

TECHNICAL SESSIONS

Session A1 : **Robotic, Control, Mechatronic, and Automation 1**
Date : **29 November 2007**
Time : **2.00pm**

- A1-1** **Odometry Error Model for a Synchronous Drive Robot**
Munir Zaman, John Illingworth
- A1-2** **Behavior-based System using Neural Network for Robot Control**
Saufiah Abdul Rahman, Thomas Braunl
- A1-3** **Robust State Feedback Stabilization of Interval System using Kharitonov Theorem**
S.Neduncheliyan, M.Umapathy
- A1-4** **Error Modeling of Odometry in a Mobile Robot**
Peyman Moghadam, Mohammad Reza Zaheri
- A1-5** **Development of a Contact Interaction based Navigation System for a Biped Humanoid Robot**
Hanafiah Yussof, Masahiro Ohka, Mitsuhiro Yamano, Yasuo Nasu

TECHNICAL SESSIONS

Session A2 : **Power Systems and Industrial Applications 1**
Date : **29 November 2007**
Time : **2.00pm**

- A2-1** **An Experimental Study on load Current Ripple of Single and Multilevel DC-Chopper Under Various Loads**
Anantharajah.D, Gobbi.R, M.K.Ahamed Khan, K.Anayet, S.Rajendran
- A2-2** **The Design of Built In Current Extractor Circuit for IDDQ Test**
Muhamad Faisal Ibrahim, Izam Kamisian, Abu Khairi A'ain
- A2-3** **Development of No Deadtime DC/DC Converter for 300W Application**
M.N.Mamat, S.Taib, M.F.Ain
- A2-4** **Minimizing Neutral Current in a 3 Phase 4 Wire Power Distribution System by Reducing Zero Sequence Harmonic Current using a Zero-Passing / Zero-Blocking Transformer**
Nizar Hassan, Syafrudin Masri
- A2-5** **Design of a Converter for Brushless DC Motor Drives Based on PIC Microcontroller**
Norkharziana Mohd Nayan, Syafrudin Masri, Muhammad Nasiruddin Mahyuddin
- A2-6** **TEC System and its Potential for Cooling Applications**
W.Salah, S.Taib, A.Al-Mofleh

TECHNICAL SESSIONS

Session A3 : **Telecommunication Systems and Applications 1**
Date : **29 November 2007**
Time : **2.00pm**

- A3-1** **Development of an Non-linear Network Equalizer for Wireless Communication System**
Halina Hassan, Farid Ghani
- A3-2** **Causes of Interference and its Mitigation in Satellite Communications**
Avadha Nandra, Jivesh Govil, Jivika Govil
- A3-3** **Finding a Person with Amnesia's Disease by Mobile Phone**
M.Hassan Shirali-Shahreza, Mohammad Shirali-Shahreza
- A3-4** **Performance Checking of the Transmission in the Direct Modulation's Radio Over Fiber System with an Amplifier at the Receiver Site**
W.R.Wan Abdullah, S.Yaakob, M.A.Ismail, A.K.Zamzuri, R.Mohamad, M.R.Yahya, A.F.Awang
- A3-5** **The Effect of Rain Height on the Determination of the Melting Layer from Metrological Radar Data in Malaysia**
Nor Hisham Khamis, Omer Abdel Razag Sharif, Zakaria Hanzaz, Ameruddin Baharom
- A3-6** **Exploiting Clusters for Authentication in Ad hoc Networks**
T.Sreedhar, S.Nenduncheliyan

TECHNICAL SESSIONS

Session A4 : **Electronic Designs and Applications 1**
Date : **29 November 2007**
Time : **2.00pm**

- A4-1** **Guidance Chip Soft IP Core for LEO Satellites**
Muhammad Haris Afzal, Muhammaad Asif, Najeeb Ahmad, Muhammad Akhtar Khan, Naveed Akram
- A4-2** **An Enhanced CMOS Electric-Field Sensor Circuit for Biocell Sensing Lab-on-a-Chip Application**
S.M.Rezaul Hasan, Siti Noorjannah Ibrahim
- A4-3** **Using Xilinx ML310 Development Board as Testing and Development Platform for FPGA-based Embedded Vision System**
Azman M. Yusof, Thomas Braunl
- A4-4** **CMUT for Human and Humanoid Locomotion Measurement**
Yufridin Wahab, Aladdin Zayegh, Rezaul K.Begg, Ronny Veljanovski
- A4-5** **Designing Veding Machine Control by Using XILINX Simulator**
Hartono Siswono
- A4-6** **Comparative Study of the Folded-cascode, Current-reuse and the PCSNIM LNA Topologies for W-CDMA Direct-conversion Receiver**
Norlaili Mohd. Noh, Tun Zainal Azni Zulkifli

TECHNICAL SESSIONS

Session A5 : **Artificial Intelligence and Computer Applications 1**
Date : **29 November 2007**
Time : **2.00pm**

A5-1 **Boolean Matrix Implementation with DNA Computing**

Nordiana Rajae, Osamu Ono

A5-2 **Variable Length Genetic Algorithm for Feature Selection in High Dimensional Domains**

Anwar Al_Thari

A5-3 **Sensor Fusion Analysis using Fuzzy Integral, Bayesian Network and Neural Network Techniques**

Jamie M.Walls, Albert Esterline, Abdollah Homaifar

A5-4 **Fuzzy Logic Based Efficient Airbag Controller Design**

Nowshad Amin, Woon Wen Hui, Masuri Othman

A5-5 **An Alternative Way of Data Structure Visualization by Hybridizing Unsupervised Vector Quantization (VQ) and Adaptive Coordinates (AC)**

Md. Sarwar Zahan Tapan

A5-6 **Recognition on the Facial Expression using Kohonen Neural Networks**

Hiroki Kato, Taizo Umezaki, Mikio Danno, Masahiro Miyagi

TECHNICAL SESSIONS

Session A6 : **Vision, Image and Signal Processing 1a**
Date : **29 November 2007**
Time : **2.00pm**

A6-1 **Burg Method Based-Holographic Source Localization**

Mujahid F. Al-Azzo

A6-2 **Detecting Pickup Errors of Errors of Electronic Parts**

Hirotake Esaki, Taizo Umezaki, Tetsumi Horikoshi

A6-3 **Face Recognition using 3D Facial Data**

Takuma Yamamoto, Taizo Umezaki, Yukio Sato

A6-4 **Secure Medical Image Data System**

H.V.Balachandran Achar, Jagadish Nayak

A6-5 **Application of Image Processing Technique to Determine Normal Sperm**

Zuraidi Saad, Nor Ashidi Mat Isa

A6-6 **Multi-view Shape Matching and Retrieval**

Kritsana Yawichai, Yutanna Kitjaidure

TECHNICAL SESSIONS

Session A7 : **Vision, Image and Signal Processing 1b**
Date : **29 November 2007**
Time : **2.00pm**

A7-1 **The Evaluation of ECG Data Compression using Wavelet and Average Beat Sustraction**
S.Pathoumvanh, S.Airphaiboon, M.Sangworasil, K.Hamamoto

A7-2 **Combined Classifier versus Combined Feature Space in Scale Space Texture Classification**
Mehrdad J.Gangeh, Bart M. ter Haar Romeny, C.Eswaran

A7-3 **Linear One-Dimensional Color Feature for Starfruit Classification**
Musa Mokji, S.A.R. Abu Bakar

A7-4 **Efficient Fingerprint Matching using Principal Log-Gabor Filter Analysis**
Ong Thian Song, Andrew B.J.Teoh

A7-5 **Shape Representation based on Closed Curve Convex Hull**
Musa Mokji, S.A.R. Abu Bakar

A7-6 **Cortical Boundary Detection using Gradient Based Genetic Algorithm**
Norharyati Md Ariff, Noor Elaiza Abdul Khalid, Mazani Manaf, Mohd Ezane Aziz

TECHNICAL SESSIONS

Session B1 : **Robotic, Control, Mechatronic, and Automation 2**
Date : **29 November 2007**
Time : **4.00pm**

- B1-1** **Robust Chattering Free Adaptive Neura Sliding Mode Control for Robotic Manipulators**
Sabat Anwari, Dimitri Mahayana
- B1-2** **Vergence Control for Robotic Distance Estimation Through Stereo Vision**
Swee Eng Khor, Chu Kiong Loo, Yen San Yong
- B1-3** **Stabilization of Marine Structure**
Tu Duc Nguyen
- B1-4** **Robust Motion Control of Human-Like Arm for Precise Trajectory Tracking Task**
Hossein Jahan Abadi, Suhail Kazi, Musa Mailah, Mohd Zarhamdy Mohd Zain
- B1-5** **Variable Structure Control of a Non-Linear Active Magnetic Bearing System**
Abdul Rashid Husain, Mohamad Noh Ahmad, Abdul Halim Mohd Yatim

TECHNICAL SESSIONS

Session B2 : **Power Systems and Industrial Applications 2**
Date : **29 November 2007**
Time : **4.00pm**

B2-1 **Energy Efficiency Improvement and Barriers: USM Practices**

A.Al-Mofleh, S.Taib, W.Salah, K.Ibrahim, B.Hashim

B2-2 **Development of a Weighted Fuzzy Rule based Controller for Interior Permanent Magnet Synchronous Motor Drives**

Muhammad Firoz Mridha, Liakot Ali, Md. Nasir Uddin

B2-3 **Correlation Between THD and Temperature of Power Conductor under Harmonic Influence**

Muhammad Mokhzaini Azizan, Mohd Nazir Abdullah, Syafrudin Masri

B2-4 **Allocation of Reactive Compensation using Fast Decoupling Technique**

A.Tami, M.Bouzguenda, J.Al-Khalaf Bani Younis, A.Ferrah

B2-5 **Are Prepared for Global Energy Crisis 2050?**

N.Khan, H.T.Syed, N.Abas, N.Marium, I.Aris, S.M.Bashi

B2-6 **Direct Torque Control of Five-Phase Permanent Magnet Synchronous Machines**

Mukhtar Ahmad

B2-7 **Design of High-Speed Permanent Magnet Brushless Machines**

Dahaman Ishak, Soib Taib, Syafrudin Masri, Othman Sidek

TECHNICAL SESSIONS

Session B3 : **Telecommunication Systems and Applications 2**
Date : **29 November 2007**
Time : **4.00pm**

- B3-1** **Low Cost Avonics Suite for Small Unnamed Aerial Vehicles**
Muhammad Haris Afzal
- B3-2** **A Robust Video Coding Technique with Multistage Lattice Vector Quantization for Wireless Transmission**
M.F.M.Salleh
- B3-3** **Mobility Model based on Cellular Automata and the Effect of Transmission Range in Vehicular Ad hoc Network**
Zulkefli M. Yusof, James A.Flint, Sekharjit Datta
- B3-4** **Excellent Design of Adaptive Noise Cancellation for Speech Signals using Grazing Estimation of Signal Method**
S.Manikandan
- B3-5** **Transmitter and Receiver Process Sharing in Synchronous Multiuser Communication**
Mohd Fadzil Ain, Farid Ghani, Mutamed Khalid, Syed Idris Syed Hassan, Mandeep Singh
- B3-6** **WLAN 802.11g Radio Over Fiber Downlink System with Electroabsorption Modulator**
Syamsuri Yaakob, Mohd Azmi Ismail, Romli Mohamad, Mohamed Razman Yahya, Abd. Fatah Awang Mat, Mohd Ridzuan Mokhtar, Hairul Azhar Abdul Rashid
- B3-7** **0.15um Pseudomorphic HEMT Medium Power Amplifier for Wireless LAN Application**
Amiza Rasmi, Mohd Azmi Ismail, Ahmad Ismat Abd Rahim, Arjuna Marzuki

TECHNICAL SESSIONS

Session B4 : **Electronic Designs and Applications 2**
Date : **29 November 2007**
Time : **4.00pm**

- B4-1** **An Embedded Cryptosystem for Strong Security in Telemedicine**
Mohamed Khalil Hani, Illiasaak Ahmad, Naorashikin Thamrin
- B4-2** **Size Minimization of High Sensitivity Microphone using Slotted Diaphragm**
Bahram Azizollah Ganji, Burhanuddin Yeop Majlis
- B4-3** **FPGA Based 4-Channel Logic Analyzer**
Nor Zaidi Haron, Masrullizam Mat Ibrahim
- B4-4** **Digitally Programmable Four Phase Current Mode Quadrature Oscillator using MOCCIs**
Iqbal A.Khan, M.T.Ahmed, Seema Tomar
- B4-5** **Design of a Reliable and High Performance Electronic Ballast Fluorescent Light**
Y.H.Lee, Gobbi.R, M.K.Ahamed Khan, K.Anayet, S.Rajendran
- B4-6** **Measurement of Height and Distance of a Moving Object using Microcontroller for Security System**
Mukter Zaman, Md. Shabiul Islam, Ajay Joshi, Masuri Othma

TECHNICAL SESSIONS

Session B5 : **Artificial Intelligence and Computer Applications 2**
Date : **29 November 2007**
Time : **4.00pm**

- B5-1** **Transforming Manual Braille to Computer Controlled Braille Printer**
Muhamad Lazim Talib, Zarina Shukur, Riza Sulaiman
- B5-2** **Performance Assessment of SPEA2-CE-KR using Spacing and Coverage Metrics**
Tse Guan Tan
- B5-3** **Inverse Kinematics Approximation based RBF Network for Position Control of Mitsubishi PA10-6CE Manipulator Observed by Camera**
Bach H.Dinh, Matthew W.Dunnigan, Donald Reay
- B5-4** **Voice-based Access Control System for Building Security using Gaussian Mixture Model**
Wahyudi, Syazilawati Mohamed
- B5-5** **Voltage Disturbances Recognition using Fuzzy-Wavelet**
Ahmad Farid Abidin, S. R. M. S. Baki
- B5-6** **Classification of Welding Defects using an Artificial Neural Network**
Fong Thai Koay, Chee Peng Lim, Shanmuga Sundaram

TECHNICAL SESSIONS

Session B6 : **Vision, Image and Signal Processing 2a**
Date : **29 November 2007**
Time : **4.00pm**

B6-1 Probabilistic 2DPCA on Speaker Verification

Chong Lee Ying, Andrew Teoh Beng Jin, Leow Meng Chew

B6-2 Inspection of Parts Volume using the Shape from Focus Method

Naoto Yamamoto Tomoyasu Saigo, Taizo Umezaki

B6-3 Expansion of 3D Computer Graphics World of Photograph

Kenji Yamashita

B6-4 Fast Harmonic Synthesis Method for Sinusoidal Speech-Audio Model

Gyu-Jin Kim, Jong-Hark Kim, Gyu-Hyeok Jung, Gyu-Jin Kim, In-Sung Lee

B6-5 A Method of Super-Resolution based on Segmentation by using Histogram of Image Intensity

Hiroki Imamura

B6-6 Shape from Terrain Image using Windowed Fourier Transform

Iman Yi Liao

TECHNICAL SESSIONS

Session B7 : **Vision, Image and Signal Processing 2b**
Date : **29 November 2007**
Time : **4.00pm**

- B7-1** **3D CAD Models Shape Representation for Pose Estimation**
Abu Bakar Elmi, Tetsuo Miyake, Zhong Zhang, Takashi Imamura
- B7-2** **Automatic Recognition and Classification of Fish: a Framework**
Humera Farooq, Rosalina Abdul Salam
- B7-3** **Application of Machine Learning for Fish Recognition**
Ali Salem Samma, Rosalina Abdul Salam
- B7-4** **FPGA Implementation of Lifting based 2D Forward Discrete Wavelet Transform**
M.S.Bhuyan, Md. Shabiul Islam, Md. Azrul Hasni Madesa, Masuri Othman
- B7-5** **Implementation of Intonation and Emotion using PSOLA for Malay Text-to-Speech System**
Tian-Swee Tan, Sh-Hussain Salleh, Chye-Li Cheong, Pui-Wan Kong
- B7-6** **Malay Alphabet Hand Signing Recognition using Hidden Markov Model**
Tian-Swee Tan, Sh-Hussain Salleh, Wee-Sern Wang, A.K.Ariff

TECHNICAL SESSIONS

Session C1 : **Robotic, Control, Mechatronic, and Automation 3**
Date : **30 November 2007**
Time : **10.30am**

- C1-1** **Design and Implementation of Temperature Controller Hardware System using Proportional-Integral (PI) Algorithm**
Md. Shabiul Islam, Kazi Ashique Ahmad Rafi, Masuri Othman
- C1-2** **Hexapod Insect Robot System Hardware Design**
K.S.Sim, G.S.Yong, W.K.Lim
- C1-3** **Production Monitoring System**
Siva Kumar a/l Subramaniam, Siti Huzaimah binti Husin, Yusmarnita binti Yusop, Professor Abdul Hamid bin Hamidon
- C1-4** **Matlab-based Graphical user Interface Development for Real-Time Signal Monitoring**
Muhammad Sharfi Najib, Mohd Shawal Adin, Mohd Razali Daud, Soib Taib
- C1-5** **Bucket Brigade Algorithm Enhancement for Robot Behavior**
Saeed Mohammed Baneamoon, Rosalina Abdul Salam

TECHNICAL SESSIONS

Session C2 : **Telecommunication Systems and Applications 3**
Date : **30 November 2007**
Time : **10.30am**

- C2-1** **A New Approach for Designing High Frequency Low Noise Amplifiers**
Mohamed Elhefnawy, Widad Ismail, Farid Ghani
- C2-2** **Radio Frequency Identification Technology in Farming Management System**
A.Johari, N.S.Bakry, D.M.Nor, M.H.A.Wahab, M.E.Ayob
- C2-3** **Modified Koch Fractal Dipole Antenna for Multiband Application**
Shipun Anuar Hamzah
- C2-4** **Cross Layer Design for Video Transmission Over Wireless using H.264/AVC**
Yakubu S.Baguda, Norsheila Faisal
- C2-5** **Embedded Design of Wireless Data Acquisition System using 32bit Single Board Computer**
W.M.Azmi Mamat, R.Badlishah Ahmad, M.Rizon M.Juhari, A.Nasir Che Rosli
- C2-6** **An Indoor Tracking System based on Square Grid RFID Reader Network**
Ahmed Wasif Reza, Tan Kim Geok

TECHNICAL SESSIONS

Session C3 : **Electronic Designs and Applications 3**
Date : **30 November 2007**
Time : **10.30am**

- C3-1** **Realization of Four Phase Sinusoidal Quadrature Oscillator from KHN Filter**
Iqbal A.Khan, Parveen Beg, Muslim T.Ahmed
- C3-2** **A Novel High Precision Rectifier using DVCCs**
Iqbal A.Khan, Parveen Beg
- C3-3** **Multiphase VCO using CCCIs**
Iqbal A.Khan, Mohd. S.Ansari
- C3-4** **A Simple Adaptive Tracking Control for Nonlinear Chua's Circuit**
Hamid. R. Koofigar, Saeed Hosseinnia, Farid Sheikholeslam
- C3-5** **System Level Modelling of Compressed Memory Architecture using SystemC (AIC031)**
Zulkifli Md Yusof, Illiasaak Ahmad, Hau Yuan-Wen, Mohamed Khalil Hani
- C3-6** **Overall Equipment Effectiveness the best practice for equipment efficiency**
Siva Kumar a/I Subramaniam, Siti Huzaimah binti Husin , Yusmarnita binti Yusop, Abdul Hamid bin Hamidon

TECHNICAL SESSIONS

Session C4 : **Artificial Intelligence and Computer Applications 3**
Date : **30 November 2007**
Time : **10.30am**

- C4-1** **Integrated Billing System through GSM Network**
Fazliza Nadzir, Siti Zarina Mohd Muji, Fazliza Md. Nazir
- C4-2** **One Round Anonymous Electronic Auction Protocol**
Tham Chuan Siong, Chang Yu Cheng, Ng Wei Shean
- C4-3** **Design and Simulation of Encryption System based on PRNG and Tompkins-Paige Permutation Algorithm using VHDL**
Shahram Etemadi Borujeni, Mohammad Eshghi
- C4-4** **Children Speech Recognition of Malay Affricate Sounds using Neural Networks**
Hua Nong Ting, Jasmy Yunus
- C4-5** **Combination of Multiple Neural Networks for Improving Nonlinear Process Modelling based on Clustering Analysis**
Zainal Ahmad, Rabiatal 'Adawiah Mat Noor
- C4-6** **A Comparative Study using Different Classifier for Face Verification**
Shahrin Azuan Nazeer, Marzuki Khalid, Nazaruddin Omar

TECHNICAL SESSIONS

Session C5 : **Vision, Image and Signal Processing 3a**
Date : **30 November 2007**
Time : **10.30am**

- C5-1** **A New Method of Correcting Uneven Illumination Problem in Fundus Images**
Aibinu A.M, Iqbal M.I, Nilson M, Salami M.J.E
- C5-2** **Contrast Limited Adaptive Histogram Equalization and 8-bit Quantization for Breast Mass Pre-processing and Segmentation**
Azlindawaty Mohd Khuzi, Rosli Besar, Wan Mimi Diyana Wan Zaki
- C5-3** **Permutation based Image Encryption using Pseudo Random Number Generator and Tompkins-Paige Algorithm**
Shahram Etemadi Borujeni, Ali Zakerolhoseini
- C5-4** **Automatic Diagnosis of Diabetic Retinopathy from Fundus Image using Digital Signal and Image Processing Techiques**
Aibinu A.M, Iqbal M.I, Nilson M, Salami M.J.E
- C5-5** **Blood Vessel Detection using RGB Components for Early Diagnosis of Diabetic Retinopathy**
Ahmed Wasif Reza, C.Eswaran, Subhas Hati

TECHNICAL SESSIONS

Session C6 : **Vision, Image and Signal Processing 3b**
Date : **30 November 2007**
Time : **10.30am**

- C6-1** **Face Recognition using Wavelet Transform and Locally Discriminating Projection**
M.Sujaritha, S.Annadurai
- C6-2** **Characterizing Seizure from EEG Data using MACE Filter**
Aini Hussain, Salina Abdul Samad, Rosniwati Ghafar, Dzati Athiar Ramli
- C6-3** **Canny Optimization Colorization Method for Medical Images**
K.S.Sim, J.T.Eng, C.P.Tso, L.W.Thong
- C6-4** **Accurate Skin Regions Detection using Segmented Regions**
Liang Kim Meng, Lai Weng Kin
- C6-5** **A New Class of Digital Crossover Filters with Flat Magnitude and Constant Group Delay Characteristics**
Dolchai Sookcharoenphol

TECHNICAL SESSIONS

Session C7 : **Vision, Image and Signal Processing 3c**
Date : **30 November 2007**
Time : **10.30am**

- C7-1** **Design of an Automatic Speech Recognition System using TI DSP Board**
Jamel Price, Ali Eydgahi
- C7-2** **A Novel Gradient Extraction and Polynomial Fitting Approach for the Detection of Multiple Notch Defects in Cutting Tools using Machine Vision**
T.H.Low, J. H. S Osman
- C7-3** **Face Reader for Biometric Identification using Single Board Computer and GNU/Linux**
Ahmad Nasir Che Rosli, Ali Yeon Md Shakaff, R.Badlishah Ahmad, Mohamed Rizon, Wan Muhammad Azmi Mamat
- C7-4** **Defining and Managing Instabilities in the Signing Patterns of Signature Biometrics using Population**
Sharifah M. Syed Ahmad
- C7-5** **The Utilization of Spectral and Time-Frequency Estimation Techniques in the Detection of Heart Block Problems**
Norhashimah Mohd Saad, Abdul Rahim Abdullah, Syafeeza Ahmad Radzi
- C7-6** **Vision-based Advanced Driver Assistance System**
Abdulhakam.A.M.Assidiq, Othman O.Khalifa, Mohd Rafiqul Islam, Sheroz Khan

TECHNICAL SESSIONS

Session D1 : **Robotic, Control, Mechatronics and Automation 4**
Date : **30 November 2007**
Time : **2.45pm**

- D1-1** **Supplementary Feedforward in Direct Model Reference Adaptive Control Algorithm**
Muhammad Nasiruddin Mahyuddin
- D1-2** **Portable Rehabilitation Robot Monitor System using Biofeedback Sensor Wireless Network**
Xuhui Chen, Chaolin Ma, Jiping He, Zhihui Xiao
- D1-3** **Multi-team Robot System (MTRS) with ZigBee Communication Technology**
Lim Cheng Siong, Rosbi Mamat
- D1-4** **Remote Measurement of Current using Thermo-Optic Technique**
Mahfoozur Rehman, Basem Abdel Jalel
- D1-5** **Development of Human Mimicking Sensory System**
A.H.Adom, M.H.Fazalul Rahiman, N.Ahmad Fikri, A.H.Abdullah, M.A.Markom

TECHNICAL SESSIONS

Session D2 : **Telecommunication Systems and Applications 4**
Date : **30 November 2007**
Time : **2.45pm**

- D2-1** **Industrial Communication Networking: An Ethernet based Implementation**
Hairulazwan Hashim, Zainal Alam Haron
- D2-2** **A Hybrid Architecture for Industrial Deployment of Wireless Sensor Networks**
Tarique Haider, Mariam Yusuf
- D2-3** **Empirical Study of Sigmoid Increasing Inertia Weight in Particle Swarm Optimization**
Reza Firsandaya Malik, Tharek Abdul Rahman, Razali Ngah, Siti Zaiton Mohd Hashim
- D2-4** **Study the Effect of Simulated Rain on the Parabolic Antenna at Ku-Band Frequency**
Bin Sahaq Khaled, Syed Idris, Mostafa Hussen
- D2-5** **2.5 GHz BaTiO₃ Dielectric Antenna**
Mohd Fadzil Ain, Ariff Othman, Syed Idris Syed Hassan, Zainal Ariffin Ahmad, Srimala Sreekantan, Mandeep Singh, Bazli Nawang
- D2-6** **A Bluetooth-based Enhanced Stethoscope for Healthcare and Educational Purposes**
I.Kamarulafizam, Sh-Hussain Saleh, J.Ganesah

TECHNICAL SESSIONS

Session D3 : **Electronic Designs and Applications 4**
Date : **30 November 2007**
Time : **2.45pm**

- D3-1** **Inductive Degeneration 0.13um CMOS Low Noise Amplifier Utilizing On-Chip Inductors at 2.4GHz**
Tun Zainal Azni Zulkifli
- D3-2** **Design of a High Performance IC Tester using GLFSR based mixed-mode Technique**
Mohammad Akhbar Kabir, Liakot Ali
- D3-3** **Introduction of Free Level Threshold Zone (FLTZ) Logic for Analog Circuit Controlled by Microcontrollers**
Alireza Nazem
- D3-4** **Transforming AND/OR-Networks into AND/OR-Graphs**
I.Abd El-Salam, W.A.El-Haweet, H.H.El-Meligy
- D3-5** **FPGA Implementation on Temperature Data Logger using STH75 Temperature Sensor**
Z.Abdul Halim, L.C.Yaw

TECHNICAL SESSIONS

Session D4 : **Artificial Intelligence and Applications 4a**
Date : **30 November 2007**
Time : **2.45pm**

- D4-1** **Neuro-Fuzzy Wavelet Packets for Text Independent Speaker Identification**
M.Sujaritha, S.Annadurai
- D4-2** **Intranet-based Quality Control Tool**
Tan Poh Choo, Iznora Aini Zolkifly
- D4-3** **Separation of Aspects: A Flowchart based Approach**
Hasan Md. Hamidur Rahman, Md. Liakot Ali
- D4-4** **Loss of Self-Similarity Detction with Second Order Statistical Model and Multi-Level Aggregation Approach**
Mohd Fo'ad Rohani, Mohd Aizaini Maarof, Ali Selamat
- D4-5** **A Training Model of an Auto Storage/Retrieval System (AS/RS)**
Tee Kian Sek, Zainal Alam Haron

TECHNICAL SESSIONS

Session D5 : **Artificial Intelligence and Applications 4b**
Date : **30 November 2007**
Time : **2.45pm**

D5-1 **Detection for Spot Weld Defect by Neural Networks**

Akihiro Ando, Tomoyasu Saigo, Taizo Umezaki

D5-2 **A Web-based Program Understanding System for Teaching and Learning Programming**

Teh Noranis Mohd Aris, Md. Jan Nordin

D5-3 **Analysis and Design Solutions for Multi-Round Anonymous Electronic Auction Protocol**

Tham Chuan Siong, Chang Yu Cheng, Ng Wei Shean

D5-4 **Analysis of Ultrasonic Transceiver Sensing Method in Ultrasonic Tomography**

Ruzairi Abdul Rahim, Mohd Hafiz Fazalul Rahiman, Zulkarnay Zakaria

D5-5 **The Application of Evolutionary Genetic Algorithm in the Digital Structure Design**

Chong Kok Hen

TECHNICAL SESSIONS

Session D6 : **Vision, Image, and Signal Processing 4a**
Date : **30 November 2007**
Time : **2.45pm**

- D6-1** **Fish Target Strength using Sonar**
Sunardi, Raja Bidin Raja Hasan, Nazri, Adil Mohd, Jafri Din
- D6-2** **Electronically Controlled Translinear-C Chaos Generator**
Shahnaz Hasan, Iqbal A.Khan
- D6-3** **Speaker Dependent Malay Phone Recognition using Continuous Density Hidden Markov Model**
Chee-Ming Ting, Sh-Hussain Salleh, Rubita Sudirman
- D6-4** **A Robust and Transparent Compression Domain Watermarking Scheme**
Mohammad Athar Ali, Ekram Khan, Farid Ghani
- D6-5** **Development of Real Time Machine Vision System for Automated Weeding Strategy in Oil Palm Plantation**
Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain, Slamet Riyadi, Syafrudin Razali

TECHNICAL SESSIONS

Session D7 : **Vision, Image, and Signal Processing 4b**
Date : **30 November 2007**
Time : **2.45pm**

- D7-1** **Detection and Classification of Moving Objects with Slit Images for Surveillance System**
Masahiro Hoguro, Yuki Inoue, Taizo Umezaki, Takefumi Setta
- D7-2** **Visemes Shapes Similarity Evaluation**
Salleh S.S, Rahmat R.W, Mahmud. R, Ahmad. F
- D7-3** **Optically Watermarked Variable Data Microholograms for Anti-Counterfeiting**
Sheeja M.K, Ajith Kumar P.T, Achuthsankar S. Nair
- D7-4** **Improving Capacity of Digital Watermarking Images**
Akram M.Zeki, Azizah A.Manaf
- D7-5** **Implementation of Speech Technology for Smart House**
Tian-Swee Tan, Sh-Hussain Salleh, A.K.Ariff, Zuraimi Y, J.M.Najeb, Kamarulafizam

TECHNICAL SESSIONS

Session E1 : **Robotic, Control, Mechatronics, and Automation 5**
Date : **30 November 2007**
Time : **4.30pm**

- E1-1** **Calibrating Compass for Mobile Robot and its Experimental Results on Arian Robot**
Mohammad Reza Zaheri, Peyman Moghadam, Alireza M. Shahri
- E1-2** **Decentralized Variable Structure Control of Electrohydraulic Robot Manipulator**
H. Ishak, J. H. S Osman
- E1-3** **Group Motion Detection and Tracking using Image Based Approach**
Umair Soori, Mohd Rizal Arshad
- E1-4** **Development of the Sliding Mode Controller for an Active Magnetic Bearing System with Complex Valued Sliding Manifold using the Hardware-in-the-loop Simulation System**
Mohamad Noh Ahmad, Haszuraidah Ishak, Abdul Rashid Husain
- E1-5** **Robust PID Anti-Windup Control of a Coupled Industrial Tank System**
Wahyudi, M. Fadhil, M. Shazri

TECHNICAL SESSIONS

Session E2 : **Telecommunication Systems and Applications 5a**
Date : **30 November 2007**
Time : **4.30pm**

- E2-1** **Adaptive Beamforming with 8x8 Element Planar Array using MaxSIR Algorithms**
Md. Rafiqul Islam, Othman O. Khalifa, AHM Zahirul Alam, Fahmy Hafriz, Muhammad Norfauzi
- E2-2** **Radio Over Fiber Receiver Configuration Employing an OEM as the Frequency Upconverter**
Hilman Harun, Sevia Mahdaliza Idrus, Abu Bakar Mohammad
- E2-3** **Simulation and Performance Analysis of WCDMA Radio Over Fiber System**
Hamim Nasoha, Sevia M. Idrus
- E2-4** **Time Dynamics Investigation of Rainfall Intensities for the Design of Microwave Links in Malaysia**
Md. Rafiqul Islam, Tharek Abdul Rahman, Syed Idris Syed Hassan
- E2-5** **Comparative Analysis of Four Wave Mixing Effect in Conventional Optical Communication System and Radio Over System**
Razali Ngah, Reza Abdolee, Tharek Abd Rahman, Vida Vakilian
- E2-6** **Effect of MIM Capacitor on the Performance of Low Noise Amplifier for Wireless LAN Applications**
Rasidah Sanusi, Ahmad Ismat Abdul Rahim, Arjuna Marzuki

TECHNICAL SESSIONS

Session E2 : **Telecommunication Systems and Applications 5b**
Date : **30 November 2007**
Time : **4.30pm**

- E3-1** **Denial-of-Service Resistance and Delay Optimization in Multicast Authentication**
N.Senthil Selvan, S.Nedunchelivan
- E3-2** **Characterization of Spiral Inductor based on 0.15um GaAs pHEMT Technology for RF Application**
Norhapizin.K, Azmi Ismail, Ahmad Ismat A.R., A.Marzuki
- E3-3** **Design of a Sierpinski Carpet Fractal Antenna for Multiband Application**
N.A.Saidatul, A.A.H.Azremi, P.J.Soh
- E3-4** **Communication Modules for Multi-Channel Wireless PPG System**
Ammar Y.Kadhim, M.A.Mohd Ali, Edmond Zahedi
- E3-5** **Indoor Antenna for Multiple Bands**
Anas Abas, Arny Adila, Kamalia Kamardin, Sherlene Thiagarajah, Mahamod Ismail
- E3-6** **Sub Carrier Multiplexed for Radio Over Fiber System Modelling and Performance Analysis**
Mahyuddin Arsat, Sevia M. Idrus

TECHNICAL SESSIONS

Session E4 : **Electronic Designs and Applications 5**
Date : **30 November 2007**
Time : **4.30pm**

- E4-1** **0.15 um GaAs pHEMT Cascode Low Noise Amplifier (LNA) for WLAN Applications**
Mohd Azmi Ismail, Norhapizin Kushairi, Amiza Rasmi, Ahmad Ismat Abdul Rahim, A.Marzuki
- E4-2** **Optimal Routing Algorithm for Minimizing Interconnect Wire Delay**
Nasir Shaikh-Husin, Mohamed Khalil Hani, Ch'ng Heng Sun
- E4-3** **A Phenomenal Approach to Benefits of Nanotechnology**
Jivika Govil
- E4-4** **Digitally Programmable Generalized Impedence Multiplier using CCII**
Iqbal A.Khan, N.Afzal, M.R.Khan
- E4-5** **Electronic System Level (ESL) Design Methodology for IP-based System-on-Chip (SoC)**
Mohamed Khalil, Hau Yuan-Wen, Illiasaak Ahmad

TECHNICAL SESSIONS

Session E5 : **Artificial Intelligence and Computer Applications 5**
Date : **30 November 2007**
Time : **4.30pm**

- E5-1** **Improving the Prediction Capability of the Fuzzy Linear Regression Model with the Genetic Algorithm**
Hiaw San Kho, Chee Peng Lim, Zalina Abdul Aziz
- E5-2** **Combinatorial Explosions Problem in Software Testing: Issues and Solutions**
Kamal Zuhairi Zamli, Nor Ashidi Mat Isa, Mohammad Fadel Jamil Klaib
- E5-3** **A Study in Case-based Reasoning to Software Cost Estimation**
Aminuddin Mohammed, Yuhainim Hani Yahaya, Iznora Aini Zolkifly
- E5-4** **Structural Optimization of Second Neural Networks for pose Estimation**
Tomas Maul, Sapiyan Baba, Azwina Yusof
- E5-5** **Design and Development of an Digital Circuit Design Simulator based on Artificial Intelligent Approach**
Chong Kok Hen

TECHNICAL SESSIONS

Session E6 : **Vision, Image and Signal Processing 5a**
Date : **30 November 2007**
Time : **4.30pm**

- E6-1** **Multiresolution Texture Analysis**
M.Sujaritha, S.Annadurai
- E6-2** **Offline Handwritten Character Detection using Image Components**
L.Basavaraj
- E6-3** **Development of Progressive and Parallel Image Transmission Scheme based on Block Truncating Coding (BTC)**
Md. Shabiul Islam, Mukter Zaman, K.Ramasamy, Masuri Othman
- E6-4** **Hand Localization using Viola-Jones Object Detection Method and Accelerated with Skin Color Segmentation**
Lih Yang Chan, Bee Ee Khoo
- E6-5** **Comparison of Threshold Methods in Ultrasound Image Segmentation**
Bahbib Rahmatullah, Rosli Besar, Arfian Ibrahim

TECHNICAL SESSIONS

Session E7 : **Vision, Image and Signal Processing 5b**
Date : **30 November 2007**
Time : **4.30pm**

- E7-1** **Comparison Between Features in Speech Recognition**
Saeed Asadi, Alireza Yazdizadeh, Hooman Shagoshtasbi
- E7-2** **Overlap and Add Sinusoidal Synthesis Method of Speech Signal using Weighted Phase Error Function**
Jong-Bae Park, Jong-Hark Kim, Gyu-Hyeok Jung, Gyu-Jin Kim, In-Sung Lee
- E7-3** **Detection of Eyes For Face Verification System**
Kho Tong Choon, Shahrel A. Suandi
- E7-4** **Precise Pupils Detection using Separability Filter**
Loy Cheng Ying, Shahrel A.Suandi
- E7-5** **The Handwriting Model Considering Patchy Expression Algorithm**
Kyohei Monshitta