

## TECHNICAL SESSIONS SCHEDULE

Date	Time	ICADME I	ICADME II	ICADME III
<b>27 Feb 12</b>	11.45 AM	Session	Session	Session
	12.45 PM	1A	1B	1C
	2.15 PM	Session	Session	Session
	4.15 PM	2A	2B	2C
	4.30 PM	Session	Session	Session
<b>28 Feb 12</b>	5.30 PM	3A	3B	3C
	8.30 AM	Session	Session	Session
	10.30 AM	4A	4B	4C
	11.00 AM	Session	Session	Session
	1.00 PM	5A	5B	5C
<b>28 Feb 12</b>	2.15 PM	Session	Session	Session
	4.15 PM	6A	6B	6C

Session 1A	Applied Mechanics 1
Session 1B	Design 1
Session 1C	Energy 1
Session 2A	Applied Mechanics 2
Session 2B	Energy 2
Session 2C	Thermofluid 1
Session 3A	Applied Mechanics 3
Session 3B	Energy 3
Session 3C	Thermofluid 2
Session 4A	Thermofluid 3
Session 4B	Design 2
Session 4C	Thermofluid 4
Session 5A	Applied Mechanics 4
Session 5B	Applied Mechanics 5
Session 5C	Design 3
Session 6A	Applied Mechanics 6
Session 6B	Applied Mechanics 7
Session 6C	Thermofluid 5

## TECHNICAL SESSIONS

### Session 1A: Applied Mechanics 1

**Date:** Monday, February 27, 2012

**Time:** 11.45 AM

**Venue:** ICADME I

- 1A1 Study on Hydroforming of Pre-bent Tubes**  
*Yeong-Maw Hwang, Kuo-Hsing Wang, Yi-Kai Lin*
- 1A2 Skid Control of Small Electric Vehicle with Hybrid Brake System (Effect of Regenerative Brake on Turning Motion)**  
*Mohamad Heerwan, Hirohiko Ogino, Yasuo Oshinoya*
- 1A3 Adaptive Trajectory Control for The Twin Rotor MIMO System using Artificial Neural Networks**  
*B.G.D.Achintha Madhusanka, W.R.de Mel*
- 1A4 Study on Strength of V-shaped Epoxy Adhesive Joint**  
*Mohd Afendi, Mohd Hafis, Ishak Bin Ibrahim, Toru Nakajima, Tokuo Teramoto*

## TECHNICAL SESSIONS

### Session 1B: Design 1

**Date:** Monday, February 27, 2012

**Time:** 11.45 AM

**Venue:** ICADME II

**1B1 In Situ Design Evaluation for Product Life cycle Management using Fuzzy-AHP Approach**

*Faiz bin Mohd Turan, Badrul bin Omar*

**1B2 Static Analysis of a Tensegrity Bridge using the Finite Element Method**

*Moudar Zgoul, Amen ALZamer, Mutaz Elayyan,  
Mohammad AL-Quran*

**1B3 Innovation of a Humanoid Robotic Arm Wrist**

*Haidar Fadhil Al-Qrimli, Haider A. F. Almurib, Nandha Kumar*

## TECHNICAL SESSIONS

### Session 1C: Energy 1

**Date:** Monday, February 27, 2012

**Time:** 11.45 AM

**Venue:** ICADME III

**1C1 Temperature-Distribution Analysis on Thermal Spreader for Micro-thermoelectric Power Generation**

*Mohammad Zulfikar Ishak, Othman Sidek,  
Muhamad Azman Miskam, Mohd. Azmier Ahmad*

**1C2 Regeneration of Potential and Kinetic Energy from Wastewater in Tall Buildings**

*Mahdi Shayanmehr, Alireza Tavakoli, Golbarg Asady,  
Majid Bazargan*

**1C3 CFD Study on the Effect of Ultrasound Wave Frequency on Cavitation Field Inside a Liquid**

*Masoud Rahimi, Mahdieh Abolhasani, Maryam Dehbani,  
Ammar.A. Alsairafi*

## TECHNICAL SESSIONS

### Session 2A: Applied Mechanics 2

**Date:** Monday, February 27, 2012  
**Time:** 2.15 PM  
**Venue:** ICADME I

- 2A1 Application of Grey-Fuzzy Logic for the Optimization of Process Parameters on CNC Turning of EN8-Steel**  
*A.K.Acharya, D.N.Thatoj, Bharat Routara*
- 2A2 Stability Augmentation System of Active Suspension System in Electric Vehicle Conversion: Towards Optimal Ride Comfort Performance**  
*Saiful Anuar Abu Bakar, Ryosuke Masuda, Hiromu Hashimoto, Takeshi Inaba, Hishamuddin B. Jamaluddin, Roslan Abdul Rahman, Pakharuddin Mohd Samin*
- 2A3 Load-displacement Behavior of RBD Palm Stearin Oil Lubricant Quantity in Cold Extrusion**  
*Mohd Hafis, Ridzuan, Mohd Afendi, Imaduddin Helmi Bin Wan Nordin, Raymond Boon Whee Heng*
- 2A4 The Specific Energy Absorption of Local Wood Subjected to Quasi-Static Loading**  
*Mohd Khairir Bin Ismail, Radzai Said, Mohd Firdaus Zakaria*
- 2A5 Elastic Crack Interaction Limit of Two Interacting Edge Cracks in Finite Body**  
*Ruslizam Daud, Ahmad Kamal Ariffin, Shahrum Abdullah, Mohd Afendi Rojan*
- 2A6 Bending Fatigue Strength of Case-Carburized Spur Gear with Boss**  
*Imaduddin Helmi, Mohd Afendi, Salmie Suhana binti Che Abdullah, Mohd Hafis*

## TECHNICAL SESSIONS

### Session 2B: Energy 2

**Date:** Monday, February 27, 2012

**Time:** 2.15 PM

**Venue:** ICADME II

- 2B1 Drag Coefficient Effect of Vertical Axis Wind Turbine**  
*A. Y. Qasim, R. Usubamatov, Z. M. Zain*
- 2B2 Comparative Engine Performance of DI Pick-Up Diesel Engine Tested by Mixing Metal Oxide and Bio-Solution Additives in Diesel Fuel and Palm Biodiesel Blends (B5)**  
*Karoon Fangsuwannarak, K. Triratanasirichai*
- 2B3 Performance Investigation of a Kaplan Hydraulic Turbine Draft Tube using CFD Techniques**  
*Samaneh Hajikhani, Amir Raja, S. Mostafa Hosseinalipour, Kamran Mobini*
- 2B4 Design and Modeling of a Parallel Hydraulic Hybrid Bus**  
*Vahid Esfahanian, Ali Safaie, Hassan Nehzati, Mohsen Esfahanian, Masoud Masih Tehrani, Mohammad Reza Ha'iri-Yazdi*
- 2B5 CNGDI Engine Performance and Exhaust Emissions Studying and Analysis**  
*Yusoff A., Shahrir Abdullah, Saad Mohsen Saad Aljamali*
- 2B6 Design and Simulation of a Hybrid Flywheel Bus**  
*Masoud Masih Tehrani, Mohsen Esfahanian, Hassan Nehzati, Vahid Esfahanian, Seyed Hossein Jamali*
- 2B7 Comparison of Heat Transfer through Roof and Wall of a House Subjected to Solar Energy in Northern Malaysia**  
*Merdang Sembiring, Prasad a/l Kunjee Krishnan*

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## TECHNICAL SESSIONS

### Session 2C: Thermofluid 1

**Date:** Monday, February 27, 2012

**Time:** 2.15 PM

**Venue:** ICADME III

**2C1 Forced Convective Heat Transfer Enhancement with Perforated Pin Fins Subject to Impinging Flow**

*Ji-Jinn Foo, Shung-Yuh Pui, Yin-Ling Lai, Swee-Boon Chin*

**2C2 Effect of Various Parameters on Heat Transfer to Axisymmetric Flows of Supercritical Fluids**

*Mahdi Mohseni, Majid Bazargan*

**2C3 Temperature Profiling of a Cylindrical Nuclear Fuel Rod through Numerical and Computational Techniques**

*Nitish Anand, Abinash Mahapatro, Prateek Acharya, Vinit Agrawal, D. N. Thatoi*

**2C4 Studying the Hydrodynamic Characteristics of Sprint Master Canoe**

*Omar Yaakob, Y. Ahmed, M. Rizal Othman*

**2C5 A Computational Simulation of Heat Transfer to Separation Air Flow in a Concentric Pipe**

*Oon Cheen Sean, Hussein Togun, S.N. Kazi, A. Badarudin, N. Zubir*

**2C6 Numerical Investigation of Contaminant Dispersion Over Two Obstacles in Unsteady Flow**

*Masoud Ziaei-Rad, Iman Samea*

## TECHNICAL SESSIONS

**Session 3A: Applied Mechanics 3**

**Date:** Monday, February 27, 2012

**Time:** 4.30 PM

**Venue:** ICADME I

**3A1 Rolling Element Bearing Faults Detection, Power Spectrum and Envelope Analysis**

*Moammer Ali Al-Tubi, Dr. Khalid F. Al-Raheem,  
Waleed Abdul-Karem*

**3A2 The Effect of Row of Blades on Self-Excited Instability of Rotating Systems**

*Mohammad Reza Ghazavi, Asghar Najafi*

**3A3 On a Novel Method of Vehicle Wheel Ring Production**

*M.R. Ayatollahi, R. Ghafoori Ahangar, M. Amini*



## TECHNICAL SESSIONS

### Session 3B: Energy 3

**Date:** Monday, February 27, 2012

**Time:** 4.30 PM

**Venue:** ICADME II

**3B1 A Study on the Temperature Profile with Combustion Conditions Change for the Optimum Operation of Plate type Hydrogen Generation System**

*Su Bin Heo, Jae Min Park, Do Hyung Lee*

**3B2 Investigation of Wind Characteristics and Wind Energy Technical Assessment in Kerman, Iran**

*Masoud Iranmanesh, Baniasad Askari*

## TECHNICAL SESSIONS

**Session 3C: Thermofluid 2**

**Date:** Monday, February 27, 2012

**Time:** 4.30 PM

**Venue:** ICADME III

**3C1 The Design of a Flow-Efficient Smoke Cabin**

*Sharvin Vijayakumar, Andrew Raj, Douglas Tong,  
Satesh Namasivayam*

**3C2 GPU Accelerated Program for Grid Generation around Two  
Dimensional Airfoils**

*Seyyed Mohammad Iman Gohari, Vahid Esfahanian,  
Mohsen Ghadyani*

## TECHNICAL SESSIONS

### Session 4A: Thermofluid 3

**Date:** Tuesday, February 28, 2012  
**Time:** 8.30 AM  
**Venue:** ICADME I

**4A1 Flow and Temperature Analysis of the Cooling Medium of Large Turbo Generators**

*Hassan Ansari, Masoud Mohammadi, Ali Ashraf Kharamani*

**4A2 Performance of a Solar Assisted Heat Pump Using Different Refrigerants**

*Abdelbaki Benamor, Mohamed Guellal, Abdelwahab Aroussi,  
Hamlaoui Abdesslem, Hassan. H. Masjuki*

**4A3 Effects of GPU Structuring on Accelerated Schemes of LBM and Classical CFD for Flow over a Flat Plate**

*Vahid Esfahanian, Mohsen Ghadyani, Seyyed Mohammad Iman Gohari*

**4A4 Experimental and Mathematical Investigation of a Direct Contact Economizer Effect on Pollutant Emission and Energy Consumption**

*Arezoo Khalili, Iman Roohi Dehkordi, Hassan Rahimzadeh*

**4A5 Energy Saving in Refrigeration Systems Through the Application of Liquid Pressure Amplification**

*Abas F. Hadawey*

**4A6 Computational Investigation of Flow and Thermal Characteristics of the Rotor of Large Air-cooled Turbo Generators**

*Masoud Mohammadi, Hassan Ansari, Pouya Bahemmat,  
Ali Ashraf Kharamani*

## TECHNICAL SESSIONS

### Session 4B: Design 2

**Date:** Tuesday, February 28, 2012

**Time:** 8.30 AM

**Venue:** ICADME II

**4B1 Free Vibration Analysis of a Skew Angle-Ply FRP Composite Plate with a Circular Cutout**

*M.R.S. Satyanarayana, K. Srividya, V. Bala Krishna Murthy,  
G. Sambasiva Rao*

**4B2 Conceptual Design of a Gear with Radially Movable Teeth**

*M.R. Ayatollahi, R. Ghafoori Ahangar, A. Ekhtiari  
Iran University of Science and Technology (IUST), IRAN*

**4B3 Comparison of Computational and Experimental Analysis for a Laboratory-Sized Cyclone Separator Testbed**

*Chua Bih Lii, Wong Him Leong, Tong Tshen Jui*

**4B4 High-end Technology for Effective Operating Environment in a Glass Manufacturing Industry**

*Zol Bahri Razali, Lee Guang Beng*

**4B5 Conceptual Design of a Novel Waterjet Boat**

*R. Ghafoori Ahangar, M.R. Ayatollahi, H. Amiri Hezave*

**4B6 Optimisation of Build Orientation for FDM Additive Manufactured Products**

*R.H Hambali, M.Vaudelin, A.E.W Rennie*

## TECHNICAL SESSIONS

### Session 4C: Thermofluid 4

**Date:** Tuesday, February 28, 2012  
**Time:** 8.30 AM  
**Venue:** ICADME III

- 4C1 Utilization of Biofuels by a New Technique to Reduce NO<sub>x</sub> and Smoke Emissions in Diesel Engines**  
*Masoud Iranmanesh*
- 4C2 Thermodynamics Analysis of Transcritical Ejector Refrigeration Cycle with Different Refrigerants**  
*Behnam Rostami, Navid Freidooni Mehr, Mahdi Karimi, Sara Baghalian, Foad Nazari, Peyman Rostami*
- 4C3 Numerical Study of Wall Heat Conduction Effect in Circular Microchannels**  
*Mohammad Rahimi, Reza Mehryar*
- 4C4 Relative Humidity Control and Reduction in Power Consumption via Desiccant Dehumidification**  
*Binghooth Ahmed, Zainal Alimuddin*
- 4C5 Injection Timing Optimization in Term of In-cylinder Heat Transfer Analysis for Direct Injection Hydrogen Fueled Engine**  
*Khalaf Ibrahim Hamada, Md. Mustafizur Rahman, A. Rashid A. Aziz*
- 4C6 Prediction of Hydrate Formation Throughout Discharge of Trapped Gas in Tehran City Natural Gas Distribution System**  
*Vahid Esfahanian, Seyed Mojtaba Alavi, Khosro Ashrafi, Sarmad Ghader, Mehdi Ashjaee, Ashkan Razmjoo, Masoud Samadian*

## TECHNICAL SESSIONS

### Session 5A: Applied Mechanics 4

**Date:** Tuesday, February 28, 2012  
**Time:** 11.00 AM  
**Venue:** ICADME I

**5A1 Dynamic Analysis of Drillstring with FEM by Considering Wellbore-Drillstring Contact**

*Maziar Mohammadzadeh, Mohammadreza Ghazavi,  
Mohammad Sahebkar*

**5A2 Finite Element Modeling of Sheet Metal Forming Process**

*Mohd Nasir Tamin, Ismail Abu-Shah, Amran Ayob, Nazri Kamsah,  
Zaini Ahmad, Ainullotfi, Abdul-Latif*

**5A3 Extrusion Process of 7075 Aluminum Alloy Bicycle Seat Post Using Finite Element Analysis**

*Dyi-Cheng Chen, Ming-Wei Guo, Fung-Ling Nian*

**5A4 Analysis of Productivity and Availability of Automated Lines with Complex Structure**

*Ryspek Usubamatov, Ahmed Y. Qasim, Aead*

**5A5 Strength and Fracture Characteristics of Shear Adhesive Dissimilar Joint**

*Mohd Afendi, Imaduddin Helmi Bin Wan Nordin, Ruslizam Daud,  
Tokuo Teramoto*

**5A6 A Simple Formulation for Large Vibration Amplitudes of Laminated Composite Beams**

*El Bikri Khalid, Merrimi El Bekkaye, Benamar Rhali*

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## TECHNICAL SESSIONS

### Session 5B: Applied Mechanics 5

**Date:** Tuesday, February 28, 2012  
**Time:** 11.00 AM  
**Venue:** ICADME II

- 5B1 Elasticity Solution of Functionally Graded Beams Resting on Winkler-Pasternak Elastic Foundation by DQM**  
*Behzad Asmar, Seyed Soroosh Malihi, Fateh Teimuri,  
Mohammad Ali Rahbari-Kahjogh, Foad Nazari*
- 5B2 Robust and Adaptive Control of a Parallel Robot Using Feedback Linearization**  
*Mahmood Partovi*
- 5B3 Comparison of Radial Basis Function and Back-Error Propagation Neural Networks for Crack Detection in Variable Cross-Section Beams**  
*Neda Nasiri, Behzad Asmar, Shahab Ilbeigi, Mahdi Karimi,  
Foad Nazari, Sara Baghalian,*
- 5B4 An Optimal Strategy for Differential Braking to Enhance Vehicle Stability in Severe Turning Maneuvers**  
*M.R. Jafari, M. Mirzaei*
- 5B5 Fatigue Strength of FRC and FRG Composite Materials**  
*Haftirman, Ahmad Syayuthi Abdul Rahman, Teoh Tuck Hooi*
- 5B6 Optimization of EDM Process Parameters Using Taguchi Method**  
*Azizul Bin Mohamad, Arshad Noor Siddiquee, Ghulam Abdul Quadir, Zahid A. Khan, V.K. Saini*

## TECHNICAL SESSIONS

### Session 5C: Design 3

**Date:** Tuesday, February 28, 2012  
**Time:** 11.00 AM  
**Venue:** ICADME III

- 5C1 Finite Element Analysis of Passenger Car Radial Tire using Mooney-Rivlin & Yeoh Models**  
*N. Siva Prasad, Rajesh Male*
- 5C2 Experimental Investigation of Stiffness Characteristics of Tee Joints of Aluminum Honeycomb Core Sandwich Panels with Different Edging Configurations**  
*S. Rajkumar, D. Ravindran, Arul raj, Pramod Shetty. K.*
- 5C3 Effect of Crack Parameters on Natural Frequencies of Multi-Cracked Functionally Graded Beams**  
*Javad Soltani Rad, Foad Nazari, Yoness Alizadeh*
- 5C4 Magnetic Force Simulations and Analysis for Conceptual Absorber System**  
*Mohd Khairul Faizi bin Abd Rahman, Hazry Bin Desa, Ruslizam Daud*
- 5C5 Analysis of Occupant Crash Protection in Designing Lightweight Automotive Side Member**  
*Aidy Ali, B.B. Sahari, A.A. Nuraini, A.A. Faieza, Tuan Hafandi Tuan Ismail, J. Mai Nursherida, Azim Azizi, Nabilah Mohd Safar, Siti Aini Satuan, Shahril Mohamad, Norhidayah Muhamed*



## TECHNICAL SESSIONS

### Session 6A: Applied Mechanics 6

**Date:** Tuesday, February 28, 2012  
**Time:** 2.15 PM  
**Venue:** ICADME I

**6A1 Non-pressurized Magnetorheological Damper Controlled Using Fuzzy Semi Active Damping Force Estimator**

*Saiful Anuar Abu Bakar, Hishamuddin B. Jamaluddin,  
Roslan Abdul Rahman, Pakharuddin Mohd Samin,  
Ryosuke Masuda, Takeshi Inaba, Hiromu Hashimoto*

**6A2 Wind Turbine Blades Fault Detection Based On Principal Component Analysis**

*Abdelnasser Abouhnik, Ghalib R. Ibrahim, A. Albarbar,  
Mohammed Sh-Eldin*

**6A3 Thermomechanical Analysis of Functionally Graded Circular Sector Plates using Boundary Layer Function**

*Famida Fallah, Asghar Nosier*

**6A4 Dry Sliding Wear Behaviour of A390 Hypereutectic (Al-Si) Alloy**

*Riyadh Azzawi Badr, Haftirman, Khiarel Rafzi Ahmad,  
Yarub Al-Douri*

**6A5 Mode I Fracture Resistance of Hot Mix Asphalt and Warm Mix Asphalt**

*Amir Izadi, Hasan Ziari, Hamid Behbahani, Majid Reza Ayatollahi*

**6A6 The Effect of Duration Aging Temperature on Fatigue Strength of Aluminum Alloy**

*Ahmad Syayuthi Abdul Rahman, Haftirman, Teo Ee Lynn*

## TECHNICAL SESSIONS

**Session 6B: Applied Mechanics 7**

**Date:** Tuesday, February 28, 2012  
**Time:** 2.15 PM  
**Venue:** ICADME II

**6B1 The Effect of Austenite Temperature on the Fatigue Strength of Mild Steel**

*Ahmad Syayuthi Abdul Rahman, Haftirman, Chia Suk Foon*

**6B2 Assessment Engine Oil using UKM Acoustic Emission Energy Viscosity Model ( $\eta$ EAEUKM)**

*Othman Inayatullah, Nordin Jamaludin, Mohd Jailani Mohd Nor, Fauziah Mat*

**6B3 Geometrical Effect on the Behavior of Circular and Elliptic Tubes Under Dynamic Axial Loading**

*F. Mat, R.A. Siregar, K.A. Ismail, S. Yaacob, M. Ahmad, O. Inayatullah*

**6B4 Taguchi Based Grey Relational Analysis for Multi-Performance Optimization of Slab Milling Process Parameters**

*Arshad Noor Siddiquee, S.F. Khan, Ghulam Abdul Quadir, Zahid A. Khan, Pankul Goel, Shahrul Kamaruddin*

**6B5 Extrapolated Equation for Grease Film Thickness in Counter-Formal EHL Contact Conjunctions**

*Vivek Chacko, Bindu Kumar Karthikeyan*

## TECHNICAL SESSIONS

### Session 6C: Thermofluid 5

**Date:** Tuesday, February 28, 2012

**Time:** 2.15 PM

**Venue:** ICADME III

**6C1 Comparative Study Compact Scheme for the Case of Shock Tube Problem**

*Mahmod Abd Hakim Mohamad, Shah Nor Basri, B. Basuno*

**6C2 Heat Transfer Analysis in an Annular Cone Fixed with Saturated Porous Medium**

*Ghulam Abdul Quadir, Salman Ahmed N.J., Zainal Alimuddin, Irfan Anjum, Sarfaraz Kamangar*

**6C3 Design Analysis of the Nozzle Injector and Its Effects on The Injection Performance In Gasoline Direct Injection Engine**

*Anas Abdul Rahman*