

**International Conference on  
Modeling and Simulation 2013  
(ICOMS-2013)  
November 25-27, 2013**

**TECHNICAL PROGRAM**



**Department of Mechanical and Aerospace Engineering  
Institute of Avionics and Aeronautics  
Air University, Islamabad, Pakistan.**



**Session -I**

Monday, November 25, 2013 (1420 - 1535 Hrs)

**Track 01: Management, Econometric and Social Sciences**

1420 – 1435	2013 – 037 – 001	Simulation: An Effective Teaching Strategy in Social Sciences Aamna Saleem Khan
1435 – 1450	2013 – 091 – 002	Does Stock Price Volatility Originate From Macro Shocks? South Asian Evidence Javed Iqbal
1450 – 1505	2013 – 162 – 003	Study on the Impact of Integrating Modeling and Simulation in Teachers Training Anjum Bano Kazimi
1505 – 1520	2013 – 197 – 004	Successful CRM (Customer Relationship Management) Implementation and Its Benefits Nida Shabbir
1520 – 1535	2013 – 334 – 005	Population Growth and Economic Growth Comparison between Developed and Developing Countries Shoaib Ali

**Track 02: Automation, Control & Robotics**

1420 – 1435	2013 – 017 – 006	Design and Analysis of Human Resource Decision Support System for Academic Institutions Sajid Ullah Khan
1435 – 1450	2013 – 040 – 007	Bond Graph Modeling of Customized Robotic Arm Tayyaba Qaisar
1450 – 1505	2013 – 073 – 008	Bond Graph Modeling & design of PID controller of Air Pump System Using 20-Sim and MATLAB S. M. Fasih-ur-Rehman
1505 – 1520	2013 – 133 – 009	A Nonlinear Steam Boiler Control Based On Adaptive Recurrent Neuro Fuzzy Strategy Shahid Qamar
1520 – 1535	2013 – 134 – 010	Level Control of Coupled Three Tank System Using Fuzzy Neural Network Control Approach Aftab Ahmad

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### Track 03-A: Bio-Mechanics, Telemetry and Medical Sciences

1420 – 1435	2013 – 055 – 011	Bond Graph Modeling With Control Synthesis of Coordinated Fingers Movement Maryam Iqbal
1435 – 1450	2013 – 070 – 012	Analysis on Measurement of Volume of Blood in Human Vessels: A Bond Graph Approach Sana Javed
1450 – 1505	2013 – 125 – 013	Bond Graph Modeling and PID Controller Stabilization of Single Link Mechanical Model Madiha Zoheb

### Track 03-B: Arranged Track (UET Peshawar)

1505 – 1520	2013 – 069 – 014	Interpolation of two dimensional functions using radial basis Function and haar wavelets Majid Khany
1520 – 1535	2013 – 084 – 015	Approximation of One Dimensional Functions Using Radial Basis Functions and Haar Wavelets. Siraj-Ul-Islam

### Track 04: Computational Solid and Fluid Mechanics

1420 – 1435	2013 – 045 – 016	Conceptual Design and Fabrication of Scale-up Mechanical Drive System for a Flapping Wing Vehicle Farrukh Mazhar
1435 – 1450	2013 – 116 – 017	Optimization of Leading and Trailing Edge Profiles of Cross Flow Turbine Mujahid Naseem
1450 – 1505	2013 – 213 – 018	A Comparative Study of Exterior Body shapes of Formula Student Cars Quratulain
1505 – 1520	2013 – 269 – 019	Turbulent Flow Characteristics of an Open Channel with Stress-Free Rigid Lid Imran Afgan

**Session -I**

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1520 – 1535	2013 – 330 – 020	Wind tunnel testing of a scaled down model of store Carrying rack in low subsonic wind tunnel  Ahmed bilal
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**Track 05-A: Arranged Track (UET Peshawar)**

1420 – 1435	2013 – 021 – 021	Local Badshah-Chen Model for Image Selective Segmentation  Haider Ali
1435 – 1450	2013 – 027 – 022	Multi Grid Method for Piecewise Smooth Chan Vese (CV) Image Segmentation Model  Hadia Atta
1450 – 1505	2013 – 035 – 023	Variational Models for Image Segmentation with inhomogeneous regions  Hena Rabbani

**Track 05-B: Energy and Power System Modeling**

1505 – 1520	2013 – 172 – 024	Predicting the Potential of Renewable Energy Resources in Pakistan as Cleaner Alternatives to Natural Gas, by Using LEAP Model  Aasma Bibi
1520 – 1535	2013 – 183 – 025	Simulation study of 100 MWe Solar Thermal Parabolic Trough Power Plant at Cholistan Desert in Pakistan  Irshad Ahmed

**Track 06: On Desk Registration (Arranged Track: CAE)**

1420 – 1435	2013 – – 026	
1435 – 1450	2013 – – 027	
1450 – 1505	2013 – – 028	
1505 – 1520	2013 – – 029	
1520 – 1535	2013 – – 030	

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### Track 07: On Desk Registration

1420 – 1435	2013 – – 031	
1435 – 1450	2013 – – 032	
1450 – 1505	2013 – – 033	
1505 – 1520	2013 – – 034	
1520 – 1535	2013 – – 035	

## Session -II

Monday, November 25, 2013 (1600 - 1700 Hrs)

### Track 01: Automation, Control & Robotics

1600 – 1615	2013 – 225 – 036	Study of Effect of Various Joint Boundary Conditions on Stiffness Behavior of 6DOF Platform's Top Plate Umar Nawaz Bhatti
1615 – 1630	2013 – 350 – 037	Coordinated Search with Agent Based Modeling of UAVs using SoS-Engineering Approach Mansoor Ahsan
1630 – 1645	2013 – 365 – 038	Sensor-less Temperature Estimation for Thermal Protection of Vector Controlled AC Drives Using Fuzzy MRAS Syed Ali Asad Rizvi
1645 – 1700	2013 – 152 – 039	Adaptive Trajectory Control of Wheeled Mobile Robot (WMR) Kanwal Naveed
1700 – 1715	2013 – 067 – 040	Bond Graph Model and Control Design of Ship Dynamics Raja Usman Tariq

## Session -II

Monday, November 25, 2013 (1600 - 1700 Hrs)

### Track 02-A: Computer Science Applications

1600 – 1615	2013 – 291 – 041	ClassSpy: Java Object Pattern Visualization Tool Tufail Muhammad
1615 – 1630	2013 – 348 – 042	Shape Preserving Monotone Surface Data Visualization by Spline Function Muhammad Abbas

### Track 02-B: Computational Solid and Fluid Mechanics

1630 – 1645	2013 – 358 – 043	Fluid Structure Interaction of an Oscillating Wing for Flapping Wing Micro Air Vehicle Applications Muhammad Arsalan Khan
1645 – 1700	2013 – 363 – 044	Modeling, Simulation and Analysis of Static Aero-Elastic Mechanism on an Aircraft Wing in ANSYS Imran Hayat

### Track 03-A: Deterministic Modeling and Simulation

1600 – 1615	2013 – 062 – 045	Development Of A Generic Flight Simulator For Fixed Wing Aircraft Salman Ahmad
1615 – 1630	2013 – 312 – 046	Evaluation of Fuel Cell Models at Specific Operating Conditions Bilawal Rehman
1630 – 1645	2013 – 366 – 047	Investigation of Micro-Strains in structural Members using Finite Element Analysis (FEA) Assad Anis

## Session -II

Monday, November 25, 2013 (1600 - 1700 Hrs)

### Track 03-B: Operations Research and Industrial Application

1645 – 1700	2013 – 301 – 048	Modeling the Pipeline in Repairing-Using Simulation Nosaibeh Nosrati Ghods
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### Track 04-A: Mesh free RBF Methods for Partial Differential Equations

1600 - 1615	2013 – 346 – 049	Meshless methods for the numerical solution of combined KdV-mKdV equation Mehnaz
1615 – 1630	2013 – 322– 050	A Local RBF approximation method for time-dependent partial differential equations Marjan Uddin

### Track 04-B: Telecommunication

1630 – 1645	2013 – 368 – 051	FPGA Based Compact and Re-configurable 3G Transceiver Taimur Hassan
1645 – 1700	2013 – 369 – 052	Wireless 3G AV transceiver with Additive White Gaussian Noise channel Taimur Hassan

### Track 05: On Desk Registration ( Arranged Track: UET Peshawar)

1600 - 1615	2013 – – 053	
1615 – 1630	2013 – – 054	
1630 – 1645	2013 – – 055	
1645 – 1700	2013 – – 056	

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Monday, November 25, 2013 (1600 - 1700 Hrs)

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### Track 06: On Desk Registration ( Arranged Track: CAE)

1600 - 1615	2013 – – 057	
1615 – 1630	2013 – – 058	
1630 – 1645	2013 – – 059	
1645 – 1700	2013 – – 060	



**Session -III**

Tuesday, November 26, 2013 (0930 - 1130 Hrs)

**Track 01: Energy and Power System Modeling**

0930 – 0945	2013 – 110 – 061	A Comparative Study On Economic and Sensitivity Evaluation of Different Types of Efficient Solar Collectors for Domestic Solar Water Heating in Pakistan  Aamir Mehmood
0945 – 1000	2013 – 118 – 062	Short Circuit Stress Calculation in Power Transformer Using Finite Element Method  Ashfaq Ahmad
1000 – 1015	2013 – 127 – 063	Optimization of physical dimensions for efficient Parabolic Trough Collectors using mathematical and computational models  Danial Naeem
1015 – 1030	2013 – 153 – 064	A Computer Model for Investigating Heat Transfer Characteristics of a Phase Change Material  Ali Ehsan
1030 – 1045	2013 – 215 – 065	Design and Optimization of a Cross-flow Micro Hydro Turbine using Modeling and Simulation Techniques  Ahsan A. Malik
1045 – 1100	2013 – 230 – 066	Bond Graph Modeling of Operational Amplifier and Some of its Applications  Muhammad Wajih Ullah Siddiqi
1100 – 1115	2013 – 341 – 067	Indirect Adaptive Neuro Fuzzy Based MIMO Control for Multi-type FACTS Controllers  Rabiah Badar
1115 – 1130	2013 – 036 – 068	Investigation of higher voltage levels for National Transmission and Dispatch Company Network Pakistan  Muhammad Faisal Nadeem Khan
1130 – 1145	2013 – 047 – 069	Replacement of CNG in Pakistan with Hybridized solar, Biogas and fuel cell based Hydrogen filling Stations  Muhammad Faisal Nadeem Khan

**Session -III**

Tuesday, November 26, 2013 (0930 - 1130 Hrs)

**Track 02: General Application**

0930 – 0945	2013 – 003 – 070	Simulation-Based Hardness Evaluation of a Multi-Objective Genetic Algorithm Shahab U. Ansari
0945 – 1000	2013 – 008 – 071	Robust and Reliable Motion Detection and Security Calling System Based on ARDUINO Sajid Ullah Khan
1000 – 1015	2013 – 096 – 072	Application and Verification of Algorithm Learning Based Neural Network Rizwana Kalsoom
1015 – 1030	2013 – 370 – 073	An improved method based on HAAR wavelets for numerical solution of nonlinear integral equations Imran Aziz
1030 – 1045	2013 – 090 – 074	Layup Optimization of Laminated Structures Mohsin Iqbal
1045 – 1100	2013 – 352 – 075	Mechanical Enhancement of Glass fiber/epoxy Nano Composites based on Spraying Methodology with Vacuum Assisted Resin Transfer Molding Syed Sarim Ali
1100 – 1115	2013 – 343 – 076	Chaos based Secure and Reversible Watermarking Muhammad Tahir Naseem
1115 – 1130	2013 – 188 – 077	Personal Integrated Process Based Software Architecture Design and Evaluation Waqar Ul-Hasnain Khokhar

## Session -III

Tuesday, November 26, 2013 (0930 - 1130 Hrs)

### Track 03-A: Digital Image & Signal Processing

0930 – 0945	2013 – 119 – 078	An Efficient Hybrid Digital Watermarking Technique Asim Maqsood
0945 – 1000	2013 – 071 – 079	Mathematical Modeling and Simulation of Radar Digital Signal Processing (DSP) Algorithms Dr. Ali Javed Hashmi
1000 – 1015	2013 – 199 – 080	Modeling and Simulation of Height Processor of a Generic 3D Radar Dr. Ali Javed Hashmi

### Track 03-B: Arranged Track ( CAE )

1015 – 1030	2013 – 272 – 081	Design and Simulation of Feed Network for Phased Array Radar Anam Rana
1030 – 1045	2013 – 221 – 082	Design and Development of RC Platform for Surveillance Purpose Adnan Maqsood

### Track 3-C: Defense Related Applications

1045 – 1100	2013 – 138 – 083	Design and Simulation of a Flapping Mechanism with Asymmetric Frequencies for a Micro Air Vehicle Sohaillqbal
1100 - 1115	2013 – 202 – 084	Design and Analysis of a Flapping Wing Micro Air Vehicle (FMAV) Capable of Producing Flap and Pitch Simultaneously Hasnain Raza Sarwar

**Session -III**

Tuesday, November 26, 2013 (0930 - 1130 Hrs)

**Track 04: General**

0930 – 0945	2013 – 003 – 085	Simulation-Based Hardness Evaluation of a Multi-Objective Genetic Algorithm Shahab U. Ansari
0945 – 1000	2013 – 096 – 086	Application and Verification of Algorithm Learning Based Neural Network Rizwana Kalsoom
1000 – 1015	2013 – 270 – 087	Novel and Compact Planar Inverted F-Antenna (PIFA) for Bluetooth and WLAN Mobile Phone Applications U. Rafique
1015 – 1030	2013 – 353 – 088	Stability Analysis of a Generic Conveyor Belt System Using Bond Graph Modeling Technique Aamir Mairaj
1030 – 1045	2013 – 9998 – 089	Dimensional Inspection System for MESO scale Artifacts using Sub pixel Edge Detection Technique Adeel Wahab
1045 – 1100	2013 – 9997 – 090	Complication of Diabetes in District Dir Lower Zahid Khan
1100 – 1115	2013 – 9994 – 091	A low Cost, Efficient Solution to Desalination of Water Using Solar HDH Technique for Developing and Impoverished Countries Shah Zamin

**Session -III**

Tuesday, November 26, 2013 (0930 - 1130 Hrs)

**Track 05: On Desk Registration**

0930 – 0945	2013 – – 092	
0945 – 1000	2013 – – 093	
1000 – 1015	2013 – – 094	
1015 – 1030	2013 – – 095	
1030 – 1045	2013 – – 096	
1045 – 1100	2013 – – 097	
1100 – 1115	2013 – – 098	
1115 – 1130	2013 – – 099	

**Track 06: On Desk Registration**

0930 – 0945	2013 – – 100	
0945 – 1000	2013 – – 101	
1000 – 1015	2013 – – 102	
1015 – 1030	2013 – – 103	
1030 – 1045	2013 – – 104	
1045 – 1100	2013 – – 105	
1100 – 1115	2013 – – 106	
1115 – 1130	2013 – – 107	



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