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Industrial Training (IT) is a student placement in an industry or outside organization (locally or abroad) for a period of twelve (12) weeks. The word ‘industry’ here include all engineering activities such as consultancy, research and development, manufacturing, etc. and the industry can be in Malaysia or overseas. There are three (3) models of Industrial Training (IT) adopted at MJIIT which are carried out in combinations of both 8 and 4 weeks periods. These are:

- Model 1: 12 weeks in Industry in Malaysia.
- Model 2: 8 weeks in Industry in Malaysia + 4 weeks in Industry or University in Japan or abroad.
- Model 3: 12 weeks in Industry in Japan or abroad.

The training serves as an exposure to the real work environment, so that the student can relate theories learned in class and apply them in the workplace. The training helps prepare them for their future career as a professional engineer. The IT is compulsory for every MJIIT undergraduate student and must be completed successfully before graduation.

On 16 June 2014, 53 third year undergraduate students from ESE and MPE Departments went to Japan for industrial training. 38 students were placed at various Japanese Universities for model 2 of industrial training, while another 15 students were placed at various Japanese Companies for model 3. The duration for model 2 was 4 weeks which started from 16 June and ended on 11 July, while model 3 started at the same date and lasted for 12 weeks.

The primary objective of the IT is to strengthen and broaden the students’ understanding of current practice and knowledge of the latest developments. This is accomplished through exposure to a real-working environment and the experiences obtained during the training period. In addition, the students are also expected to relate and apply their theoretical knowledge to solve real problems and develop an understanding of the requirements of clients and wider society. Subsequently, the knowledge gained during IT is expected to be useful for the students to undertake life-long learning, as well as to give them sufficient confidence in obtaining employment upon graduation.
PUBLIC LECTURE:
RESEARCH TOPICS ON MICRONEUROGRAPHY AND CARDIOMYOCYTE CULTURE
BY
PROF. DR. TAKAO NAKAMURA &
PROF. DR. TAKASHI USHIDA

Microneurography and Cardiomyocyte Culture
Prof. Dr. Takao Nakamura
Graduate School of Medical Science
Yamagata University

7th August 2014: A lecture on Research Topics on Microneurography and Cardiomyocyte Culture was delivered by Prof. Dr. Takao Nakamura, Graduate School of Medical Science, Yamagata University focusing on 3 element on the topic which included:

(1) Measurement of peripheral sympathetic nerve activity – introduction of the methodology to detect the signal with microelectrode and characteristics of the signal obtained.

(2) Microstimulation of peripheral sympathetic nerve fascicle - data re possible non-insulin dependent glucose uptake enhanced with the microstimulation.

(3) Cardiomyocyte culture in medium supplemented with polyunsaturated fatty acids

Chondrocyte Differentiation and Cartilage Regeneration
by Hydrostatic Pressure Loading
Prof. Dr. Takashi Ushida
School of Medicine
University of Tokyo

7th August 2014: A lecture on Chondrocyte Differentiation and Cartilage Regeneration by Hydrostatic Pressure Loading was delivered by Prof. Dr. Takashi Ushida from the School of Medicine, University of Tokyo. In the lecture he introducing the static or intermittent hydrostatic pressure loading systems, which can realize physiological loading conditions and presented their trials of adaptation of hydrostatic pressure to cartilage tissue engineering, for controlling differentiation of chondrocytes because cultured chondrocytes are easy to be dedifferentiated, and secondly for promoting gene expressions of matrices such as collagen, aggrecan, and cartilage tissue regeneration, resulting in improving its mechanical properties.

Last of all, he presented the possible pathways of signal transduction in chondrocyte by hydrostatic pressure loading in terms of ERK phosphorylation, RAS/Rap1 activation, and change of fluidity in plasma membrane.
On 12 August 2014, MJIIT received a visit from Mr. Shigeki Takizaki, Deputy Director-General, Asian and Oceanian Affairs Bureau, Japan Ministry of Foreign Affairs. The purpose was to pay a courtesy visit and to receive an update on the current development of MJIIT.

The meeting started with welcoming remarks delivered by Prof. Datin Dr. Rubiah Yusof, Dean of MJIIT. The event continued with a briefing of recent progress at MJIIT presented by Prof. Emeritus Dr. Takashi Yamamoto, Deputy Dean (Liason and Internationalization). The event ended with a visit to Advanced Devices and Materials Engineering (ADME) iKOHZA and Marzuki Khalid Industrial Museum.
The Muslims in Malaysia celebrated Hari Raya Eid-ul-Fitr on 28 of July, 2014 after fasting for the month of Ramadhan. As a tradition in Malaysia, most people hold an ‘open house’ for guests and relatives to get together while sampling traditional Malay cuisines such as ‘ketupat’, ‘lemang’, ‘satay’ and ‘rendang’. As part of the celebration of Eid-ul-Fitr, MJIIT held a Hari Raya Get Together during lunch break on 19th August 2014.

It was a simple event attended by all MJIIT staffs. The Dean gave a short speech to welcome all guests. This event also acts as a farewell luncheon to Madam Zaharah Ahmad, MJIIT Deputy Registrar who will transfer to UTM Kuala Lumpur International Office and Prof. Dr. Toshio Wakabayashi whose contract in MJIIT ended this September 2014. Prof. Wakabayashi serves as a professor in Engineering (Electronics Systems) department and joined iKOHZA Communication Systems & Networks. Prior to this Prof. Wakabayashi was a Professor at Department of Communication and Network Engineering in Tokai University. - Tuan Norazma
VISIT BY DELEGATION OF HOUSE OF COUNCILLORS

On 20 August 2014, a delegation from House of Councillors, The National Diet of Japan made an official visit to MJIIT. The delegation was led by H.E. Azuma Koshiishi, Vice-President of House of Councillors accompanied by Hon. Akira Gunji, Member of House of Councillors, Hon. Hiroaki Nagasawa, Member of House of Councillors, and Mr. Kunji Akiya, Director General of Committees Department. The purpose was to pay courtesy visit to MJIIT.

The meeting started with welcoming remarks delivered by Prof. Emeritus Dr. Takashi Yamamoto, Deputy Dean (Liaison and Internationalization). The event continued with a speech from H.E. Azuma Koshiishi then Prof. Yamamoto presented a briefing about MJIIT and its current progress. The program ended with visit to Advance Devices and Materials Engineering iKOHZA, Vehicle System Engineering iKOHZA in Precision Laboratory and Marzuki Khalid Industrial Museum.
VISIT BY MR. OTSUKA, MEMBER OF HOUSE OF REPRESENTATIVE

On 26 August 2014, MJIIT received a visit from Hon. Taku Otsuka, Member, House of Representatives, Japan and his delegation. The purpose was to pay courtesy visit to MJIIT.

The meeting started with welcoming remarks and briefing of MJIIT by Prof. Dr. Fuminori Kobayashi, Professor from Department of Electronic Systems Engineering. The program continued by visiting Advance Devices and Materials Engineering iKOHZA and Marzuki Khalid Industrial Museum. The program ended with presentation of souvenirs and a photo session at Marzuki Khalid Industrial Museum.

VISIT BY KEIO UNIVERSITY

On 29 August 2014, MJIIT received a visit from Keio University. The delegates are mainly from Office of Research Development and Sponsored Projects. They are Ms. Hideyo Kawagoe (Associate Manager), Mr. Nozomu Ebisui, Mr. Yuma Kuga, Mr. Tomoya Araki, Ms. Hiromi Aoyagi. The purpose of visit was to know about research administration and student exchange programs in MJIIT.

The meeting started with general introduction of MJIIT by Prof. Dr. Satoru Matsumoto and Prof. Dr. Nozomu Hamada. The event then continued with report on student exchange programs between MJIIT and Japanese Universities and ended with views exchange among all participants.
ACADEMIC VISIT BY SHIBAURA INSTITUTE OF TECHNOLOGY

14 students from Shibaura Institute of Technology (SIT) visited MJIIT between the 17th - 27th August 2014 under the Global Project Based Learning (GPBL) program. Under this program, SIT students and MJIIT students work together in a PBL for a short term, at least 8 working days. By attending the program the students are expected to learn how to communicate in English for engineering context and experienced cultural exchange as international programs in general.

SIT has been adopted as one of the universities where global human resource development project are carried out. The project is financially supported by MEXT (Ministry of Education, Culture, Sports, Science and Technology). Under this initiative, SIT is sending more students to study-abroad program with a focus on communicating with foreign students who are majoring the same engineering discipline. GPBL is one of the programs under this initiative.

Some activities during the program were Recent Research Talk and an industrial visit to a halal chicken processing factory.

LETTER OF INTENT (LOI) BETWEEN MJIIT AND YAMAGUCHI UNIVERSITY

Kuala Lumpur 29 August: Malaysia-Japan International Institute of Technology (MJIIT), Universiti Teknologi Malaysia, represented by Prof. Datin Dr. Rubiyah Yusof, Dean, and the Graduate School of Innovation and Technology Management, Yamaguchi University, represented by Prof. Dr. Ken Kaminishi, Dean, signed Letter of Intent (LOI) for the purpose of collaboration in Dual Masters Program.

Yamaguchi University is the leading university in the area of Management of Technology in the Japanese University Consortium (JUC) to support activities of MJIIT. Various exchange programs have been implemented between MJIIT and Yamaguchi University, including a global engineer training program and joint supervision program for the students. Yamaguchi University have an International Collaboration Office at MJIIT to support collaboration between two institutions. It is expected that establishment of Dual Masters Program will further strengthen the collaboration between Yamaguchi University and MJIIT.
- Mamiko Terakado
INTRODUCTION TO iKOHZA: CHEMICAL ENERGY CONVERSIONS AND APPLICATIONS

Prof. Dr. Shoichiro Ikeda
Head of Chemical Energy Conversions and Applications iKOHZA
Malaysia-Japan International Institute of Technology (MJIIT)

The Chemical Energy Conversions and Applications (ChECA) research laboratory is dedicated for the promotion of research on sustainable energy development via the application of fundamentals of chemical energy conversion reactions and development of new materials to enhance their efficiency.

The research involves development of variety of functional solid materials with fast ion or electron transport capable of driving various chemical conversion reactions such as catalytic, electrocatalytic, photocatalytic and biocatalytic reactions to obtain energy and store it in various forms. The research also involves investigation of transport phenomenon of ions, electrons and other associated species in solid materials and solid/liquid or solid/gas interface together with their mechanisms in various materials such as solid electrolytes, mixed conductors, catalysts, photo-catalysts, functional membranes, and nano-structured materials. The chemical energy conversion applications of interest include but not limited to batteries, fuel reformers, bio-fuels, fuel cells, bio-fuel cells, chemical solar cells, chemical sensors, actuators, and super-capacitors. The i-Kohza also advises relevant industries on chemical energy conversion problems.

Objectives:
- To Study Fundamentals of Chemical Energy Conversion Reactions
- To Develop Various Materials for Chemical Energy Conversions
- To Apply Developed Materials to Chemical Energy Conversion Systems
- To Advise Relevant Industries on Chemical Energy Conversion Problems

Future Prospects:
The “ChECA” iKohza will grow in a flexible and adaptive manner to accommodate the variation in the academic and industrial requirements. It will also involve other iKohza and will have independent/cross-sectional themes to make MJIIT a hub for synergetic research activities and industrial problem solving in the field of sustainable energy. The “ChECA” iKohza will also have intensive relationship with industries and other research organization through collaborations, technical communications and industrial projects. A schematic diagram for research collaboration prospective with other iKohza research institutes.
**UPCOMING EVENTS**

2nd Malaysia Graphene and Carbon Nanotube Workshop (MGCW 2014)

Dewan Seminar, Menara Razak, UTM, KL

Date: 20th October 2014 (Monday)

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Announcement for Participation in 2nd Malaysia Graphene and Carbon Nanotube Workshop

In view of the importance of Graphene and Carbon Nanotubes in the development of nanostructured sensors and devices, MIMOS Nanoelectronics Centre of Excellence and the MIJIT-MIMOS Collaborative Research Laboratory, Malaysia-Japan International Institute of Technology (MIJIT-UTM) will be co-organizing the above workshop to focus on:

- Strategic directions by National Nanotechnology Directorate Division (NND) in the area of graphene and nanotechnology.
- Potential commercialisation activities for graphene, nanomaterials and nano devices.
- Current state of the art research from Malaysian research institutions.
- Identify potential collaborations in these areas to expedite research, development and commercialisation.

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Organized by:

- MIMOS Nanoelectronics CoE
- UTM Universiti Teknologi Malaysia
- MIJIT Malaysia-Japan International Institute of Technology (MIJIT)

Supported by:

- MOSTI National Nanotechnology Directorate Division (NND)
- MNA Malaysia Nanotechnology Association
- Akademi Sains Malaysia
- NanoMalaysia

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Secretariat:

MIJIT-MIMOS Collaborative Research Laboratory for Sensors & Advanced Devices and Materials Engineering (ADME) Research Laboratories

 Email: abd_manaf@ic.utm.my
UPCOMING EVENTS

MJITS 2014
3rd Malaysia-Japan Tribology Symposium

7th AUN/SEED-Net Int’l Conference on Electrical & Electronics Engineering
Date: November 12-13, 2014
Venue: MJIT, UTM, Kuala Lumpur, Malaysia

MJIT- JUC Joint International Symposium 2014
(MJJIS 2014)
12th & 13th November, 2014
MJIT, UTM, Kuala Lumpur, Malaysia
