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Centre Activities

SEMINAR BY VISITING PROFESSOR

Prof. Majid Reza Ayatollahi

23th January 2013 at JKRP Seminar Room, CAD CAM tower - AMMP Centre arranged a free seminar by Visiting Professor, Prof. Majid Reza Ayatollahi. The seminar on "Micro and nano-indentation techniques for measuring the mechanical properties of engineering materials" attracted more than 40 participants from various faculties. The seminar was held for 1 hour and 30 minutes and the audience were eagerly asking question based on the topic. The tips given were very useful in measuring the mechanical properties of engineering materials using a micro and nano-indentation techniques. The 1 hour and 30 minutes talk was fully informative and it made the participants hesitant from leaving the room. At the end of the session, lunch was provided as a token of appreciation to both our visiting professor and participants.

INDUSTRIAL VISIT (HALAGEL)

31st January 2013, a meeting between University of Malaya and Halagel held at Halagel (M) Sdn Bhd. The outcome of the meeting is to investigate the manufacturing exercises that are being implemented by Halagel and analyzed the effect of the organizational practices in term of internal firm integration. First Data collection at Halagel started on 1st of February until 17th of February 2013. Project completion is expected in May 2013.

X-RAY DIFFRACTION (XRD) WORKSHOP

19th February 2013 at Conference Room, Engineering Tower, Level 4, Faculty of Engineering – AMMP CENTRE with DKSH Technology, PANalytical and Department of Engineering Design & Manufacture collaborated to organize free workshop on "X-Ray Diffraction (XRD) for Engineering Research" by Mr Chen Jing Yi who is the XRD Senior Application Specialist with PANalytical China. Prior to joining PANalytical in 1995, he was Associate Professor attached to Shanghai Institute of Metallurgy, Chinese Academy of Sciences. Throughout his 20 years of experience in XRD Diffraction Technique, he had carried out many researches such as Rough Polycrystalline Material, Capillary & Transmission Geometry, Phase Identification in Thin Film, and Structure of inorganic and metal cluster catalytic models. The workshop focused on XRD techniques that attracted participants from various fields and industries. The talk was held for 3 hour and 30 minutes and participants were kept updated on the techniques and everyone gained a handful of knowledge from the speaker.

Technical Review

RAPID PROTOTYPING

Rapid prototyping (RP) is a new manufacturing process, by means of layer-by-layer mechanism, until the model completely manufactured, and also known as additive manufacturing. Usually, in manufacture of a physical model, the raw material will be machined to remove the unwanted part of it to produce the final shape of the model. In RP, the input comes from the computer aided design (CAD) drawing model. The model is manufactured by creating the first layer based on the input dimension. After the first layer is finished, the machine will create the second layer of the model. This process will be repeated until the whole model completely fabricated. AMMP Centre is currently developing on low cost fused deposition modelling (FDM) printer. Parameters of printing such as infill material percentage, and layer thickness will be tested by applying these parameters in fabricating the specimens. Specimens fabricated using low cost FDM printer will then compared to the specimens fabricated using commercial FDM printer for performance evaluation. AMMP Centre is also offering service in FDM printer for small part fabrication. For further details, please contact Syam at 03-7967 7633.

By : Muhammad Syamsuzzaman

Achievements

ACHIEVEMENT

- MTE 2013 Expo, Gold Medal, 'An Inorganic Nano Base Lubrication System To Be Used In Heavy Duty Industrial Machining'

PUBLICATION

- A Novel Fabrication Method For TiC-Al_2O_3-Fe Functional Material Under Centrifugal Acceleration

- Optimum Culture Conditions For 1,3-Propanediol Production From Crude Glycerol Using Metaheuristic Algorithms

- Supercapacitance Of Bamboo-Type Anodic Titania Nanotube Arrays

- Pseudocapacitive performance of vertical copper oxide nanoflakes

- The Evaluation of EOR Methods for a Heavy-oil Reservoir With The AHP Method:The Case of Ferdowsi Reservoir

- A Robust Adaptive Control For Micro-Positioning Of Piezoelectric Actuators With Environment Force Estimation

Zecttron Sdn.Bhd

FUNDAMENTAL OF CNC MILLING TRAINING

8-10th January 2013 – Zecttron Sdn Bhd, UM spin-off company under AMMP Centre organized three days of training at UM Centre of Innovation & Commercialization (UMCIC), Research Management & Innovation Complex and High speed Lab, Faculty Engineering. Computer Numerical Control (CNC) machines are machine tools that are computer automated that used in many industries especially for making parts that require high precision. What participants will learn from this course are the basics of CNC milling. Training was delivered through a combination between theoretical talk, demonstration and practical lessons. The emphasized for this course is on hands-on practical sessions. All the participants have the opportunity to work directly on the CNC machine under supervision of the instructor. Participants were trained on how to write CNC program, operate a CNC milling machine and test run the program on a CNC milling machine.

MALAYSIAN TECHNOLOGY EXPO (MTE) 2013

21 -23 February 2013 – Zecttron Sdn Bhd attended the 12th Malaysia Technology Expo 2013 at Putra World Trade Centre (PWTC). Over 550 inventions and innovations were shown at last year's event from local and international regions. Supported by the Ministry of Science, Technology and Innovation (MOSTI); MTE 2013 is set to bring the event yet to another level. The expo will showcase industrial designs from local and international participants. This is a big opportunity as a platform and venue to showcase, share, collaborate and introduce our ideas, products, concepts and designs direct to targeted trade visitors. . The network potential at the event is worth its weight in gold.