

AMMP BULLETIN



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KEY-NOTE



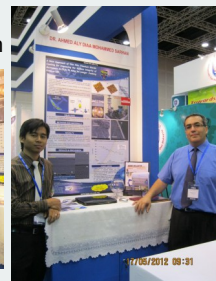
Thank you for AMMP's Centre warm welcome and during my visit this time, I was appointed as one of the panel for High Impact Research-Joining Technology Symposium (HIRJT) 2012. This symposium was a good starting point for the students to present their work and interest in joining technology. I was honored to give a key note speech on Attached Effect of the Porous Metal in Brazed Joint. The control of the brazed joint is the factor greatly affecting the properties of the resulting braze joint. In the effort to overcome such difficulties, specially designed jigs have been constructed and the addition of metal powders to the joining gap has also been examined. By applying the porous metals to the joint, wide, discontinuous, irregular, direct attachment of powder filler metal and difference of the expansion coefficient joint were successfully brazed. In my next visit, I shall share more on joining technologies.

AMMP Collaborator ,
Prof Tadashi Ariga
Tokai University, Japan.

⇒ Awards won:

- * Silver medal winner, Dr Ahmed Sarhan for A New Approach Of Thin Film Titanium Nitride Coating For Improving The Surface Integrity Of Aerospace Al7075-T6 Alloy For Longer Fretting Fatigue Life at International Technology Expo, 17-19th May 2012.

Dr Ahmed Sarhan presenting project to judges



⇒ Academic Journals & Proceeding [May-June]

- *M. Sayuti, Ahmed A. D. Sarhan, Tomohisa Tanaka, M. Hamdi, Yoshio Saito "Cutting force reduction and surface quality improvement in machining of aerospace duralumin AL-2017-T4 using carbon onion nanolubrication system", International Journal of Advanced Manufacturing Technology
- *M.A.Hassan, M.A.E Saleh, N. Takakura, S.Ramesh, J.Purbalaksono, " Effect of bulge shape on wrinkling formation and strength of stainless steel thin sheet", Materials and Design
- *F. Yusof, Y. Miyashita, N. Seo, Y. Mutoh, R. Moshwan, 2012, Utilising friction spot joining for dissimilar joint between aluminium alloy (A5052) and polyethylene terephthalate, Science and Technology of Welding and Joining
- *Hassan M. A., Abouel-Kasem A., Mahmoud A. El-Sharief, Yusof F., 2012, Evaluation of the material constants of nitrile butadiene rubbers (NBR) with different carbon black loading (CB): FE-simulation and experimental, Polymer
- *Ahmed A. D. Sarhan, Atsushi Matsubara, "Investigate the Characterization of the Machine Tool Spindle Stiffness in Radial Direction for Precise Monitoring of Cutting Forces for Intelligent Machining", CSME International Congress

CENTRE ACTIVITIES

University of Malaya Researchers' Conference (UMRC) Launching

23rd & 24th April 2012 – University of Malaya Researchers' Conference (UMRC) under UM Centre of Innovation and Commercialization was launched on 23rd April 2012 by Dato' Seri Mohamed Khaled Nordin, Minister of Higher Education, Malaysia and was attended by Tan Sri Dr. Ghauth Jasmon, Vice-Chancellor of UM. With the theme, "Towards Research Excellence: Taking Scholarship in New Direction", the two days conference provides a platform for discussion, sharing and the creation of new ideas and expertise in various fields to be shared between local researchers, public, private and industrial sectors. This gave chance to UM to showcase as research niche areas and innovation activities that have the capacity to contribute to new method of undertaking research.



Launching of CNC-Lathe by Dato
Seri Mohamed Khaled
Nordin



Visitors to AMMP centre's booth

High Impact Research-Joining Technology Symposium (HIRJT) 2012

16th May 2012-HIRJT 2012 was organized by AMMP Centre in Sime Darby Convention Centre to share the research work of undergraduates and postgraduate who are attached under HIR. AMMP. The HIRJT 2012 series provides forum for accessing to the up-to-date and authoritative knowledge, sharing best practice in the field of Joining Technology. During this symposium, AMMP CENTRE external advisor, Professor Tadashi Ariga from Tokai University delivered a key note speech on the latest research of Brazing. Two categories awards were given to



Panels with participants after the HIRJT

Public Talk – "How to publish high quality Q1 papers in ISI Journals"

17th May 2012 – AMMP CENTRE arranged a public talk by our visiting fellow from University of Tehran, Iran, Mr Ghader Faragi (Best Researcher PhD candidate of the University of Tehran, 2011). The talk attracted postgraduates and undergraduates students who are interested to know how to publish high quality papers in ISI Journals. The talk lasted for 2 hours and participants were astonished with the tips given during the talk.



Speaker, Mr Ghader Faragi
with participants

SUMMARY CURRENT RESEARCH



DEVELOPMENT OF A TEST RIG FOR HYDRAULIC REGENERATIVE BRAKING SYSTEM (HRBS)

In the effort to reduce the consumption of fossil fuels and consequently the release of greenhouse gases into the atmosphere, there has been a growing interest in the automotive industry to develop and produce hybrid vehicles. Hydraulic regenerative braking system (HRBS) is a system that reduces the vehicle speed by converting its kinetic energy into potential energy using axial piston pump, and storing it inside a hydro-pneumatic accumulator for future use. This project is about using a test rig system to investigate the actual behavior of the newly designed HRBS. The test rig system is assembled and a simple controller is developed and integrates with the test rig to test the function of the test rig system. The result shows that the system is able to capture and release energy during operation which is an important characteristic in HRBS.

Researcher;
Norhirni Md Zahir



Professor Dr Majid Reza Ayatollahi

Director of Fatigue and Fracture Research Laboratory, Center of Excellence in Experimental Solid Mechanics and Dynamics in School of Mechanical Engineering Iran University of Science and Technology (IUST), Iran.

PhD, University of Bristol, Bristol, UK, 1995-1998

MSc, Amirkabir University of Technology, (Tehran Polytechnic), Tehran, Iran, 1989-1991

BSc, Iran University of Science and Technology, Tehran, Iran, 1983-1988

Research Areas:

Fracture and Failure Mechanics, Computational Solid Mechanics & Experimental Solid Mechanics interest in development of analytical, computational and experimental techniques applicable to the theory and practice

Author of more than 100 journal papers and proceedings.

Visit to AMMP (April-May 2012)

UPCOMING EVENTS

- Research Training for postgraduates and research assistants on 11th & 18th July 2012.
- Seminar by Visiting Professor, Prof Dinesh K.Agrawal from The Pennsylvania State University (4/7/2012-9/7/2012) on 5th July 2012
- Workshop by Visiting Professor, Prof Hasan U.Akay from Utiili University, Turki (26/8/2012-2/9/2012) on 29th Aug 2012
- Visiting Prof Sarit Bhaduri from University of Teledo on 30th July 2012 until 5th Aug 2012.
- K-Chart Free Talk on 19th June 2012 (Department of Chemistry, Faculty of Science, UM)
- Public Workshop on K-Chart on 27th June 2012 at Rumah Universiti, UM - Joint venture with Eduplore
- Public Workshop on technical Writing and Publishing on 28th June 2012 at Rumah Universiti, UM with Eduplore
- Intensive PIC Workshop on 26th June 2012 at IPPP Complex



SPIN OFF COMPANY—ZECTTRON

Zecttron Sdn Bhd.

ZECTTRON Sdn Bhd

28th April 2012- Dr Noor Azizi bin Mardi, Chief Executive Officer (CEO) of Zecttron Sdn Bhd launched the Appreciation Day in Sekolah Menengah Vokasional, Sungai Buloh to celebrate the excellence of the SPM 2011 students. It was a platform for Zecttron Sdn Bhd and Universiti Malaya to get closer to the community. During his opening speech, Dr Noor Azizi advised the students to become a humanitarian who can give benefits to community through their excellence performance in studies. Dr Noor Azizi was given an opportunity to present certificates, trophies, bouquet of flowers and mock cheque to student who passed SPM 2011 with distinction. Their parents were also awarded for their dedicated contribution in their way of bringing up their children.



Award giving by Dr Azizi to excellent students

For further information, please visit our website at <http://ammpcentre.com> and <http://zecttron.com>