

IPN - IWNEST 2014 CONFERENCES, KUCHING

2014 IPN – IWNEST KUCHING

**Kuching, Malaysia
October 24-25, 2014**

- **International Conference on Materials, Mechatronics, Manufacturing and Mechanical Engineering 2014**
- **International Conference on Industrial Technology and Applications 2014**



IPN.org

International Postgraduate Network



IPN Network



Welcome to IPN-IWNEST 2014 Conferences Kuching

Dear Professor, Dr and distinguished delegates,

Welcome to the IPN - IWNEST 2014 Conferences in Kuching , Malaysia. On behalf of *International Postgraduate Network (IPN.org) and IWNEST*, I would like to thank all the Conference Chair, Program Chairs and the Technical Committees. Their high competence and professional advice enable us to prepare the high-quality program. For the participants, we hope all of you have a wonderful time at the conference and also in Kuching , Malaysia.

We believe that by this excellent conference, you can get more opportunity for further communication with researchers and practitioners with the common interest in Materials, Mechatronics, Manufacturing and Mechanical Engineering

For the conferences of ICMMMM 2014 and ICITA 2014 more than 150 submitted papers have been received and 100 papers have been accepted and published finally.

In order to hold more professional and significant international conferences, your suggestions are warmly welcomed. And we are looking forward to meet you again next time.

Best Regards,

Terima Kasih.

Yours Sincerely,

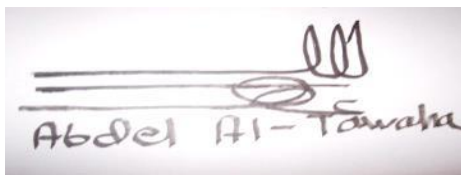


MZ Zainab
Director – Conference Management IPN.org
Chairman, IPN – IWNEST 2014 Conferences, Kuching

Message from IWNEST President

On behalf on the IWNEST publications team, it is my privilege to welcome you to the IPN - IWNEST 2014 Conferences Kuching. IWNEST is an independent, non political, non-governmental organization of distinguished scientists dedicated to advancing science around the world. We aim to help scientists and researchers to publish their findings in our scientific journals and to promote and help to organize worldwide conferences. We believe that has no boundaries, regardless of the great distances between countries and continents. Thus IWNEST welcomes contributions from researchers from all concern irrespective to the race, colour, religion and nationality.

Best Regards

A handwritten signature in black ink on a white background. The signature consists of a stylized, cursive script that reads "Abdel Al-Tawaha". Above the signature, there are several horizontal lines and a small, decorative flourish.

Prof. Dr. Abdel Rahman Mohammad Said Al Tawaha
Founder President
Honorary Advisor
IPN – IWNEST 2014 Conferences, Kuching



About International Postgraduate Network (IPN.org)

The International Postgraduate Network (IPN.org) is a non-profit international association dedicated to the promotion of international education and university cooperation in the field of Business, Art, Social Science, Management, Education, Science, Technology, Engineering and any other related field.

Through the organization of different international events, it brings together institutions, bodies and organizations from different countries of the world for discussion and cooperation. IPN.org Mission is to promote and enhance the dialogue in education among the institutions devoted to field mentioned above through:

- Promotion of best practice standards in the service of international education.
- The facilitation of relevant forums, training and information exchange.
- Creation and dissemination of knowledge; exert an influence in public policy.
- Production of publications used as a database document for research works, projects and innovation activities held on the international education field.

IPN.org believes that this is best achieved through international cooperation and promotes the development of closer links among relevant institutions and individuals around the world. IPN.org supports that such international cooperation can help countries learn from each other and promotes the dissemination of scientific and engineering activities. IPN.org intends to achieve the mentioned objectives and get an international visibility by the organization of international conferences and by interacting with public and private organisms from all parts of the world.



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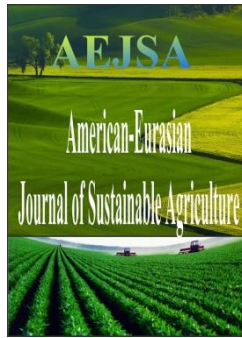
www.internationalpostgraduatetwork.org

www.ipnconference.org

www.ipnmalaysia.org

Announcement

- All accepted papers from ICM MMM 2014 will be published in the Australian Journal of Basic and Applied Sciences (ISI /Thomson Reuters Journal) (ISSN 1991-8176) (abstract and indexing by ISI/Thomson Reuters, Ulrich periodicals, Ebscohost, Cabi International and DOAJ) or
- American Eurasian Journal of Sustainable Agriculture (Scopus) (ISSN 1995-0748) (Indexed by Elsevier: SCOPUS www.scopus.com)
- All accepted papers from ICITA 2014 papers will be published in Australian Journal of Basic and Applied Science (ISI/THOMSON REUTERS) (online issue ISSN 1991-8178) (abstract and indexing by ISI/Thomson Reuters, , Ulrich periodicals, Ebscohost, Cabi International and DOAJ)



One excellent presentation / best paper will be selected from each session and the author of excellent presentation /best paper will be awarded the certificate during the Dinner Banquet. Beside that 3 excellent paper (the selected paper is chosen by the IWNEST editorial board) will received RM 150.00

Keynote Speakers



Keynote Speaker 1:

Prof. Dr. Amir Azam Khan
Universiti Malaysia Sarawak

Biography

Professor Dr Amir Azam Khan has worked extensively on Surface Engineering of Materials during the last 20 years. He did his PhD at the Laboratory SPCTS (Sciences de Procédées Céramiques et de Traitement de Surfaces) University of Limoges, France. His work was concentrated on the development and characterization of tungsten and molybdenum coatings through plasma spraying, sintering of nitride ceramics and ceramic based composites in the AlN/Mo system, as well as low pressure plasma spraying of refractory films over metallic and ceramic substrates. This work was financed by General Electric Medical Systems (GEMS) USA, for producing High Energy X Ray tube anodes for continuous imaging in their CT Scanners. Prototypes of coated Ceramic Matrix Composites (CMS's) were produced according to their design and patented by GEMS, USA. In addition to this application, these composites show excellent tribological properties, and are considered for their possible use under self lubricating conditions. Later he worked under a project with SPCTS to produce and study the glass/metal composite films deposited over porcelain substrates with an objective to use these films for the induction heating of porcelain utensils. The work was carried out with the financial support of French porcelain manufacturer APILCO.

Since 2009 he is working as a Professor in the Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, UNIMAS, Malaysia. He has held several important Scientific and Administrative Posts in the past such as Head of Materials Engineering at the National University of Sciences and Technology (NUST), Islamabad, Pakistan, between 2005 and 2009. Prof. Khan is one of the reviewer appointed by Elsevier UK and Maney Publishers, USA. He is editor of the proceedings of recently concluded International Engineering Conference (ENCON2013), published in September 2013 by RPS, Singapore. He owes to his credit over 50 research and review publications in Journals and International Conferences. He has supervised a number of Masters and PhD students during the last 15 years. He was awarded the Best Scientist award by the Third World Academy of Sciences (TWAS), Rabat, Morocco, in the year 2001, and was given the title of Chevalier dans l'ordre de Palmes Académiques by the French Prime Minister, in March 2001, for his invaluable services for the cause of research and education. He also obtained the prestigious fellowship of Max Planck Institute, Stuttgart, Germany, they invited him as a researcher and speaker in 2001 and 2003.

Topic: Development of Solid Oxide Fuel Cells: Use of Mixed Solid Oxides as Electrodes for Low Temperature Ionic Ceramic Conductors.

Abstract: Last few years have seen an enormous global investment in the renewable energy technologies. Fuel cells are deemed as a viable source of renewable energy along with other sources like wind, geothermal and solar. Researchers have pondered for last two decades on several options. Solid Oxide Fuel cells offer higher efficiency compared to Fuel Cells using Organic membranes but a higher working temperature has kept the fuel cell technology based on solid oxides still away from every day user. Ceramics can become conductors at lower temperature and this is the future thrust of research. Several options can be tried, such as different mixtures having a higher defect level to facilitate ionic conduction. The phases have to be stable at the temperature of use. The present study provides an overview of work done in converting ceramic oxides surfaces to a superficial glassy phase through high energy laser treatment. This is a promising work which is expected to reduce the working temperature of an SOFC to half of its present stated value of about 700 degrees C. A mixed ZrB₂-SiC Ceramic composite is treated with laser to produced molten surface layers which convert to a glass structure upon cooling. These glassy layers are key to lowering ionic conductivity and thus reducing the working temperature.

Key words: Ceramic Composites, Solid Oxide Fuel Cells, Laser Treatment

Keynote Speakers



Keynote Speaker 2:

Dr. Aidah Jumahat
Universiti Teknologi Mara

Biography:

Dr. Aidah Jumahat has a PhD degree in Mechanical Engineering from the University of Sheffield United Kingdom, a MSc (Mechanical Engineering) degree and a B.Eng. (Hons.) (Mechanical and Materials Engineering) degree from the Universiti Kebangsaan Malaysia. Her thesis for PhD research entitled 'Effect of nanofillers on thermo-mechanical properties of polymers and composite laminates'. She obtained her PhD in less than 4 years and she has been regularly invited to share her PhD study experience. She joined the Faculty of Mechanical Engineering UiTM as a lecturer in 2001. Currently she is a Senior Lecturer and Head of Centre of Studies for Engineering Mechanics and Materials. Dr. A Jumahat has been lecturing on Composite Materials, Finite Element Methods, Mechanics of Materials, Manufacturing Processes and Product Design, which happens to be her areas of research interest and has published more than 70 technical papers in journals and conference proceedings locally and internationally. Due to her expertise and experience, she sits in many committees, editorial boards, reviewing panels, training groups, interview panels and evaluating teams in various events at national and international level. She is an esteemed member of the panel of judges for the International Invention, Innovation & Technology Exhibition (ITEX) since 2012. She is actively involved in various research and industrial projects and has supervised a number of Masters and PhD students since 2011. She is an executive committee member of Persatuan Industri Komposit Malaysia (PIK) and Malaysian Tribology Society. She is enthusiastically involved in organizing and chairing various international and national conferences and workshops. In current achievement, she won the Composite Award 2013 for published work from the International Institute of Materials, Minerals and Mining and also Design awards.

Topic: Fibre Reinforced Polymer And Nanocomposites

Dr Aidah Jumahat

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Synopsis:

The keynote speech highlights the research conducted by the speaker and her team in the area of advanced materials and fibre reinforced polymer composites. The research covers:

- Synthesis and characterization of polymer nanocomposites
- Mechanical and thermal properties of polymers
- Fabrication of advanced fibre reinforced polymer composites
- Experimental work for determination of physical, mechanical and thermal properties of composites laminates
- Analytical models

The aims of the research work are to develop new fibre reinforced polymer composite materials and to assess the properties of the materials when compared to the conventional structures.

Abstract:

Fibre reinforced polymer (FRP) composites have been widely used in various applications especially in the construction of aerospace structures. The overall performance of the FRP is mainly determined by the properties of the fibre, matrix and fibre-matrix interface. In tension, the composite properties depend mainly on those of the continuous fibres. While, in compression the properties depend on the quality of fibre-matrix interface and the resin stiffness. A stiffer matrix provides a better lateral support to the fibre, delays fibre microbuckling and promotes higher strain to failure. Over the past few decades, much effort has been devoted to develop stiffer and tougher matrices and hence reduce the brittleness of the epoxy by: 1) reducing the cross-linked density of the epoxy network or 2) adding toughening agents, such as rubber, glass beads, ceramics and thermoplastics particles into the epoxy. However, attempts to improve toughness are frequently accompanied by reduction in stiffness and thermal properties. The latest advanced polymer technology is polymer nanocomposites whereby the nanoparticles are incorporated into the epoxy to improve toughness and stiffness without reduction in failure strain.

The researches started at the University of Sheffield United Kingdom in 2007 where various types of nanoparticles such as nanosilica, carbon nanotubes, carbon nanofibres, nanoclay and nanoalumina have been assessed on their compatibility to various types of thermosetting polymers. The materials were characterized via physical, thermal and mechanical properties in order to evaluate their performance.

As a result, advanced materials have been developed based on nanoparticles and epoxy resins which called polymer nanocomposites. The ultimate application of these newly developed materials is to fabricate advanced fibre reinforced polymer composite laminates and structures which have high damage resistance properties. Then on, at Universiti Teknologi MARA (UiTM) Malaysia the study progresses to assess several types of synthetic and natural fibres reinforced polymer composite materials. The effect of nanoparticles or nanofillers on mechanical and thermal properties was studied. Apart from the experimental work, the study has also diversified to cover other approaches including analytical computation and also simulation using commercial finite element software.

The performance of advanced composite laminates are presented and discussed thoroughly. A compilation of findings and results for various types of polymer and composite properties is also highlighted and further discussed.

Keywords:

Polymer nanocomposites, Composite materials, Analytical prediction, Mechanical properties, Physical properties, Thermal properties

List of the Conference Committee

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Prof. Dr. Abdel Rahman Mohammad Said Al-Tawaha (Ph.D McGill University)
Founder President of Islamic World Network for Environmental Science and Technology
Editor in Chief, Journal of Applied Science and Agriculture
Editor in Chief, Australian Journal of Basic and Applied Sciences
Al Talal Bin Hussein University, Jordan

IPN – IWNEST 2014 Conference Kuching, Chairman

MZ Zainab

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IPN – IWNEST 2014 Conference Kuching, Organising Committee

YKY
Nurul
Shaiful

Instruction for Oral Presentation

Devices Provided by the Conference Organizer:

- Laptop (with MS-Office & Adobe Reader)
- Projector & Screen
- Laser Sticks

Materials Provided by the Presenters:

- PowerPoint or PDF files

Duration of each Presentation (Tentatively):

- Regular oral presentation: about 15 minutes (including Q&A)
- Keynote speech: about 40 minute (including Q&A)

Notice: Please keep your belongings (laptop and camera etc) with you!

During registration:

Original Receipt
Representative / Pass Card with lanyard
Printed Program
Lunch Coupon
Dinner Coupon
Participation Certificate (collected from Session Chair after the session)
Conference Souvenir
Conference Bag



**IPN – IWNEST 2014 Conferences Kuching
Conference Program**

| | | | | |
|-------------------------|--------------------------------------|-------------|------------------------------|---------------------------------------|
| October 24, 2014 | Venue: Lobby | 0900 - 1200 | Registration | |
| | Venue: | 1200 - 1400 | Doctoral Workshop | |
| October 25, 2014 | Venue: Menara Grand Level 4 | 0830 - 0840 | Opening Remarks | Dr. Aidah Jumahat UiTM |
| | | 0840 - 0910 | Plenary Speech 1 | Prof. Dr. Amir Azam Khan UNIMAS |
| | | 0910 - 0940 | Plenary Speech 2 | Dr. Aidah Jumahat UiTM |
| | | 0950 - 1020 | Group Photo and Coffee Break | |
| | Venue: Menara Grand Level 4 | 1030 - 1300 | Session 1 | |
| | Venue : Ruai Rejang Level 3 | 1030 - 1300 | Session 2 | |
| | Venue : Ruai Belaga Level 1 | 1030 - 1300 | Session 3 | |
| | Venue: Restaurant | 1300 -1400 | Lunch | |
| | Venue: Menara Grand Level 4 | 1400 - 1600 | Session 4 | |
| | Venue : Ruai Rejang Level 3 | 1400 - 1600 | Session 5 | |
| | Venue : Ruai Belaga Level 1 | 1400 - 1600 | Session 6 | |

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| | Venue: Ruai Belian | 1600 - 1630 | Coffee Break |
| | Venue: Menara Grand Level 4 | 1630 - 1800 | Session 7 |
| | Venue : Ruai Rejang Level 3 | 1630 - 1800 | Session 8 |
| | Venue : Ruai Belaga Level 1 | 1630 - 1800 | Session 9 |
| | Venue: Rafflesia 1 Level 2 | 2000 - 2200 | Best/Excellent Paper Awards Ceremony And Dinner |



Session 1

Time: 1030 - 1300

Venue: Menara Grand Level 4

Session Chair: Dr. Siti Ujila Masuri and Dr. Faiz Mohd Turan

| No | Paper ID | Presenter |
|----|------------|---|
| 1 | 003-icmmmm | Review of the Elementary Aspect of Small Solar-powered Electric Unmanned Aerial Vehicles Howard Smith, Parvathy Rajendran Universiti Sains Malaysia |
| 2 | 015-icmmmm | Development Of Airbag Suit System For Motorcyclist Zulkifli Zainal Abidin , Mohd Fakhrudin Razali International Islamic University Malaysia |
| 3 | 010-icmmmm | Processing and characterization of porous Mg alloy for biomedical applications. Nurul Husna Z. , C.C.Lee, S.Norbahiyah *, A.B.Sanuddin Universiti Malaysia Perlis |
| 4 | 014-icmmmm | Fabrication and Characterization of SiO ₂ •RO/SUS Porous Composite Body Lee Chang Chuan , Noboru Yoshikawa, Shoji Taniguchi Universiti Malaysia Perlis |
| 5 | 007-icmmmm | Low-carbon buildings: renewable energy systems, materials and assessment methods Syed Ahmad Farhan , Nasir Shafiq, Khairun Azizi Mohd Azizli, Nazhatulzalkis Jamaludin, Syed Shujaa Safdar Gardezi Universiti Teknologi PETRONAS |
| 6 | 002-icita | Pb-Free Solder Ball Robustness Comparison under AC and TC Reliability Test Tan Cai Hui , Yap Boon Kar, Tan Chou Yong, Koh Wen Shi Universiti Tenaga Nasional |
| 7 | 017-icmmmm | Effect of Strontium in Refining of Mg ₂ Si Particulate Reinforced Al-20%Mg ₂ Si In-situ Composite Nur Azmah Nordin , Saeed Farahany, Tuty Asma Abu Bakar, Esah Hamzah Universiti Teknologi Malaysia |
| 8 | 018-icmmmm | Comparison of Kinematic Models for Performance Evaluation of Parallel Mechanism Fahisal Abdullah , Sazali Yaacob, Shafriza Nisha Basah University Malaysia Perlis |

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| 9 | 006-icmmmm | Wavelet Based Leak Detection and Location in Pipeline Network Makeen M. Amin , M.F. Ghazali, A.M.A Hamat, N.F. Adnan Universiti Malaysia Pahang . |
| 10 | 022-icmmmm | Numerical Simulations of Bulk Metal Forming Process with Smooth Particle Hydrodynamics Ameen Topa , Qasim H. Shah International Islamic University Malaysia |



Session 2

Time: 1030 - 1300

Venue: Ruai Rejang Level 3

Session Chair: Dr. Muneer Sultana and Dr. Dwi Prebianti

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 025-icmmmm | Isothermal Oxidation of Low Carbon Steel Coated by Hot Dipping in an Al-La Alloy Zaifol Samsu , Norinsan Kamil Othman, Abd Razak Daud, Muhamad Izhar Sahri and Muhammad Daud National University of Malaysia |
| 2 | 055-icita | Marangoni Boundary Layer Flow In Micropolar Fluid. Siti Hidayah Muhad Saleh, Norihan Md Arifin , Roslinda Mohd Nazar, Fadzilah Md Ali and Ioan Pop Universiti Putra Malaysia |
| 3 | 019-icmmmm | A Decision Model to Assess Current Methods in Capacity Planning for Semiconductor Industry Amir Azizi Universiti Malaysia Pahang |
| 4 | 032-icmmmm | Characterization, antibacterial and bio-compatibility of zinc oxide structures Ling Chuo Ann , Shahrom Mahmud, Siti Khadijah Mohd Bakhori, Amna Sirelkhatim, Dasmawati Mohamad, Habsah Hasan, Azman Seeni, Rosliza Abdul Rahman Universiti Sains Malaysia |
| 5 | 034-icmmmm | Numerical investigation of flow boiling in double-layer microchannel heat sink Shugata Ahmed , Islam M. F. Seder, Hazli Ab. Manaf, Mirghani I. Ahmed, M N A Hawlader International Islamic University Malaysia |
| 6 | 038-icmmmm | Deformation and Densification Response of Sintered Ni-Mo Low Alloy Steels during Cold and Hot Working D.Shanmugasundaram Anna University |
| 7 | 020-icmmmm | Properties of 5% biodiesel produced by small plant using waste cooking oil from a chip cracker factory Nor Hazwani Abdullah , Nurrul Rahmah Mohd Yusoff, Sulaiman Haji Hassan Universiti Tun Hussein Onn Malaysia |
| 8 | 009-icmmmm | Leak Detection in MDPE Gas Pipeline using Dual-Tree Complex Wavelet Transform Nurul Fatiehah Adnan , Mohd. Fairusham Ghazali, Makeen Amin, Abdul Malik, Akmal Ariffin University Malaysia Pahang |

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| 9 | 001-icita | Characterization of Advanced Laser Micromachining Process for Low k/ULK Semiconductor Device. Koh Wen Shi , Yap Boon Kar, Halina Misran, Yow Kai Yun, Lau Teck Beng, and Lo Wai Yew Universiti Tenaga Nasional |
| 10 | 003-icita | Optimization of Wafer Singulation Process on Copper/Low-k Materials for Semiconductor Device Assembly Koh Wen Shi , Yap Boon Kar, Halina Misran, Yow Kai Yun, Lo Wei Yew, and Lo wai Yew Universiti Tenaga Nasional |



Session 3

Time: 1030 - 1300

Venue: Ruai Belaga Level 1

Session Chair: Dr. Zainah Md. Zain and Dr. Aidah Jumahat

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 073-icmmmm | 2D Human Pose Estimation Based on Histogram Analysis Rosalyn R. Porle , Ali Chekima, Farrah Wong, Muralindran Mariappan, Mazlina Mamat and Norfarariyanti Parimon Universiti Malaysia Sabah |
| 2 | 046-icmmmm | Effect on Gadolinium based Microarc Oxidation Coating on AZ91D Magnesium Alloy Farah Alina A.A. , S. Norbahiyah, M.N. Derman Universiti Malaysia Perlis |
| 3 | 051-icmmmm | Enhancing Tool life of Silicon Nitride Inserts Via Hybrid Microwave Post Sintering Tasnim Firdaus Ariff , Husna Izzati Ibrahim, Noor Sheila Roselley, Mohammad Iqbal, Irfan Hilmy and Suryanto International Islamic University Malaysia |
| 4 | 023-icmmmm | Mechanical Performance of Coconut Coir Fibre Reinforced Urea Formaldehyde Composites Nurul Aliaa Mohd Adnan , Wan Ahmad Najmuddin Wan Saidin, Mohd Azam Musa, Ahmad Mujahid Ahmad Zaidi, S. Rasool Mohideen International College of Automotive |
| 5 | 058-icmmmm | Revealing engineering management contribution (EMC) to outputs of manufacturing SMEs: a literature review Houssein Elaswad , Shahidul Isla, Syed Tarmizi, Abdulha Yassin, Man Djun Lee , and Ting C.H. University Malaysia Sarawak |
| 6 | 059-icmmmm | Comparative studies of heat and mass transfer by convective and microwave-convective drying for nonhygroscopic ceramic Zawati Harun, Tze Ching Ong University Tun Hussien Onn |
| 7 | 060-icmmmm | Granulation of Maerogel with Solid Sphere Soda-Lime and Boro-Silicate Glass Powder by Using Spray-Drying Process Intan Syaquirah Mohd Zulkifli , Muhamad Azizi Mat Yajid , Mohd Hasbullah Idris, Halimatun Hamdan Universiti Teknologi Malaysia |

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| 8 | 061-icmmmm | Effect of PEG additive on the morphology and permeability of Polysulfone-based membranes Nurul Nabilah Aminudin , Hatijah Basri, Goh Pei Sean, Siti Khadijah Hubadillah, Nurafiqah Rosman Universiti Tun Hussein Onn Malaysia |
| 9 | 062-icmmmm | Effect of temperature on reaction layer of diffusion bonded sialon to AISI 420 martensitic stainless steel Nor Nurulhuda Md. Ibrahim , Patthi Hussain, Mokhtar Awang Universiti Teknologi PETRONAS |
| 10 | 045-icmmmm | Friction Welding of SSM356 with SSM7075 Aluminium Alloys Suppachai Chainarong , Prapas Muangjunburee, and Chaiyoot Meengam Songkhla Rajabhat University |



Session 4

Time: 1400 - 1600

Venue: Menara Grand Level 4

Session Chair: Prof. Dr. Amir Azam Khan and Dr Amir Azizi

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 074-icmmmm | Determination of Static Modulus of Elasticity of Refractory Metals and Alloys from Acoustic Impedance Tests Arshed Abdulhamed Mohammed , Sallehuddin Mohamed Haris and Mohd Zaki Nuawi University Kebangsaan Malaysia |
| 2 | 076-icmmmm | Do free flow of 11 logistics services provider positive impact to OEE in Beverage manufacturing firm? Jarun Bootdachi , Sirirak Khaochaimaha Khon Kaen University |
| 3 | 066-icmmmm | Economic Analysis of Using E-Glass Composite Wrap Repair System for Pipelines in Malaysia Tasnim Firdaus Ariff , Mohamad Asyraf Azmi and Rubina Bahar International Islamic University Malaysia |
| 4 | 078-icmmmm | Modelling and Control of Quad-rotor MAV Using Motion Tracking System D. Pebrianti , Z. M. Zain, M. F. Abas, L. Bayuaji and K. Nonami University Malaysia Pahang |
| 5 | 039-icmmmm | Dry Sliding Wear Behaviour of Some Industrial Semi-Crystalline and Crystalline Polymers D. Shanmugasundaram and R. Chandramouli Anna University |
| 6 | 054-icmmmm | Effectiveness of kapok fibre (Ceiba pentandra) as roof insulation for residential buildings in hot climate Muhd Fadhil Nuruddin, Nadzhratul Husna Ahmad Puad , Azirul Zainal, Syed Ahmad Farhan, Mohd Faris Khamidi Universiti Teknologi PETRONAS |
| 7 | 028-icmmmm | The Properties Of Biodiesel Using Ultrasonic Continues Process Nurrul Rahmah binti Mohd Yusoff , Sulaiman bin Hj Hasan and Nor hazwani binti Abdullah Universiti Tun Hussein Onn Malaysia |
| 8 | 036-icmmmm | Optimization of Reused Lubricant at CNC Noraishah Mohamad Noor , Aiza Syahira Azhar, Azalan Mohamed Ibrahim, Nazrul Idzham Kasim and Ahmad Mujahid Ahmad Zaidi International College of Automotive |

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| 9 | 077- icmmmm | Stabilization Control for an X4-AUV using Backstepping Control Method Z. M. Zain , D. Pebrianti, N. Harun Universiti Malaysia Pahang |
|---|----------------|---|



Session 5

Time: 1400-1600

Venue: Ruai Rejang Level 3

Session Chair: Dr. Zulkifli Zainal Abidin and Assoc. Prof. Dr. Norihan Md Arifin

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 048-icmmmm | Reduction Of Purging Material In Injection Moulding: Problem Based Learning (Pbl) Experience H. Suhaidah , W. S. Wan Ahmad Najmuddin, S. Safiza, Y. Muhammad Firdaus, A. Alif Amirul & M.N. Khairul Aswad International College of Automotive |
| 2 | 050-icmmmm | Enhancement Of Vehicle Safety Standards Through Automotive Across Asean. Dr (Mrs.) Muneer Sultana , Khairul Amilin Ibrahim International College of Automotive |
| 3 | 057-icmmmm | A preliminary evaluation of radiation grafted polyethylene film with antimicrobial properties for active packaging application. Nor Azwin Shukri , Zulkafli Ghazali, Nor Azillah Fatimah Othman, Siti Fatahiyah Mohamad and Mat Uzir Wahit Malaysian Nuclear Agency |
| 4 | 067-icmmmm | The Effect of Sound Absorption Coefficient of Particle Addition to Polyurethane Matrix Composites Yiong Ngee Fei , Amir Azam Khan Universiti Malaysia Sarawak |
| 5 | 068-icmmmm | Evaluation of process parameters for graft copolymerization of glycidyl methacrylate to kenaf fiber using design of experiment method. Nor Azillah Fatimah Othman , Tuan Amran Tuan Abdullah, Nor Azwin Shukri, Sarala Selambakkanu and Siti Fatahiyah Mohamad Malaysian Nuclear Agency |
| 6 | 057-icita | Optimization on Conveyor System Performance using Overall Equipment Effectiveness Abdul Talib Bon , Anuar Mohamad Nor Universiti Tun Hussein Onn Malaysia |
| 7 | 081-icmmmm | Optimisation of Electroless Ni-YSZ Composite Coating Process on High Ceramic YSZ Particle and Porosity Content Nor Bahiyah Baba , Mohd Jafniazfar Jaafar, Muhammad Arham Jaafar, Siti Noorazuani Abd Lahli TATI University College |

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|---|------------|---|
| 8 | 082-icmmmm | Bio ceramic Zirconia/Hydroxyapatite nano composite extracted from bovine bone F Mohamaddoost , H.M Yusoff, K.A Matori, F Ostovan, G.R Vahedi Universiti Putra Malaysia |
| 9 | 110-icmmmm | A hybrid of EMD-SVM Based On Extreme Learning Machine For Crude Oil Price Forecasting Rana Abdullah Ahmed , Ani Bin Shabri Universiti Teknologi Malaysia, |



Session 6

Time: 1400-1600

Venue: Ruai Belaga Level 1

Session Chair: Dr. Parvathy Rajendran

| No | Paper ID | Presenter |
|----|------------|---|
| 1 | 085-icmmmm | Numerical Investigation of the Aerodynamics of Three Blades Vertical Axis Wind Turbine having Movable Vanes Kadhim Hussein Suffer , Ghulam Abdul Quadir, Khairul Azwan Bin Ismail, Ryspek Usubamatov, Tan Chan Sin University Malaysia Perlis |
| 2 | 087-icmmmm | The Influence of Molten Salt Deposit in Water Vapor Environment on Corrosion Behaviour of Stainless Steel at High Temperature Muhamad Izhar Sahri , Norinsan Kamil Othman, Zaifol Samsu and Abdul Razak Daud Universiti Kebangsaan Malaysia |
| 3 | 088-icmmmm | Phase Transformation of Rice Husk Ash in the synthesis of NaY Zeolite: Effect of ageing in short crystalline duration Nurafiqah Rosman , Zawati Harun, Md Saidin Bin Wahab, Siti Khadijah Hubadillah ,Nurul Nabilah Aminudin Universiti Tun Hussein Onn Malaysia |
| 4 | 089-icmmmm | The T6 Heat Treatment of Semi-Solid 7075 Al alloy and cost analysis laboratory scale Anan Srimuk , Somjai Janudom and Napisphon Meemongkol Prince of Songkla University |
| 5 | 047-icmmmm | Study the effect of particle size on the water absorption behavior and density of Polyester/Bertam fiber composites M.H.Norhidayah , A.Hambali, Y.Mohd Yuhazri Universiti Teknikal Malaysia Melaka |
| 6 | 091-icmmmm | Total flavonoid content and antioxidant activity evaluation of agarwood tea leaves extracts. Amarawadee Rattanama , Pakamas Chetpattananondh, Juraithip Wungstaweekul Prince of Songkla University |
| 7 | 092-icmmmm | Involvement of Internal Auditors in The Lean Six Sigma Project: A Study in The Agriculture Sector. Mohamad Reeduan Mustapha , Mohd Shaladdin Muda, Fauziah Abu Hasan Universiti Malaysia Terengganu |
| 8 | 095-icmmmm | Experimental Analysis on Cooling Channels Parameters in Hot Stamping Tools (SKD61). M. Farid M. Sharif , M. A. Hanafiah Saharudin, M.Shaifil Hakimin M. Sakri and Nur Asyran Wani Baharom Universiti Malaysia Pahang |
| 9 | 058-icita | A Reactive Navigation for a Mobile Robot: An Improvement for Modified Virtual Semi Circle Approach S. Amira , R. N. Farah, N. Irwan, R. L. Zuraida, and M.H. Hafiz . Universiti Pendidikan Sultan Idris, |



Session 7

Time: 1630-1800

Venue: Menara Grand Level 4

Session Chair: Dr. Rosalyn R. Porle

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 042-icmmmm | Comparative Study of PMMA 120K and 996K for Electron Beam Lithography Application. Liyana Shamsuddin , Siti Suhaila Md Izah and Khairudin Mohamed Universiti Sains Malaysia |
| 2 | 016-icmmmm | Efficiency of benzyl dimethyl (2-hydroxyethyl) ammonium chloride as corrosion inhibitor in acetic acid Mohd Nazri Idris , Abdul Razak Daud, Norinsan Kamil Othman Universiti Kebangsaan Malaysia |
| 3 | 043-icmmmm | The Influence of Niobium Pentoxide (Nb ₂ O ₅) on the Sintering Behavior of Yttria Tetragonal Zirconia Polycrystal Using Two-Step Sintering (TSS) Method Mohsen Golieskardi , Meenaloshini Satgunam , Dinesh Ragurajan University Tenaga Nasional |
| 4 | 027-icmmmm | Optimization of accelerated ducted design in wind turbine system using Computational Fluid Dynamics (CFD) Ahmad Hamdan Ariffin , Faizal Mustapha, Ahmad Nizam Jamaludin, Mohd Faruq Abdul Latif Universiti Putra Malaysia |
| 5 | 059-icita | An Application of Statistical Quality Control On Process Improvement: Case Study M.H. Norhidayah , Wan Ahmad Najmuddin Wan Saidin Kolej Islam Antarabangsa Sultan Ismail Petra |
| 6 | 029-icmmmm | Fuzzy Logic Modeling of Silicon Nitride (Si ₃ N ₄) Laser Cutting Pedram Parandoush , Altab Hossain, Nukman Yusoff, Abu Mohammed Sifullah, K M Anamul Hossain University of Malaya |
| 7 | 024-icmmmm | Feasibility of double-layer microchannel fabrication at low speed Micro End-Mill and Wire-Cut EDM machines Islam M. F. Seder , Shugata Ahmed, Mirghani I. Ahmed, M N A Hawlader International Islamic University Malaysia |



Session 8

Time: 1630-1800

Venue: Ruai Rejang Level 3

Session Chair: Dr. Salehuddin Arshad

| No | Paper ID | Presenter |
|----|------------|---|
| 1 | 033-icmmmm | Improving Cure Reversion Resistance and Physical Properties of Silica Filled Epoxidised Natural Rubber Compound for Tyre Treads Ahmad Kifli Che Aziz , Teku Zakwan Zaeimoedin, Mazlina Mustafa Kamal, Siti Salina Sarkawi Malaysian Rubber Board |
| 2 | 084-icmmmm | The Effect of Natural Fibres Mercerization on Natural Fibres/Polypropylene Composites: A Study of Thermal Stability, Morphology and Infrared Spectrum Elammaran Jayamani , Sinin Hamdan, Soon Kok Heng, Md Rezaur Rahman, Muhammad Khusairy Bakri, Akshay Kakar Swinburne University |
| 3 | 021-icmmmm | A Study of Surface Roughness & Surface Integrity in Drilling Process Using Various Vegetable – Oil Based Lubricants In Minimum Quantity Lubrication Nurul Adlina M.J. , Kamaleshwaran T., Ahamd Fairuz M., Azwan I.A., Universiti Malaysia Perlis |
| 4 | 040-icmmmm | Decision support system using Fuzzy AHP and Activity based life cycle costing Freselam Mulubrhan , Ainul Akmar Binti Mokhtar, and Masdi Muhamed Universiti Teknologi PETRONAS |
| 5 | 013-icmmmm | Optimization of Laser Cutting Parameters Using Variable Weight Grey-Taguchi Method K. F. Muhammad , W. A. W. Yusoff Universiti Malaysia Pahang |
| 6 | 030-icmmmm | Design evaluation framework for design engineers using improved Rough-Grey Analysis – A case study Faiz Mohd Turan , Badrul Omar Universiti Malaysia Pahang |
| 7 | 044-icmmmm | Evaluation Of Nd2o5 Doped Y-Tzp Using Two Step Sintering Method. Dinesh s/o Ragurajan , Meenaloshini d/o Satgunam, Mohsen Golieskardi University Tenaga Nasional |



Session 9

Time: 1630-1800

Venue: Ruai Belaga Level 1

Session Chair: Assoc. Prof. Dr. Abdul Talib Bon

| No | Paper ID | Presenter |
|----|------------|--|
| 1 | 090-icmmmm | A Process Based Cost Model for Semi-Solid Application: Aluminium below-knee prosthesis. Pailin Krachangphiphop , Napisphon Meemongkol and Jessada Wannasin Prince of Songkla University |
| 2 | 075-icmmmm | Effect of Initial Concentration and Solution Temperature on Adsorption of Calcium-HEDP Scale Inhibitor Muhamad Syukri bin Abdul Khalid, Radhiyatul Hikmah binti Abu, Siti Ujila binti Masuri and Abdul Aziz bin Hairuddin Universiti Putra Malaysia |
| 3 | 079-icmmmm | Value Chain Analysis: The Insight of Aluminium Recycling Umol Syamsyul Rakiman , Raja Zuraidah Raja Mohd Rasi, Aryani Ahmad Latiffi Universiti Tun Hussein Onn Malaysia |
| 4 | 094-icmmmm | Flexural properties for two-ply glass fiber reinforced composites with different loading of CNT/Epoxy film produced by different methods Ervina 090-icmmmm Boon Kian, Mariatti Jaafar , Sinin Hamdan Universiti Sains Malaysia |
| 5 | 056-icita | 8D Methodology: An Effective Approach for Problem Solving in Automotive Assembly Line Wan Ahmad Najmuddin Wan Saidin , Azalan Mohamed Ibrahim, Mohd Zaidi Azir, Harlina Ngah, Noraishah Mohamad Noor and M.H Norhidayah International College of Automotive |
| 6 | 071-icmmmm | Delignification studies of banana fibers for radiation graft copolymerization Sarala Selambakkannu , Nor Azillah Fatimah Othman, Siti Fatahiyah Mohamad and Hamdani Saidi Malaysian Nuclear Agency |
| 7 | 064-icmmmm | Ceramic membrane surface roughness induced by modified phase inversion: The effect of thermodynamic properties Siti Khadijah Hubadillah , Zawati Harun, Nurul Nabilah Aminudin, Nurafiqah Rosman Universiti Tun Hussein Onn Malaysia |

Conference Venue



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