

**INTERNATIONAL
CONFERENCE ON MAN-
MACHINE SYSTEMS 2012
(ICoMMS 2012)
TECHNICAL SESSIONS
SCHEDULE AND
ABSTRACTS**

TECHNICAL SESSIONS SCHEDULE

Date	Time	ICoMMS 1	ICoMMS 2
27th February 2012	11.45 AM 1.00 PM	Session 1A	Session 1B
	4.30 PM 6.00 PM	Session 3A	Session 3B
28th February 2012	8.30 AM 10.30 AM	Session 4A	Session 4B
	11.00 AM 1.00 PM	Session 5A	Session 5B
	2.15 PM 4.15 PM	Session 6A	Session 6B

Session 1A	Artificial Intelligence 1
Session 1B	Biomedical 1
Session 3A	Robotics & Its Application 1
Session 3B	Control & Communication System 1
Session 4A	Biomedical 2
Session 4B	Robotics & Its Application 2
Session 5A	Image Processing
Session 5B	Artificial Intelligence 2
Session 6A	Control & Communication System 2
Session 6B	Other Application

TECHNICAL SESSIONS

Session 1A: Artificial Intelligence 1

Date: Monday, 27 February 2012
Time: 11.45 AM – 1.00 PM
Venue: ICoMMS 1

- 1A1 Harmony Search Algorithm-Based Gasoline Consumption Modeling for Indonesia**
Riesta Anggarani and Junzo Watada
- 1A2 A Phoneme Based Sign Language Recognition System using Interleaving feature and Neural Network**
Paulraj M P, Sazali Yaacob, Mohd Shuhanaz, Rajkumar Palaniappan
- 1A3 Artificial Neural Network Model for Prediction of Dynamical Behavior in Spray Boom**
Mona Tahmasebi, Roslan Abd Rahman, Mohammad Gohari
- 1A4 Image Quality Assessment using Elman Neural Network Model**
Paulraj M P, Rajkumar Palaniappan, Mohd Shuhanaz
- 1A5 Fractile Optimization Approach for Possibilistic Programming Problem**
Nureize Arbaiy, Junzo Watada
- 1A6 A Simplified Adaptive Neuro-Fuzzy Inference System Control Strategy for PMSM Drives**
Mustafa Khalid Masood, Hew Wooi Ping, Nasrudin Abd Rahim

Session 1B: Biomedical 1

Date: Monday, 27 February 2012
Time: 11.45 AM – 1.00 PM
Venue: ICoMMS 2

- 1B1 Recent Survey on Face Biometric Classification Success Rates**
W.Syahirah W.Samsudin, K.Sundaraj
- 1B2 Comparing the Classification Performance of Multi Sensor Data Fusion based on Feature Extraction and Feature Selection**
Maz Jamilah Masnan, Ali Yeon Md Shakaff, Ammar Zakaria
- 1B3 A Comparative Study of the Difference between MFCC and PLP in the Recognition of Sound**
Sabur A. Alim, Nahrul K. Alang-Rashid and Md. Mozasser Rahman
- 1B4 Evaluation of Effective Factors on Diaphragm's Deflection and Mechanical Sensitivity of An Intraocular Capacitive Pressure Sensor**
M. Shahiri-Tabarestani, B. A. Ganji, R. Sabbaghi-Nadooshan
- 1B5 Classification of EEG Colour Imagination Tasks Based BMI using Energy and Entropy Features**
Paulraj M P, Abdul Hamid Adom, Hema C R, Divakar Purushothaman

Session 3A: Robotics & Its Application 1

Date: Monday, 27 February 2012
Time: 4.30 PM – 6.00 PM
Venue: ICoMMS 1

3A1 Performance of a Time-dependent Motion Planning Approach for a Car-like Robot in Static Environments
Mohd. Sani bin Mohd Hashim

3A2 Synchronous Brain Machine Interface Design using Focused Time Delay Networks
Hema C.R., Paulraj M.P., Yaacob S., Adom A.H., Nagarajan R.

3A3 Wireless Sensor Networks Based Solution for Harumanis Yield Monitoring
Harun, A., Rohani S. Mohamed Farook, Kamarudin, L.M., Ramli, M.F., Ndzi, D.L. Shakaff, A.Y.M., Zakaria, A., Jaafar, M.N.

3A4 Bird Nest Shape Quality Assessment Using Machine Vision System
F.S.A.Sa'ad, F.S.A. SA'ad, A.Y.M. Shakaff, M.Z.Abdullah, A. Zakaria

3A5 Wireless Sensor Networks Propagation Study in Mixed-Crop Farming
Harun, A., Kamarudin, L.M., Zakaria, A., Ndzi, D.L. Shakaff, A.Y.M., Jaafar, M.N.

3A6 Design And Development of Tripod Hopping Robot
A.M.Kassim, N.H .A.Rahim

Session 3B: Control & Communication System 1

Date: Monday, 27 February 2012
Time: 4.30 PM – 6.00 PM
Venue: ICoMMS 2

- 3B1 A Simulated Intelligent Controller for Aircraft Pitch Control**
Fahisal Abdullah ,Siti Marhainis Othman, Nasrul Helmei Halim
- 3B2 Convergence of Meta-Controlled Boltzmann Machine and Its Application for Bilevel Programming Problem**
Wataru Nishiigami, Junzo Watada, Shamshul Bahar Yakoob
- 3B3 Particle Swarm Optimization (PSO) and its Application in Power Converter Systems**
Naziha Ahmad Azli, Norkharziana Mohd Nayan, Shahrin Md Ayob
- 3B4 Ubiquitous WLAN/Camera Positioning using Inverse Intensity Chromaticity Space-based Feature Detection and Matching: A Preliminary Result**
Wan Mohd Yaakob Wan Bejuri, Mohd Murtadha Mohamad, Maimunah Sapri and Mohd Adly Rosly
- 3B5 Pre Determination of Performance of Double Winding Induction Motor using MATLAB**
V.Chandrasekaran
- 3B6 Modelling and Simulation of Microturbine for a Distribution System Network**
M.S. Laili, Z.N. Zakaria, and N.H. Halim

Session 4A: Biomedical 2
Date: Monday, 27 February 2012
Time: 8.30 AM – 10.30 AM
Venue: ICoMMS 1

- 4A1 Theoretical Approach On Vein Graft Survival - A Review**
Muhd Nur Rahman bin Yahya, Shahrinan A.B
- 4A2 A Physiological Signal Based Approach on Stress Assessment through Emotion, Physical, and Cognitive Stimuli: A Theoretical Frame Work**
M.Murugappan, P Karthikeyan, Bong Siao Zheng, Ku Nor Syamimi Bt. Ku Ismail, and Sazali Yaacob
- 4A3 Methods and Approaches on Inferring Human Emotional Stress Changes through Physiological Signals: A Review**
Bong Siao Zheng, M Murugappan, Sazali Yaacob
- 4A4 Development of EEG Data Acquisition Device by Using TS7800 Single Board Computer (SBC)**
Mousa K. Wali, M.Murugappan, R. Badlishah Ahmmad

Session 4B: Robotics & Its Application 2
Date: Monday, 27 February 2012
Time: 8.30 AM – 10.30 AM
Venue: ICoMMS 2

- 4B1 The Optimum Embedded Controller for Handheld Electronic Nose**
A.H. Abdullah, A.H. Adom, A.Y.M. Shakaff, M.N. Ahmad, A. Zakaria, F.S.A. Saad
- 4B2 Development of Gesture Database for an Adaptive Gesture Recognition System**
Mohd Azri Abd Aziz, Khairunizam Wan, Shahriman A. B., Siti Khadijah Za'aba, Abdul Halim Ismail and Zuwairie Ibrahim
- 4B3 Development of Vision-Based Sensor of Smart Gripper for Industrial Applications**
Hasimah Ali, Universiti Malaysia Perlis
- 4B4 Hospital Nurse Following Robot (Hardware Development and Sensor Integration)**
B Ilias, R Nagarajan, M Murugappan, K Helmy, AS Awang Omar, MA Abdul Rahman
- 4B5 Development of Highly Selective Electronic Nose Using Molecular Imprinted Polymer (MIP) for Recognition of Fruit Ripeness**
H. F. Hawari, N. M. Samsudin, M. N. Ahmad, A. Y. M. Shakaff, S. A. Ghani, Y. Wahab, U. Hashim
- 4B6 A System Thinking Approach in Kansei Marketing and its Behaviours as Complex System**
Hisao Shiizuka, Ayako Hashizume

Session 5A: Image Processing

Date: Tuesday, 28 February 2012

Time: 11.00 AM – 1.00 PM

Venue: ICoMMS1

5A1 A Chaotic Neural Network Based Encryption Algorithm for MPEG-2 Encoded Video Signal

A. Tariq A. Fadil, B. Shahrul N. Yaakob, C. Badlishah Ahmad, and D. Abid Yahya.

5A2 Image Processing Methods for A Proposed Laser Pest Extraction and Monitoring System

Nicholez Wong, Ali Chekima

5A3 A Novel Hybrid Edge Detection Algorithm Based on Wavelet Thresholding and ICA

Moslem Taghizadeh, Mahboobeh Hajipoor

5A4 Malaysian License Plate Recognition System

Siti Marhainis Othman, Fahisal Abdullah, Lokman Alhakim Bin Haji Anuas

5A5 GPSO versus GA in Facial Emotion Detection

Bashir Mohammed Ghandi, R. Nagarajan, S. Yaacob and Hazry Desa

5A6 Analysis of Minutia Extraction Techniques in Fingerprint Recognition

S.Sudha Ponnarasi and M.Rajaram.

5A7 Fingerprint Recognition, Gender Classification Based on Minutiae Points in Biometrics

S.Sudha Ponnarasi, Dr.M.Rajaram

5A8 An Application of Image Processing for Automated Mixed Household Waste Sorting System

Zol Bahri Razali, Gunasegaran Madasamy,

Session 5B: Artificial Intelligence 2
Date: Tuesday, 28 February 2012
Time: 11.00 AM – 1.00 PM
Venue: ICoMMS 2

5B1 Classification of Vehicle Noise Comfort Level Using Feedforward Neural Network

Paulraj M P, Sazali Yaacob, Siti Marhainis, Allan Melvin Andrew

5B2 Gesture Recognition Based On Hand Postures and Trajectories by Using Dataglove: A Fuzzy Probability Approach – A Review

Nazrul Hamizi Bin Adnan, Wan Khairunizam B. Wan Ahmad

5B3 Simulation and Analysis of Switched Reluctance Motor Using Fuzzy Controller

T.Manigandan, V.Pushparajesh, V.Karthi

5B4 Game Theory-Based Two –Echelon Logistic Models for Competitive Behaviors

Thisana Waripan, IPS Waseda University, JAPAN

5B5 PSO-Particle Filter-Based Length Estimation in Human Tracking

Zhenyuan Xu and Junzo Watada

5B6 Moving Vehicle Identification Using Artificial Neural Network

Paulraj.M.P, Abdul Hamid Adom, Siti Marhainis Othman, Sathish Kumar Sundararaj

Session 6A: Control & Communication System 2
Date: Tuesday, 28 February 2012
Time: 2.15 PM – 4.15 PM
Venue: ICoMMS 1

- 6A1 Hybrid Energy System Modeling and Integration Using Photovoltaic Generator, Micro Hydro Generator and Energy Storage for Gate Control System**
Shahriman Bin Abu Bakar, Muhammad Muadz Bin Khalil
- 6A2 Mathematical Model and Attitude Estimation using Kalman Filter Technique for Low Earth Orbit Satellite**
Nor Hazadura Hamzah, Sazali Yaacob, Teoh Vil Cherd, Siti Maryam Sharun, Hariharan Muthusamy
- 6A3 TCP Vegas' Adaptive CWND in Wireless IPv4 and IPv6 Networks**
B.S.Yew, B.L.Ong, R.B.Ahmad
- 6A4 A Survey - Networked Control Systems**
B Sharmila, N Devarajan
- 6A5 Design of Linear Quadratic Gaussian Controller for Quadruple Tank System**
D. Angeline Vijula, N.Devarajan
- 6A6 Redundancy Allocation for a High Security Control System using Estimation of Distribution Algorithm**
Haydee Melo and Junzo Watada, JAPAN

Session 6B: Other Application 1
Date: Tuesday, 28 February 2012
Time: 2.15 PM – 4.15 PM
Venue: ICoMMS 2

- 6B1 Deriving Domain Knowledge from Unstructured Information: A Forecasting Framework Based on Judgmental Adjustment Approach**
Wendy Japutra Jap, Patrick H. H. Then
- 6B2 Temperature Oriented Design of an Amplifier using Submicron VLSI**
V. Rukkumani, N.Devarajan
- 6B3 Programmable Low-Power Wireless Sensors Network for Vibration Monitoring and Analysis**
Jaafar Alsalaet, Saleh I. Najem, Abduladhem Ali (MIEEE)
- 6B4 Ethanol Sensor Based on ZnO Nanowires Synthesized by Wet Chemical Route**
M. Z. Ahmad, M. Breedon, M. S. Ahmad, K. Latham and W. Wlodarski
- 6B5 Design and Development of Ferroelectric Material for Microstrip Patch Array Antenna**
F.H.We, F.Malek
- 6B6 Substrate influence on the structural, surface and optical properties of CdZnS thin films**
T.Chitravel, T.Prem kumar