



**IEEE International Research Conference on
SMART COMPUTING and SYSTEMS ENGINEERING – 2019**

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



**Session 01
10.30 a.m. - 01.00 p.m.
Track A – Smart Computing
Session Chair: Professor Chih-Lin Hu**

Venue: A4 - 202 - Multimedia Room

No	Paper No	Author(s)	Title	Time
1	SC - 01	Setsuya Kurahashi	An infectious disease medical policy simulation and gaming	1030 – 1050
2	SC - 12	C. N. Madawala , B. T. G. S. Kumara and L. Indrathilaka	Novel machine learning ensemble approach for landslide prediction	1050 – 1110
3	SC - 07	T. M. W. Vithanawasam and B. G. D. A. Madhusanka	Face and upper-body emotion recognition using service robot's eyes in a domestic environment	1110 – 1130
4	SC - 19	Buddhima Hashan, Yoshani Abeyrathna, Mathisha Kaluaratchi and Samantha Thelijjagoda	VoiceNote: An intelligent tool for monetary transactions with integrated voice support	1130 – 1150
5	SC - 10	A. M. C. Adikari and T. P. Amalan	Distribution cost optimization using Big Data Analytics, Machine Learning and Computer Simulation for FMCG Sector	1150 – 1210
6	SC - 25	P. P. G. D. Asanka and A. S. Perera	Linguistics analytics in data warehouses using fuzzy techniques	1210 – 1230
7	SC - 14	Masashi Shibata and Masakazu Takahashi	A novel computational method to capture FPGA technology trends from Patent information	1230 – 1250

Lunch: 1300 - 1345 – New Building





**IEEE International Research Conference on
SMART COMPUTING and SYSTEMS ENGINEERING – 2019**

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



**Session 01
10.30 a.m. – 01.00 p.m.
Track A – Smart Computing
Session Chair: Professor Takao Terano**

Venue: A4 - 104 – UG Room

No	Paper No	Author(s)	Title	Time
1	SC - 13	A. S. Kulathunge and H. R. O. E. Dayarathna	Communication framework for vehicular ad-hoc networks using Blockchain: A case study of Metro Manila Electric Shuttle automation project	1030 – 1050
2	SC - 02	Supun Hewawalpita and Indika Perera	Multimodal user interaction framework for e-commerce	1050 – 1110
3	SC - 08	H. N. T. K. Kaldera , S. R. Gunasekara and M. B. Dissanayake	MRI based Glioma segmentation using Deep Learning algorithms	1110 – 1130
4	SC - 22	W. P. G. M. Weerasinghe and D. N. Wickramaarachchi	Devise best practices for mobile application development: Addressing the challenges in designing user interfaces	1130 – 1150
5	SC - 16	B. M. A .L. Basnayake and C. Rajapakse	A Blockchain-based decentralized system to ensure the transparency of organic food supply chain	1150 – 1210
6	SC - 24	J. M. T. I. Jayalath, E. J. A. P. C. Chathumali, K. R .M. Kothalawala and N. Kuruwitaarachchi	Green Cloud Computing: A review on adoption of Green-Computing attributes and vendor specific implementations	1210 – 1230
7	SC - 15	P. K. S. Kumari and P. S. Haddela	Use of LIME for human interpretability in Sinhala document classification	1230 – 1250

Lunch: 1300 - 1345– New Building



Ministry of
Science, Technology & Research



The Chartered
Institute of Logistics
and Transport





**IEEE International Research Conference on
SMART COMPUTING and SYSTEMS ENGINEERING – 2019**

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



**Session 01
10.30 a.m. – 12.45 p.m.
Track B – Systems Engineering
Session Chair: Professor Athula Ginige**

Venue: A4 - 101 – PG Room

No	Paper No	Author(s)	Title	Time
1	SE - 01	D. C. R Ranasinghe, W. K. I. L. Wanniarachchi and U. A. D. N. Anuradha	GPS guided auto sensing system for motor vehicles	1030 – 1050
2	SE - 08	B. A. O. S. Yasaswin and T. M. K. K. Jinasena	Automated, low-cost pedestrian crossing carriage for efficient traffic control and pedestrian safety	1050 – 1110
3	SE - 03	H. K. S. K. Hettikankanama and S. Vasanthapriyan	Integrating smart transportation system for a proposed Smart City - A mapping study	1110 – 1130
4	SE - 04	S. M. D. T. Sandaruwan and A. Pallegedera	Modelling & simulation of the hydration process of cement for rapid concrete constructions	1130 – 1150
5	SE - 07	Gilmini Dantanarayana , Prasad Jayaweera and Anusha Walisadeera	Process aligned business rule framework for immunization services in Sri Lanka	1150 – 1210
6	SE - 05	U. G. M. D. Dias , V. K. Tharaka and J. N. Nanayakkara	A simulation model to analyse Sri Lankan Megacity logistics behaviour: Megapolis logistics of Sri Lanka	1210 – 1230

Lunch: 1300 - 1345– New Building





IEEE International Research Conference on SMART COMPUTING and SYSTEMS ENGINEERING – 2019

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



Session 02

02.00 p.m. - 04.45 p.m.

Track A – Smart Computing

Session Chair: Professor Setsuya Kurahashi

Venue: A4 - 202 - Multimedia Room

No	Paper No	Author(s)	Title	Time
1	SC - 11	S. Rajapaksa, A. Wickramarachchi, V. Mallawaarachchi, W. Rasanjana, I. Perera and D. Meedeniya	A scalable bioinformatics analysis platform based on Microservices Architecture	1400 – 1420
2	SC - 09	P. T. Amarasena, B. T. G. S. Kumara and S. Jointion	Data mining approach for identifying suitable sport for beginners	1420 – 1440
3	SC - 27	E. R. Kulathilake and C. Rajapakse	Impact of emerging motorbike swarms on transportation requirements in Sri Lanka: An agent based simulation study	1440 – 1500
4	SC - 03	K. T. C. S. Samarasinghe and S. Jayalal	Prediction of user intentions using Web history	1500 – 1520
5	SC - 05	J. Kasundi and G. U. Ganegoda	Candidate recruitment based on automatic answer evaluation using WordNet	1520 – 1540
6	SC - 17	A. R. F. S. Fanoon and G. A. I. Uwanthika	Part of speech tagging for Twitter conversations using Conditional Random Fields model	1540 – 1600
7	SC - 06	M. W. C. N. Moladande and B. G. D. A. Madhusanka	Implicit intention and activity recognition of a human using neural networks for a service robot eye	1600 – 1620

Tea: 1630 – Lobby



Ministry of
Science, Technology & Research



The Chartered
Institute of Logistics
and Transport





**IEEE International Research Conference on
SMART COMPUTING and SYSTEMS ENGINEERING – 2019**

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



**Session 02
02.00 p.m. - 04.45 p.m.
Track A – Smart Computing
Session Chair: Professor Masakazu Takahashi**

Venue: A4 - 101 – PG Room

No	Paper No	Author(s)	Title	Time
1	SC - 04	V. M. P. Godakandage, K. R. M. Kothalawala, E. J. A. Chathumali and A. W. Madhubhashana	Occupancy monitoring system for workplace washrooms	1400 – 1420
2	SC - 18	Kasthuri Shanmugalingam and Sagara Sumathipala	Language identification at word level in Sinhala-English code-mixed social media text	1420 – 1440
3	SC - 20	S. B. D. H. Dharmasiri and S. Jayalal	Passion Fruit disease detection using image processing	1440 – 1500
4	SC - 21	M. F. A. Ifhaam and S. Jayalal	Sinhala handwritten postal address recognition for postal sorting	1520 – 1540
5	SC - 23	W. P. N. H. Pathirana and D. N. Wickramaarachchi	Software usability improvements for Generation Z oriented software application	1540 – 1600
6	SC - 26	Y. R. Azeez and C. Rajapakse	An application of transfer learning techniques in identifying herbal plants in Sri Lanka	1600 – 1620
<i>Tea: 1630 – Lobby</i>				





**IEEE International Research Conference on
SMART COMPUTING and SYSTEMS ENGINEERING – 2019**

Department of Industrial Management, Faculty of Science, University of Kelaniya, Sri Lanka



Session 02
02.00 p.m. - 04.45 p.m.
Track B – Systems Engineering
Session Chair: Dr. Ruwan Abeysekera

Venue: A4 - 104 – UG Room

No	Paper No	Author(s)	Title	Time
1	SE - 02	O. K. K. Bandara, V. K. Tharaka and A. P. R. Wickramarachchi	Industry 4.0 maturity assessment of the Banking Sector of Sri Lanka	1400 – 1420
2	SE - 06	T. R. Kaluarachchi, W. M. S. K. Weerabahu and L. D. J. F. Nanayakkara	Factors influencing Enterprise Information Systems adoption of Small and Medium Enterprises (SMEs): A case study on Sri Lankan manufacturing sector	1420 – 1440
3	SE - 10	P. Poor, J. Basl and D. Zenisek	Predictive Maintenance 4.0 as next evolution step in industrial maintenance development	1440 – 1500
4	SE - 09	Rajaratnam Charanya and Manoharan Kesavan	Analysis of Factors Influencing the Virtual Learning Environment in a Sri Lankan higher studies institution	1520 – 1540

Tea: 1630 – Lobby



Ministry of
Science, Technology & Research



The Chartered
Institute of Logistics
and Transport

