

2015 International Conference on Computer, Communications, and Control Technology

(I4CT 2015)

**Kuching, Sarawak, Malaysia
21-23 April 2015**



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7:30 AM - 5:00 PM

RO1: Registration Open

8:30 AM - 10:30 AM

CM1: Communication Technology 1

Room: Danum 2

Chairs: Farzana Quoquab (Universiti Teknologi Malaysia, Malaysia), Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia)

8:30 Comparison of Low-Power Wireless Communication Technologies for Wearable Health-Monitoring Applications

Mohammad Ghamari, Harneet Arora, R. Simon Sherratt and Harwin William (University of Reading, United Kingdom)

8:45 Handling Voice in LTE

Ahmed Amou El Arby (Gaston Berger University & Ict Mauritania, Mauritania); Ousmane Thiare (Gaston Berger University, Senegal)

9:00 Self-Organizing Network Based Handover Mechanism for LTE Networks

Mohd Dani Baba and Ili Nadia Md Isa (Universiti Teknologi MARA, Malaysia)

9:15 Performance Analysis of Scheduling Policies for VoIP Traffic in LTE-Advanced Network

Aini Syuhada Md Zain and Mohd Fareq Abd Malek (Universiti Malaysia Perlis, Malaysia); Mohamed Elshaikh (UniMAP, Malaysia); Normaliza Omar and Abadal-Salam Hussain (Universiti Malaysia Perlis, Malaysia)

9:30 Joint Channel Selection and Cluster-based Routing Scheme Based on Reinforcement Learning for Cognitive Radio Networks

Yasir Saleem and Kok-Lim Alvin Yau (Sunway University, Malaysia); Hafizal Mohamad and Nordin Ramli (MIMOS Berhad, Malaysia); Mubashir Husain Rehmani (COMSATS Institute of Information Technology & UPMC Sorbonne Universités Laboratoire LIP6-CNRS, France)

9:45 Miniaturization of Printed Monopole Antenna Through Fractal Geometry and Partial Cutting Methods for UHF Application ***&*

Nabilah Ripin (UiTM, Malaysia); Ahmad Asari Sulaiman and Nur Emileen Abd Rashid (Universiti Teknologi MARA, Malaysia); Mohamad Fahmi Hussin (UiTM, Malaysia)

10:00 Enhanced Impulsive Noise Cancellation Based on SSRLS *** %

Alina Mirza (NUST, Pakistan); Sumrin Kabir (National University of Sciences and Technology, Pakistan); Sara Ayub (College of Electrical and Mechanical Engineering National University of Science and Technology, Pakistan); Muhammad Arslan (College of EME National University of Science and Technology, Pakistan); Shahzad Sheikh (National University of Sciences & Technology, Pakistan)

10:15 Cyberloafing: Does Workplace Internet Leisure Affect Employee Satisfaction? *** *

Farzana Quoquab (Universiti Teknologi Malaysia, Malaysia); Nomahaza Mahadi (IBS-UTM, Malaysia); Siti Halimah Abdul Hamid (UPM, Malaysia)

CO1: Computer Technology 1

Room: Danum 3

Chairs: Denis Cahyani (University Of Indonesia, Indonesia), Jeannie Lau Mei Lee (Altera Corporation (M) Sdn. Bhd., Malaysia)

8:30 Developing Indonesian Medicinal Plant Ontology Using Socio-Technical Approach -

Denis Cahyani (University Of Indonesia, Indonesia); Indra Budi (University of Indonesia, Indonesia)

8:45 A Scalable Method to Measure Similarity Between Two EDA-Generated Timing Graphs ((

Jeannie Lau Mei Lee (Altera Corporation (M) Sdn. Bhd., Malaysia)

9:00 Comparison of Disk I/O Power Consumption in Modern Virtualization (-

Kritwara Rattanaopas and Pichaya Tandayya (Prince of Songkla University, Thailand)

9:15 Framework for Human Identification Through Offline Handwritten Documents) (

Shehzad Khalid (Bahria University, Pakistan)

9:30 Retrofit Control Solutions for Old Buildings Using WSN -)

Ajeaya Anand and Raja Vasudevan (Center for Development of Advanced Computing, India); Sayantani Bhattacharya (Centre for Development of Advanced Computing, India); Arun R and Sivanantham A (Center for Development of Advanced Computing, India)

9:45 Online Banking User Interface: Perception and Attitude ** (

Adegoke Ojeniyi (Universiti Utara Malaysia, Malaysia); Olusegun Kehinde Alo (Niger State Polytechnic, Nigeria); Eunice Modupeola Oyetade (Michael Otedola College of Education, Malaysia); Moon Think Ang and Yekinni Kolawole Sanusi (Universiti Utara Malaysia, Malaysia)

10:00 Cloud Computing: A Key Enabler for Higher Education in Sultanate of Oman **+\$

Issa Alghatrifi (Nizwa College of Technology, Oman)

10:15 Diagnostic Tool to Detect Early Stage of Breast Cancer **+'

Umi Hanim Mazlan (University Technology Mara, Malaysia); Siti Hafawati Jamaluddin (University Technology Mara Malaysia, Malaysia); Wan Saiful 'Azzam Wan Ismail (Universiti Teknologi MARA, Malaysia); Nurul Hidayah Ab Raji (University Technology Mara Malaysia, Malaysia)

CT1: Control Technology 1

Room: Room 3

Chairs: Kien Kek Chua (PETRONAS Group Technical Solution, Malaysia), Wai Chung Yeong (Universiti Sains Malaysia, Malaysia)

8:30 Effects of Misspecification of the Loss Function on the Economic-Statistical Design of the Synthetic X-bar Chart

Wai Chung Yeong, Michael Khoo Boon Chong and Sok Li Lim (Universiti Sains Malaysia, Malaysia); Wei Lin Teoh (Universiti Tunku Abdul Rahman, Malaysia)

8:45 Development of New Open Soft-CNC System, &

Yusri Yusof and Kamran Latif (Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia)

9:00 A Cryptography Algorithm for Transmitting Multimedia Data Using Quadruple-State CSK, +

Ashraf A Zaher (American University of Kuwait - College of Arts and Sciences & IEEE, Kuwait)

9:15 Semi Active Suspension System Performance Under Random Road Profile Excitations

Saiful Anuar Abu Bakar, Pakharuddin Mohd. Samin, Hishamuddin Jamaluddin and Roslan Abd. Rahman (Universiti Teknologi Malaysia, Malaysia); Syabillah Sulaiman (Universiti Teknologi Malaysia & UTM, Malaysia)

9:30 Dynamic Tire Force Control for Light-Heavy Duty Truck Using Semi Active Suspension System

Syabillah Sulaiman (Universiti Teknologi Malaysia & UTM, Malaysia); Pakharuddin Mohd. Samin, Hishamuddin Jamaluddin, Roslan Abd. Rahman and Saiful Anuar Abu Bakar (Universiti Teknologi Malaysia, Malaysia)

9:45 Design of Full Adder/Subtractor Using Irreversible IG-A Gate

Adib Kabir Chowdhury (University College of Technology Sarawak & University College of Technology Sarawak, Malaysia); Daniel Tan, Simon Lau Boun Yew and Gary Loh Chee Wyai (University College of Technology Sarawak, Malaysia); Akilan Thangarajah (University of Windsor, Canada); Bakri Madon (University College of Technology Sarawak, Malaysia)

10:00 Enhancement of Process Safety for Oil and Gas Facilities Using Fire and Gas

Mapping Software

Ping Yang Tan (PETRONAS Group Technical Solution & PETRONAS, Malaysia); Kien Kek Chua (PETRONAS Group Technical Solution, Malaysia)

10:15 Design and Structural Evaluation of a Lower Limb Passive Exoskeleton

Meraj Hasan (Bahria University, Pakistan); Syed Shakeel, Arslan Khalid, Ahsan Mir and Fahad Malik (National University of Sciences and Technology, Pakistan); Salman Ahmed (Bahria University, Islamabad Campus, Pakistan)

10:30 AM - 11:00 AM

TEA1: Tea Break

Room: Break

11:00 AM - 11:15 AM

Room: Danum 2

Chair Speech: [Welcoming Speech by Chair of I4CT 2015 by Zuwairie Ibrahim](#)

President Maltesas: [Mohd Azlishah Othman \(Universiti Teknikal Malaysia Melaka & Microwave Research Group, Malaysia\)](#)

11:15 AM – 12:05 PM

Room: Danum 2

KEY1: [Keynote Speaker 1 – M A Hannan](#)

Chair: [Shakir Saat \(Universiti Teknikal Malaysia Melaka & Microwave Research Group, Malaysia\)](#)

12:05 PM - 1:00 PM

Room: Danum 2

KEY2: [Keynote Speaker 2 - Fawnizu Azmadi Hussin](#)

Chair: [Abd Majid Darsono \(Universiti Teknikal Malaysia Melaka & Microwave Research Group, Malaysia\)](#)

1:00 PM - 2:00 PM

Lunch1: Lunch

Room: Hotel Restaurant

2:00 PM - 5:30 PM

CM2: Communication Technology 2

Room: Danum 2

Chairs: Phichaya Jaturawat (King Mongkut's Institute of Technology Ladkrabang, Thailand), Yau Hee Kho (Nazarbayev University, Kazakhstan)

2:00 Dual-mode Receiver Architecture for Bluetooth and IEEE 802.11b Standards

Md. Anisur Rahman, Mamun Bin Ibne Reaz, Noorfazila Kamal and Fazida Hanim Hashim (Universiti Kebangsaan Malaysia, Malaysia)

2:15 An Adaptive Approach to Subband Domain Convolutional Blind Source Separation

Sara Ayub (College of Electrical and Mechanical Engineering National University of Science and Technology, Pakistan); Muhammad Arslan (College of EME National University of Science and Technology, Pakistan); Muhammad Salman (College of EME National University of Science and Technology Islamabad Pakistan, Pakistan); Alina Mirza (National University of Sciences and Technology (NUST), Pakistan); Huma Ayub (University of Baluchistan PCSIR Laboratories Quetta, Pakistan); Hiba Ali (PCSIR Laboratories Quetta, Pakistan)

2:30 Performance Evaluation of the UHF Class 0 RFID Tag for the Proposed Anti-collision Algorithm

Jahariah Sampe (Universiti Kebangsaan Malaysia (UKM) & Institute of Microengineering and Nanoelectronics (IMEN), Malaysia)

2:45 Interconnection Network Performance of Multi-core Cluster Architecture

Norhazlina Hamid (University of Southampton, United Kingdom)

3:00 Hybrid Indoor Location System

Mohamed Er rida (Tongji University, P.R. China); Liu Fuqiang (Tongji University, Shanghai, P.R. China); Jamal El Merabete (Tongji University, Morocco); Yassine Jadi, Martin Kabenge and Mohammed Alnail Elsidid Ali (Tongji University, P.R. China)

3:15 Energy-Efficient Pseudo Noise Generator Based Optical Transmitter for Ethernet(IEEE 802.3az)

Mohammad Faiz Liew Abdullah (Universiti Tun Hussein Onn Malaysia (UTHM) & Deputy Dean Research & Development, Malaysia); Bhagwan Das (Universiti Tun Hussein Onn Malaysia (UTHM) & UTHM, Malaysia); Nor Shahida Mohd Shah (Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia); Bishwajeet Pandey (Chitkara University Research and Innovation Network, India)

3:30 Optimization of Vehicular Ad Hoc Network Using Taguchi Method +

Aznor Hanah (Universiti Malaysia Perlis, Malaysia); Mohd Nazri Mohd Warip (UNIMAP, Malaysia); Badlishah R Ahmad (Universiti Malaysia Perlis, Malaysia); Shamsul Jamel Elias (University Technology MARA, Malaysia)

3:45 Exploiting RF Signal Attenuation for Passive Indoor Location Tracking of an Object &

Yau Hee Kho (Nazarbayev University, Kazakhstan); Nguan Soon Chong (Swinburne University of Technology, Malaysia); Grant A Ellis and Refik Caglar Kizilirmak (Nazarbayev University, Kazakhstan)

4:00 Performance on Optical Properties of AWG Based on SOI Demultiplexer and Receiver Sensitivity in CWDM System +

Nurjuliana Juhari (University Malaysia Perlis (UniMAP), Malaysia); P Suthitha Menon (Institute of Microengineering and Nanoelectronics & Universiti Kebangsaan Malaysia, Malaysia); Abang Annuar Ehsan (Universiti Kebangsaan Malaysia & NXPhotonics, Malaysia); Sahbudin Shaari (Universiti Keb Malaysia, Malaysia)

4:15 An Evaluation of Technical Study and Performance for Real-Time Face Detection Using Web Real-Time Communication &

Manop Phankokkrud and Phichaya Jaturawat (King Mongkut's Institute of Technology Ladkrabang, Thailand)

4:30 DOA Estimation for Unknown Number of Signals Using Particle Swarm Optimization +

Mohammad Taha (Princess Sumaya University for Technology, Jordan); Dia Abu Alnadi (German Jordanian University, Jordan)

4:45 Review of Dimensionality Reduction Techniques Using Clustering Algorithm in Reconstruction of Gene Regulatory Networks &

Windy Pindah (Faculty of Computer Science and Mathematics & Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia)

5:00 Firefly Algorithm with Attractiveness Matrix Enhancement for Shortest Route

Alternative Solution

Mohd Azlishah Othman (Universiti Teknikal Malaysia Melaka & Microwave Research Group, Malaysia); Nadhirah Ali and Mohd Khanapiah Nor (Universiti Teknikal Malaysia Melaka, Malaysia); Hamzah Asyrani Sulaiman (Universiti Teknikal Malaysia Melaka & Fakulti Teknologi Maklumat dan Komunikasi, Malaysia)

5:15 Investigation of Triangular, Circular and Ellipse Slots of Vivaldi Antenna

Mohd Azlishah Othman (Universiti Teknikal Malaysia Melaka & Microwave Research Group, Malaysia); Wan Nur Aqilah Wan Ahmad Khairuddin (Universiti Teknikal Malaysia Melaka, Malaysia); Mohamad Harris Misran (Universiti Teknikal Malaysia Melaka, Malaysia); Mohamad Zoinol Abidin Bin Abd Aziz (Universiti Teknikal Malaysia Melaka & Hang Tuah Jaya, Malaysia); Muhammad Ramlee Kamarudin (Universiti Teknologi Malaysia, Malaysia); Hamzah Asyrani Sulaiman (Universiti Teknikal Malaysia Melaka & Fakulti Teknologi Maklumat dan Komunikasi, Malaysia)

CO2: Computer Technology 2

2:00 Design and Development of Eye Movement Data Acquisition Kit

Haryani Zainunuddin (IIUM, Malaysia); Nurul Muthmainnah Mohd Noor
(University Technology MARA & Shah Alam, Malaysia)

2:15 Design an Electronic System Use the Audio Fingerprint to Access Virtual Classroom Using Artificial Neural Networks

Mahgoub Hammad (University of Khartoum & University of Bisha, Saudi Arabia); Elsadig
Ahmed Mohammed Babiker (Salman bin AbdAlziz University, Saudi Arabia); Moawia
Elfaki Yahia Eldow (King Faisal University & College of Computer Science and
Information Technology, Saudi Arabia)

2:30 Joint LZW and Lightweight Dictionary-based Compression Techniques for Congested Network

Lee Chin Kho (Japan Advanced Institute Science and Technology & JAIST, Japan);
Yasuo Tan (JAIST, Japan); Yuto Lim (Japan Advanced Institute of Science and
Technology (JAIST) & School of Information Science, Japan)

2:45 Comparison of PLS Discriminant Analysis and Supervised SOMs for Blood Brain Barrier Activity

Mohd Zuli Jaafar (Universiti Teknologi MARA & Faculty of Applied Sciences, Malaysia);
Marina Mokhtar and Nor Aziyah Bakhari (Universiti Teknologi MARA, Malaysia);
Mohamed Noor Hasan (Universiti Teknologi Malaysia, Malaysia); Richard Brereton
(University of Bristol & Centre for Chemometrics, United Kingdom)

3:00 A Remote Image Collecting to Create Initiative Database with Indexing and Querying for Enhance Face Recognition

Phichaya Jaturawat, Pasinee Pongmanawut and Manop Phankokkrud (King
Mongkut's Institute of Technology Ladkrabang, Thailand)

3:15 Program Comprehension Levels of Abstraction for Novices

Amal Shargabi, Syed Ahmad Sheikh Aljunid, Muthukkaruppan Annamalai and Shuhaida
Mohamed Shuhidan (Universiti Teknologi MARA, Malaysia); Abdullah Mohd Zin
(University Kebangsaan Malaysia, Malaysia)

3:30 Investigation of Security Awareness on e-Learning System Among Lecturers and Students in Higher Education Institution

Hasmanizam Abdul Majid (Universiti Malaysia Pahang, Malaysia); Mazlina Abdul majid (Faculty of Computer Systems & Software Engineering Universiti Malaysia Pahang, Malaysia); Mohd Izham Ibrahim, Wan Nurulsafawati Wan Manan and Muhammed Ramiza Ramli (Universiti Malaysia Pahang, Malaysia)

3:45 User-Enjoyable Learning Environment Based on Gamification Elements

Firas Layth Khaleel (UKM & Tikrit University, Malaysia); Noraidah Sahari, Tengku Siti Meriam Tengku Wook and Amirah Ismail (Universiti Kebangsaan Malaysia, Malaysia)

4:00 An Evaluation on the Efficiency of Hybrid Feature Selection in Spam Email Classification

Masurah Mohamad (Universiti Teknologi MARA, Malaysia); Ali Selamat (Universiti Teknologi Malaysia, Malaysia)

4:15 Implementation of Wireless Sensor Network in Oil and Gas Specifically for Personnel Positioning Application

Muhammad Al Amin Amali Mazlan and Mohd Haris Md Khir (Universiti Teknologi PETRONAS, Malaysia); Mohamad Naufal Mohamad Saad (Universiti Teknologi Petronas, Malaysia)

4:30 Exploring the Essence of Intelligence Based on Pragmatism's Scientific Method: The Framework of Intelligent Processes

Safawi Abdul Rahman (Mara University of Technology & Faculty of Information Management, Malaysia); Sharifalillah Nordin (Universiti Teknologi MARA, Malaysia); Haliza Ab Ghani (Mara University of Technology, Malaysia); Mohd Ridwan Seman (MARA University of Technology, Malaysia)

4:45 Survey on the Use of Applications for Deaf and Hard Hearing Literacy

Maath S. Abdulghafoor (Institut Visual Informatik (IVI) at Universiti Kebangsaan Malaysia (UKM), Malaysia); Azlina Ahmad (Universiti Kebangsaan Malaysia, Malaysia); Jiung-Yao Huang (National Taipei University, Taiwan)

5:00 An Investigation of Back-propagation Neural Network on University Selection ' & (,

Razali Yaakob (Universiti Putra Malaysia, Malaysia); Nur Izura Udzir (Universiti Putra Malaysia & Faculty of Computer Science and Information Technology, Malaysia); Sitti Syarah Maharani (Universiti Putra Malaysia, Malaysia)

5:15 Comparisons Between Artificial Neural Networks and Fuzzy Logic Models in Forecasting General Examinations Results ' &) ' '

Salwani Abdullah (Universiti Kebangsaan Malaysia, Malaysia); Razali Yaakob (Universiti Putra Malaysia, Malaysia)

CO3: Computer Technology 3

Room: Danum 4

Chairs: Adamu Abubakar (International Islamic University Malaysia & Integ lab, Malaysia), Vitaliy Mezhyuev (University Malaysia Pahang, Malaysia)

2:00 Breast Abnormality Detection in Mammograms Using Artificial Neural Network

Luqman Mina (USM (University Sains Malaysia) & School of Engineering, Malaysia); Nor Ashidi Mat Isa (Universiti Sains Malaysia, Engineering Campus, Malaysia)

2:15 Denoising Practices for Electrocardiographic (ECG) Signals: A Survey

Mavera Mazhar (National University of Sciences and Technology (NUST), Pakistan); Muhammad Usman Akram (CEME NUST, Pakistan); Shoab Khan (NUST, Pakistan)

2:30 Lithium-ion Battery Modeling and Validation for Smart Power System

Zuchang Gao and Cheng Siong Chin (Newcastle University, Singapore); Wai Lok Woo (Newcastle University, United Kingdom); Junbo Jia and Wei Da Toh (Temasek Polytechnic, Singapore)

2:45 Video Stabilization and Tampering Detection for Surveillance Systems Using Homography

Mohammad Saleh Javadi (MIMOS Berhad, Malaysia); Zulaikha Kadim and Hon Hock Woon Hon (MIMOS Bhd, Malaysia); Johari Khairunnisa (MIMOS Berhad, Malaysia); Norshuhada Samudin (MIMOS Bhd, Malaysia)

3:00 Exploratory Software Testing in Agile Project

Beni Suranto (Universitas Islam Indonesia, Indonesia)

3:15 Smart Farm Monitoring Using Raspberry Pi and Arduino

Siwakorn Jindarat (Faculty of Information Technology, King Mongkut's University of Technology North Bangkok, Thailand); Pongpisit Wuttidittachotti (Faculty of Information Technology, King Mongkut's University of Technology North Bangkok, Thailand)

3:30 Estimating the Efficiency of Information Technology for Domain-Specific

Mathematical Modelling -

Vitaliy Mezhyuev (University Malaysia Pahang, Malaysia); Mazlina Abdul majid (Faculty of Computer Systems & Software Engineering Universiti Malaysia Pahang, Malaysia); Ravi Samikannu (Lecturer & International College of Automotive, Malaysia)

3:45 In Memory Detection of Windows API Call Hooking Technique -

Syed Zainudeen Mohd Shaid and Mohd Aizaini Maarof (Universiti Teknologi Malaysia, Malaysia)

4:00 Secure and Authenticated Key Agreement Protocol with Minimal Complexity of Operations in the Context of Identity-Based Cryptosystems -

Seyed-Mohsen Ghoreishi, Ismail Fauzi Isnin, Shukor Abd Razak and Hassan Chizari (Universiti Teknologi Malaysia, Malaysia)

4:15 The Development of DifITS -

Felix Sing Tiing Chuo (University Malaysia Sarawak, Malaysia); Mohammad Nur Azhar Mazlan (Universiti Malaysia Sarawak, Malaysia); Hong Sam (University Malaysia Sarawak, Malaysia)

4:30 The Method and Algorithms to Find Essential Attributes and Objects of Subject Domains -

Vitaliy Mezhyuev (University Malaysia Pahang, Malaysia); Eugene Malakhov (Odessa Mechnikov National University & IEEE, Ukraine); Denys Shchelkonogov (Odessa Mechnikov National University, Ukraine)

4:45 A Short Review of Global Software Development (GSD) and Latest Software Development Trends Arising Need for Software Process Tailoring -

Rehan Akbar (Universiti Tunku Abdul Rahman, Malaysia); Sohail Safdar (Universiti Teknologi PETRONAS, Malaysia)

5:00 Feature Extraction Using Neocognitron Learning in Hierarchical Temporary Memory -

Aseel Jaafar (University Utara Malaysia, Malaysia); Yuhanis Yusof (Universiti Utara Malaysia, Malaysia)

5:15 A Review on ICMPv6 Vulnerabilities and Its Mitigation Techniques: Classification and Art -

Navaneethan C Arjuman (National Advanced IPv6 Centre, Universiti Sains Malaysia, Malaysia); Selvakumar Manickam (Universiti Sains Malaysia, Jordan)

WEDNESDAY,

April 22, 2015

8:30 AM - 10:30 AM

CM3 : Communication Technology 3 (ROOM 1)

CO4 : Computer Technology 4 (ROOM 2)

CT2 : Control Technology2 (ROOM 3)

10:30 AM - 11:00 AM

TEA: Tea Break

11.00 AM – 01.00 PM

CM4 : Communication Technology 4 (ROOM 1)

CM5 : Communication Technology 5 (ROOM 2)

CO5 : Computer Technology 6 (ROOM 3)

1:00 PM - 2:00 PM

Lunch1: Lunch

Room: Hotel Restaurant

2:00 PM – 5.30 PM

CM6: Communication Technology 6

CO6: Computer Technology 6

CT3: Control Technology 3

7:30 AM - 1:00 PM

RO2: Registration Open

8:30 AM - 10:30 AM

CM3: Communication Technology 3

Room: Danum 2

Chairs: Abdul Rahman Kram (Optical Research Group, Malaysia), Tiew On Ting (Xi'an Jiaotong-Liverpool University, P.R. China)

8:30 High Gain Wideband Transceiver Antenna for Ground Penetrating Radar

Applications &

Mohd Nazri A. Karim (Universiti Malaysia Perlis & School of Computer and Communication, Malaysia); Mohd Fareq Abd Malek and Siti Zuraidah Ibrahim (Universiti Malaysia Perlis, Malaysia)

8:45 Interference Reduction and Capacity Improvement in Collaborative Beamforming Networks Via Directivity Optimization &

Suhanya Jayaprakasam, Sharul Kamal A. Rahim and Chee Yen (Bruce) Leow (Universiti Teknologi Malaysia, Malaysia); Tiew On Ting (Xi'an Jiaotong-Liverpool University, P.R. China)

9:00 Enhanced TCPW's Fast Retransmission and Fast Recovery Mechanism Over High Bit Errors Networks +

Mohanad Al-Hasanat (Universiti Sains Islam Malaysia (USIM), Malaysia); Kamaruzzaman Seman (Universiti Sains Islam, Malaysia); Kamarudin Saadan (Universiti Sains Islam Malaysia, Malaysia)

9:15 Enrich Data Bit Rate and Propagation Distance Performance for Free Space Optical Communication (FSOC) Via A New Dual-Diffuser Modulation (DDM) Technique (%)

Abdul Rahman Kram (Optical Research Group, Malaysia); Norizan Nawawi (Optical Research Group, Advanced Communication Engineering Centre of Excellence (ACE-COE) & School of Computer & Communication Engineering, Universiti Malaysia Perlis (UNIMAP), Malaysia)

9:30 Dispersion Compensation Dense Wavelength Division Multiplexing (DC DWDM) for Nonlinearity Analysis for Various Propagation Distance and Input Power (*)

Norizan Nawawi (Optical Research Group, Advanced Communication Engineering Centre of Excellence (ACE-COE) & School of Computer & Communication Engineering, Universiti Malaysia Perlis (UNIMAP), Malaysia); Abdul Rahman Kram (Optical Research Group, Malaysia)

9:45 Adaptive Beam Steering: RSSI Performance (*) \$

Muzammil Jusoh (Universiti Malaysia Perlis & School of Computer and Communication Engineering, Malaysia); Thennarasan Sabapathy and Shakhirul Mat Salleh (University Malaysia Perlis, Malaysia)

10:00 Review of Angle of Arrival (AOA) Estimations Through Received Signal Strength Indication (RSSI) for Wireless Sensors Network (WSN) (*) (

Mohd Jais (School of Computer and Communication Engineering, Universiti Malaysia Perlis (UNIMAP), Malaysia); Muzammil Jusoh (Universiti Malaysia Perlis & School of Computer and Communication Engineering, Malaysia); Thennarasan Sabapathy (University Malaysia Perlis, Malaysia); Iszaidy Ismail (Universiti Malaysia Perlis, Malaysia)

10:15 Analysis of Circular Polarization Textile Antenna in Bending Condition (*) *\$

Shakhirul Mat Salleh (University Malaysia Perlis, Malaysia); Muzammil Jusoh (Universiti Malaysia Perlis & School of Computer and Communication Engineering, Malaysia); Abdul Hafizh Ismail (UniMAP, Malaysia); Muhammad Ramlee Kamarudin (Universiti Teknologi Malaysia, Malaysia); Mohd Jais (School of Computer and Communication Engineering, Universiti Malaysia Perlis (UNIMAP), Malaysia); Mohamed Nasrun Osman (Universiti Teknologi Malaysia, Malaysia)

CO4: Computer Technology 4

Room: Danum 3

Chairs: Robert Hans (Tshwane University of Technology, South Africa), Alif Faisal Ibrahim (Universiti Teknologi MARA (UiTM) Perlis, Malaysia)

8:30 Comparing Performances of Neural Network Models Built Through Transformed and Original Data *** *

Adamu Abubakar (International Islamic University Malaysia, Malaysia); Haruna Chiroma and Sameem Abdul Kareem (University of Malaya, Malaysia)

8:45 Application of Computational Intelligence Methods in Modelling River Flow

Prediction: A Review *** +\$

Nuratiah Zaini and Marlinda Abdul Malek (Universiti Tenaga Nasional, Malaysia); Marina Yusoff (Universiti Teknologi MARA, Malaysia)

9:00 Using A Web-Based Application to Teach Students Earned Value Management

Concepts *** +)

Robert Hans (Tshwane University of Technology, South Africa)

9:15 i-KS:Composition of Chronic Kidney Disease (CKD) Online Informational Self-Care

Tool *** +-

Arifah Fasha Rosmani (Universiti Teknologi MARA, Malaysia); Umi Hanim Mazlan (University Technology Mara, Malaysia); Alif Faisal Ibrahim (Universiti Teknologi MARA (UiTM) Perlis, Malaysia)

9:30 Improving Reliability Using Software Operational Profile and Testing Profile *** , (

Malik Muhammad Ali-Shahid (N28A Lab1 Level 2 Faculty of Computer UTM & COMSATS Institute of Information Technology, Vehari, Malaysia); Shahida Sulaiman (Universiti Teknologi Malaysia, Malaysia)

9:45 Syntax-based Test Case Generation for Web Application *** , -

♠Jakkrit Polpong (Prince of Songkla University, Thailand)

10:00 A Virtual Network Mapping Approach for High Availability - (

Benkuan Wang and Weiming Wang (Zhejiang Gongshang University, P.R. China);
Xiaochun Wu (Zhe Jiang Gongshang University, P.R. China); Julong Lan (National Digital
Switching System Engineering & Technological Research Center, P.R. China)

**10:15 Study of the Electron Fluxes At Geostationary Orbit with a Time-varying NARMAX
Method** - -

Liu Shuai and Li Zhi (Academy of Equipment, P.R. China); Lin Ruilin (Chinese Academy
of Sciences, P.R. China)

CT2: Control Technology 2

Room: Danum 4

Chairs: Nursaida Mohamad Zaber (Universiti Putra Malaysia, Malaysia), Wan Amal Atiq Wan Hassan (Universiti Malaysia Terengganu, Malaysia)

8:30 Designing PID Controller for Position Control with Disturbance (\$

Nursaida Mohamad Zaber (Universiti Putra Malaysia, Malaysia); Asnor Juraiza Ishak (Universiti Putra Malaysia & Faculty of Engineering, Malaysia); Azura Che Soh and Mohd Khair Hassan (Universiti Putra Malaysia, Malaysia); Zamri Zainal Abidin (Universiti Malaya, Malaysia)

8:45 An Enhanced Storage Location Assignment Policy by Minimizing Handling Cost for Warehouse XYZ (\$,

Tracy Adeline Ajol, Ismariani Ismail, Shirley Sinatra Gran and Abang Feizal Abang Ibrahim (Universiti Teknologi Mara (UiTM) Sarawak, Malaysia)

9:00 Mixed Integer Programming Model for Flexible Job Shop Scheduling Problem (FJSP) to Minimize Makespan and Total Machining Time (%)

Shirley Sinatra Gran, Ismariani Ismail, Tracy Adeline Ajol and Abang Feizal Abang Ibrahim (Universiti Teknologi Mara (UiTM) Sarawak, Malaysia)

9:15 Bone-Crack Detection by Piezoelectric-Electromechanical Impedance Method (%)

Bibi Sarpinah Sheikh Naimullah and Mazlina Mansor Hassan (UiTM Sarawak, Malaysia); Rudy Tawie (Universiti Teknologi MARA, Malaysia); Ishak Annuar (Universiti Teknologi Mara, Malaysia); Clairra Dalislone Daho (UiTM Sarawak, Kampus 2, Malaysia)

9:30 Nonlinear Observer Design with Integrator for a Class of Polynomial Discrete-time Systems (&

Su Noorazma (UTeM, Malaysia); Shakir Saat (Universiti Teknikal Malaysia Melaka, Malaysia)

9:45 Characterization and Development of a KT River Driving Cycle for PHERB Powertrain (&+

Wan Amal Atiq Wan Hassan, Siti Norbakyah Jabar and Salisa Abdul Rahman (Universiti Malaysia Terengganu, Malaysia)

10:00 Components Sizing for PHERB Powertrain Using ST River Driving Cycle ' &

Siti Norbakyah Jabar, Wan Amal Atiq Wan Hassan and Salisa Abdul Rahman (Universiti Malaysia Terengganu, Malaysia)

10:15 Analysis of Total Harmonic Distortion and Power Consumption in AC to AC Voltage Converter Using Integral Cycle PWM Control for Fast Pyrolysis ' +

Wadah Elgack, WE., Huang Shen Chua, Albert Fong and Mohd Nazri bin Mohd Fuad (UCSI University, Malaysia)

10:30 AM - 11:00 AM

TEA: Tea Break

Room: Break

11:00 AM - 1:00 PM

CM4: Communication Technology 4

Room: Danum 2

Chairs: Adibah Azman (Universiti Teknikal Malaysia Melaka, Malaysia), Mohd Shafiq Mat Ghazali (National University of Malaysia, Malaysia)

11:00 SINR Improvement Using Firefly Algorithm (FA) for Linear Constraint Minimum Variance (LCMV) Beamforming Technique

Camellia Doroody (University Tenaga National (UNITEN), Malaysia); Sieh Kiong Tiong (UNITEN, Malaysia); Soodabeh Darzi (Universiti Kebangsaan Malaysia, Malaysia)

11:15 Fabrication of 1 x 2 Y-Branch Polymer Optical Waveguide Coupler by Using Softlithography Technique

Abang Annuar Ehsan (Universiti Kebangsaan Malaysia & NXPhotonics, Malaysia); Mohd Shafiq Mat Ghazali (National University of Malaysia, Malaysia)

11:30 Delay-Based Load-Balancing Routing (DLBR) Algorithm for Wireless Ad-Hoc Networks

Iffat Habib (Universiti Teknologi Petronas, Malaysia); Nasreen Badruddin and Micheal Drieberg (Universiti Teknologi PETRONAS, Malaysia)

11:45 Design 2x2 Patch Array with L Slot Antenna for WiMAX and WLAN

Adibah Azman (Universiti Teknikal Malaysia Melaka, Malaysia); Azahari Salleh (Universiti Teknikal Malaysia Melaka (UTeM), Malaysia); Mohamad Zainol Abidin Bin Abd Aziz (Universiti Teknikal Malaysia Melaka & Hang Tuah Jaya, Malaysia); Nornikman Hassan (Universiti Teknikal Malaysia Melaka, Malaysia)

12:00 An Experimental Testbed for Device Free Indoor Localization System B#5

Nasrullah Pirzada (Universiti Teknologi Petronas (UTP), Malaysia)

12:15 KernelSOM Handover Optimisation: Outdoor Performance Evaluations () -

Zulhizam Sanip, David A Harle and Robert Caddell Atkinson (University of Strathclyde, United Kingdom)

12:30 Design of Circular Patch Microstrip Ultra Wideband Antenna with Two Notch Filters (* (

Raed Abdulkareem Abdulhasan (Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia);
Rozlan Alias (Universiti Tun Hussein Onn Malaysia, Malaysia); Abdisamad Ali Awaleh
(University Tun Hussein Onn Malaysia, Malaysia); Abdurashid Mumin (Universiti Tun
Hussein Onn Malaysia (UTHM), Malaysia)

12:45 Assessment of Microstrip Patch Antenna Performance Based on Dielectric

Substrate (*,

Abdurashid Mumin (Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia); Rozlan Alias
(Universiti Tun Hussein Onn Malaysia, Malaysia); Abdisamad Ali Awaleh (University Tun
Hussein Onn Malaysia, Malaysia); Raed Abdulkareem Abdulhasan (Universiti Tun Hussein
Onn Malaysia (UTHM), Malaysia)

CM5: Communication Technology 5

Room: Danum 3

Chairs: Madhusudhan Rangadas (N. I. T. K., Surathkal, India), Abdirahman Mohamud Shire (UTHM, Malaysia)

11:00 Effects of Cavity Ground Plane on UWB Archimedean Spiral Antenna (+&

Abdirahman Mohamud Shire (UTHM, Malaysia)

11:15 Cryptanalysis of Remote User Authentication Scheme with Key Agreement (+*

Madhusudhan Rangadas (N. I. T. K., Surathkal, India)

11:30 Microwave Absorbing Material Based on Rice Husk Ash/ CNTs Composites (, %

Lee Yeng Seng (University Malaysia Perlis, Malaysia); Mohd Fareq Abd Malek, Cheng Ee Meng and Wei Wen Liu (Universiti Malaysia Perlis, Malaysia); Wee Fwen Hoon (Universiti Malaysia Perlis (UniMAP), Malaysia); Liyana Zahid (Universiti Malaysia Perlis, Malaysia); Mohd Nazri A. Karim (Universiti Malaysia Perlis & School of Computer and Communication, Malaysia)

11:45 CPW-FED Compact Monopole Antenna for DualBand WLAN/ WiMAX Applications (,)

Adibah Azman (Universiti Teknikal Malaysia Melaka, Malaysia); Azahari Salleh (Universiti Teknikal Malaysia Melaka (UTeM), Malaysia); Mohamad Zainol Abidin Bin Abd Aziz (Universiti Teknikal Malaysia Melaka & Hang Tuah Jaya, Malaysia); Nornikman Hassan (Universiti Teknikal Malaysia Melaka, Malaysia); Mohd Fareq Abd Malek (Universiti Malaysia Perlis, Malaysia)

12:00 Mitigation of Illumination Interference Caused by PWM Dimming in OFDM Based Visible Light Communication Systems (, -

Refik Caglar Kizilirmak and Yau Hee Kho (Nazarbayev University, Kazakhstan)

12:15 5G Wireless Communication Systems: Vision and Challenges (-'

Mahmoud A. M. Albreem (University of Malaysia - Perlis (UNIMAP) & University of Malaysia - Perlis (UNIMAP), Malaysia)

12:30 Adaptive Diamond Orthogonal Search Algorithm for Motion Estimation (- ,

Abd Majid Darsono (Universiti Teknikal Malaysia Melaka, Malaysia)

12:45 Modified H-Shaped Patch Antenna with Slots and Modified Ground Plane () \$&

Raihanahuda Razali (Universiti Teknikal Malaysia Melaka, Malaysia); Mohamad Zoinol Abidin Bin Abd Aziz (Universiti Teknikal Malaysia Melaka & Hang Tuah Jaya, Malaysia); Nornikman Hassan (Universiti Teknikal Malaysia Melaka, Malaysia); Mohd Fareq Abd Malek (Universiti Malaysia Perlis, Malaysia)

CO6: Computer Technology 5

Room: Danum 4

Chairs: Parvaneh Esmaili (Universiti Teknologi Malaysia, Malaysia), Shabnam Kasra-Kermanshahi (Universiti Teknologi Malaysia, Malaysia)

11:00 A Novel Authentication Scheme for Mobile Environments in the Context of Elliptic Curve Cryptography *) \$*

Shabnam Kasra-Kermanshahi (Universiti Teknologi Malaysia, Malaysia); Mazleena Salleh (University Technology Malaysia, Malaysia)

11:15 Hidden Features Extraction Using Independent Component Analysis for Improved Alert Clustering **) %%

Taqwa Alhaj (Malaysia & Universiti Teknologi Malaysia, Malaysia); Anazida Zainal and Maheyzah Md Siraj (Universiti Teknologi Malaysia, Malaysia)

11:30 Adaptive Synchronous Artificial Neural Network Based PI-type Sliding Mode Control on Two Robot Manipulators **) %&

Parvaneh Esmaili (Universiti Teknologi Malaysia, Malaysia); Habibollah Haron (Universiti Teknologi Malaysia & UTM, Malaysia)

11:45 An Ontology for Remote Monitoring of Cardiac Implantable Electronic Devices **) &\$

Mohammad Waqialla (National Guard Health Affairs, Saudi Arabia); Imran Razzak, MIR (KSAU-HS, Saudi Arabia)

12:00 Investigation of Binarization Techniques for Unevenly Illuminated Document Images Acquired Via Handheld Cameras &

Musab Kasim Alqudah (National University of Malaysia "UKM" & Faculty of Information Science And Technology, Malaysia); Mohammad Bin Nasrudin and Mashal Alqudah (Universiti Kebangsaan Malaysia, Malaysia); Arwa Al Khatatneh (Universiti Sains Islam Malaysia (USIM), Malaysia); Bilal Bataineh (Umm Al-Qura University, Saudi Arabia)

12:15 Solving Examination Timetabling Problem Using Partial Exam Assignment with Great Deluge Algorithm ' \$

Ashis Kumar Mandal (University Malaysia Pahang, Malaysia); Mohd Nizam Mohmad Kahar (Universiti Malaysia Pahang, Malaysia)

12:30 A Systematic Development of Instructional Design for Programming Languages: A Constructivist Based Instructional Design Approach ')

Mohanad Bajbouj (USIM, Malaysia); Najwa Hayaati Mohd Alwi (Universiti Sains Islam Malaysia, Malaysia)

12:45 Intuitive Content Management System (%

Chan Chung Hoong (University Malaysia Pahang, Malaysia); Mohamed Ariff Ameen (Universiti Malaysia Pahang, Malaysia)

1:00 PM - 2:00 PM

Lunch2: Lunch

Room: Hotel Restaurant

2:00 PM - 5:30 PM

CM6: Communication Technology 6

Room: Danum 2

Chairs: Nurfarahin Miswadi (Universiti Teknologi Mara, Malaysia), Fatimah Nur Mohd Redzwan (Universiti Teknologi Mara, Malaysia)

2:00 Single Color Networks: OFDM-Based Visible Light Broadcasting ((

Refik Caglar Kizilirmak (Nazarbayev University, Kazakhstan); Murat Uysal (Ozyegin University, Turkey)

2:20 Design of Tri-band Planar Inverted F Antenna (PIFA) with Parasitic Elements for UMTS2100, LTE and WiMAX Mobile Applications)) \$

Fatimah Nur Mohd Redzwan and Mohd Tarmizi Ali (Universiti Teknologi Mara, Malaysia); Mohd Nor Md Tan (University Technology Mara, Malaysia); Nurfarahin Miswadi (Universiti Teknologi Mara, Malaysia)

2:40 Design of Filtenna with Bandstop Element for Ultra-Wideband (UWB) Applications)))

Nurfarahin Miswadi, Mohd Tarmizi Ali and Fatimah Nur Mohd Redzwan (Universiti Teknologi Mara, Malaysia); Mohd Nor Md Tan (University Technology Mara, Malaysia)

3:00 Multi-hop Wireless Network Modelling Using OMNET++ Simulator))) -

Arslan Musaddiq and Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

3:20 Power Optimization in Two-tier Networks)) *)

Seifeddine Bouallegue (Qatar University, Qatar); Kaouthar Sethom (SUPCOM/ESTI, France); Guy Pujolle (University Pierre et Marie Curie - Paris 6, France)

3:40 Using MAC Frame Header for Efficient Multimedia Streaming Over IEEE 802.11

Wireless LAN) +\$

Saima Shaheen (NUST Islamabad, Pakistan); Aasia Khanum (National University of Sciences and Technology (NUST), Pakistan); Shoaib Ahmed Khan (National University of Sciences and Technology Islamabad, Pakistan); Muhammad Usman Akram (CEME NUST, Pakistan); Muhammad Javed (College of EME, NUST, Pakistan)

4:00 Lithium-based Batteries in Tactical Military Applications: A Review) +)

Zakhele Nxumalo (University of Zululand, South Africa)

4:20 Omni Directional Microstrip Monopole Antenna for UWB Microwave Imaging System) , \$

Md. Moinul Islam (Universiti Kebangsaan Malaysia, Malaysia); Mohammad Tariqul Islam (Universiti Kebangsaan Malaysia & Universiti Kebangsaan Malaysia, Malaysia); Md. Samsuzzaman (Universiti Kebangsaan Malaysia, Malaysia); Mohammad Rashed Iqbal Faruque (Senior Lecturer, Malaysia); Norbahiah Misran (UKM, Malaysia)

4:40 High Speed PCB & Spiral with Patch EBG Planar Integration for EMI Reduction) , (

Musaab Abdulghani Alshargabi (Universiti Tun Hussein Onn Malaysia & UTHM, Malaysia); Zuhairiah Zainal Abidin and Mohd Zarar Mohd Jenu (Universiti Tun Hussein Onn Malaysia, Malaysia)

5:00 High Gain 2.45 GHz 2x2 Patch Array Stacked Antenna) , -

Mohd Jais (School of Computer and Communication Engineering, Universiti Malaysia Perlis (UNIMAP), Malaysia); Muzammil Jusoh (Universiti Malaysia Perlis & School of Computer and Communication Engineering, Malaysia); Thennarasan Sabapathy (University Malaysia Perlis, Malaysia)

5:20 Design and Demonstration of a Novel Flexible Cross Correlation (FCC) Code for an Evasion of PIIN in OCDMA System) - '

Mohd Rashidi Che Beson, Syed Alwee Aljunid and Anuar Mat Safar (Universiti Malaysia Perlis, Malaysia); Abdul Rahman Kram (University Malaysia Perlis (UNIMAP), Malaysia); Junita Mohd Nordin (Universiti Malaysia Perlis, Malaysia)