ICoMMS 2017 *International Conference on Man Machine Systems (ICoMMS2017)*

21st August 2017, Sri Perak 3 (14:00-16:15)

Session Chair: Assoc. Prof. Dr. Abu Hassan Abdullah

Session C1:   Image Processing

1400	C1-1	**Rice Leaf Blast Disease Detection using Multi-Level Color Image Thresholding** M.N. Abu Bakar, A.H. Abdullah, N. Abdul Rahim, H. Yazid, S. N. Misman and M.J. Masnan
1415	C1-2	**Sobel-Freichen Hybrid Filters to Improve Edge Detection Performance** Y. Kalai, A.K. Junoh, W.Z.A Wan Muhamad, A.M. Desa and M.H. Zakaria
1430	C1-3	**Leukemia's Cells Pattern Tracking Via Multi-phases Edge Detection Techniques** M.A. Alshorman, A.K. Junoh, W.Z.A Wan Muhamad, M.H. Zakaria and A.M. Desa
1445	C1-4	**Image Processing Techniques for Harumanis Disease Severity and Weighting Estimation for Automatic Grading System Application** N.S. Khalid, A.H. Abdullah, S.A. Abdul Shukor, S.C. Chau, F.S.A. Sa'Ad, N.D.N. Danial and H. Mansor
1500	C1-5	**Implementation of a Hardware-centric Vision System Architecture** A.M. Yusof, A.Y.M. Shakaff, S. Abdul Rahim
1515	C1-6	**A Preliminary Study on Color Recognizer for Visually Disable People** M.A. Wahid, M.Y. Ahmad, M.Z. Md. Zain, S. M. Saad, M. Hussein and Z. Ahmad
1530	C1-7	**Personalized Photo Enhancement using Artificial Neural Network** J.C.D. Cruz, R.G. Garcia, G.V. Magwili, J.C. Cordon, J.P.P Suplico and Z. Sauli
1545	C1-8	**Low Resolution Image Enhancement Assessment** J.C.D. Goma, J.M. Aquino, C. Arcelo, and Z. Sauli
1600	C1-9	**Fruit Recognition Using Surface and Geometric Information** J.C.D. Goma, C.A.M. Quilas, M.A. B. Valerio, J.K.P. Young and Z. Sauli

ICoMMS2017 *International Conference on Man Machine Systems (ICoMMS2017)*

21st August 2017, Sri Gangsa (14:00-16:00)

Session Chair: Dr. Muhajir Ab. Rahim

Session C2:   **Robotics I**

1400	C2-1	**Kinesthetic Motor Imagery Based Brain-Computer Interface for Power Wheelchair Manoeuvring** Jackie T., Paulraj M.P., A.H. Adom and M.S. Abdul Majid
1415	C2-2	**Preliminary Design of a Test Rig for Dodol Conching Process** K.J. Wei and M.A. Rahim
1430	C2-3	**Design and Development of Path Planning Techniques for a Tennis Ball Retriever Robot** M. F. Ali, C. K. Lam, K. V. Ch'ng, K. Sundaraj, W.-H. Tan
1445	C2-4	**Design Consideration of Gripper Control for Mine Detector Robot (MDR)** H.W Hui, H. Mansor, N.S Khalid, A.Z.A. Firdaus, I.I Ismail, S.N Aqmariah, H. Ali
1500	C2-5	**Design and Development of a DAST Based on 2RPS-1S Parallel Mechanism** F. Abdullah, M.A.C. Munaaim, M.S.Z. Azalan and S.M. Othman
1515	C2-6	**An Indoor Mobile Scanning System with Multi Controller** M. Wady, S.A. Abdul Shukor, B. Ilias
1530	C2-7	**Prediction of WiFi Signal using Kalman Filter for Fingerprinting-based Mobile Robot Wireless Positioning System** A.H. Ismail and K. Terashima
1545	C2-8	**Design and Fabrication of a Prototype Automated Instant Noodle Vending Machine** E.R. Biglete, M.M. Landicho Jr., F.R.V. Quicho and Z. Sauli

ICOMMS *International Conference on Man Machine Systems (ICoMMS2017)*

21st August 2017, Sri Perak 3 (16:15-18:30)

Session Chair: Dr. Abdul Halim Ismail

Session C3: Control Systems

1615	C3-1	**A Comparative Study on Whole Body Vibration (WBV) Comfort towards Perodua's Compact Car Model through Data Mining Approach** M.Z. Abdullah, A.K. Junoh, W.Z.A Wan Muhamad, A.M. Desa and M.H. Zakaria
1630	C3-2	**Closed House Chicken Barn Climate Control Using Fuzzy Inference System** M.S. Kamis, A.H. Abdullah, S. Sudin, S.A. Abdul Shukor, M.A.A. Bakar, M.H. Mustafa
1645	C3-3	**Design and Simulation of Fuzzy Controlled Car Parking Assist System** A.Z.A. Firdaus, A.W. Shinn, M.S.M. Hashim, N.S. Khalid, I.I. Ismail and M.J.M. Ridzuan
1700	C3-4	**Analysis on Euler angles rotation of a rigid body in three-axis attitude based on RazakSAT data** M.Z. Hasan, A.H. Abdullah, A. Ahmed, N.H. Hamzah, M.A.M. Said, S. Yaacob and M. Fadly
1715	C3-5	**Elliott Wave Pattern Recognition for Forecasting GBP/USD Foreign Exchange Market** M.F. Ramli, A.K. Junoh, W.Z.A Wan Muhamad, M.H. Zakaria, A.M. Desa and A.W. Mahyun
1730	C3-6	**Development of Wireless Electronic Nose Using NRF24L01 RF Transceiver for Toxic Gases Monitoring** M.H. Mustafa, A.H. Abdullah, M.J. Masnan and M.A.A. Bakar
1745	C3-7	**Internet of Things (IoT) for Human Thermal Comfort: A Simulative Investigation** S.Y. Ch'ng, S.A. Abdul Shukor, N. Abdul Rahim, K. Kohlhof and Z.A.Z. Jamal
1800	C3-8	**Comparative Study of a Drag Force for Flat Plate Frame with a Combined Straight Bladed Darrieus- Flat Plate Frame** F. Ahmed K., M.T. Mustaffa, Y. Abdul Rahim, W.S.W.A Najmuddin
1815	C3-9	**Hydrologic Modeling and Delineation of Calumpang River Watershed using GIS and Hydrologic Model System** R.R. Santoalla, J.T. Cortes, K.P. Generos, V.A. Monta, F.J. Tan, F.A. Uy and L.S. Leng

ICoMMS2017 *International Conference on Man Machine Systems (ICoMMS2017)*

21st August 2017, Sri Gangsa (16:15-18:00)

Session Chair: Dr. Lam Chee Kiang

Session C4:   **Sensors**

1615	C4-1	**Electronic Nose Calibration Process for Monitoring Atmospheric Hazards in Confined Space Applications** M.A.A. Bakar, A.H. Abdullah, F.S.A. Sa'ad, S.A. Abdul Shukor, A.A.A. Razak and M.H. Mustafa
1630	C4-2	**Automatic Irrigation Monitoring System Using Android Based Application** H.K. Parmale, M.T.M. Talib and A.H. Abdullah
1645	C4-3	**Development of Miniature Compressed Air Storage System Using Solenoid Valves for Dynamic Pneumatic Actuator** W.S.W.A Najmuddin, M.T. Mustaffa, A.H. Awang and S. Hussain
1700	C4-4	**Dual Axis Solar Tracking System in Perlis, Malaysia** R.S. Zulkafli, A.S. Bawazir, N.A.M. Amin, M.S.M. Hashim, M.S.A. Majid and N.F.M. Nasir
1715	C4-5	**Improving Design of Piezoelectric Braille cell for Braille Display Devices** A.S. Shahriman, M.A. Wahid, S.M. Saad, M.Z. Md. Zain, M. Hussein, Z. Ahmad, M.S. Yaacob, M.Y. Abdullah and M. Mohamad
1730	C4-6	**Full Custom Rail-to-Rail Self-Calibrating Comparator for Low Voltage Successive Approximation Register Analog-to-Digital Converter** A.C. Paglinawan, F.R. Cruz, C. Paglinawan, M.O. Arreza, L.A. Budomo, L.M. Pinlac, C.S. Juan, W.Y. Chung and Z. Sauli
1745	C4-7	**Qualitative Investigation of the Application of Pervious Concrete as Pavement for Stormwater Runoff Management using Hydrologic Modelling System (HEC-HMS)** M.P. Bernardo, PJ.s. Cunanan, J.L. C. Lopez, E.J. R. Rarugal and K. Sarukunaselan

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22nd August 2017, Sri Perak 3 (08:30-10:30)

Session Chair: Dr. Norasmadi Abdul Rahim

Session C5: | **Electrical**

0830	C5-1	**Microwave Reflection Based Dielectric Spectroscopy for Moisture Content in Melele Mango Fruit (Mangifera Indica L.)**
		E.M.Cheng, Shahriman A.B., H.A. Rahim @ Samsuddin, M.F.A Malek, N.F. Mohd Nasir, N. Abdulaziz, M.S. Abdul Majid and K.S. Basaruddin
0845	C5-2	**Effect of Moisture Content in Beef on Reflection and Dielectric Measurement using Coaxial Reflection Probes**
		E.M. Cheng, C.K. Lam, H.A. Rahim@Samusuddin, N.F. Mohd Nasir, M.S. Abdul Majid, S.F. Khor, K.Y. You, and Y.S. Lee
0900	C5-3	**Selective Harmonic Elimination Pulse Width Modulation for Five-Level Cascaded Inverter**
		C.Y. H'ng, B. Ismail, M. Isa and Mohamad N.K.H. Rohani
0915	C5-4	**Smart Hydroponic System with Hybrid Power Source**
		N.S.M.Hussin, N.A.M.Amin, M.J.A.Safar, M.S.A.Majid and N.F.M.Nasir
0930	C5-5	**Torque Studies of 6 Slot- 7 Pole Motor for Hybrid Motor**
		Ismail I. Ibrahim and E. Sulaiman
0945	C5-6	**Dielectric Elastomer for Energy Harvesting: Simulation of Different Electrodes**
		Rozaidy C.Y., M.N Fakhzan M.K., M.M.A.K. Mohamed, N.A.M. Amin
1000	C5-7	**Energy Harvesting using Thermoelectric Generator Applied to Food Stand**
		B.K. P. Audencial, J.P. B. Gernale, A.T. Lazo, C.M. M. Lorilla, G.V. Magwili, R.G. Garcia, and R. Vairavan
1015	C5-8	**Energy Recovery from a Zipline Braking System via Regenerative Braking using Buck-Boost Converter**
		G.V. Magwili, R.V. F. Adato, L.A.T. Belleza, P.C. Casanas, H.J.L.Valdez and Z. Sauli

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22nd August 2017, Sri Gangsa (08:30-10:45)

Session Chair: Dr. Shafriza Nisha Basah

Session C6:		Signal Processing I
0830	C6-1	**Hand-Gesture Recognition-Algorithm based on Finger Counting** M. Perimal, S.N. Basah, M.J.A. Safar, H. Yazid
0845	C6-2	**Estimation of Gait Parameters using EMG signal with Extreme Learning Machine** H.L. Lim, J.H. Ho and K. Lee
0900	C6-3	**Facial Emotion Recognition Based on Empirical Mode Decomposition and Discrete Wavelet Transform Analysis** H. Ali, M. Hariharan, H. Mansur, S.N. Adenan, M. Elshaikh and K. Wan
0915	C6-4	**Facial Expression Recognition Based on Radon and Discrete Wavelet Transform using Support Vector Machines** H. Ali, V. Sritharan, M. Hariharan, M. Elshaikh and K.Wan
0930	C6-5	**Intelligent Person Recognition System Based on ECG Signal** H. Jaafar, N.S. Ismail
0945	C6-6	**Implementation of Kernel Sparse Representation Classifier for ECG Biometric System** H. Jaafar, N. Ramli, A.S.A. Nasir
1000	C6-7	**Performance Assessment of the Optimum Feature Extraction for Upper-Limb Stroke Rehabilitation using Angular Separation Method** M.S.H. Majid, W. Khairunizam, H. Ali, I. Zunaidi, Shahriman AB, Zuradzman MR, Hazry D and Mohd Asri Ariffin
1015	C6-8	**A Language for Describing Disruptive Application Event Patterns Based on Combined Log Sequence and Concurrency** D.D. Gabriel, R.L.M. Matienzo, A.T. Saharkhiz, and Z. Sauli
1030	C6-9	**Implementation of a 4-bit Ripple Carry Full Adder of Mirror Design Style Using Synopsys Generic 90nm Technology on a Full-Custom and Semi-Custom Design** N. B. Linsangan, K.J. Yabashi, R.G. Garcia, A.C. Paglinawan, M.P. Sejera, C.C. Paglinawan and Z. Sauli

ICoMMS *International Conference on Man Machine Systems (ICoMMS2017)*

22nd August 2017, Sri Perak 3 (10:45-01:00)

Session Chair: Dr. Muhammad Juhairi Aziz Safar

Session C7:   Robotics II

1045	C7-1	**Simulation and Development of Robot Navigation in Underground Utilities Room using Fuzzy Control** A.A. A. Razak, A.H. Abdullah, K. Kamarudin, F.S.A. Sa'ad, S.A.Abdul Shukor, H. Mustafa, M.A.A. Bakar
1100	C7-2	**Development of Wireless Safety System for Hybrid Vehicle Hazard Monitoring** A. Harun, A.B. Shahriman, M. S. M. Hashim, Z. M. Razlan, M. K. Faizi, I. Ibrahim, N. S. Kamarrudin, M. A. M. Saad, I. Zunaidi
1115	C7-3	**Computing a Perceptual Map using a Stereo-Vision Mobile Robot** S.K. Eng, B.E. Khoo, W.K. Yeap
1130	C7-4	**Implementation of Mobile Robot Localization and Path Planning for Navigation in Known Map** S. Gunasagaran, K. Kamarudin, A.S.A Yeon, R. Visvanathan, S.M. Mamduh, A. Zakaria
1145	C7-5	**Simulating Evacuation Plan of Fire Disaster based on Cloud Surveillance System** J.Y. Kuo, T.Y. Lai and P.C. Lee
1200	C7-6	**Gas Sensing Mobile Robots: A Review** R. Visvanathan, K. Kamarudin, S.M. Mamduh, A.S.A. Yeon, A. Zakaria, L.M. Kamarudin, S.A. Abdul Shukor and A.Y.M. Shakaff
1215	C7-7	**Kinematic Analysis of a Screw Wheeled Omnidirectional Mobile Robot** M.J.A. Safar, Y. Chandradekaran, S.N. Basah, K.S. Basaruddin, M.S.M. Hashim
1230	C7-8	**Evapotranspiration-based Irrigation System using Raspberry Pi for Capsicum Annuum "Bell Pepper" Plant Nursery** M.V.C. Caya, J.B.G. Ibarra, G.O. Avendaño, D.J.D. A. Felipe, J.A.V. Fernando, J.M.T. Galvez and Z. Sauli
12.45	C7-9	**Gas Source Localization using Grey Wolf Optimizer** S.M. Mamduh, K. Kamarudin, A.Y.M. Shakaff, A. Zakaria, R. Visvanathan, A.S.A.Yeon, L.M. Kamarudin and A.S.A. Nasir

ICoMMS2017 *International Conference on Man Machine Systems (ICoMMS2017)*

22nd August 2017, Sri Gangsa (10:45-12:45)

Session Chair: Dr. Muhamad Khairul Ali Hassan

Session C8:   Signal Processing II

1045	C8-1	**Design and Development of Multiple Hand Gesture Recognition System using MMG Signal** Y. Rajamani, C. K. Lam, K. Sundaraj, N. Zulkefli, M. R. Mohamad @ Ismail
1100	C8-2	**Choice of Mechanomyography Sensors for Diverse Types of Muscle Activities** I. Talib, K. Sundaraj, C. K. Lam
1115	C8-3	**Cyclist Performance Classification System based on Submaximal Fitness Test** S. Sudin, A.Y.M.Shakaff, A.Zakaria, A.F.Salleh, F.S.A.Saad and A.H. Abdullah
1130	C8-4	**Fabric Texture Analysis and Weave Pattern Recognition by Intelligent Processing** S. Anila, K.Sheela Sobana Rani, B.Saranya
1145	C8-5	**Hand Movement Imagery Task Classification Using Fractal Dimension Feature** M.S.Z. Azalan, A.H. Adom, Paulraj M P, A.H. Abdullah, F. Abdullah
1200	C8-6	**EEG-Based Emotion Assessment Using Detrended Fluctuation Analysis (DFA)** W.Y. hoong, W. Khairunizam, M.I. Omar, M. Murugappan, A.H. Abdullah, H. Ali and S.Z. Bong
1215	C8-7	**Recommendations Related to Wheeze Sound Data Acquisition** F.G. Nabi, K. Sundaraj, C.K. Lam, P. Rajkumar and J. Hussain
1230	C8-8	**Analysis of Cortical Bone Fracture in Human Thigh Segment Through Finite Element** M.K.A. Hassan, F.M. Zarzour, M. S. Salim

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22nd August 2017, Sri Gangsa (10:45-12:45)

Session Chair: Assoc. Prof. Dr. Wan Khairunizam Wan Ahmad

Session C9:   Signal Processing III

1045	C9-1	**A Study of Electrical Resistance Tomography on Inhomogeneous System** V. Ang, M.H.F. Rahiman, R.A. Rahim, M.T.M. Talib, J. Pusppanathan and J. Jamaludin
1100	C9-2	**Cloud-Based In-vehicle Air Quality Monitoring System with GSM module** C.C.Goh, L.M.Kamarudin, S.Sudin, R.Visvanathan and A.Zakaria
1115	C9-3	**Fundamental Shape Discrimination of Underground Metal Object Through One-Axis Ground Penetrating Radar (GPR) Scan** S.N.A.M. Kanafiah, A.Z.A. Firdaus, N.F. Jefri, N.S. Khalid, I.I. Ismail, M.A. Ismail and M.R. Ahmad
1130	C9-4	**Classification of The NTEV signal Problem via the Incorporation of S-Transform Features and Different Types of Neural Network** M.A.T.M. Yusoh, T. Yalcin, A.F. Abidin, Z.M. Yasin, N.Y. Dahlan, H Mohammad, Z. Zakaria, W.F. Abbas, N.A. Salim, B.N.S. Rahimullah
1145	C9-5	**Cascaded Micro Wind Turbine Braking Mechanism via Dynamic Braking and Yaw Control** M.Z. Zolkifly, N.M. Nayan, A.N.N. Abdullah, S.K. Mazalan, Z.M. Isa and M.H. Arshad
1200	C9-6	**Parametric Feature Selection for an Enhanced Random Linear Oracle Ensemble Method** B.P. Ooi, N. Abdul Rahim, A. Zakaria, M.J. Masnan, S.A. Abdul Shukor, and Paulraj M.P.
1215	C9-7	**Simulation of Invasive Ultrasonic Tomography for Three Phase Mixture** A. Alfareh, M.H.F. Rahiman, M.T.M. Talib, J. Pusppanathan and J. Jamaludin
1230	C9-8	**Water Quality Monitoring System Using 3G Network** J.B. G. Ibarra, M.V. C. Caya, J.A. Andal, C.L.S. Magno, K.R. Villaruel, S.V. Villeza and Z. Sauli