b>TECHNOLOGY USE IN INDUSTRY AND BUSINESS PROCESSES</b> <i>Session Chair: <b>Hangwani Emmanuel Magoro</b></i>		
10:30 - 10:50	Faith Moyo, Brenda Scholtz and Mohammed Alhassan <b>Nelson Mandela University</b>	<i>A Data-Driven Decision-Making Model for the Third-Party Logistics (3PL) Industry</i>
10:55 - 11:15	Mohammed Alhassan and Brenda Scholtz <b>Nelson Mandela University</b>	<i>Understanding the role of ICT in South African Sustainable Manufacturing Practice</i>
11:20 - 11:40	Jean-Paul Van Belle <b>University of Cape Town</b> Karijn Bonne & Ilse Cocquyt <b>Artevelde University College</b> Malcolm Garbutt <b>University of Cape Town</b>	<i>Attitudes of Belgian Companies towards Outsourcing Microwork to Africa</i>
11:45 - 12:05	Hangwani Emmanuel Magoro and Mampilo Phahlane <b>University of South Africa (UNISA)</b>	<i>E-HRM: A Proposed theory based on the Social Cognitive Theory(SCT)</i>
<b>SESSION 7: VENUE 1</b>		
<b>PRIVACY AND INFORMATION SECURITY</b> <i>Session Chair: <b>Thabang Mofokeng</b></i>		
12:10 - 12:30	Thabang Mofokeng <b>University of Johannesburg</b>	<i>Website Information Security and Privacy Concerns in 4IR: The Moderating Role of Trust in B2C e-Commerce</i>

12:35 - 12:55	Kudakwashe Maguraushe, Adele Da Veiga and Nico Martins <b>University of South Africa (UNISA)</b>	<i>A conceptual framework for a student personal information privacy culture at universities in Zimbabwe</i>
<b>13:00 - 13:45</b>	<b>LUNCH BREAK</b>	
	<b>SESSION 7: Ballroom A</b>	
	<b>PRIVACY AND INFORMATION SECURITY</b> <i>Session Chair: Thabang Mofokeng</i>	
14:00 - 14:20	Munyaradzi Katurura and Liezel Cilliers <b>University of Fort Hare</b>	<i>Privacy in wearable health devices: How does POPIA measure up?</i>
14:25 - 14:45	Tapiwa Gundu <b>Sol Plaatje University</b>  Vimbai Maronga <b>Urban-Econ Development Economists</b>	<i>IoT Security and Privacy: Turning on the Human Firewall in Smart Farming</i>
14:50 - 15:10	Sara Salih and Kennedy Njenga <b>University of Johannesburg</b>	<i>Big data for small businesses: Abstracting security and decision-making tools</i>
<b>15:15 - 15:30</b>	<b>TEA BREAK</b>	
	<b>SESSION 8: Ballroom A</b>	
	<b>CLOUD COMPUTING</b> <i>Session Chair: Andrian Twala</i>	
15:35 - 15:55	Faghmie Davids and Jean-Paul Van Belle <b>University of Cape Town</b>	<i>Understanding Business Strategy Factors that Support or Impede Moving Business Capabilities to a Cloud Environment in the Investment Services Industry</i>
16:00 - 16:20	Andrian Twala <b>Tshwane University of Technology</b>  Ray Kekwaletswe <b>University of the Witwatersrand</b>	<i>Strategic Cloud Computing Framework: South African Context</i>
16:25 - 16:45	Kenneth Ayong and Rennie Naidoo <b>University of Pretoria</b>	<i>Modeling the adoption of cloud computing to assess South African SMEs: An integrated perspective</i>





