

5TH INTERNATIONAL CONFERENCE ON ELECTRONIC DEVICES, SYSTEMS, AND APPLICATIONS (ICEDSA-2016)

PROGRAM

Days: Tuesday December 6

Wednesday December 7

Thursday December 8

Tuesday, December 6th

08:00-09:00 Session 1: Registration and Light Breakfast

Place: In front of Auditorium in Building G

09:00-09:45 Session 2: ICEDSA-2016 Opening Ceremony & Welcome Speeches

Place: Auditorium in Building G

- UAE National Anthem
- Opening Remarks – ICEDSA-2016 General Chair, Dr. Eesa Bastaki
- Remarks – ICEDSA-2016 Dean of School of Engineering, Prof. Mousa Mohsen
- Remarks – ICEDSA-2016 Chair of the Organizing Committee, Dr. Maen Takruri
- Remarks – ICEDSA-2016 Chair of the Technical Program Committee, Prof. Amjad Omar

09:45-10:30 Session 3:

Place: Auditorium in Building G

Keynote Speaker: Prof. Ahmad A. Kishk: Small UWB Antennas for Communication and Radar Applications

<http://icedsa.aurak.ac.ae/ahmed-a-kishk/>

10:30-10:45 Coffee Break

10:45-11:30 Session 4:

Place: Auditorium in Building G

Keynote Speaker – Dr. Ayman Elnashar: 5G & IoT Evolution towards a Super Connected World

<http://icedsa.aurak.ac.ae/dr-ayman-elnashar/>

11:30-13:00 Session 5A: Antennas Structures-1

Session Chair: Raed Shubair

Place: Auditorium in Building G

- 11:30** Boutheina Tlili and Hadeef Ahmed Alshamsi
Multiple Bands Stacked Microstrip Patch Antenna for Satellite Communications
- 11:45** Shaimaa Naser and Nihad Dib
Design and Analysis of Super-Formula-Based MIMO Antenna for UWB Applications
- 12:00** Dwija Jethin, M.I. Hussein, Falah Awwad, and Rabah Irtini
Dielectric Characterization of Breast Cancer Cell Lines Using Microwaves
- 12:15** Waleed Obaid and Abdul Kadir Hamid
Multi-Frequency CPW Bow-Tie Aperture Antenna With Rectangular and U Shape Metal Strips
- 12:30** Muhammad Abdul Samad and Abdul Kadir Hamid
Miniaturization of Waveguide Antenna Using Square/Circular Arrays Of SRR
- 12:45** Mousa Hussein, Othman Al Aidaros, Mahmoud Khalil, Sultan Al Neyadi, and Musab Asad
Single Port Bio-Sensor Design Using Metamaterial Split Ring Resonator

11:30-13:00 Session 5B: Signal and Image Processing-1

Session Chair: Hassan Haj Diab

Place: Multipurpose Room in Building G

- 11:30** Maen Tahruri, Maram W. Rashad, and Hussain Attia
Multi-classifier Decision Fusion for Enhancing Melanoma Recognition Accuracy
- 11:45** Sara Tarek, Reda Abd Elwahab, and Mahmoud Shoman
Cancer Classification Ensemble System Based on Gene Expression Profiles

- 12:00** Turkey N. Alotaiby, Fathi E. Abd El-Samie, Saleh A. Alshebeili, Faisal M. Alotaiby, Khaled AlJibrin, Saud R. Alrshod, Imaan N. Alkhanin, and Naif Al Rajhi
A Common Spatial Pattern Approach for Scalp EEG Seizure Detection
- 12:15** Marwa Farouq Ibrahim and Adel Ali Al-jumaily
ICA based Feature Learning and Feature Selection
- 12:30** Dalal Abdulla, Shahrazad Abdulla, Rameesa Manaf, and Anwar H. Jarndal
Design and Implementation of A Sign-to-Speech/Text System for Deaf and Dumb People
- 12:45** Turkey N. Alotaiby, Saleh A. Alshebeili, Fathi E. Abd El-Samie, Abdulmajeed Alabdulrazak, and Eman Alkhnaian
Channel Selection and Seizure Detection Using a Statistical Approach

11:30-13:00 Session 5C: Student Paper Contest – 1

Session Chair: Mousa Hussein

Place: Room 208 in Building G

- 11:30** Serhat Hizlisoy and Zekeriya Tufekci
Noise Robust Speech Recognition Using Parallel Model Compensation and Voice Activity Detection Methods
- 11:45** Salha Albraiky, Alanoud Alali, and Raed M. Shubair
Coding Brain Neurons via Electrical Network Models for Neuro-Signal Synthesis in Computational Neuroscience
- 12:00** Dana Al Akil and Raed M. Shubair
Robust BSBL Recovery Method of Physiological Signals with Application to Fetal ECG
- 12:15** Dana Bazazeh and Raed Shubair
Comparative Study of Machine Learning Algorithms for Breast Cancer Detection and Diagnosis
- 12:30** Dana Al Akil and Raed M. Shubair
On the Efficient Application of Compressive Sensing of Physiological Signals in Medical Diagnostics
- 12:45** Badreyya Al Shehhi, Rida Gadhafi, and Mihai Sanduleanu
Ultra-Low-Power, Small Footprint, 120 GHz, CMOS Radio Transmitter with On-Chip Antenna for Internet of Things (IoT)

13:00-14:00 Lunch Break

14:00-14:45 Session 6:

Place: Auditorium in Building G

Keynote Speaker - Prof. Rabab Ward: Signal Processing, the Science Behind our Digital Life

<http://icedsa.aurak.ac.ae/rabab-ward/>

14:45-16:15 Session 7A: Power Systems and Control

Session Chair: Raed Shubair

Place: Auditorium in Building G

14:45 Omar Akash and Mousa Mohsen

Measurement and Analysis of Solar Irradiation and Other Related Meteorological Parameters in Ras Al Khaimah, UAE

15:00 Imran Saied and Mahmoud Meribout

A New Electrical Charge Tomography System for Measuring Low Concentrations in Two Phase Flow Fluids

15:15 Chang Hung Chen and Zaki Iqbal

Development of a low power robot prototype for cleaning of Linear Fresnel concentrator mirrors

15:30 A. Elnady and A. Adam

Multilevel Inverter Operated by Voltage Orientation Control

15:45 Moh'd Sami Ashhab and Omar Akash

Experiment on PV Panels Tilt Angle and Dust

16:00 Basil A. Qadoor, Osman M. Abdulsalam, Mohammad A. Al Shamsi, Zahidur-Rahman A. Rahim, and Zaki Iqbal

Feasibility Study for Designing a Commercially Viable Solar Car

14:45-16:15 Session 7B: Antennas Structures-2

Session Chair: Boutheina Tlili

Place: Multipurpose Room in Building G

14:45 Indu Jiji Rajmohan and M.I. Hussein

A multiband planar antenna Design using hexagonal patch and a resonator slot

15:00 Waleed Tariq Sethi, Mohammed R. Al-Shareef, M. Ashraf, Hatim M. Behairy, and S. Alshebeili

Design of Dual Polarized Hybrid LTCC Antenna for UWB RFID Applications

15:15 Rida Gadhafi and Mihai Sanduleanu

A Modified Square Patch Antenna with Improved Bandwidth Performance for WiFi applications

15:30 Assia Abdeslam Hanzaz

Development of Microstrip Patch Antenna with Change in Materials and Dimensions using MCM Technology

15:45 M. Omar, R. Ramzan, and O. Siddiqui

Energy Tunneling in Wire-loaded in Substrate Integrated Waveguide

16:00 Amjad Omar, Maram Rashad, Maryam Al-Mulla, Hussain A. Attia, Shaimaa Naser, Nihad Dib, and Raed M. Shubair

Compact Design of UWB CPW-Fed-Patch Antenna Using the Superformula

14:45-16:15 Session 7C: Student Paper Contest-2

Session Chair: Mousa Hussein

Place: Room 208 in Building G

14:45 Ahmed R. Babikir and Anwar H. Jarndal

Design and Implementation of A Multi-Purpose Wireless Charger

15:00 Sahar Adil, Adel Al Jumaily, and Khairul Anam

AW-ELM-based Crouch Gait Recognition after ischemic stroke

15:15 Mohammad Alqudah, Mustafa Abdelfattah, Igor Boiko, and Khalid Alhammadi

Dynamic Modeling and Control Design for a Self- Balancing Two-Wheel Chair

15:30 Nehal Al-Yamani, Saeed Mian Qaisar, Abrar Alhazmi, Shyma Mohammad, and Abdulhamit Subasi

An Event Driven Surveillance System

15:45 Sihab Uddin and Ahmed A.A. Al Sharif

Integrating Internet of Things with Maintenance Spare Parts' Supply Chain

16:00 Hadeer M. Sayed, Shereen A. Taie, and R.A. El-Khoribi

An Improved Technique for LIDAR Data Reduction

16:30-21:30 Session : Social Activity (Trip to Dubai)

Wednesday, December 7th

08:00-09:00 Registration and Light Breakfast

Place: In front of Auditorium in Building G

09:00-10:30 Session 8A: Computer and Control

Session Chair: Abdul Halim Jallad

Place: Auditorium in Building G

- 09:00** Fawad Ahmad, Tanveer ul Haq, and Faraz Akram
Design and Implementation of Low Cost Multi-Threaded Haptic Feedback Device
- 09:15** Ahmed Mashood, Ahmed Dirir, Mousa Hussein, Falah Awwad, and Hassan Noura
Quadrotor Object Tracking using Real-Time Motion Sensing
- 09:30** Aiman Arshad, Salman Badshah, and Prashant Kumar Soori
Design and Fabrication of Smart Robots
- 09:45** Qasem Abu Al-Haija, Monther Abdulateef, and Mahmoud Smadi
A Comparative Study up to 1024 bit Euclid's GCD Algorithm FPGA Implementation and Synthesizing
- 10:00** Alaa A. Abualsaud, Saeed Mian Qaisar, Sara H. Ba-Abdullah, Zainab M. Al-Sheikh, and Mohammad Akbar
Design and Implementation of a 5-Bit Flash ADC for Education

09:00-10:30 Session 8B: Power Electronics/ Renewable Energy

Session Chair: Maissa Farhat

Place: Multipurpose Room in Building G

- 09:00** Ijjou Tizgui, Fatima EL Guezar, Hassane Bouzahir, and Brahim Benaïd
Estimation of Production for a Moroccan Wind Farm
- 09:15** S. Khawar Shah, A. Hellany, and M. Nagrial, and J. Riz
Power Quality Monitoring in Hybrid System
- 09:30** Hussain A. Attia, Amjad Omar, Maen Takruri
Design of Decentralized Street LED Light Dimming System

- 09:45** Anas Al Majali and Waleed Dweik
Modeling Worm Propagation in the Advanced Metering Infrastructure
- 10:00** Maissa Farhat, Oscar Barambones Advanced, and Lasaad Sbita
A Real-Time Implementation of MPPT-Based on P&O Method
- 10:15** Beza Negash Getu and Hussain A. Attia
Automatic Water Level Sensor and Controller System

09:00-10:30 Session 8C: Student Paper Contest-3

Session Chair: Mousa Hussein

Place: Room 208 in Building G

- 09:00** Necdet Sinan Ozbek and Ilyas Eker
A Fractional Fuzzy PI-PD Based Modified Smith Predictor for Controlling of FOPDT Process
- 09:15** Xiaojin Zhao, Xin Lu, Abubakar, and Amine Bermak
Novel Micro-polarizer Array Patterns for CMOS Polarization Image Sensors
- 09:30** Fatima Al Shamsi and Zeyar Aung
Automatic Patent Classification by a Three-Phase Model with Document Frequency Matrix and Boosted Tree
- 09:45** Dabeeruddin Syed and Jadran Sessa
Techniques to Deal with Missing Data

10:30-11:00 Coffee Break

11:00-12:30 Session 9A: Signal and Image Processing -2

Session Chair: Hassan Haj Diab

Place: Auditorium in Building G

- 11:00** Latifah Aljafar, Turkey N. Alotaiby, Rand R. Al-Yami, Saleh A. Alshebeili, Jalila Zouhair
Classification of ECG Signals of Normal and Abnormal Subjects Using Common Spatial Pattern
- 11:15** Sunil T. Sunawane and Mahmoud Meribout
Halbach Array Design Targeting Nuclear Magnetic Resonance
- 11:30** Muhammad Imran Khalid, Saeed A. Aldosari, Saleh A. Alshebeili, and Turkey Alotaibi
Threshold based MEG data Classification for Healthy and Epileptic Subjects
- 11:45** Abubaker Abdelhafiz, Fadhel M. Gannouchi, and Oualid Hammi
Comparative Analysis of Power Amplifiers' Polynomial Based Models Identification Using RLS Algorithm
- 12:00** Vidhya K Viswambaran and Arfan Ghani
Modelling and Simulation of a Maximum Power point Tracking Algorithms & Review of MPPT Techniques for PV Applications
- 12:15** F.B. Elissa and M.J. Mismar
Adaptive FIR Filter for Frequency Estimation of Sinusoids Using Particle Swarm Optimization

11:00-12:30 Session 9B: Computer Software/Hardware

Session Chair: Sahar Idwan

Place: Multipurpose Room in Building G

- 11:00** Talal Bonny
Accuracy/Speed Trade-off Technique for Dynamic Programming Based Algorithms
- 11:15** Hussain A. Attia, Maen Takruri, and Halah Y. Ali
Electronic Monitoring and Protection System for Drunk Drivers Based on Breath Sample Testing
- 11:30** Said Elnaffar
Assessing and Improving User Experience with e-Government Portals
- 11:45** Manal Aljaberi, Shafaq Naheed Khan, and Suadad Muammar
Green computing implementation factors: UAE case study
- 12:00** Mohammed Awad, Zakaria Al-Qudah, Sahar Idwan, and Abdul Halim Jallad
Password Security: Password Behavior Analysis at a Small University

12:15 Hussain A. Attia, Shereen Ismail, and Halah Y. Ali
Vehicle Safety Distance Alarming System

11:00-12:30 Session 9C: Student Paper Contest-4

Session Chair: Mousa Hussein

Place: Room 208 in Building G

11:00 Muna Ali Al Hebsi and Vishwesh Laxmikant Akre
A Framework for integrating iPad as a pedagogical device in Higher Education

11:15 Manan AlMusallam and Adel Soudani
Energy-aware ECG Sensing Scheme for M-Health Applications

11:30 Saif ur-Rehman Muhammad, Tamer Rabie, and Saleh Suleiman
A Novel Wireless Mesh Network for Indoor Robotic Navigation

11:45 Mohammed El Amine Fekair, Abderrahmane Lakas, and Ahmed Korichi
An Efficient QoS-Compliant Routing Scheme for VANET

12:30-13:30 Lunch Break

13:30-14:15 Session 10: Keynote Speaker - Prof. Amine Bermak: xxx

<http://xxx>

Place: Auditorium in Building G

14:30-16:00 Session 11A: Antennas and Communications

Session Chair: Nasser Hamad

Place: Auditorium in Building G

14:30 M. Abdulmalek, H. A. Rahim, M. Fie, P. J. Soh, N. Abdulaziz, and H. Rahman
Design of a 5.2 GHz Circularly Polarized Textile Patch Antenna for On/Off Body Radio Propagation Channel Evaluation

14:45 N.E. Elashkar, G.H. Ibrahim, M. Aboudina, H.A.H. Fahmy, and A.H. Khalil

All-Passive Memristor-Based 8-QAM and BFSK Demodulators using Linear Dopant Drift Model

15:00 Avinash More

Battery Regression for Guaranteed k-Coverage in Distributed Sensor Networks

15:15 Emir Džaferović, Sabahudin Vrtađić, Lejla Bandić, Jasmin Kevric, Abdulhamit Subasi, and Saeed Mian Qaisar

Cloud-based Mobile Platform for EEG Signal Analysis

15:30 N. Nizam-Uddin and Ibrahim Elshafiey

Transmission Line Approach for Energy Localization in Wideband Hyperthermia Treatment

15:45 Ousama Abu Safia, Amjad Omar, and Mourad Nedil

CPW-fed UWB Antenna Based on Packing Congruent Circles in a Circular Patch

14:30-16:00 Session 11B: Electronics/CMOS Technology/Optoelectronics

Session Chair: Majed Khodr

Place: Multipurpose Room in Building G

14:30 Sarbast Rasheed, Simon So, Linda Vu, and Arsen H. Hajian

Developing a Spectral Parallelism Electronic System for Magnetic Resonance Imaging

14:45 A.N. Al-Omari, A.M.K. Dagamseh, O.M. Khreis, A. Ababneh, and K.L. Lear

High-Speed Dielectric-Planarized 850nm Surface-Emitting Lasers with Metal-Plated Heat Sinks

15:00 Fatima T. Almutairi and Reem T. Almutairi

Fast-lock phase-locked loop with adaptive controller in 0.18- μm CMOS

15:15 Sherif M. Sharroush

A Novel Current-Race Fast CMOS Circuit

15:30 O.M. Khreis, A. N. Al-Omari, and B.A. Harb

An Error-function Compositional Grading Scheme in Vertical-Cavity Surface-Emitting Lasers

15:45 Sherif M. Sharroush

A Novel Variable-Gain Amplifier Based on an FGMOS Transistor

18:30-20:30 Session: Banquet - Awards Ceremony

Thursday, December 8th

08:00-09:00 Registration and Light Breakfast

Place: In front of Auditorium in Building G

9:00-10:30 Session 12A: Miscellaneous-1

Session Chair: Beza Negash Getu

Place: Auditorium in Building G

- 9:00** Abdoul M. Rjoub and Ehab M. Ghabashneh
Low Power/High Speed Optimization approaches of MISTY Algorithm
- 9:15** Abdulrahman Alhamed and Saleh Alshebeili
FPGA Implementation of Complex-Valued QR Decomposition
- 9:30** Habibur Rahman, Nidhal Abdulaziz, Mohamedfareq Abdulmalek
Review of a dual band textile antenna
- 9:45** Basem Y. Alkazemi
Middleware Model for TinyOS and Contiki-Based Wireless Sensor Networks
- 10:00** Eman S. Abushabab, Majid Khodier, and Shereen S. Ismail
Performance Optimization of Fractional Frequency Reuse in Long Term Evolution (LTE) Systems Using Cuckoo Search Algorithm
- 10:15** Ali Bou Nassif
Short Term Power Demand Prediction for Sharjah Emirate Using Stochastic Gradient Boosting

9:00-10:30 Session 12B: Electronic Circuits & Power Electronics & Control

Session Chair: Moh'd Sami Ashhab

Place: Multipurpose Room in Building G

- 09:00** Kawther I. Arafa, I.L. Abdalla, Mohamed F. Ibrahim, and Fathi A. Farag
Design RF Cascode Amplifier Based on the Universal g_m/I_D MOST Model using Scale down Technique
- 09:15** Adam, A. Elnady and Amer Ghias
A Novel Multilevel DC Chopper Supplying DC Motor

- 09:30** Sherif M. Sharroush
Impact of Technology Scaling on the Performance of DRAMs
- 09:45** Amer M. Y. M. Ghias, Ali Adam
Performance Evaluation of the Novel Multilevel DC Chopper
- 10:00** Sherif M. Sharroush
Representing the Transistor by an Equivalent Resistor
- 10:15** Seyedehmarzieh Hosseini and Adel Al-Jumaily
Active Force Control System for Hand Tremor Suppression by Different Actuators

09:00-10:30 Session 12C: Communication Systems & Electronics

Session Chair: Nasser Hamad

Place: Room 208 in Building G

- 09:00** Fernando del Ama Gonzalo, Juan A. Hernandez , Belen Morino
Wireless Low Cost Temperature and Humidity sensors with PV microcells
- 09:15** Radouane Karli, Abdellatif Bouchalkha, and Khalid Alhammadi
Power consumption and battery life study of a two-node wireless sensor system
- 09:30** Shimna Shafeek and Jikui Luo
Theoretical and Numerical Analysis of Triboelectric nanogenerators for self -powered sens
- 09:45** N. Margiotta, G. Avitabile, G. Coviello
A Wearable Wireless System for Gait Analysis for Early Diagnosis of Alzheimer and Parkinson Disease
- 10:00** Izhar Hussain, Fabrizio Riente, Massimo Ruo Roch , Gianluca Piccinini and Mariagrazia Graziano
Performance analysis of transistor-based circuits through TAMAMS Web: From Bulk to Molecular devices

10:30-11:00 Coffee Break

11:00-12:30 Session 13A: Miscellaneous-2

Session Chair: Abdoul M. Rjoub

Place: Auditorium in Building G

- 11:00** M. Merabet

On-Line Measurement of Biomass using Dielectric Spectroscopy. Determination of the Aggregation Threshold

11:15 Paul O. Fisher and Said F. Al-Sarawi

A New Figure of Merit Methodology for Power Amplifier Combining Technologies

11:30 Mohamed Fathallah, Fadhel Saadaoui, Habib Fathallah, Amr Ragheb, Saleh A. Alshebeili, and Irfan Memon

All Optical mmW switch for 5G Communication Networks

11:45 Ibrahim Almutairy

Solid State Circuit Breaker Protection Devices for DC Microgrid in Review

12:00 Ezzaty Faridah Nor Mohd Hussin, Muhammad Ameerul Fikrey Fauzi, Ping Jack Soh, Mohd Faizal Jamlos, Herwansyah

Lago, Hasliza A. Rahim, MohamedFareq AbdulMalek, and Nidhal Abdulaziz

A Wearable Textile Dipole for Search and Rescue Application

12:15 Chaker Abdelaziz Kerrache, Abderrahmane Lakas, and Nasreddine Lagraa

Detection of Intelligent Malicious and Selfish Nodes in VANET using Threshold Adaptive Control

11:00-12:30 Session 13B: Miscellaneous-3

Session Chair: M. Merabet

Place: Multipurpose Room in Building G

11:00 Safaa S. Omran and Ibrahim A. Amory

Design of Two Dimensional Reconfigurable Cache memory using FPGA

11:15 Reem Alkanhel and Marcel Adrian Ambroze

Extended Grouping of RFID Tags Based on Progressive Edge-Growth Methods

11:30 Jinesh Ahamed, Amala V. Rajan

Internet of Things (IoT): Application Systems and Security Vulnerabilities

11:45 Alya Hafri, Hamda Ali, Amer M. Y. M. Ghias, Qassim Nasir

Transformer-less based Solid State Transformer for intelligent power management

12:00 Nagla Osman Mohamed

Performance Analysis of Combined Guard Channel and Mobile Assisted Handoff Call Admission

12:30-13:30 Lunch Break

14:00-20:30 Trip to Desert Safari Dubai

