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icARTi 2021

## 2021 International Conference on Artificial Intelligence and its Applications (icARTi 2021)





9 & 10 December 2021 Voila Hotel Bagatelle, Mauritius icARTi 2021 2021 International Conference on Artificial Intelligence and its Applications (icARTi) ACM Conference Number: AICPS-02721

Thursday, 9 <sup>th</sup> December 2021 [Day 1]				
MRU Time	SA Time	icARTi 2021 (Virtual Conference)		
10.00 - 10.10	08.00 - 08.10	Virtual Opening Ceremony Welcome Address by Master of Ceremony		
10.10 - 10.20	08.10 - 08.20	Address by General Chair: Prof. (Dr) Reggie Davidrajuh		
10.20 - 10.30	08.20 - 08.30	Group Photo Session via Zoom		
10.30 - 11.20	08.30 - 09.20	Keynote Speech by Prof. Krisztian Balog Toward more Natural Interactions with Conversational AI Systems		
11.20 - 11.30	09.20 - 09.30	Virtual Break		
Technical Session 1 – Applications of Artificial Intelligence				
11.30 – 13.30 MRU	09.30 – 11.30 SA	Integrating Unmanned Aerial Vehicle and Deep Learning Algorithm for Pipeline Monitoring and Inspection in the Oil and Gas Sector Uchechi F. Ukaegbu, Lagouge K. Tartibu, Modestus O. Okwu and Isaac O. Olayode A Deep Learning Approach of Recognizing Natural Disasters on Images using Convolutional Neural Network and Transfer Learning Daryl B. Valdez and Rey Anthony G. Godmalin Enhanced Deep Learning Feature Extraction for Plankton Taxonomy Ian du Toit Comparing the Performance between Virtual Machines and Containers using Deep Learning Credit Models Kennedy Chengeta Adaptive Machine Learning Based Network Intrusion Detection Hatitye Chindove and Dane Brown Deep Learning Application in Diverse Fields with Plant Weed Detection as a Case Study Uchechi F. Ukaegbu, Lagouge K. Tartibu, Modestus O. Okwu and Isaac O. Olayode		
13.30 - 14.30	11.30 - 12.30	Lunch Break		
14.30 - 15.30	12.30 - 13.30	Keynote Speech by Dr. Febe de Wet Speech Technology in African Languages		

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15.30 - 16.30 16.30 - 16.40	13.30 - 14.30 14.30 - 14.40	Workshop by Dr Dane Brown Application of Deep Learning on the Automatic Classification of Images Virtual Break		
Technical Session 2 – Applications of Artificial Intelligence				
16.40 - 18.00	14.40 – 16.00 SA	Natural Language Processing Techniques to Reveal Human-Computer Interaction for Development Research Topics		
		Tawanda Blessing Chiyangwa, Judy van Biljon and Karen Renaud		
		Fog Computing for Efficient Predictive Analysis in Smart Grids		
MRU		Rituka Jaiswal, Reggie Davidrajuh and S. M. Wondimagegnehu		
		An Automated Personal Carbon Footprint Calculator for Estimating Carbon Emissions from Transportation Use		
		Chiamaka Ann Marie Ajufo and Girish Bekaroo		
		Smart Hat for the blind with Real-Time Object Detection using Raspberry Pi and TensorFlow Lite		
		Matshehla Konaite, Pius A. Owolawi, Temitope Mapayi, Vusi Malele, Kehinde Odeyemi, Gbolahan Aiyetoro and Joseph S. Ojo		
End of First Day of Conference				

2021 International Conference on Artificial Intelligence and its Applications (icARTi) ACM Conference Number: AICPS-02721

		Friday, 10 <sup>th</sup> December 2021 [Day 2]		
MRU Time	SA Time	icARTi 2021 (Virtual Conference)		
10.00 - 10.10	08.00 - 08.10	Welcome Address by Master of Ceremony		
10.10 - 10.20	08.10 - 08.20	Address by General Co-Chair: Prof. (Dr) Pius Adewale Owolawi		
10.20 - 10.30	08.20 - 08.30	Group Photo Session via Zoom		
10.30 - 11.20	08.30 - 09.20	Keynote Speech by Prof. Chunming Rong Secure Blockchain Ecosystem–The Network is my Computer		
11.20 - 11.30	09.20 - 09.30	Virtual Break		
Technical Session 3 – Applications of Artificial Intelligence				
11.30 – 13.30 MRU	09.30 – 11.30 SA	Managing the Shift in the Enterprise Perimeter in order to delay a Cybersecurity Breach Muyowa Mutemwa, Mfundo Glenn Masango and Noluxolo GcazaIntrusion Detection System using Raspberry Pi and Telegram Integration Mfundo Zuma, Pius A. Owolawi, Vusi Malele, Kehinde Odeyemi, Gbolahan Aiyetoro and Joseph S. OjoVirtual Reality Application Based on Inertia Boikhutso Simon Modibane, Pius A. Owolawi, Temitope Mapayi, Vusi Malele and Gbolahan AiyetoroIoT-Based Smart Library Seat Occupancy and Reservation System using RFID and FSR Technologies for South African Universities of Technology Magauwane R. Maepa and Michael N. MoetiEnhancing Student Support via the Application of a Voice User Interface System: Insights on User Experience Ouwesh Seeroo and Girish BekarooAdvanced Environment Modelling for Remote Teleoperation 		
13.30 - 14.30	11.30 - 12.30	Lunch Break		
14.30 - 15.30	12.30 - 13.30	Keynote Speech by Dr Wasswa William Leveraging AI to Improve Diagnosis and Classification of Cervical Cancer		
15.30 - 17.30	13.30 - 15.30	Workshop Machine Learning with Python		
Vote of Thanks				
End of Conference				