

Conference Program

Day1: Tuesday, November 30, 2010

- **09:30 AM - 10:30 AM Opening Ceremony.**
- **10:30 AM - 11:30 AM Keynote Speaker1 (Prof. Dr. Raed Abd-Alhameed).**
- **11:30 AM - 03:00 PM Dinner Break.**
- **03:00 PM - 04:45 PM Session1 (Control1).**

Session1 (Control1) (Prof. Dr. Sajed K. Abed) Al-Shaheed Conference Room

Singular Perturbation Method for Robust Control of Nonlinear Systems

H. B. Mogaver, A. Zare, M. R. Tanhatalab

Adaptive Sliding Mode Control Design for a Class of Nonlinear Systems with Unknown Dead Zone of Unknown Bounds

I. F. Jasim, N. F. Jasim

Motion Control of a Population of Artemias

L. Fortuna, M. Frasca, M.G. Xibilia, A. A. Ali, M. T. Rashid

A New Anticipatory Speed-Controller for IC Engines Based on Torque Sensing Loop

A. Kh. Ali, I. A. kheioon, M. K. Ali

Soft Computing Control System of an Unmanned Airship

W. W. Kitt, A. Chekima, J. A. Dhargam, F. Wong, T. A.. Tabet

Hard Constraints Explicit Model Predictive Control of an Inverted Pendulum

H. A. Mohamed, M. Askari, M. Moghavvemi

A Robust Practical Generalized Predictive Control for Boiler Super Heater Temperature Control

Z. M. Mohialdeen

Day1: Tuesday, November 30, 2010

- **03:00 PM - 04:45 PM Session1 (Power1).**

Session1 (Power1) (Chair: Prof. dr. Salman K. Salman)
Al-Jaahidh Conference Room

Parameter Identification of a PMSG Using a PSO Algorithm Based on Experimental Tests

A. J. Mahdi, W. H. Tang, Q. H. Wu

A Combined 2-Dimensional Fuzzy Regression Model to Study Effect of Climate Change on The Electrical Peak Load

H. Shakouri, H. Zaman

Damping of Power Systems Oscillations by Using Genetic Algorithm-Based Optimal Controller

A. F. Bati

A Study of the Optimal Allocation of Shunt Capacitor Based on Modified Loss Sensitivity Algorithm

W. S. Warid, E. A. Mohsin

Network Reconfiguration Using PSAT for Loss Reduction in Distribution Systems

E. J. Abdul Zehra, M. Moghavvemi, M. M. Hashim, K. Muttaqi

Transient Stability Assessment Using Artificial Neural Network Considering Fault Location

P. K. Olulope, K. A. .Folly, S. Chowdhury, S. P. Chowdhury

Day2: Wednesday, December 01, 2010

- **09:00 AM - 09:30 AM Keynote Speaker 2 (Prof. Dr. Atul Negi).**
- **09:30 AM - 10:00 AM Keynote Speaker3 (Prof. Dr. Anton Satria).**
- **10:30 AM - 12:00 PM Session1 (Fuzzy Systems and Computer Networks1).**

Session1 (Fuzzy Systems and Computer Networks1) (Prof. Dr. Ali Azadeh) Al-Shaheed Conference Room

Applying Fuzzy Set Method for Solving Mechanical Engineering Problems (Determining Residual Service Life)

W. M. Al-waely, M. M. Khalil

ANFIS Modelling of Flexible Plate Structure

A. A. Al-Khafaji, I. Z. Darus, M. F. Jamid

A Framework for Sensor Fusing Using Fuzzy Logic for Navigation Systems

W. W. Kitt, A. Chekima, J. A. Dhargam, F. Wong, T. A. Tabet

Proposed Method for Optimizing Fuzzy Linear Programming Problems by Using Two-Phase Technique

Z. S. Towfik, S. F. Jawad

Adaptive Neuro Fuzzy Inference Controller for Full Vehicle Nonlinear Active Suspension Systems

A. Aldair, W. J. Wang

A Study on The Effect of UWB Interference on Downlink UMTS System

M. A. Al-Adwany, A. B. Ali, E. H. Najim, A. M. Younis

Day2: Wednesday, December 01, 2010

- **10:30 AM - 12:00 PM Session1 (Machine Control1).**

**Session1 (Machine Control1) (Prof. Dr. Rabee' H. Thejel)
Al-Jaahidh Conference Room**

Speed Control of Induction Motor Using New Sliding Mode Control Technique

A. H. Ahmed, M. O. Ajangnay, Sh. A. Mohamed, M. W. Dunnigan

A New Technique for Position Control of Induction Motor Using Adaptive Inverse Control

A. H. Ahmed, M. O. Ajangnay, Sh. A. Mohamed, M. W. Dunnigan

Design and Implementation of Fuzzy Logic system for DC Motor Speed Control

M. M. Shaker, Y. M. Al-khashab

Direct Torque Control System for a Three Phase Induction Motor with Fuzzy Logic Based Speed Controller

T. Y. Abdalla, H. A. Hairik, A. M. Dakhil

LabVIEW FPGA Implementation of a PID Controller for D.C. Motor Speed Control

F. H. Ali, M. M. Hussein, S. M. Ismael

Stable Robust Adaptive Control of Induction Motors with Unknown Parameters

I. F. Jasim

Fuzzy-Neural Control of Hot-Rolling Mill

Kh. Mohamad, A. A. Ali, R. Nagrajan

Day2: Wednesday, December 01, 2010

- **10:30 AM - 12:15 PM Session1 (Signal Processing and AI).**

Session1 (Signal Processing and AI) (Prof. Dr. Saod A. Alseyab) Avicenna Conference Room

A k-Nearest Neighbor Based Algorithm for Human Arm Movements Recognition Using EMG Signals
M. Z. Al-Faiz, A. A. Ali, A. H. Miry

Expert System Design of Beam Spot Size Measurements in FIB System
F. A. Ali

European Rail Traffic Management System – An Overview
S. K. Abed

Analysis of The Determinism of Time-Series Extracted from Social and Biological Systems
L. Fortuna, M. Frasca, V. L. Gambuzza, S. F. Angelo, R. S. Ali, M. T. Rashid

New Replica Selection Technique for Binding Replica Sites in Data Grids
R. M. Almuttairi, R. Wankar, A. Negi, C. R. Rao, M. S. Almahna

A Study on Pre-processing Algorithms for Metal Parts Inspection
H. Sh. Hashim, A. S. Prabuwno, S. N. Sheikh Abdullah

Generalized Chebyshev-like Approximation for Low-pass Filter
H. L. Swady

Day2: Wednesday, December 01, 2010

- **12:30 PM - 02:00 PM Dinner Break.**
- **02:00 PM - 03:30 PM Session2 (Control2).**

Session2 (Control2) (Prof. Dr. Abduladhem A. Ali) Al-Shaheed Conference Room

DSP-Based Control of Multi-Rail DC-DC Converter Systems with Non-Integer Switching Frequency Ratios

J. Mooney, S. Effler, M. Halton, A. E. Mahdi

Design and Implementation of a Fuzzy Controller for Small Rotation Angles

M. M. Hussein

Combined Sliding Mode Control with a Feedback Linearization for Speed Control of Induction Motor

A. H. Ahmed, M. O. Ajangnay, Sh. A. Mohamed, M. W. Dunnigan

Designing Robust Mixed H_2/H_∞ PID Controllers Based Intelligent Genetic Algorithm

R. S. Al-Waily, A. A. Al-Thuwainy

Experimental Prototype for PWM – Based Sliding Mode Boost Converter

R. A. Abdulhalem, H. A. Hairik, A. J. Kadhem

Minimization of Torque Ripple in DTC of Induction Motor Using Fuzzy Mode Duty Cycle Controller

T. Y. Abdalla, H. A. Hairik, A. M. Dakhil

Day2: Wednesday, December 01, 2010

• 02:00 PM - 03:30 PM Session2 (Energy).

Session2 (Energy) (Dr. Abbas H. Abbas)
Al-Jaahidh Conference Room

Pitch Angle Regulation of Floating Wind Turbines with Dynamic Uncertainty and External Disturbances
N. F. Jasim

Design and Energy Output Estimation of Renewable Energy Generation System With Rain Water Collection Feature
H. S. Aljibori, Ch. W. Tong

Development of a Prototype Renewable Energy System and its Modification to Suit Middle East Applications
S. K. Salman

A Simple Nonlinear Mathematical Model for Wind Turbine Power Maximization with Cost Constraints
H. Zaman, H. Shakouri

Design and Implementation of Smart Relay Based Two-axis Sun Tracking System
J. R. Mahmood, H. Muhammed

Design & Implementation of a Mobile Phone Charging System Based on Solar Energy Harvesting
Q. I. Ali

- 04:00 – 06:00 PM Workshop on Problems of Electrical Power in Iraq.**
- 04:00 – 04:30 PM Keynote Speaker4 (Prof. Dr. Salman K. Salman).**
- 04:30 – 05:30 PM Iraqi Electrical Sectors representatives.**
- 05:30 – 06:00 PM Keynote Speaker5 (Chancellor of The University of Basrah).**

Day3: Thursday, December 02, 2010

• 09:00 AM - 10:15 AM Session1 (Communication).

Session1 (Communication) (Prof. Dr. Chen Yunzhi)
Al-Shaheed Conference Room

A New Approach for Representing Photonic Crystal Fiber Index Profile to Determine their Optical Characteristics

M. M. Shaker, M. Sh. Majeed, R. W. Daoud

Mobile Radio Propagation Path Loss Simulation for Two Districts of Different Buildings Structures in Mosul-city

F. E. Mahmood

Compensation of Transmission Channel Effects in Chaos Synchronization

A. Buscarino, L. Fortuna, M. Frasca, G. Sciuto, M. T. Rashid

Solving the Near-Far Problem in Dynamic Frequency Hopping-Optical Code Division Multiple Access using Power Control

W. J. Algalbi

Adaptive Noise Cancellation for Speech Employing Fuzzy and Neural Network

M. H. Miry, A. H. Miry, H. K. Khleaf

Day3: Thursday, December 02, 2010

• 09:00 AM - 10:45 AM Session1 (Computer Networks2).

**Session1 (Computer Networks2) (Asst. Prof. Dr. Haider M. AlSabbagh)
Avicenna Conference Room**

Improvement of AODV Routing on MANETs Using Fuzzy Systems

T. O. Fahad, A. A. Ali

Building an HMI and Demo Application of WSN-based Industrial Control Systems

A. A. Abed, A. A. Ali, N. Aslam

Simulation & Performance Study of Wireless Sensor Network (WSN) Using MATLAB

Q. I. Ali, A. Abdulmaowjod, H. M. Mohammed

Performance Evaluation of Downlink WiMAX System in Vicinity of UWB System

M. A. Al-Adwany

A Performance Study of Wireless Broadband Access (WiMAX)

M. A. Al-Adwany

Energy-Efficiency of Dual-Switched Branch Diversity Receiver in Wireless Sensor Networks

Gh. A. AL-Suhail

Mosul University WLAN Security: Evaluation, Analysis and Improvement

O. A. Hachum

Day3: Thursday, December 02, 2010

- **09:00 AM - 10:15 AM Session1 (Power2).**

Session1 (Power2) (Dr. Haroutuon Antranik Hairik)
Al-Jaahidh Conference Room

Evaluation of Electric Energy Losses in Kirkuk Distribution Electric System Area

S. S. Mustafa, M. H. Yasen, H. H. Abdullah, H. K. Hazaa

Statistical Predictions of Electric Load Profiles in the UK Domestic Buildings

A. M. Ihabal, H. S. Rajamani, R. A. Abd-Alhameed, M. K. Jalboub

Weakest Bus Identification Based on Modal Analysis and Singular Value Decomposition Techniques

M. K. Jalboub, H. S. Rajamani, R. A. Abd-Alhameed, A. M. Ihabal

Reliability & Sensitivity Analysis of IKR Regional Power Network

A. R. Majeed

Magnetic Pulse Welding Technology

A. K. Jassim

Estimation of The Consumer Peak Load for The Iraqi Distribution System Using Intelligent Methods

M. A. Al-Nama, M. S. Al-Hafid, A. S. Al-Fahadi

Using Water Energy for Electrical Energy Conservation by Building of Micro Hydroelectric Generators on The Water Pipelines That Depend on The Difference in Elevation

M. T. Gatte, R. A. Kadhim, F. L. Rasheed

- **11:00 AM - 11:30 AM Break.**
- **11:30 AM - 01:00 PM Closing Ceremony.**