2010 International Conference on Computer Applications and Industrial Electronics

(ICCAIE 2010)

Kuala Lumpur, Malaysia
5 – 8 December 2010

IEEE

IEEE Catalog Number: CFP1089L-PRT
ISBN: 978-1-4244-9054-7

TECHNICAL PROGRAM

Monday, December 6

K11: Industrial Electronics & Applications 1
Room: BALAU
Chairs: Cmr Prabhu (Multimedia University, Malaysia), Haipeng Zhang (Hangzhou Dianzi University & Dalian University of Technology, P.R. China)

2:00 ***Positive ESD Robustness of a Novel Anti-ESD TGFPTD SOI LDMOS***
Haipeng Zhang (Hangzhou Dianzi University, P.R. China); Liang Zhang China); Dejun Wang (Dalian University of Technology, P.R. China); Mi Lin China); Xiaoyan Niu (Hangzhou Dianzi University, P.R. China); Lingyan Fan China); Wenjun Li (Hangzhou Dianzi University, P.R. China); Guohua Liu China); Jie Wang (Hangzhou Dianzi University, P.R. China)

2:20 ***Low-Power Fast Static Random Access Memory Cell***
Cmr Prabhu (Multimedia University, Malaysia); Ajay Kumar Singh (Multimedia University, Malaysia)

2:40 ***Sensorless Control of Magnetic Levitation System using Sliding Mode Controller***
Mrunal Deshpande (Anna University, India); Mathur Badrilal (, India)

3:00 ***Mixed-Signal VLSI Layout Design Automation Tool for Transition Region Generation***
Eik Wee Chew (Intel Microelectronics (M) Sdn. Bhd., Malaysia); Chaw Soon Gooi (Intel, Malaysia)

3:20 ***IEEE 1451.0 Enabled Control Architecture For DC-DC Converter System***
Jayaraman Kamala (Anna University, India); Umamaheswari Baskaran (, India)

3:40 ***Effect of Change in Ratio of Electrode to Total Pitch Length in EWOD Based Microfluidic System***
Abhilash Paneri (Birla Institute Of Technology and Sciences (BITS), Pilani, India); Nitinipun Sharma (Birla Institute Of tech. & Sciences (BITS), Pilani, India)

M11: Communications Technology 1
Room: SERAYA
Chairs: Soma Bandyopadhyay (TATA Consultancy Services, India), Jehana Ermy Jamaluddin (Universiti Tenaga Nasional, Malaysia)

2:00 ***Reed-Solomon Codes for Uncompressed IP Header Protection*** **29**
L. Barukang (Lancaster University, Malaysia)

2:20 ***A Novel Bandwidth Aggregation System Using Multiple Physical Links*** **34**
Soma Bandyopadhyay (TATA Consultancy Services, India); Arpan Pal (Tata Consultancy Services, India); Shameemraj Nadaf (TCS, India)

2:40 ***Advances in Control and Data Transmission over the Power Line Using the Ultra-Wideband Technology Approach*** **38**
Jehana Ermy Jamaluddin (Universiti Tenaga Nasional, Malaysia)

3:00 ***Optimized Capacity Planning and Performance Measurement through OPNET Modeler*** **.....43**
Sami Habib (Kuwait University, Kuwait); Paulvanna Nayaki Marimuthu (Kuwait University, Kuwait)

3:20 ***Gain and Noise Ripple Reduction in Broadband Raman Amplifiers using HNLF Spectral Broadening*** **.....49**
Vineetha Kalavally (Monash University, Malaysia); Roy Karuntu (Monash University, Malaysia); Tin Win (Monash University Sunway Campus, Malaysia); Malin Premaratne (Monash University, Australia)

3:40 ***Performance of a Polling System with Finite Queues using Markov Chain*** **.....54**
Adnan Sohail (Vienna University of Technology, Austria); Ansar Yasin (TU Wien, Austria)

L11: Signal & Image Processing
Room: MERANTI
Chairs: Maimun Huja Husin (Universiti Malaysia Sarawak, Malaysia), Maneesha V Ramesh (Amrita Vishwa Vidyapeetham (University), India)

2:00 ***A Discriminant-based Locality Preserving Embedding In Face Recognition*** **.....59**
Ying Han Pang (Multimedia University, Malaysia); Andrew Teoh Beng Jin (Yonsei University, Korea); Wee How Khoh (Multimedia University, Malaysia)

2:20 ***Image based Atmospheric Correction of remotely Sensed Images*** **.....63**
Priti Tyagi (S. N. D. T. Women's University, India); Udhav Bhosale (University of Mumbai, India)

2:40 ***Signal Processing for Wireless Geophone Network to Detect Landslides*** **.....69**
Abishek Thekkeyil Kunnath (Amrita Vishwa Vidyapeetham, India); Maneesha V Ramesh (Amrita Vishwa Vidyapeetham (University), India); Vijayan Selvan (Amrita University, India)

3:00 ***Fast and Accurate Human Detection for Video Applications using Edgelets*** **.....74**
Chowdhury Mohammed (Monash University, Malaysia); Ye Chow Kuang (Monash University Malaysia, Malaysia); Melanie Ooi (Monash University, Malaysia)

3:20 ***Development of Shape Pattern Recognition for FPGA-Based Object Tracking System*** **.....80**
Maimun Huja Husin (Universiti Malaysia Sarawak, Malaysia); Fauziliana Osman (UNIMAS, Malaysia); Mohamad Faizrizwan Mohd Sabri (UNIMAS, Malaysia); Wan Azlan Wan Zainal Abidin (Universiti Malaysia Sarawak, Malaysia); Al-Khalid Othman (UNIMAS, Malaysia); Ade Syaheda Wani Marzuki (Universiti Malaysia Sarawak, Malaysia)

3:40 ***Image Index Model for Retrieval using Hadusdorff Distortion*** **.....85**
Janet B (National Institute of Technology, India); Reddy A v (, India)

K12: Industrial Electronics & Applications 1 (cont)
Room: BALAU
Chairs: Cmr Prabhu (Multimedia University, Malaysia), Haipeng Zhang (Hangzhou Dianzi University & Dalian University of Technology, P.R. China)

4:20 ***Multiple Feedforward Classifiers by Bagging for Ion-Sensitive Field Effect Transistor Sensor Response*** **.....90**
Wan Fazlida Abdullah (Universiti Teknologi MARA, Malaysia); Masuri Othman (Univrsity Kebangsaan Malaysia, Malaysia); Mohd Alauddin Mohd Ali (Universiti Kebangsaan Malaysia, Malaysia); Md. Shabiul Islam (University Kebangsaan Malaysia, Malaysia)

4:40 ***Design of Garment Hanger Dryer*** **.....94**
Rodney Tan (UCSI University, Malaysia)

5:00 ***Towards the Conceptual Design and Construction of an Unmanned Small-Scale Air-Land-Water Vehicle*** **.....98**
Arhami (Univeriti Tun Hussein Onn Malaysia, Malaysia); Khalid Hasnan (Universiti Tun Hussein Onn Malaysia, Malaysia); Abas Ab. Wahab (Universiti Tun Hussein Onn Malaysia, Malaysia)

5:20 ***Auto-Syringe System for Chemical Applications*** **.....104**
Abdulwahid A. Al-Saif (, Saudi Arabia)

5:40 ***The TDFC Method for Control Unstable Chaotic Behavior in Boost Converter*** **.....110**
Ataollah Abbasi (University of shahed, Iran); Mehrdad Rostami (Shahed University, Iran); Hamid Fathi (Amirkabir University of Technology, Iran); Jafar Abdollahi (University of shahed, Iran); Hamid Abbasi (University of tehran, Iran)

6:00 ***RTU Hardware Design for SCADA Systems Using FPGA*** **.....115**
Soroush Shirali (University of Shahid Beheshti, Iran); Shahab Ensafi (University of Shahaid Beheshti, Iran); Mahsa Naseri (Electronic engineering, Iran)

M12: Communications Technology 1 (cont)
Room: SERAYA
Chairs: Soma Bandyopadhyay (TATA Consultancy Services, India), Jehana Ermy Jamaluddin (Universiti Tenaga Nasional, Malaysia)

4:20 ***An Overview of Scheduling Algorithms in Mobile Ad-Hoc Networks*** **.....120**
Nur Idawati Md Enzai (Universiti Teknologi MARA, Malaysia); Rosheila Darus (UiTM, Malaysia); Siti Sara Rais (Universiti Teknologi MARA Terengganu, Malaysia)

4:40 ***Optimized Routing in a Location Aware System for Wireless Sensor Networks*** **.....125**
Javed Baloch (University of Leeds, United Kingdom); Brian Hoyle (University of Leeds, United Kingdom)

5:00 ***Modeling and Simulation of near-earth Wireless Sensor Networks for Agriculture based Application using OMNeT++*** **.....131**
Latifah Munirah Kamarudin (University Malaysia Perlis, Malaysia)

5:20 ***Analysis of RSC Turbo Codes in MB-OFDM UWB system with Channel Estimation*** **.....137**
Norulhusna Ahmad (Universiti Teknologi Malaysia, Malaysia)

5:40 ***Cluster Based Peers Configuration with Multiple Physical Parameters using HCNP in Peer-to-Peer Overlay Networks*** **.....142**
Saira Aslam (College of EME, National University of Science & Technology, Pakistan); Irum Kazmi (College of EME, NUST, Pakistan); Muhammad Javed (College of EME, NUST, Pakistan); Muhammad Shahzad Anwar (College of EME, NUST, Pakistan)

6:00 ***Demonstration of Spectral Slicing WDM System using Light Emitting Diode (LEDs) Light Source*** **.....*148***
Nasim Ahmed (University Malaysia Perlis, Malaysia)

l2: Signal & Image Processing (cont)
Room: MERANTI
Chairs: Maimun Huja Husin (Universiti Malaysia Sarawak, Malaysia), Maneesha V Ramesh (Amrita Vishwa Vidyapeetham (University), India)

4:20 ***Expression Invariant Face Recognition Using Multi-Stage 3D Face Fitting with 3D Morphable Face Model*** **.....151**
Abdallah Alomari (University Putra Malaysia, Malaysia); Fatimah Khalid (Universiti Putra Malaysia, Malaysia); Rahmita Wirza O.K. Rahmat (University Putra Malaysia, Malaysia); Muhamad Taufik Abdullah (University Putra Malaysia, Malaysia)

4:40 ***Digital Watermarking Algorithm Using LSB*** **.....155**
Abdullah Bamatraf (Tun Hussein Onn University, Malaysia); Rosziati Ibrahim (Tun Hussein On University, Malaysia); Mohd Najib Mohd Salleh (University Tun Hussein Onn Malaysia, Malaysia)

5:00 ***Noise Removal from Printed Text and Handwriting Images using Coordinate Logic Filters*****.....*160***
Sayed Mohammad Mostafavi Isfahani (Sabzevar Tarbiat Moallem University, Iran); Iman Abaspur Kazerouni (Sabzevar Tarbiat Moallem University, Iran); Javad Haddadnia (Sabzevar Tarbiat Moallem, Iran)

5:20 ***Offline Arabic Handwritten Word Recognition using Zernike Moments and Hidden Markov Models*** **.....165**
Idris El-Feghi (Al-Fateh University, Libya); Fatma Elmahjoub (Higher institute of industry, Libya); B. Alswady Alswady (Inam Company for Electrical Investments, Libya); Abdullah Baiou (EE -Fateh University, Libya)

5:40 ***Human Motion Tracking on Broadcast Golf Swing Video using Optical Flow and Template Matching*****.....11N**
Kwoh Fung Sim (Universiti Malaysia Perlis, Malaysia); Kenneth Sundaraj (University Malaysia Perlis, Malaysia)

6:00 ***Proposed Technique for Aircraft Recognition in Intelligent Video Automatic Target Recognition System (IVATRs)*** **.....174**
Syed Faisal Ali (Universiti Teknologi PETRONAS (UTP), Malaysia); Jafreezal Jaafar (Universiti Teknologi PETRONAS, Malaysia); Aamir S Malik (Universiti Teknologi Petronas, Malaysia)

Tuesday, December 7

K21: Software Engineering & AI
Room: BALAU
Chairs: Shivanand M Handigund (Bangalore Institute of Technology, Bangalore (India), India), Prabhakar Mishra (PES Institute of Technology, Bangalore, India)

8:40 ***A Novel Path Planning Algorithm for Autonomous Robot Navigation*** **.....180**
Prabhakar Mishra (PES Institute of Technology, Bangalore, India); Kushal Mall (PESIT, India)

9:00 ***Fuzzy PD+I and Fuzzy PID Controllers Design for a Nonlinear Quarter Car Suspension System*****.....186**
Sajad Tabatabaei (Mahshahr Islamic Azad University, Iran); Mokhtar Sha Sadeghi (Shiraz University of Technology, Iran); Alireza Barzegar (B.Sc. Control Egineering, Iran); Pegah Roosta (B.Sc. Control Engineering, Iran)

9:20 ***Object Categorization using Cartesian Genetic Programming (CGP) and CGP-Evolved Artificial Neural Network*****.....191**
Sumayyea Salahuddin (NWFP University of Engineering and Technology Peshawar, Pakistan); Maryam Mahsal Khan (University of Engineering & Technology, Peshawar, Pakistan)

9:40 ***Fuzzy Self-Tuning Gain Scheduled Control Design for an Autopilot Missile*** **.....197**
Sajad Tabatabaei (Mahshahr Islamic Azad University, Iran); Mokhtar Sha Sadeghi (Shiraz University of Technology, Iran); Shahab-o-din Tohidi (Shiraz University of Technology, Iran); Parinaz Sadat Mirjafari (University of Tehran, Iran)

10:00 ***Articulatory Δ and ΔΔ Parameters effect on HMM-based classifier for ASR*** **.....202**
Foyzul Hassan (United International University, Bangladesh); Qamrun Eity (Ahsanullah University of Science and Technology, Bangladesh); Mohammed Rokibul Alam Kotwal (United International University, Bangladesh); Manoj Banik (Ahsanullah University of Science and Technology, Bangladesh); Mohammad Mahedi Hasan (Blueliner Bangladesh, Bangladesh); Sharif Mohammad Musfiqur Rahman (United International University, Bangladesh); Ghulam Muhammad (King Saud University, Saudi Arabia); Mohammad Huda (United International University, Bangladesh)

10:20 ***Statistical Analysis Learning Approach: The Use of Artificial Intelligence In Network Data Visualization System*****.....206**
Doris Wong Hooi Ten (University Sains Malaysia, Malaysia)

L21: Human Factors & Ergonomics
Room: MERANTI
Chairs: Mehdi Moallem (Isfahan University of Technology, Iran), Anitawati Mohd Lokman (Universiti Teknologi MARA, Malaysia)

8:40 ***Preliminary Study on Factors that Influence Skin Characteristics of UiTM Staffs*** **.....211**
Saiful Suliman (Universiti Teknologi MARA, Malaysia); Yuslinda Wati Mohamad Yusof (Universiti Teknologi MARA, Malaysia)

9:00 ***An Effective Segmentation Method for Single Stroke Online Cursive Arabic Words*** **.....217**
Moayad Potrus (Universiti Sains Malaysia, Malaysia); Umi Ngah (Universiti Sains Malaysia, Malaysia); Harsa Mat Sakim (Universiti Sains Malaysia, Malaysia)

9:20 ***Fuzziness in Analytic Network Process under Interval Number for Criteria and Alternatives*** **.....222**
Napsiah Ismail (Universiti Putra Malaysia, Malaysia); Hannaneh Rashidi-Bajgan (Mazandaran University of Science and Technology, Iran); Taravatsadat Nehzati (University Putra Malaysia, Malaysia)

9:40 ***Finding an Optimal Learning Path in Dynamic Curriculum Sequencing with Flow Experience*** **.....227**
Norliza Katuk (, New Zealand); Hokyoung Ryu (Massey University, New Zealand)

10:00 ***A Genetic Algorithm for Capital Budgeting Problem with Fuzzy Parameters*** **.....233**
Hannaneh Rashidi-Bajgan (Mazandaran University of Science and Technology, Iran); Napsiah Ismail (Universiti Putra Malaysia, Malaysia); Taravatsadat Nehzati (University Putra Malaysia, Malaysia); Javad Rezaeian (Mazandran University of Science and Technology, Babol, Iran)

10:20 ***Exploring Kansei Structure and Visualization of Cell-phone Design Cluster*** **.....239**
Anitawati Mohd Lokman (Universiti Teknologi MARA, Malaysia); Nurul Ain Satibi (Universiti Teknologi MARA, Malaysia)

M21: Trusted Computing & Wireless Systems
Room: SERAYA
Chairs: Ali Dehghantanha (Asia- Pacific University College of Technology and Innovation, Malaysia), Nasrin Sadeghianpour Hamami (Multimedia University, Malaysia)

8:40 ***Mitigating Botware Attacks on E-banking Websites Utilizing Trusted Platform Module*** **.....245**
Ali Dehghantanha (Asia- Pacific University College of Technology and Innovation, Malaysia)

9:00 ***Rootkit Resistant File-system based on TPM*** **.....250**
Teh Jia Yew (Universiti Putra Malaysia (UPM), Malaysia); Khairulmizam Samsudin (Universiti Putra Malaysia, Malaysia); Nur Izura Udzir (Universiti Putra Malaysia, Malaysia)

9:20 ***An Empirical Study on Secure Communication for Grid Information Service*** **.....ii..lkk**
Razieh Mokhtarnameh (Multimedia University, Malaysia); Ho Sin Ban (Multimedia University, Malaysia); Nithiapidary Muthuvelu (Multimedia University, Malaysia)

9:40 ***A Method to Evaluate Web Services Anomaly Detection Using Hidden Markov Models*** **.....2hv**
Gholamali Rahnavard (New Mexico State University, USA); Meisam Najjar (, Iran); Somaye Taherifar (Shahid Chamran University of Ahvaz, Iran)

10:00 ***Model Driven Security Framework for Definition of Security Requirements for SOA Based Applications*** **.....26h**
Muhammad Qaiser Saleem (University Technology Petronas, Malaysia); Jafreezal Jaafar (Universiti Teknologi PETRONAS, Malaysia); Mohd Fadzil Hassan (Universiti Teknologi PETRONAS, Malaysia)

10:20 ***Packet Analysis using Packet Filtering and Traffic Monitoring Techniques*** **.....2Xhv**
Siti Hajar Che Haris (University Malaysia Perlis, Malaysia)

L22: Human Factors & Ergonomics (cont)
Room: MERANTI
Chairs: Mehdi Moallem (Isfahan University of Technology, Iran), Anitawati Mohd Lokman (Universiti Teknologi MARA, Malaysia)

11:00 ***Framework for New Generation Web Form and Form Filling for Blind User*** **.....27h**
Kian Kok Cheung (University Malaysia Sarawak, Malaysia); Edwin Mit (Universiti Malaysia Sarawak, Malaysia); Chong Eng Tan (Universiti Malaysia Sarawak, Malaysia)

11:20 ***User Perception on Public Payphone Icons and Their Representation in Malaysia*** **.....2Wl**
Chee Weng Khong (Multimedia University, Malaysia); Chui Yin Wong (Multimedia University, Malaysia); Stanley Richardson (Multimedia University, Malaysia)

11:40 ***Cognitive Mapping on User Interface Design*** **.....28W**
Chui Yin Wong (Multimedia University, Malaysia)

12:00 ***Investment supervision in stock market*** **.....2NK**
Umm-e- Laila (Sir Syed Unievrsity of Engineering and Technology, Pakistan)

M22: Trusted Computing & Wireless Systems (cont)
Room: SERAYA
Chairs: Ali Dehghantanha (Asia- Pacific University College of Technology and Innovation, Malaysia), Nasrin Sadeghianpour Hamami (Multimedia University, Malaysia)

11:00 ***Privacy-Enhanced Trusted Location Based Services (PE-TLBS) Framework based on Direct Anonymous Attestation (DAA) protocol*** **29**
Hanunah Othman (University Teknologi MARA, Malaysia); Habibah Hashim (Universiti Teknologi MARA, Malaysia); Jamalul-lail Ab Manan (MIMOS Berhad, Malaysia); Mohd Ameer Yuslan Razmi (Universiti Teknologi MARA, Malaysia)

11:20 ***Wireless Physical Layer Security Using Encryption and channel Pre-Compensation*** **1**
M Tahir (IIUM, Malaysia); Sigit Jarot (International Islamic University Malaysia, Malaysia); Mohammad Umar Siddiqi (International Islamic University Malaysia, Malaysia)

11:40 ***Trusted Computing Based Microkernel***..... **1**
Sharipah Setapa (Researcher, Malaysia); Mohd Anuar Mat Isa (MIMOS Berhad, Malaysia); Nazri Abdullah (Researcher, Malaysia); Jamalul-lail Ab Manan (MIMOS Berhad, Malaysia)

12:00 ***Joint Resource Allocation in Multi-Radio Multi-Channel Wireless Mesh Networks with Practical Sectored Antennas*** **1**
Nasrin Sadeghianpour Hamami (Multimedia University, Malaysia); Teong Chee Chuah (Multimedia University, Malaysia); Su Wei Tan (Multimedia University, Malaysia)

12:20 ***Energy Consumption Balancing in Wireless Sensor Networks*** **1**
Farruh Ishmanov (Yeungnam University, Korea)

12:40 ***A new routing algorithm for Wireless Sensor Networks*** **1**
Javad Zamani (Islamic Azad University - Zanjan Branch, Zanjan, Iran); Jaber Karimpour (University of tabrize, Iran)

K22: Software Engineering & AI (cont)
Room: BALAU
Chairs: Shivanand M Handigund (Bangalore Institute of Technology, Bangalore (India), India), Prabhakar Mishra (PES Institute of Technology, Bangalore, India)

11:00 ***Performance Comparison between Adaptive Neuro-Controller and Adaptive Parametric Black Box Controller*** **1**
Siti Maryam Sharun (University Malaysia Perlis, Malaysia); Mohd Yusoff Mashor (UNIMAP, Malaysia); Norhayati Mohd Nazid (University Malaysia Perlis, Malaysia); Sazali Yaacob (Universiti Malaysia Perlis, Malaysia); WAN NUR HADANI Wan jaafar (UNIMAP, Malaysia)

11:20 ***Minimal Instruction Set FPGA AES Processor using Handel - C*** **1**
Jia Hao Kong (University of Nottingham Malaysia Campus, Malaysia); Li Minn Ang (University of Nottingham, Malaysia campus, Malaysia); Kah Phooi Seng (University of Nottingham, Malaysia campus, Malaysia); Achonu Oluwole Adejo (University of Nottingham Malaysia, Malaysia)

11:40 ***Measuring testability of Aspect oriented programes***
Parteek Sharma (RIMT Instiitute of Engineering & Technology, India); Mohit Kumar (RIMT-IET Mandi Gobindgarh, India); Harsh Sadawarti (RIMT Institute of Engg. & Technology, Mandi Gobindgarh, India)

12:00 ***Communication Issues in Parallel Conjugate*** [illegible]
Leila Ismail (UAE University, UAE)

12:20 ***Implementation of (15, 9) Reed Solomon Minimal Instruction Set Computing on FPGA using Handel-C***
Jia Jan Ong (University of Nottingham Malaysia Campus, Malaysia); Li Minn Ang (University of Nottingham, Malaysia campus, Malaysia); Kah Phooi Seng (University of Nottingham, Malaysia campus, Malaysia)

12:40 ***An Ameliorated Methodology for the Abstraction of Object Class Structures for an Information System***
Shivanand M Handigund (Bangalore Institute of Technology, Bangalore (India), India); Shweta Bhat (Bangalore Institute of Technology, Bangalore, India)

N31: Industrial Electronics & Applications 3
Room: CENGAL
Chairs: Dilmi Smain (university of Blida, Algeria), Takao Tsukutani (Matsue College of Technology, Japan)

2:00 ***Heat Exchanger Modeling using NARX Model with Binary PSO-based Structure Selection Method***
Ihsan M. Yassin (Universiti Teknologi Mara, Malaysia); Mohd Nasir Taib (Universiti Teknologi MARA, Malaysia); Hasliza Abu Hassan (Universiti Industri Selangor, Malaysia); Azlee Zabidi (Universiti Teknologi MARA, Malaysia); Nooritawati Md Tahir (Universiti Teknologi MARA, Malaysia)

2:20 ***Synergetic Brain Model for Human-Like Motion Patterns Recognition***
Ibrahim Za'balawi (Multimedia University, Malaysia); ChuKiong Loo (Multimedia University, Malaysia); Eng Kiong Wong (Multimedia University, Malaysia)

2:40 ***EEG Based Home Lighting System***
Nurfatehah Wahy (Universiti Teknologi Mara, Malaysia); Wahidah Mansor (Universiti Teknologi MARA, Malaysia)

3:00 ***The Design and Testing of an Electronic Nose Prototype for Classification Problem***
Mazlina Mamat (Universiti Kebangsaan Malaysia, Malaysia); Salina A Samad (Universiti Kebangsaan Malaysia, Malaysia)

3:20 ***Electrical Tunable Multiple-Mode Universal Biquadratic Circuits***
Yasuaki Sumi (Tottori University of Environmental Studies, Japan)

3:40 ***Logical Effort using Particle Swarm Optimization Algorithm - An Examination on the 4-Stage Half Adder Circuit***
Aiman Johari (Universiti Teknologi Mara, Malaysia); Syazilawati Mohamed (Universiti Teknologi MARA, Malaysia); Hasliza Abu Hassan (Universiti Industri Selangor, Malaysia); Abdul Karimi Halim (Universiti Teknologi MARA, Malaysia); Ihsan M. Yassin (Universiti Teknologi Mara, Malaysia)

M31: Industrial Electronics & Applications 2
Room: SERAYA
Chairs: Sheetal Bhandari (International Institute of information Technology, India), Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia)

2:00 ***Multilayer Structure of Ring Resonator Filter for Digital Broadcasting*** 1NK
M. Ali. Maghpur Muhammad (UiTM, Malaysia); Robi'atun Adayiah Awang (Universiti Teknologi Mara, Malaysia); Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia); Noor Hasimah Baba (Universti Teknologi Mara, Malaysia); Mohamad Huzaimy Jusoh (Universiti Teknologi MARA, Malaysia); Mohd Ain (Universiti Sains Malaysia, Malaysia)

2:20 ***On Design of Differential Voltage Controlled Oscillators with Single Ended Control Line*** 1NM
Mehdi Ayat (Iran University of Science and Technology, Iran); Reza Ebrahimi Atani (University of Guilan, Iran); Sattar Mirzakuchaki (Iran University of Science and Technology, Iran); Alireza Abdollahi Taromsari (The University of Guilan, Iran)

2:40 ***X-Band Dielectric Resonator Bandpass Filter*** ..... KVK
Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia); Mohd Ain (Universiti Sains Malaysia, Malaysia); Mohamad Ariff Othman (Universiti Sains Malaysia, Malaysia); Ali Othman (Universiti Sains Malaysia, Malaysia)

3:00 ***Space Radiation Effects in QCA Binary Wire*** ..... KVN
Mojdeh Mahdavi (Islamic Azad University of Shahryar Shahr-e-Qods Branch, Iran); Mohammad Amin Amiri (Iran University of Science & Technology, Iran); Sattar Mirzakuchaki (Iran University of Science and Technology, Iran)

3:20 ***Logic-Based QCA Realization of a 4×4 S-Box*** ..... KhI
Mohammad Amin Amiri (Iran University of Science & Technology, Iran); Mojdeh Mahdavi (Islamic Azad University of Shahryar Shahr-e-Qods Branch, Iran); Sattar Mirzakuchaki (Iran University of Science and Technology, Iran)

3:40 ***A Framework of Telemetry Technology Application in Robotic Area Using MATLAB Toolboxes for Education*** ..... KhN
Luhur Budi Saesar (UTHM, Malaysia)

L31: Communications Technology 2
Room: MERANTI
Chairs: Habibah Hashim (Universiti Teknologi MARA, Malaysia), Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

2:00 ***Comparative Performance Evaluation of LDPC Coded and Turbo Coded OFDM Systems in SUI Multipath Channel Models*** ..... Klk
Muhammad Shahzad Anwar (College of EME, NUST, Pakistan); Muhammad Zeeshan (College of EME, NUST, Pakistan); Saira Aslam (College of EME, National University of Science & Technology, Pakistan); Muhammad Ajaz (College of EME, NUST, Pakistan); Muhammad Salman (College of Electrical & Mechanical Engineering, National University of Sciences & Technology, Pakistan)

2:20 ***Joint Delay-Aware Opportunistic Scheduling Algorithm with Reduced Feedbackto Exploit Multiuser Diversity*** K11

Rachod Patachaianand (University of Technology Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia); Faisal Madani (University of Technology Sydney, Australia)

2:40 ***Estimation of the Doppler spread and the time delay spread for the Wireless Communication Channel*** K13

Zaiton Sharif (Universiti Teknologi Malaysia, Malaysia); Ahmad Zuri Bin Sha'ameri (Universiti Teknologi Malaysia, Malaysia)

3:00 ***Opportunistic Downlink Sum-Rate with Multiple Feedback Thresholds*** K15

Rachod Patachaianand (University of Technology Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

3:20 ***Speed Estimation Using Transmit Power Control Commands*** K17

Rachod Patachaianand (University of Technology Sydney, Australia); Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

3:40 ***Color-based Bottom-up Saliency for Traffic Sign Detection*** K19

Anh Cat Le Ngo (The University of Nottingham, Malaysia Campus, Malaysia); Kenneth Ang Li-Minn (The University of Nottingham, Malaysia Campus, Malaysia); Jasmine Seng Kah Phooi (The University of Nottingham, Malaysia Campus, Malaysia); Guoping Qiu (University of Nottingham, United Kingdom)

K31: Signal & Image Processing 3
Room: BALAU
Chairs: Yasmin Hanum Md Thayoob (Universiti Tenaga Nasional, Malaysia), Sanjay Nilkanth Talbar (Shri Guru Gobind Singhji Insitute of Engineering and Technology, India)

2:00 ***Curvelet-based Illumination Invariant Feature Extraction for Face Recognition*** K21

Sue Inn Ch'ng (Nottingham University Malaysia Campus, Malaysia)

2:20 ***Gait classification with different covariate factors*** K23

Hu Ng (Multimedia University, Malaysia); Hau Lee Tong (Multimedia University, Malaysia); Wooi Haw Tan (Multimedia University, Malaysia); Timothy Tzen Vun Yap (Multimedia University, Malaysia); Junaidi Abdullah (Multimedia University, Malaysia)

2:40 ***Adaptive image segmentation based on Peak Signal to Noise Ratio for a license plate recognition system*** K25

Farshid PirahanSiah (University Kebangsaan Malaysia (UKM – National University of Malaysia), Malaysia); Siti Norul Huda Sheikh Abdullah (Universiti Teknologi Malaysia, Malaysia); Shahnorbanun Sahran (Universiti Kebangsaan Malaysia, Malaysia)

3:00 ***Biomedical Image Coding using Dual Tree Discrete Wavelet Transform and Noise Shaping Algorithm*** K27

Sanjay Nilkanth Talbar (Shri Guru Gobind Singhji Insitute of Engineering and Technology, India); Anil K Deshmane (College of Engineering, Osmanabad, India)

3:20 ***Surface Normal Angle for 3D Face Recognition*** K29

Wei Jen Chew (The University of Nottingham, Malaysia); Kah Phooi Seng (University of Nottingham, Malaysia campus, Malaysia); Li Minn Ang (University of Nottingham, Malaysia campus, Malaysia)

3:40 ***MR Image Monomodal Registration Based on the Nonsubsampled Contourlet Transform and Mutual Information*** KIIIY
Nemir Ahmed Al-Azzawi (Universiti Sains Malaysia (USM), Malaysia); Harsa Amylia Mat Sakim (Universiti Sains Malaysia, Malaysia); Ahmed K. Wan Abdullah (Universiti Sains Malaysia, Malaysia)

J31: Computer Applications & Signal Processing
Room: KENANGA
Chairs: Mas Irfan Purbawanto Hidayat (Institute of Technology Sepuluh Nopember, Indonesia), Ibrahim Za'balawi (Multimedia University, Malaysia)

2:00 ***Adaptive Skin Color Model for Hand Segmentation*** KIIIk
Ahmad Yahya Dawod (Mulit Media University, Malaysia)

2:20 ***Evaluation of Bangla Word Recognition Performance Using Acoustic Features*** KIIJN
Shahadat Hossain (United International University, Bangladesh); Nusrat Lisa (Ahsanullah University of Science and Technology, Bangladesh); Gazi Md. Moshfiqul Islam (United International University, Bangladesh); Foyzul Hassan (United International University, Bangladesh); Mohammad Mahedi Hasan (Blueliner Bangladesh, Bangladesh); Sharif Mohammad Musfiqur Rahman (United International University, Bangladesh); Mohammed Rokibul Alam Kotwal (United International University, Bangladesh); Mohammad Huda (United International University, Bangladesh)

2:40 ***Robust Delay-Dependent α-Synchronization of a Class of Uncertain Noise-Perturbed Time-Delayed Chaotic and Hyper-Chaotic Systems*** KJNK
Mokhtar Sha Sadeghi (Shiraz University of Technology, Iran); Mahdi Sojoodi (Tarbiat Modares University, Iran)

3:00 ***Sinogram Concept Approach in Image Reconstruction Algorithm of a Computed Tomography System Using MATLAB*** KJJN
Zulkarnay Zakaria (Universiti Malaysia Perlis, Malaysia); Noor Hidayah Jaafar (Universiti Malaysia Perlis, Malaysia); Noor Aqma Mohd Yazid (Universiti Malaysia Perlis, Malaysia); Muhammad Saiful Badri Mansor (School of Mechatronic Engineering, Malaysia); Mohd Hafiz Fazalul Rahiman (Universiti Industri Selangor, Malaysia); Ruzairi Abdul Rahim (Universiti Teknologi Malaysia, Malaysia)

3:20 ***Radial Basis Function Neural Networks for Velocity-field Reconstruction in Fluid-Structure Interaction Problem*** KYk
Mas Irfan Purbawanto Hidayat (Institute of Technology Sepuluh Nopember, Indonesia); Bambang Ariwahjoedi (Universiti Teknologi PETRONAS, Malaysia)

3:40 ***Fuzzy PID Controller Design for a Heat Exchanger System: an Energy Efficiency Approach*** khvY
Sajad Tabatabaei (Mahshahr Islamic Azad University, Iran); Pegah Roosta (B.Sc. Control Engineering, Iran); Mokhtar Sha Sadeghi (Shiraz University of Technology, Iran); Alireza Barzegar (B.Sc. Control Egineering, Iran)

H31: Signal & Image Processing 2
Room: TANJUNG
Chairs: Roslina Mohamad (University Teknologi Mara, Malaysia), Siti Norul Huda Sheikh Abdullah (Universiti Teknologi Malaysia, Malaysia)

2:00 ***Performance Analysis of Convolutional Interleaver on TMS320C6711 Digital Signal Processing Kit*** khvk
Roslina Mohamad (University Teknologi Mara, Malaysia); Nuzli Mohamad Anas (Mimos Berhad, Malaysia)

2:20 ***Speeding up Fractal Image De-Compression*** ƙlɣ
Abolfazl Hosseini (Tarbiat Modares University, Iran); Besharat Rezaei Shookooh (University of Islamic Azad, Iran); Saeid Shahhosseini (Islamic Azad University Shahr-e-Rey branch, Iran); Shahriar Beizaee (Islamic Azad University Shahr-e-Rey branch, Iran)

2:40 ***Automatic Visual Inspection Classify Metal Parts Based on Morphology and Fuzzy Rules*** ƙlɬ
Siti Norul Huda Sheikh Abdullah (Universiti Teknologi Malaysia, Malaysia); Haider Sh Hashim (University Kebangsaan Malaysia, Malaysia); Anton Satria Prabuwono (Universiti Kebangsaan Malaysia, Malaysia)

3:00 ***Ultra Low Power Implementation of 2-D DCT for Image/Video Compression*** ƙɬƕ
Thoudam Singh (Indian Institute of Technology, Delhi, India)

3:20 ***A Visual Base Image Coding Using Unequal Error Protection in High Error Rate Channels*** ƙɬɬ
Saeid Shahhosseini (Islamic Azad University Shahr-e-Rey branch, Iran); Abolfazl Hosseini (Tarbiat Modares University, Iran)

3:40 ***Bangla Phoneme Recognition for Different Acoustic Features*** ƙƙl
Mohammed Rokibul Alam Kotwal (United International University, Bangladesh); Foyzul Hassan (United International University, Bangladesh); Manoj Banik (Ahsanullah University of Science and Technology, Bangladesh); Gazi Md. Moshfiqul Islam (United International University, Bangladesh); Md. Rakibuzzaman (United International University, Bangladesh); Mohammad Mahedi Hasan (Blueliner Bangladesh, Bangladesh); Ghulam Muhammad (King Saud University, Saudi Arabia); Mohammad Huda (United International University, Bangladesh)

C32: CSSR : Engineering Applications 3 (cont)
Room: BALL**ROOM** C

4:20 ***Improvement of superheated steam generator by induction heating*** ƙƙƛ
Hideo Tomita (Tokyo Denki University, Japan); Yuki Makimura (Tokyo Denki University, Japan)

N32: Industrial Electronics Applications 3 (cont)
Room: CENGAL
Chairs: Dilmi Smain (university of Blida, Algeria), Takao Tsukutani (Matsue College of Technology, Japan)

4:20 ***Electronically Tunable First-Order All Pass Sections Using OTAs*** ƙƙƕ
Takao Tsukutani (Matsue College of Technology, Japan)

4:40 ***Simulation on Simulink AC4 Model (200hp DTC Induction Motor Drive) Using Fuzzy Logic Controller*** ƙƙɬ
Nur Hakimah Ab Aziz (Universiti Teknikal Malaysia Melaka, Malaysia); Azhan Ab Rahman (Universiti Teknikal Malaysia Melaka, Malaysia)

5:00 ***μ-synthesis Controller Design for the GLA longitudinal Flexible Aircraft*** ƙɬƕ
Dilmi Smain (university of Blida, Algeria); Bouzouia Brahim (Centre de Développement des Téchnologies Avancées, Algeria)

5:20 ***Intelligent Identification of Uncertainty Bounds for Robust Servo Controlled System*** ƙɬƛ
Safanah M Raafat (IIUM, Malaysia); Rini Akmeliawati (International Islamic University, Malaysia)

5:40 ***Application of Bandpass Filter as a Sensor for Rice Characterization*** 000
Kok Yeow You (, Malaysia); Li Ling You (, Malaysia)

J32: Computer Applications & Signal Processing (cont)
Room: KENANGA
Chairs: Mas Irfan Purbawanto Hidayat (Institute of Technology Sepuluh Nopember, Indonesia), Ibrahim Za'balawi (Multimedia University, Malaysia)

4:20 ***Challenges in Building Domain Ontology For Minority Languages*** 000
Panceras Talita (Universiti Malaysia Sarawak (UNIMAS), Malaysia); Alvin W Yeo (Universiti Malaysia Sarawak, Malaysia); Narayanan Kulathuramaiyer (UniMas, Malaysia)

4:40 ***Computer Supported Cooperative Work (CSCW) in Orthography System Development*** 000
Sook Kuan Chin (University of Malaysia Sarawak, Malaysia); Alvin W Yeo (Universiti Malaysia Sarawak, Malaysia)

5:00 ***The effects of Event Selection based on Soft Constraint Violation (ESSCV) in a Modified PSO Algorithm to Solve Class Scheduling Problems*** 000
Mohd Azri Abdul Aziz (Universiti Teknologi Mara, Malaysia); Mohd Nasir Taib (Universiti Teknologi MARA, Malaysia); Naimah Mohd Hussin (Universiti Teknologi MARA, Malaysia)

5:20 ***Discrete Mutative Particle Swarm Optimization of MFCC Computation for Hypothyroidism Diagnosis in Infants*** 000
Azlee Zabidi (Universiti Teknologi MARA, Malaysia); Wahidah Mansor (Universiti Teknologi MARA, Malaysia); Lee Yoot Khuan (Universiti Teknologi MARA, Malaysia); Ihsan M. Yassin (Universiti Teknologi Mara, Malaysia); Rohilah Sahak (Universiti Teknologi MARA, Malaysia)

5:40 ***Automatic Estimation Total Number of Cluster Using A Hybrid Test-and-Generate and K-means Algorithm*** 000
Massudi Mahmuddin (Universiti Utara Malaysia, Malaysia); Yuhanis Yusof (Universiti Utara Malaysia, Malaysia)

M32: Industrial Electronics & Applications 2 (cont)
Room: SERAYA
Chairs: Sheetal Bhandari (International Institute of information Technology, India), Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia)

4:20 ***Methodology for On the Fly Partial Reconfiguration For Computation Intensive Applications on FPGA*** 000
Sheetal Bhandari (International Institute of information Technology, India); Avinash Rai (International Institute of Information Technology, India); Shashank Pujari (International Institute of Information Technology, India); Shaila Subbaraman (Dean-Academics, in Electronics, Walchand College of Engineering Sangli, India)

4:40 ***FPGA Implementation of an intelligent current dq PI controller for FOC PMSM drive*** 000
Mohammad Marufuzzaman (Universiti Kebangsaan Malaysia, Malaysia); Mamun Bin Ibne Reaz (National University of Malaysia, Malaysia); Mohd Alauddin Mohd Ali (Universiti Kebangsaan Malaysia, Malaysia)

5:00 ***An Experimental Prototype of Buck Converter Fed Series DC Motor Implementing Speed and Current Controls*** 000
Bahman Eskandari (K.N. Toosi University of Technology, Iran)

5:20 ***Real-Time Communication Between Personal Computer And Programmable Logic Controller For Networked Control System Based On Industrial Ethernet*** ŀhwŀ
Handy Ali Munir (Universiti Teknologi PETRONAS, Malaysia); Nordin B Saad (Universiti Teknologi Petronas, Malaysia); Syed Alwee Aljunid (Universiti Malaysia Perlis, Malaysia); Ahmad Mujahid Ahmad Zaidi (National Defence Unversity of Malaysia, Malaysia); Mohd Zuki Yusoff (Universiti Teknologi Petronas, Malaysia); Azhar Jaffar (PUO, Malaysia)

L32: Communications Technology 2 (cont)
Room: MERANTI
Chairs: Habibah Hashim (Universiti Teknologi MARA, Malaysia), Kumbesan Sandrasegaran (University of Technology, Sydney, Australia)

4:20 ***Statistical Fixed Range Multiple Selection Algorithm for Peer-to-Peer System*** ŀhwŀ
Yeah Lun Kweh (Universiti Putra Malaysia, Malaysia); Mohamed Othman (Universiti Putra Malaysia, Malaysia); Fatimah Ahmad (University Putra Malaysia, Malaysia); Hamidah Ibrahim (Universiti Putra Malaysia, Malaysia)

4:40 ***Mobile Sink based Routing Protocol (MSRP) for Prolonging Network Lifetime in Clustered Wireless Sensor Network*** ŀlŀ
Babar Nazir (Universiti Teknologi PETRONAS Tronoh, Perak, Malaysia); Halabi Hasbullah (Universiti Teknologi PETRONAS, Malaysia)

5:00 ***Impact of aggregation headers on aggregating small MSDUs in 802.11n WLANs*** ŀlN
Anwar Saif (University Putra Malaysia, Malaysia); Mohamed Othman (Universiti Putra Malaysia, Malaysia); Shamala Subramaniam (Universiti Putra Malaysia, Malaysia); Nor Asila Wati Abdul Hamid (Universiti Putra Malaysia, Malaysia)

5:20 ***The Performance of Cyclostationarity-Based WRAN Classification Approach In Multipath Fading Channel*** ŀŀk
Alfateh M.Alhassan Mossa (Universiti Teknologi PETRONAS, Malaysia)

5:40 ***Technical Comparison Analysis of Encryption Algorithm on Site-to-Site IPSec VPN*** ŀKY
Ruhani Ab. Rahman (Universiti Teknologi MARA, Malaysia); Muhammad Hafiz Mazlan Zaharuddin (Universiti Teknologi Mara, Malaysia); Murizah Kassim (Universiti Teknologi MARA, Malaysia)

6:00 ***Secure Boot Process for Wireless Sensor Node*** ŀKk
Lukman Adnan (Universiti Teknologi Mara, Malaysia); Yusnani Mohd Yussoff (University Teknologi MARA, Malaysia); Habibah Hashim (Universiti Teknologi MARA, Malaysia)

K32: Signal & Image Processing 3 (cont)
Room: BALAU
Chairs: Yasmin Hanum Md Thayoob (Universiti Tenaga Nasional, Malaysia), Sanjay Nilkanth Talbar (Shri Guru Gobind Singhji Insitute of Engineering and Technology, India)

4:20 ***UNMC-VIER AutoVision Database*** ŀKN
King Hann Lim (University of Nottingham, Malaysia campus, Malaysia)

4:40 ***Car Plate Recognition based on UMACE Filter*** ŀkK
Siti Salwa Md Noor (Universiti Teknologi Mara, Malaysia); Nooritawati Md Tahir (Universiti Teknologi MARA, Malaysia)

)0 ***Enhanced Snake Model and Modified H∞ for Lips Contour Detection and Tracking*** ŧkШ
ew Wen Chin (The University of Nottingham, Malaysia); Kah Phooi Seng (University of Nottingham, Malaysia campus, Malaysia); Li Minn Ang (University of Nottingham, Malaysia campus, Malaysia)

5:20 ***Analysis of High Frequency Wave Propagation Characteristics in Medium Voltage XLPE Cable Model*** ŧŧK
Yasmin Hanum Md Thayoob (Universiti Tenaga Nasional, Malaysia); Azrul Mohd Ariffin (UNITEN, Malaysia); Suhaila Sulaiman (Universiti Tenaga Nasional, Malaysia)

H32: Signal & Image Processing 2 (cont)
Room: TANJUNG
Chairs: Roslina Mohamad (University Teknologi Mara, Malaysia), Siti Norul Huda Sheikh Abdullah (Universiti Teknologi Malaysia, Malaysia)

4:20 ***Predicting Mechanical Properties of Cold Rolled Low Carbon Steel Based on Magnetic Parameter Measurement using Artificial Neural Network*** ŧƛɣ
Maryam Eftekhari (Isfahan University of Technology, Iran); Mohammad Adib Ghadamyari (Pajoohandeh Niroo Company, Iran); Mehdi Moallem (Isfahan University of Technology, Iran); Saeed Sadri (, Iran); Abdolrahim Sadeghi (Mobarakeh Steel Company, Iran); Davood Asefi (Najafabad Azad University, Iran); Hossein Monajati (Islamic Azad University, Najafabad Branch, Iran)

4:40 ***A 2-DoF Multi-Objective Hinf/L1 Robust Controller Design for a High Purification Distillation Column Using LMIs*** ŧƛŧ
Sajad Tabatabaei (Mahshahr Islamic Azad University, Iran); Hasan Zakeri (Shiraz Univrsity of Technology, Iran); Mokhtar Sha Sadeghi (Shiraz University of Technology, Iran)

5:00 ***Designing a Joint Perceptual Encryption and Blind Watermarking Scheme Compliant with JPEG Compression Standard*** ŧШƕ
Muhammad Imran Khan (Universiti Teknologi PETRONAS, Malaysia); Varun Jeoti (University Teknologi PETRONAS, Malaysia); Aamir S Malik (Universiti Teknologi Petronas, Malaysia)

5:20 ***Optimized Support Vector Machine for Classifying Infant Cries with Asphyxia using Orthogonal Least Square*** ŧШk
Rohilah Sahak (Universiti Teknologi MARA, Malaysia); Lee Yoot Khuan (Universiti Teknologi MARA, Malaysia); Wahidah Mansor (Universiti Teknologi MARA, Malaysia); Ihsan M. Yassin (Universiti Teknologi Mara, Malaysia); Azlee Zabidi (Universiti Teknologi MARA, Malaysia)

5:40 ***Comparison of Higher Order Diffusion Filters for Speckle Noise Reduction*** ŧŊɣ
Chennaboina Kranthi Rekha (Linton Universiti College, India); Bobbala Sreedevi (Vaagdevi college of engg, India); Valapadasu Vijaya (Vaagdevi college of engg, India)

6:00 ***Terrestrial Optical Wireless Communication Propagation Analysis considering Malaysia's Weather Condition*** ŧŊk
Arnidza Ramli (Universiti Teknologi Malaysia, Malaysia); Wan Rizal Hazman Wan Ruslan (Universiti Teknologi Malaysia, Malaysia); Sevia Mahdaliza Idrus (Photonics Technology Centre, Malaysia); Norhafizah Ramli (Universiti Teknologi Malaysia, Malaysia)