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Message from Conference Chair



On behalf of the Organizing Committee, I would like to welcome all participants to the ICSIMA 2019. The aim of this conference is to provide platforms to enable interactive exchanges between researchers, academicians, policy makers and industries on issues relating to instrument and measurement engineering.

ICSIMA 2019 is proud of having two distinguished keynote speakers presenting issues from their various viewpoints that would bring much benefit to the participants. A special acknowledgement to our sponsors and supporters whose financial contribution and support have elevated the conference expectations. In addition, I would also like to thank our distinguished keynote speakers and reviewers for their invaluable contributions.

We have received more than 75 paper submissions from various countries including Malaysia, Indonesia, USA, Pakistan, Bangladesh and Thailand. The papers have undergone rigorous review process and accepted papers will be considered for cited journal publication.

Finally, a big thank you to all the participants for supporting ICSIMA 2019 and we hope that this conference would enhance collaboration among yourselves for further development in instrument and measurement engineering as well as technologies.

Last but not least, I wish to express my gratitude to the organizing committee for their commitment and diligence in planning and executing this conference.

Thank You.

Yours sincerely,

ASSOC. PROF. DR. KUSHSAIRY ABDUL KADIR

General Chair
ICSIMA 2019

ICSIMA 2019

The IEEE International Conference on Smart Instrumentation, Measurement & Applications (ICSIMA) is the flagship event of the IEEE Instrumentation and Measurement Society (IMS) Malaysia Chapter.

The first ICSIMA organized by the IMS Malaysia Chapter was in November 2013 held in Kuala Lumpur. It followed by ICSIMA 2014, ICSIMA 2015, ICSIMA 2017, ICSIMA 2018 and ICSIMA 2019.

The accepted papers that presented in the ICSIMA are submitted to IEEE Explorer with much more adding on to its debut since last events which are already published in IEEE Xplore.

The aim of this conference is to provide an opportunity for professionals, academicians, scientist and experts to interact among each other, discuss issues and ideas exchanged relating to numerous topics. This conference also can benefits people with common interests to collaborate and develop a better understanding in the research areas.

Deriving more from industry experience and collaborative networking, ICSIMA 2019 brings fifth firsthand experience from all continents around the world and provides a mutually beneficial platform for the West and the East.

Keynote Speakers



MOHAMED RAWIDEAN MOHD KASSIM
MIMOS (Malaysian Institute of Microelectronic
Systems)



**PROFESSOR DR SEVIA MAHDALIZA
IDRUS**
Deputy Dean (Development & Alumni),
Faculty of Engineering, UTM

Program Schedule

ICSIMA2019 - FULL TENTATIVE PROGRAM

1st DAY

IEEE ICSIMA 2019 WORKSHOP

DATE: 27 AUGUST 2019, TUESDAY

VENUE: BILIK ILMUAN 1, UTM, KUALA LUMPUR, JALAN SULTAN YAHYA PETRA

8.30	– 9.00	am	:	Workshop Registration
9.00	– 9.15	am	:	Welcoming address by chair IMS PM Robiah Ahmad
9.15	– 10.30	am	:	Prof. Celia Shahnaz, IEEE SIGHT
10.30	– 10.45	am	:	Tea Break
10.45	– 11.45	am	:	Madam Siti Khadijah, ARISMA <i>“Social Enterprise-Empowering Special Needs Young Adults”</i>
11.45	– 12.45	pm	:	Dr. Shamsul Sarip, UTM MySight <i>“UTM MySight Rural Technology”</i>
12.45	– 2.00	pm	:	Lunch
2.00	– 3.00	pm	:	Exhibition/Poster/Engagement/Clinic

2nd DAY

IEEE ICSIMA 2019 CONFERENCE

DATE: 28 AUGUST 2019, WEDNESDAY

VENUE: ROYAL WIDAD HOTEL, NO. 8, JALAN MAKTAB, KAMPUNG DATUK KERAMAT, KUALA LUMPUR

8.00	– 9.00	am	:	Registration & Welcome Tea/Coffee
9.00	– 9.15	am	:	Opening Ceremony
9.15	– 10.15	am	:	Keynote Speaker I: Mohamed Rawidean Mohd Kassim, MIMOS Photograph session Grand Petra 1, Level 2
10.15	– 10.30	am	:	Tea Break

10.30 – 11.30	am	:	Keynote Speaker II: Prof. Dr. Sevia Mahdaliza Idrus,UTM Photograph session Grand Petra 1, Level 2
11.30 – 12.30	pm	:	Parallel Session A1 (<i>Data Acquisition Systems and Techniques</i>): Petra 1, Level 2 A2 (<i>Energy and Power Systems Instrumentation</i>): Petra 2, Level 2
12.30 – 2.00	pm	:	Lunch & Networking
2.00 – 3.15	pm	:	Parallel Session B1 (<i>Intelligent Control</i>): Petra 1, Level 2 B2 (<i>Measurement Systems and Theory</i>): Petra 2, Level 2
3.15 – 3.30	pm	:	Tea Break
3.30 – 5.00	pm	:	Parallel Session C1 (<i>Medical Instrumentation</i>): Petra 1, Level 2 C2 (<i>Non-Invasive Measurement Techniques and Instrumentation</i>): Petra 2, Level 2
6.00 – 9.00	pm	:	Conference Dinner

3rd DAY

IEEE ICSIMA 2019 CONFERENCE

DATE: 29 AUGUST 2019, THURSDAY

VENUE: ROYAL WIDAD HOTEL, NO. 8, JALAN MAKTAB, KAMPUNG DATUK KERAMAT, KUALA LUMPUR

8.00 – 9.00	am	:	Registration & Welcome Tea/Coffee
9.00 – 10.30	am	:	Parallel Session D1 (<i>Smart Sensor & Transducers</i>): Petra 1, Level 2 D2 (<i>Software Development for Measurement and Instrumentation Support</i>): Petra 2, Level 2
10.30 – 10.45	am	:	Tea Break

10.45 – 12.30	am	:	Parallel Session E1 (<i>Real Time Measurement Systems</i>): Petra 1, Level 2 E2 (<i>Signal & Image Processing Techniques</i>): Petra 2, Level 2
12.30 – 2.00	pm	:	Lunch & Networking
2.00 – 3.00	pm	:	Closing Ceremony
3.00 – 3.30	pm	:	Closing Tea/Coffee

Organizing Committees

General Chair

Kushsairy Abdul Kadir (UniKL)

Co-Chair

Robiah Ahmad (UTM)

Technical Program Chair

Teddy Surya Gunawan (UIA)

Publication Chair

Md. Masum Billah (UniKL)

Finance Chair

Md. Masum Billah (UniKL)

Secretariat Chair

Sheroz Khan (UIA)

Website Chair

Farah Diyana Abdul Rahman (UIA)

Industrial Relation, Sponsorship Chair and Exhibition

Wan Zuha Wan Hasan (UPM)

John Tan (Silterra /IET)

Tutorial Chair

Mohammad Miqdad Abdul Aziz (UniKL)

Registration & Venue Chair

Intan Zaurah Mat Darus (UTM)

Publicity Chair

Mohammed Reyasudin Basir Khan (UniKL)

Sponsor:



Technical Support by:



Technical Program

SESSION A1: DATA ACQUISITION SYSTEMS AND TECHNIQUES

11.30 AM - 12.30 PM, 28TH AUGUST 2019, PETRA 1, LEVEL 2

CHAIRPERSON: Assoc. Prof. Dr. Wan Zuha Wan Hasan, Assoc. Prof. Dr. Intan Zaurah Mat Darus

No.	Paper No.	Title	Authors	Presenter
1	1570576521	Non-Destructive Detection of Bridge Deck Pavement Bonding Through Impact Sound and Principal Component Analysis	Jeffrey S Sarmiento (Technological Institute of the Philippines & Batangas State University, Philippines); Ruji Medina (Technological Institute of Technology, Philippines); Arnel Fajardo (Manuel L. Quezon University, Philippines)	Jeffrey S Sarmiento
2	1570575923	Increasing RPL-based LLN Lifespan using Harvested Solar Energy	Mohamed Hadi Habaebi (International Islamic University Malaysia (IIUM), Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia); Faraz Shaikh (International Islamic University Malaysia, Malaysia); Jawad Shah (UniKL, Malaysia)	Jawad Shah
3	1570572786	A Modified GA based PI controller for DC Motor Performance	Wan Zuha Wan Hasan (Universiti Putra Malaysia, Malaysia); Falih Salih Mafdi, Al-khafaji (Universiti Putra Malaysia (UPM)- Malaysia-selangor-serdang jalan upm, Malaysia & Ministry of Industry and Mineral, Iraq); Nasri Sulaiman and Maryam Mohd Isa (Universiti Putra Malaysia, Malaysia)	Falih Salih Mafdi, Al-khafaji
4	1570576479	Rooftop Solar PV System for Commercial Office Buildings for EV Charging Load	Sandhya Prajapati (153A15 Solani kunj IIT Roorkee & Indian Institute of Technology Roorkee, India); Eugene Fernandez (Indian Institute of Technology Roorkee, India)	Sandhya Prajapati

SESSION A2: ENERGY AND POWER SYSTEMS INSTRUMENTATION**11.30 AM -12.30 PM, 28TH AUGUST 2019, PETRA 2, LEVEL 2****CHAIRPERSON: Assoc. Prof. Robiah Ahmad, Dr. Mohammed Reyasudin Basir Khan**

No.	Paper No.	Title	Authors	Presenter
5	1570565922	Optimization of Location of Magnet on Piezoelectric Fan using Design Expert	Fadhilah Abdul Razak (UTM Kuala Lumpur, Malaysia); Robiah Ahmad (Universiti Teknologi Malaysia, Malaysia); Shamsul Sarip (UTM Kuala Lumpur, Malaysia)	Fadhilah Abdul Razak
6	1570582506	Portable Hybrid Power Storage System	Muhammad Anwer Nazir (University Putra Malaysia, Malaysia & UPM, unknown); Wan Zuha Wan Hasan (Universiti Putra Malaysia, Malaysia); Mohd Zainal Abidin Abd Kadir (Prof, Malaysia); Nasri Sulaiman (Universiti Putra Malaysia, Malaysia)	Muhammad Anwer Nazir
7	1570562714	Power Electronic Interface for Low Voltage DC Link Using Photovoltaic Cells with ANN Based MPPT	Anita Maria Sunny, Arjay J, Mohammed Sajid and Nabeel Harris (Tkm College of Engineering, Kollam, India); Baiju R Naina (TKM College of Engineering, Kollam, India); Muhammedali Shafeeque K (Government Engineering College, Sreekrishnapuram, Palakkad, India)	Anita Maria Sunny
8	1570566930	PV-Battery System Design for an Indigenous People School in Malaysia	Mohammed Reyasudin Basir Khan (Universiti Kuala Lumpur, Malaysia); Jabbar Yahaya (Universiti Tun Hussein Onn, Malaysia); Jagadeesh Pasupuleti (Universiti Tenaga Nasional, Malaysia); Mehrdad Tahmasebi (Islamic Azad University Eyvan-e-Gharb Branch Eyvan, Iran)	Mohammed Reyasudin Basir Khan

SESSION B1: INTELLIGENT CONTROL**2.00 PM - 3.15 PM, 28TH AUGUST 2019, PETRA 1, LEVEL 2****CHAIRPERSON: Assoc. Prof. Dr. Wan Zuha Wan Hasan, Assoc. Prof. Robiah Ahmad**

No.	Paper No.	Title	Authors	Presenter
9	1570576209	Hybrid PSO-Tuned PID and Hysteresis-Observer Based Control for Piezoelectric Micropositioning Stages	Marwan Nafea (University of Nottingham Malaysia, Malaysia); Zaharuddin Mohamed (Universiti Teknologi Malaysia, Malaysia); Mohamed Sultan Mohamed Ali (Universiti Teknologi Malaysia & UTM, Malaysia); Kamyar Mehranzamir (University of Nottingham Malaysia, Malaysia); Tariq Rehman (Universiti Teknologi Malaysia, Malaysia)	Marwan Nafea
10	1570585017	Parameter Tuning for Comparing Multi-Objective Evolutionary Algorithms Applied to System Identification Problems	Saiful Farhan M. Samsuri and Robiah Ahmad (Universiti Teknologi Malaysia, Malaysia); Mohd Zakimi Zakaria (Universiti Malaysia Perlis, Malaysia); Mohd Zarhamdy Md Zain (Universiti Teknologi Malaysia & Automatic Control, Malaysia)	Saiful Farhan M. Samsuri
11	1570581793	PID Control Glycerin Heating Process Performance Investigation	Zuriati Janin (UiTM, Malaysia); Hazilah Mad Kaidi and Robiah Ahmad (Universiti Teknologi Malaysia, Malaysia)	Zuriati Janin
12	1570571390	Firefly Optimised PID Control for Upper Extremity Rehabilitation Robot	M. Kamran Joyo (UniKL BMI & Universiti Kuala Lumpur, Malaysia); Yarooq Raza and Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia); Kanendra Naidu Vijyakumar and Syed Faiz Ahmed (UniKL BMI, Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia)	M. Kamran Joyo
13	1570556886	Performance Evaluation of Multiple Classical Control Law on Twin Rotor MIMO System	Muhammad Usman Gul (The University of Lahore, Lahore, Pakistan); Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia); Muhammad Adnan Qayyum Shah (COMSAT IIT, Pakistan); Muhammad Arslan Akram (Islamia University, Pakistan)	Muhammad Usman Gul

SESSION B2: MEASUREMENT SYSTEMS AND THEORY**2.00 PM - 3.15 PM, 28TH AUGUST 2019, PETRA 2, LEVEL 2****CHAIRPERSON: Assoc. Prof. Dr. Teddy Surya Gunawan, Dr. Farah Abdul Rahman**

No.	Paper No.	Title	Authors	Presenter
14	1570581487	A Study of the Effect of Electrode Dimensions on Scaling Up ERT Applications	Renee Ka Yin Chin and Yew Lek Chong (Universiti Malaysia Sabah, Malaysia)	Renee Ka Yin Chin
15	1570580182	Prediction Instrument of Diabetes Mellitus based on Iridology Image and Artificial Neural Network: Initial Findings	Rievanda Putri and Adhi Harmoko Saputro (Universitas Indonesia, Indonesia)	Rievanda Putri
16	1570571012	Impact of Learning rate in the development of Multi-Layer Perceptron for flash flood assessment	Talha Ahmed Khan (University Kuala Lumpur British Malaysian Institute, Malaysia); Muhammad Mansoor Alam (UniKL, Malaysia); Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia); Zeeshan Shahid (IIUM, Malaysia); Mazliham Mohd Suud (Universiti Kuala Lumpur, Malaysia); Faraz Shaikh (International Islamic University Malaysia, Malaysia)	Talha Ahmed Khan
17	1570582322	Real-Time Wireless Monitoring for Three Phase Motors in Industry: A Cost-Effective Solution using IoT	Faraz Shaikh (International Islamic University Malaysia, Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia); Talha Ahmed Khan (University Kuala Lumpur British Malaysian Institute, Malaysia); Farhan Siddiqui (ILMA University, Pakistan)	Faraz Shaikh
18	1570587699	Performance Evaluation on Error Probabilities of Coded BPSK System Using the Linear (23, 12) Golay Code with Hard-Decision Decoding	Farah Abdul Rahman (International Islamic University Malaysia, Malaysia); Haidawati Nasir (Universiti Kuala Lumpur, Malaysia)	Farah Abdul Rahman

SESSION C1: MEDICAL INSTRUMENTATION**3.30 PM - 5.00 PM, 28TH AUGUST 2019, PETRA 1, LEVEL 2****CHAIRPERSON: Assoc. Prof. Dr. Kushsairy Kadir, Dr. Zulkhairi Mohd Yusof**

No.	Paper No.	Title	Authors	Presenter
19	1570581534	Design of Electrical Impedance Tomography (EIT) for Medical Imaging Application	Arbariyanto Mahmud Wicaksono and Basari Basari (Universitas Indonesia, Indonesia)	Arbariyanto Mahmud Wicaksono
20	1570582166	Gun detection system using YOLOv3	Munaisyah Abdullah (Malaysia Institute of Information Technology, Malaysia); Arif Warsi and Mohd Nizam Husen (Universiti Kuala Lumpur, Malaysian Institute of Information Technology, Malaysia); Muhammad Yahya (Universiti Kuala Lumpur, Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia); Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Munaisyah Abdullah
21	1570581592	On the Optimum Speech Segment Length for Depression Detection	Muhammad F. Alghifari (International Islamic University Malaysia & Disruptometer, Malaysia); Teddy Surya Gunawan, Mimi Aminah Wan Nordin, Mira Kartiwi and Lihanna Borhan (International Islamic University Malaysia, Malaysia)	Muhammad F. Alghifari
22	1570582056	Comparative Analysis of Gender Identification using Speech Analysis and Higher Order Statistics	Syed Asif Ahmad Qadri, Teddy Surya Gunawan and Taiba Wani (International Islamic University Malaysia, Malaysia); Muhammad F. Alghifari (International Islamic University Malaysia & Disruptometer, Malaysia); Hasmah Mansor (International Islamic University Malaysia (IIUM), Malaysia); Mira Kartiwi (International Islamic University Malaysia, Malaysia)	Muhammad F. Alghifari
23	1570575224	Geometrical Analysis of Diffuser-Nozzle Elements for Valveless Micropumps	Marwan Nafea (University of Nottingham Malaysia, Malaysia); Mohamed Sultan Mohamed Ali (Universiti Teknologi Malaysia & UTM, Malaysia); Tariq Rehman (Universiti Teknologi Malaysia, Malaysia); Kamyar Mehranzamir (University of Nottingham Malaysia, Malaysia)	Marwan Nafea
24	1570574039	Variability of Excitation Coil Design and Performance in Magnetic Particle Imaging: A Review	Muhamad Fikri Shahkhirin Birahim and Nurmiza Othman (Universiti Tun Hussein Onn Malaysia, Malaysia); Syarfa Zahirah Sapuan (Research Center for Applied Electromagnetics & Universiti Tun Hussein Onn Malaysia, Malaysia); Mohd Razali Md Tomari (University Tun Hussein Onn Malaysia, Malaysia); Elmy Johana Mohamad (Universiti Tun Hussien Onn Malaysia & Faculty Of Electrical & Electronic Engineering, Malaysia)	Muhamad Fikri Shahkhirin Birahim

**SESSION C2: NON-INVASIVE MEASUREMENT TECHNIQUES AND
INSTRUMENTATION**

3.30 PM - 5.00 PM, 28TH AUGUST 2019, PETRA 2, LEVEL 2

CHAIRPERSON: Dr. Md Masum Billah, Dr. Soheli Farhana

No.	Paper No.	Title	Authors	Presenter
25	1570563136	Non-Intrusive Load Monitoring (NILM) - A Recent Review with Cloud Computing	Keh-Kim Kee (UCTS, Malaysia); Yun Seng Lim, Jianhui Wong and Kein Huat Chua (Universiti Tunku Abdul Rahman, Malaysia)	Keh-Kim Kee
26	1570578808	SNN based brain Connectivity Analysis for ASD Children	Menaka R (VIT University & VIT Chennai, India); Harathi Devi Nalla, Varsha V and Thanga Aarthy M (VIT Chennai, India)	Menaka R
27	1570585297	Development of Smart Chicken Poultry Farm using RTOS on Arduino	Teddy Surya Gunawan and Mohamad Firdaus Sabar (International Islamic University Malaysia, Malaysia); Haidawati Nasir (Universiti Kuala Lumpur, Malaysia); Mira Kartiwi and S m a Motakabber (International Islamic University Malaysia, Malaysia)	Teddy Surya Gunawan
28	1570580801	Broad Bandwidth Micro Strip Array Antenna for Direction Finding	Javed Iqbal and Usman Illahi (Gomal University, Pakistan); Mohamad Ismail Sulaiman (Universiti Kuala Lumpur & British Malaysia Institute, Malaysia); Muhammad Alam Mansoor (Institute of Business Management, Pakistan); Mazliham Mohd Suud (Universiti Kuala Lumpur, Malaysia)	Javed Iqbal
29	1570580917	Improvement in Bandwidth s and Beamwidth s of a S ingly F ed Circularly Polarized Rectangular Dielectric Resonator Antenna using Two Parasitic Elements	Usman Illahi and Javed Iqbal (Gomal University, Pakistan); Mohamad Ismail Sulaiman (Universiti Kuala Lumpur & British Malaysia Institute, Malaysia); Muhammad Alam Mansoor (Institute of Business Management, Pakistan); Mazliham Mohd Suud (Universiti Kuala Lumpur, Malaysia)	Usman Illahi
30	1570575380	Microwave tomography of thermal breast ablation featuring quantitative image reconstruction: A numerical study	Tareq F A Zanoon (Arab American University AAUP, Palestine)	Tareq F A Zanoon

SESSION D1: SMART SENSOR & TRANSDUCERS**9.00 AM - 10.30 AM, 29TH AUGUST 2019, PETRA 1, LEVEL 2****CHAIRPERSON: Dr. Md Masum Billah, Dr. Soheli Farhana**

No.	Paper No.	Title	Authors	Presenter
31	1570566262	Binary Algorithm for Big Data Management and Analytics of MyRA Data	Soheli Farhana (MIIT, UniKL, Malaysia); Adidah Lajis (University Kuala Lumpur, Malaysia); Zalizah Awang Long (Universiti Kuala Lumpur, Malaysia)	Soheli Farhana
32	1570564526	A Novel Algorithm for Virtual Environment Development in Real-time Measurement	Soheli Farhana (MIIT, UniKL, Malaysia); Adidah Lajis (University Kuala Lumpur, Malaysia); Zalizah Awang Long and Haidawati Nasir (Universiti Kuala Lumpur, Malaysia)	Soheli Farhana
33	1570586431	Complex Terrain Negotiation Navigation: Survey on Different Robots	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Md. Masum Billah
34	1570573265	A Temperature-based Omnidirectional Solar Tracking System for IoT Application	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Abdul Malik Bin Mohd Ali
35	1570580508	IOT Based Question Paper Delivery Box: A Solution towards Preventing Question Paper Leakage in Public Exams of Bangladesh	Kimia Zaman (North South University, Bangladesh); Wordh Ul Hasan (bKash Limited, Bangladesh); Monsur Hillas, Abdullah Al Mahfuj Shaan and Khan Rahad (North South University, Bangladesh)	Kimia Zaman
36	1570579282	Malay Cued Speech Transliterate System using Wearable Sensors: A Survey	Idris Abdul Ghaffar and Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia)	Idris Abdul Ghaffar

SESSION D2: SOFTWARE DEVELOPMENT FOR MEASUREMENT AND INSTRUMENTATION SUPPORT**9.00 AM - 10.30 AM, 29TH AUGUST 2019, PETRA 2, LEVEL 2****CHAIRPERSON: Assoc. Prof. Dr. Teddy Surya Gunawan, Dr. Farah Abdul Rahman**

No.	Paper No.	Title	Authors	Presenter
37	1570575421	NCI Evaluation: Assessment of Higher Order Thinking Skills via Short Free Text Answer	Adidah Lajis (University Kuala Lumpur, Malaysia); Haidawati Nasir (Universiti Kuala Lumpur, Malaysia); Normaziah Abdul Aziz (International Islamic University Malaysia, Malaysia)	Adidah Lajis
38	1570552478	iCOBRA: A Smartphone Application for Monitoring Real-time Exercise Heart Rate using Color-coded System	Adam Linoby (Universiti Teknologi MARA, Malaysia & University of Exeter, United Kingdom (Great Britain)); Muhammad Rodzi, Muhammad Asraff, Mardiana Mazaulan and Rozita Latif (Universiti Teknologi MARA, Malaysia); Muhammad Mahadi Abdul Jamil (Universiti Tun Hussein Onn Malaysia & Batu Pahat, Johor, Malaysia)	Adam Linoby
39	1570586054	Development of Social Network Analysis Platform	Teddy Surya Gunawan and Sumayyah Adnan (International Islamic University Malaysia, Malaysia); Haidawati Nasir (Universiti Kuala Lumpur, Malaysia); Mira Kartiwi (International Islamic University Malaysia, Malaysia)	Teddy Surya Gunawan
40	1570573677	Identification of Continuous-time Hammerstein System using Sine Cosine Algorithm	Julakha Jahan Jui and Era Fareha Junis (University Malaysia Pahang, Malaysia); Mohd Helmi Suid and Mohd Ashraf Ahmad (Universiti Malaysia Pahang, Malaysia)	Mohd Ashraf Ahmad
41	1570584219	Location and Position Estimation of Wireless Devices	Haidawati Nasir (Universiti Kuala Lumpur, Malaysia); Farah Abdul Rahman (International Islamic University Malaysia, Malaysia)	Farah Abdul Rahman
42	1570559243	Non-Cooperative Game Theory Approach for Cognitive Cooperative Communication in WBAN	Dalal Hammood (University Malaysia Perlis (UniMAP) & Middle Technical University (MTU), Malaysia); Hasliza A Rahim (Universiti Malaysia Perlis & Bioelectromagnetics Research Group, Malaysia); Ahmed Alkhayyat (Islamic University, Najaf, Iraq); Badlishah R Ahmad (Universiti Sultan Zainal Abidin (UniSZA), Malaysia); Muzammil Jusoh (Universiti Malaysia Perlis & School of Computer and Communication Engineering, Malaysia); Qammer H Abbasi (University of Glasgow, United Kingdom (Great Britain))	Dalal Hammood

SESSION E1: REAL TIME MEASUREMENT SYSTEMS**10.45 AM - 12.30 PM, 29TH AUGUST 2019, PETRA 1, LEVEL 2****CHAIRPERSON: Dr. Zulkhairi Mohd Yusof, Dr. Izanoordina Ahmad**

No.	Paper No.	Title	Authors	Presenter
43	1570579354	Implementation of EEG Approach for Detection of Upper Limb Movement	Nur Ezzati Shaiful Alam and Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia)	Nur Ezzati Shaiful Alam
44	1570586433	Real-time Monitoring of Water Quality in Animal Farm: An IoT Application	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali, Izanoordina Ahmad (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Zulkhairi Mohd Yusof
45	1570586578	Improvement of Crop Production: Design of a Smart Irrigation System	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali, Izanoordina Ahmad (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Zulkhairi Mohd Yusof
46	1570587129	Improvement of Honey Production: A Smart Honey Bee Health Monitoring System	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali, Izanoordina Ahmad (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Izanoordina Ahmad
47	1570582922	Quality Maintenance of Fish Farm: Development of Real-time Water Quality Monitoring System	Md. Masum Billah (University of Kuala Lumpur (UniKL), Malaysia); Zulkhairi Mohd Yusof (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir and Abdul Malik Bin Mohd Ali, Izanoordina Ahmad (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Md. Masum Billah
48	1570574297	Development of Monitoring System using Cloud Services	Afiq Arifen (Universiti Kuala Lumpur British Malaysian Institute, Malaysia); Zulkifli Abdul Kadir Bakti (UniKL BMI, Malaysia)	Zulkifli Abdul Kadir Bakti

SESSION E2: SIGNAL & IMAGE PROCESSING TECHNIQUES**10.45 AM - 12.30 PM, 29TH AUGUST 2019, PETRA 2, LEVEL 2****CHAIRPERSON: Assoc. Prof. Dr. Kushsairy Kadir, Assoc. Prof. Dr. Intan Zaurah Mat Darus**

No.	Paper No.	Title	Authors	Presenter
49	1570580268	Crowd Detection and Tracking in Surveillance Video Sequences	Farah Abdul Rahman and Othman Omran Khalifa (International Islamic University Malaysia, Malaysia); Adidah Lajis (University Kuala Lumpur, Malaysia)	Farah Abdul Rahman
50	1570579643	Development of a Low-Power Heart Rate Monitor Device for Observation of Heart Rate Variability	Haziq Kamarul Azman and Abd Hafiz Qayyum Abd Talib (Universiti Kuala Lumpur, Malaysia); Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Haziq Kamarul Azman
51	1570582312	Design and Comparative Validation of Antipodal Vivaldi Antenna using Periodic Elliptical-Slots with Extended Triangular-shaped as Dielectric lens for Microwave Imaging Applications	Faraz Shaikh (International Islamic University Malaysia, Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia); Ahm Zahirul Alam (International Islamic University Malaysia, Malaysia); Zeeshan Shahid (IIUM, Malaysia); Talha Ahmed Khan (University Kuala Lumpur British Malaysian Institute, Malaysia); Kushsairy Kadir (Universiti Kuala Lumpur British Malaysian Institute, Malaysia)	Faraz Shaikh
52	1570563271	Calcification Detection in Coronary Artery Disease for Intravascular Ultrasound Images using Convolutional Neural Networks	Hannah Sofian and Norliza Mohd Noor (Universiti Teknologi Malaysia, Malaysia); Suraya Mohamad (UniKL BMI, Malaysia); Joel Chia Ming Than (Universiti Teknologi Malaysia, Malaysia)	Hannah Sofian
53	1570563973	A Multilayered Convolutional Sparse Coding Framework for Modeling of Pooling Operation of Convolution Neural Networks	Abdul Wahid Tareen (International Islamic University Islamabad & Pakistan Telecommunication Company Limited, BUIITEMS, Pakistan); Adnan Khan (International Islamic University, Pakistan); Mukhtar Ullah (FAST National University Islamabad, Pakistan); Sheroz Khan (International Islamic University Malaysia, Malaysia); Jawad Shah (UniKL, Malaysia)	Jawad Shah
54	1570582477	A Time-Domain Channel Impulse Response Estimation Method for an OFDM Sounding System	Asif Iqbal (Universiti Teknologi PETRONAS, Malaysia); Varun Jeoti (University Teknologi PETRONAS, Malaysia); Micheal Driberg and Peng Wen Wong (Universiti Teknologi PETRONAS, Malaysia)	Asif Iqbal