



Day 1 – Thursday, 6 th December 2018						
08.00 - 09.00	08.00 – 09.00 Registration of Participants					
	Opening Ceremony: Mon Trésor Conference Room					
09.00 - 09.10		Welcome Address b	y Master of Ceremony			
09.10 - 09.20		Address by General Chair:	Prof. (Dr) Sunjiv Soyjaudah			
09.20 - 09.30	Addres	ss by President of Mauritius IEE	E Subsection – Mr Neecharl Ram	prosand		
09.30 – 10.10		Keynote Speech	by Dr Siamak Solat			
10.10 – 10.25		Group Photo Session				
10.25 – 10.45		Coffe	e Break			
	Technical Sessions					
	Venue: Mon Trésor A	Venue: Mon Trésor B	Venue: Bénares A	Venue: Board Room		
	Computer Security	Computer Networks	Energy & Green Computing	Electrical & Electronics		
Session Chair	Roumen Trifonov	Mthulisi Velempini	Kingsley Ogudo	Ali Hasan		
10.45 – 11.05	Paper 11: Criminal Profiling in Digital Forensics: Assumptions, Challenges and Probable Solution Adedayo Balogun & Tranos Zuva	Paper 84: A Survey on Spectrum Handoff Algorithm for Continuous Connectivity DZ Masuku, M Velempini & N Gasela	Paper 7: Sustainability Simulation and Assessment of Bicycle Network Design and Maintenance Environment Egils Ginters, D Aizstrauta & M Mezitis	Paper 90: Hybrid PLC-VLC based on ACO-OFDM Dennis Kubjana, Thokozani Shongwe & Richard Ndjiongue		
11.05 – 11.25	Paper 18: Artificial Intelligence in Cyber Threats Intelligence Roumen Trifonov , Ognyan Nakov and Valeri Mladenov	Paper 120: A New Tree Routing Protocol for ZigBee Healthcare Monitoring Systems B Buthelezi, M Mphahlele, D Du Plessis, S Maswikaneng & T Mathonsi	Paper 16: Development of a Wireless Intelligent Electronic Control GSM/GPRS Unit Module Configuration for Smart home Efficient Energy Management Systems Bernard Kgope & Kingsley Ogudo	Paper 101: Composing Scalable Solver for Simulation of Electronic Circuits in SPICE David Cerny & Josef Dobes		
11.25 – 11.45	Paper 132: The presence of Twitter bots and cyborgs in the #FeesMustFall campaign Yaseen Khan & Surendra Thakur	Paper 137: Virtual Private Network's Impact on Network Performance Claude Nawej & Shengzhi Du	Paper 51: Create Awareness of Electronic Waste hazards on the Environment in the Developing Regions using 21st century Learning Environments Ramadile Moletsane	Paper 135: Propagation of a jam code signal in the conical-scan seeker processor Tsholofelo Malatji , Cornelius Willers & Maria Willers		
11.45 – 12.05	Paper 108: Forensic Profiling of Cyber- Security adversaries based on Incident similarity measures Interaction Index V Kebande, N Karie & Ruth Wario	Paper 31: Asymptotic Analysis of a Fuzzy Based Intrusion Detection System for Zigbee M Masinde & Tsitso Maphatsoe	Paper 50: The State of Renewable Energy Sources and Grid Integration in Ghana: Main Issues, Challenges and Probable Solutions - K Akom, M Joseph & Thokozani Shongwe	Paper 97: Discrimination of motor imagery task using Wavelet Based EEG Signal Features - C Maswanganyi, Chunling Tu, Pius Owolawi & Shengzhi Du		







Day 1 – Thursday, 6 th December 2018				
		Lunch (12.10 – 1	13.10)	
	Venue: Mon Trésor A	Venue: Mon Trésor B	Venue: Bénares A	Venue: Board Room
	Computer Security	Computer Networks	Energy & Green Computing	Electrical & Electronics
Session Chair	Sthembile Mthethwa	Pius Owolawi	Inga Zicmane	Kingsley Ogudo
13.15 – 13.35		Paper 68: An Ant Colony Hybrid Routing Protocol for VANET Elias Khoza, Chunling Tu & Pius Owolawi	Paper 60: Improving the Energy Efficiency of an Autonomous Power System with Renewable Sources Inga Zicmane, K Berzina, T Lomane & K Kasperjuks	Paper 47: Analysis on Modulation Techniques of an AC drive with Respect to Harmonic Content and Efficiency Josiah Makhubele & Kingsley Ogudo
13.35 – 13.55	WORKSHOP: BLOCKCHAIN	Paper 54: Design of an Autonomous Management and Orchestration for Fog Computing Sabelo Dlamini, Joyce Mwangama, Neco Ventura & Thomas Magedanz	Paper 61: Mathematical Model for Autonomous Power Supply Systems on Renewable Sources for Remote Power Users I Zicmane, Kristina Berzina & A Mahnitko	Paper 86: Bit Error Rate Mitigation in VANETs Using FFH-OFDM Pre-coding Approach James Ntaganda, E Ntagwirumugara & R Musabe
13.55 – 14.15	TECHNOLOGY	Paper 57: Performance analysis of a data communication system employing Bluetooth and Wi-Fi standards Mussawir Hosany & Luxshmana Chooramun	Paper 80: Switch: Conserving battery life of mobile devices Herman Barnardt & Marijke Coetzee	Paper 93: Advanced Multiplier Design and Implementation using Hancarlson Adder Emandi Jagadeeswara Rao, T Ramanjaneyulu and K Jayaram Kumar
14.15 – 14.35	DR SIAMAK SOLAT	Paper 62: Multi-path Load Balancing for SDN Data Plane Mpho Nkosi, Albert Lysko & Sabelo Dlamini	Paper 106: Smart Energy Generation for a Smart Campus Esrom Malatji and Sula Ntsaluba	Paper 41: OTA-C Filters for Biomedical Signal Processing Applications using Hybrid CMOS-CNFET Technology Sandeep Rahane, A Kureshi & G Kharate
14.35 – 14.55		Paper 45: Emulating Software Defined Network Using Mininet and OpenDaylight Controller Hosted on Amazon Web Services Cloud Platform to Demonstrate a Realistic Programmable Network L Zulu, K Ogudo & Patrice Umenne	Paper 121: Performance Analysis of Distribution Networks under high Penetration of Photovoltaics in Mauritius Waseem Nosimohomed	Paper 85: Interfacing a Brake-by-Wire Simulink Model with SUMO Erik Martín Campaña, Nils Müllner & Saad Mubeen
14.55 – 15.15	Coffee Break			







Day 1 – Thursday, 6th December 2018

Day 1 – Indisday, o December 2010				
	Venue: Mon Trésor A	Venue: Mon Trésor B	Venue: Bénares A	Venue: Board Room
	Computer Security	Computer Networks	Energy & Green Computing	Electrical & Electronics
Session Chair	Matthew Adigun	Solly Phatle Maswikaneng	Esrom Malatji	Josef Dobes
15.15 – 15.35	Paper 125: Evaluating the Effects of Hardware Configurations on Bro under DDoS Attacks Olukayode Oki, Matthew Adigun,	Paper 46: Comparative Analysis of Routing Protocols for Cognitive Radio Adhoc Networks (CRAHNs)	Paper 140: Innovative method for power factor correction using a solar plant as a source of reactive power	Paper 13: Mitigation of Impulsive Noise in Powerline Systems Using ANFIS Technique
	Paul Tarwireyi & Welcome Luthuli	Anand Nayyar	Esrom Malatji & Billy Chabangu	O Shekoni, Ali Hasan & Thokozani Shongwe
15.35 – 15.55	Paper 128: Web Authentication Security Using Image Steganography and AES Encryption Hope Mogale, Michael Esiefarhienhe	Paper 27: File Transfer Protocols Comparison: A WinSCP Secured Protocols Perspective Claude Nawej & Pius Adewale	Paper 162: Electrical Energy Usage Analysis for all Residences at the University of Johannesburg Academic Institution (2017) Sula Ntsaluba, Solatiso Shasha & Isaac	Paper 14: Detecting and Removing the Impulsive Noise in OFDM Channels Using Different ANN Techniques O Shekoni, Ali Hasan & Thokozani Shongwe
	& Lucia Letlonkane	Owolawi	Dlamini; Presenter: Esrom Malatji	O Shekolii, Ali Hasan & Thokozani Shongwe
15.55 – 16.15	Paper 155: A Multi-Criteria Model for Users Trust Management in Ad-hoc Mobile Cloud Computing	Paper 92: A Controllable Deflection Routing and Wavelength Assignment Algorithm in OBS Networks	Paper 164: Energy usage modelling for Residences of a South African Academic Institution	
	Ayotuyi Tosin Akinola & Matthew Olusegun Adigun	Bakhe Nleya & Philani Khumalo	Sula Ntsaluba & Esrom Malatji	
16.15 – 16.35	Paper 49: Integrating a Security Operations Centre with an Organization's existing Procedures, Policies and Information Technology Systems M Mutemwa, J Mtsweni & L Zimba	Paper 139: Atmospheric Effects on Free Space Optics Wireless Communication - Applications and Challenges Solly Maswikaneng, Pius Owolawi, S Ojo & M Mphahlele	Paper 130: Rule-based Control Strategy for a River-based Grid-connected Hydrokinetic System Sandile Koko & Kanzumba Kusakana	
	Paper 82: Determining key factors that	Paper 141: Climatic Effects on Free	Paper 159: Design of a cloud-based	
16.35 – 16.55	lead to the adoption of password managers	Space Optics Link: South African Climate	monitoring system for potential leaves decomposition for manures	
	Raymond Maclean & Jacques Ophoff	S Maswikaneng, Pius Owolawi, M Mphahlele, S Ojo & Z Mahlobogwane	Kayode Adetunji & Chidi Ngene	
16.55 – 17.15	Paper 63: The design of byzantine attack mitigation scheme in cognitive radio ad-hoc network Sekgoari Mapunya & Mthulisi Velempini	Paper 133: Wireless Communication Technologies in Internet of Things: A Critical Evaluation M Firdhous, K Kulawansa & G Karunarathne		.
17.15 – 17.35	Paper 151: A Framework of Bimodal Biometrics for E-assessment Authentication Systems Temitope Adetunji, Tranos Zuva &	Paper 153: Overview on Intrusion Detection Schemes for Internet of Things (IoT) Saher Ghayyad & Shengzhi Du		

Presenter: Frans Timbane



Martin Appiah





Day 2 – Friday, 7 th December 2018						
08.00 - 09.00	Registration of Participants					
09.00 - 09.10	Welcome Address by Master of Ceremony					
09.10 – 09.55	Keyno	Keynote Speech by Prof. Anand Nayyar – Video Presentation and Q/A Session				
09.55 – 10.25		Coffee Break				
	Technical Sessions					
	Venue: Mon Trésor A Venue: Mon Trésor B Venue: Bénares A Venue: Board Roo					
	Computer Security	AI, Robotics & Big Data	Education & ICT	ICT for Development		
Session Chair	Matthew Adigun	Swee Chuan Tan	Dawid Jordaan	Jean-Marc Ginoux		
10.25 – 10.45	Paper 96: A Review of Cyberbullying and its Detection Based on Machine Learning Techniques - T Mahlangu, Chunling Tu & Pius Owolawi	Paper 24: Improving Classification Performance for Minority Classes through the use of Positive-Versus-Negative Ensemble Models - Patricia Lutu	Paper 32: Board games in the Computer Science class to improve students' knowledge of the Python programming language - Dawid Jordaan	Paper 10: The factors influencing customers to conduct online shopping: South African Perspective Fhatuwani Mapande & Martin Appiah		
10.45 – 11.05	Paper 95: Services and Applications Security in IoT Enabled Networks Bakhe Nleya, Masimba Gomba, Philani Khumalo & Andrew Mutswangwa	Paper 74: A Training Utility for Estimating the Bowling Speed of a Cricketer Using Accelerometer Data B Nyoni, M Nleya & B Mtunzi	Paper 39: The potential of Second Life as a platform for learning: Student's Perspective A Linganisa, A Ako-Nai & N Ajayi	Paper 15: The Value Perspective to Deploying a Cloudlet Business Model for SME's Mandisa Nxumalo, I Mba & M Adigun		
11.05 – 11.25	Paper 129: Performance Analysis of Machine Learning Classifiers for Intrusion Detection S Zwane, P Tarwireyi & M Adigun	Paper 69: Improving Association Rule Mining Using Clustering-based Discretization of Numerical Data Swee Chuan Tan	Paper 42: Resource Leveraging and Teaching Computing in the New Lower Secondary Mauritian Curriculum Nirmal Kumar Betchoo	Paper 25: Application of HCI Design Principles in overcoming Information Illiteracy: Case of a M-Health Application for a Rural Community in South Africa - Jeanne Coetzer		
11.25 – 11.45	Paper 138: Proposing a Blockchain-based Solution to Verify the Integrity	Paper 48: Call Data Record Based Recommender Systems for Mobile Subscribers Elias Sibanda & Tranos Zuva	Paper 161: The Perception of Students about the use of Social Media as an Alternate Learning Platform S Mahlambi, S Civilcharran, N Ajayi	Paper 33: Predator-Prey Model for Illicit Drug Consumption Jean-Marc Ginoux, Roomila Naeck, Yusra Bibi Ruhomally & M Zaid Dauhoo		
11.45 – 12.05	of Hardcopy Documents	Paper 100: Preprocessed Faster RCNN for Vehicle Detection Mduduzi Manana, Chunling Tu & Pius Adewale Owolawi	26: The Effects of a Software Artefact Designed to Stimulate Abstract Thinking Ability on the Academic Performance of First Year IT Students - Leon Grobbelaar	Paper 40: M-Government Adoption Framework for Least Developed Countries: The Case of Malawi John Mtingwi		







Day 2 – Friday, 7th December 2018

Lunch (12.10 – 13.10)

Dunch (12.10 – 13.10)					
	Venue: Mon Trésor A	Venue: Mon Trésor B	Venue: Bénares A	Venue: Board Room	
	Machine Vision	AI, Robotics & Big Data	Education & ICT	ICT for Development	
Session Chair	C Gururaj	Patricia Lutu	Gontlafetse Mosweunyane	Sumarie Roodt	
13.15 – 13.35	Paper 19: Parallel Image Stitching Based on Multithreaded Processing on GPU - Ognyan Nakov, M Lazarova, Elizabet Mihaylova & V Mladenov	Paper 156: A Hybrid Recommendation Technique for Big Data Systems C Nundlall, G Sohun & S Nagowah	Paper 109: Delivery of an Interactive Audio Course on Fisheries Law via dumb phones. Agalega Island as a Case Study for testing a novel Distance Education Platform - The Audio MOOC - Raj Moloo, Kavi Khedo & T V Prabhakar	Paper 71: WeChat: The Present and the Future Ivan Coste Maniere, Emmanuelle Malenge, Solene Rondelli, Charlotte Hamelin & Laura Farbos	
13.35 – 13.55	Paper 30: Graph-Cuts Technique for Melanoma Segmentation Over Different Color Spaces O Akinrinade, Pius Adewale Owolawi, Chunling Du & Temitope Mapayi	Paper 112: Enhanced Search for Arabic Language Using Latent Semantic Indexing (LSI) Fawaz Al-Anzi & Dia Abuzeina	Paper 99: Gender Influences on Preference of Pedagogical Interface Agents Ntima Mabanza	Paper 72: Challenges and Opportunities of Artificial Intelligence in the Fashion World Ivan C Maniere, Mariapaola Saponaro, Matthieu Guisiano & Diane Le Gal	
13.55 – 14.15	Paper 34: Proficient Algorithm for Features Mining in Fundus Images through Content Based Image Retrieval Gururaj C	Paper 91: System for Monitoring and Control of a Baxter Robot Yasen Yordanov, Ognyan Nakov & Valeri Mladenov	Paper 104: Improving Higher Education Institutions' Innovative Teaching and Learning in Tanzania Through ICT Tools G Mwandosya, C Montero, E Mbise, E Lwoga, R Casmir & M Mwasaga	Paper 81: Gamification in m-Health Applications and its Effects on Health Behavioural Changes in Net Generation Students Jason Goldhill & Sumarie Roodt	
14.15 – 14.35	Paper 58: Retinal Vessel Tortuosity Characterisation Using Boosted-Linear Discriminant Analysis Temitope Mapayi, Emmanuel Gbenga Dada, Moses Oluwasemilogo Olaifa & Pius Adewale Owolawi	Paper 122: Cloud Robotic Architectures: Directions for Future Research from a Comparative Analysis Viraj Dawarka & Girish Bekaroo	Paper 94: A Survey of Undergraduate Project Topics in Computer Science at the University of Botswana Gontlafetse Mosweunyane, Nkwebi Motlogelwa & Gabofetswe Malema	Paper 157: Development of an IR-based device for wireless communication in community health centres C E Ngene, K. Adetunji & Thokozani Shongwe	
14.35 – 14.55	Paper 65: Real-time Multiple vehicle detection using a rear camera mounted on a vehicle Olivier Oheka & Chunling Tu Presenter: Claude Nawej	Paper 66: Artificial Neural Networks in Water Distribution Systems: A Literature Synopsis Thapelo Mosetlhe, Yskandar Hamam, Shengzhi Du & Yasser Alayli Presenter: Frans Timbane	Paper 119: Comparison between the e- learning readiness of Educators and Learners in South African Schools Irene Kolo & Tranos Zuva	Paper 73: Towards the development of an interlink protocol for disease surveillance data aggregation: a Namibian context Nikodemus Angula & Nomusa Dlodlo	
14.55 – 15.15	Coffee Break				







Day 2 – Friday, 7 th December 2018				
	Venue: Mon Trésor A	Venue: Mon Trésor B	Venue: Bénares A	Venue: Board Room
	Machine Vision	AI, Robotics & Big Data	Education & ICT	ICT for Development
Session Chair	Pius Owolawi	Johannes Louw	Wynand Lambrechts	Georg Schlunz
15.15 – 15.35	Paper 76: Augmented-Reality Computer- Vision Assisted Disaggregated Energy Monitoring and IoT Control Platform	Paper 123: Simultaneous Localization and Mapping in Application to Autonomous Robot	Paper 113: Scaling Education in Emerging Markets to Participate in Industry 4.0	Paper 83: Usability of Text-to-Speech Synthesis to Bridge the Digital Divide in South Africa: Language Practitioner
	Jannish Purmaissur, P Towakel, S Guness, A Seeam & XA Bellekens	Olusanya Agunbiade & Tranos Zuva	Wynand Lambrechts & Saurabh Sinha	Perspectives - Georg Schlunz
15.35 – 15.55	Paper 79: Prohibition Signage Classification for the Visually Impaired Using AlexNet Transfer Learning Approach Kefentse Motshoane, Chunling Tu & Pius Adewale Owolawi	Paper 127: Cloud Robotics Platforms: Review and Comparative Analysis Viraj Dawarka & Girish Bekaroo	Paper 116: Fabless Semiconductor Implementation Model as an Enabling Factor for "Virtual Labs" in Online Postgraduate Degrees in Microelectronics Mladen Bozanic & Saurabh Sinha	Paper 89: Employment Law Expert System Preetila Seeam, Nishant Teckchandani, Amar Seeam, Hansha Booneyad & Ved Prakash Torul
15.55 – 16.15	Paper 124: The Experimental Comparison of Features for Hand Detection Frans Timbane, Shengzhi Du & Rony Aylward	Paper 107: Modeling the Influence of Large-Scale Circulation Patterns on Precipitation in Mauritius Kreshna Gopal, C Prakash Khedun & Anoop Sohun	Paper 152: Business Analytics for Institutional Academic Management: A Case of South African Higher Education Tshinakaho Seaba, M Segooa, B Kalema & R Kekwaletswe	Paper 70: Air Quality Monitoring in Mauritius Praveer Towakel, Shivanand Prabhoolall Guness, Amar Seeam, Girish Bekaroo & Xavier A. Bellekens
16.15 – 16.35	Paper 103: Optic Disc Segmentation Based on Correlation Feature Information Olawuyi O. Fatoki, Pius Owolawi , Sunday Ojo & Temitope Mapayi	Paper 52: Rhonda: the architecture of a multilingual speech-to-speech translation pipeline Johannes Louw & Avashlin Moodley	Paper 160: A framework to determine the digital skills preparedness of graduates for industry Surika Civilcharran & Manoj Maharaj	Paper 134: Human Language Technology Audit 2018: Design Considerations and Methodology Ilana Wilken, Carmen Moors, Tebogo Gumede & Karen Calteaux
16.35 – 16.55	Paper 136: A Review on Vision Simultaneous Localization and Mapping (VSLAM) Jabulani Makhubela Presenter: Olusanya Agunbiade	Paper 67: Fuzzy Logic Nonlinear Model Predictive Control of the Grinding Process in Ball Mills - K Ninan, Shengzhi Du, Bj van Wyk & Chunling Tu; Presenter: Frans Timbane	Paper 126: Setting Heuristics for Eye- Tracking Assessment on Divisibility Rules Pieter Potgieter & Pieter Blignaut	Paper 44: Geo and Graph Analytics for Dynamic Cellular Transactions Insights, Improving Quality of Service and Business Decisions: "Quality X Map" Dahj Jean Nestor & Kingsley Ogudo
16.55 – 17.15	Paper 87: Vision Based Simultaneous Localization and Mapping in a Noisy Static Environment: Concept Jabulani Makhubela Presenter: Olusanya Agunbiade		Paper 9: CMedia Compressor – An application to graphically compare general compression algorithms and Adaptive Huffman compression algorithm Sampson D. Asare & Phyela Mbewe	

