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**EXCHANGE STUDENTS FROM JAPAN**

At the beginning of semester 1, MJIIT received 6 students from 3 different Japanese universities, Kumi Nakai and Yuiko Kumagai from Tokyo University of Agriculture and Technology (TUAT), Yosuke Kugai and Tatsuya Sato from Shibaura Institute of Technology (SIT), Sasaki Tsubasa and Kenji Toba from Yamaguchi University.

Two students from TUAT joined ESE and MPE departments respectively, two from SIT joined ESE department whilst two from Yamaguchi University MPE department, one being a post-graduate student while the rest are undergraduate students.

TUAT sent their students under ASEAN International Mobility for Students (AIMS) Program while Yamaguchi University students came under the Global Engineering Training Program for Student 2014 (Long-Term). They are leaving MJIIT on completion of the final semester long vacation, after the final examinations.

**VISIT FROM IBARAKI PREFECTURAL MIDORIOKA SENIOR HIGH SCHOOL**

40 students of the Special Science and Mathematics Program from Ibaraki Prefectural Midorioka Senior High School visited Malaysia - Japan International Institute of Technology (MJIIT) from 4th to 5th November 2014. The visit is an annual school trip overseas which promotes the cultivation of cultural exchange through communication and interaction with students abroad.

The objectives of the visit were to experience learning about research proposal presentation and consulting researchers for advanced and substantial research at MJIIT, as well as motivating students in mastering English and improving their presentation skills. Two main activities were arranged to fulfill the objectives which are presentation of research proposal and laboratory exercises.

The participants were divided into a few groups mixed with MJIIT academic staff and students. They had discussion and experiments on the first day and presented their findings on the last day.

On the last day, the visit ended by closing remarks by Prof. Datin Dr. Rubiyah Binti Yusof, appreciation speech by school representative followed by a group photo at the MJIIT compound.
**MJIIT Dinner 2014**

The MJIIT Dinner 2014 was on the 12th November 2014 at the Intercontinental Hotel, Kuala Lumpur, in conjunction with 3 international symposiums, MJIIT-JUC Joint International Symposium 2014, AUN SEED-Net International Conference on EEE, and Malaysia-Japan Tribology Symposium. The symposium were held on 12 and 13 November at MJIIT.

The aim of the dinner was to develop opportunities for cooperation and collaboration in research with industry, government agency, institutions of higher learning and MJIIT partners. It also gave appreciation to contributors who continue to support the development of MJIIT.

Around 300 people from various agencies, companies, both from Malaysia and overseas, and higher education institutions attended the dinner. The dinner started with welcoming remarks by Prof. Datin Dr. Rubiyah Binti Yusof followed by a speech by Mr. Yoshi Kodama, Deputy Head of Mission, Embassy of Japan. Then, YBhg. Dato’ Prof. Dr. Asma’ Binti Ismail, Director General Higher Education Department, Ministry of Education Malaysia officiated the dinner.

At the dinner, 6 Best Paper Awards were awarded from each symposium. Also, presentations of MJIIT Appreciation Certificates were made to UMW Toyota Motor Sdn. Bhd., Honda Malaysia Sdn. Bhd., Takasago Thermal Engineering Co., Ltd., Kyowa Electronic Instruments Co., Ltd., The Japanese Chamber of Trade & Industry, Malaysia & JACTIM Foundation, and Perusahaan Otomobil Kedua Sdn. Bhd. (PERODUA) for their sponsorship and continuous supports.
MJIIT-TTE COLLABORATION

MJIIT-TTE Collaboration in TAKASAGO Thermal/Environmental Systems i-Kohza and TAKASAGO Education and Research Grant

Kuala Lumpur, 12 November 2014 - Malaysia-Japan International Institute of Technology (MJIIT), represented by Professor Datin Dr. Rubiyah Yusof, Dean, and Takasago Thermal Engineering Co., Ltd (TTE), represented by Mr. Atsushi Ouchi, President, signed an agreement on 22 Aug 2014 in Tokyo to establish partnership and cooperation between MJIIT and TTE aimed at contributing to the development of human resources, promotion of science and technology, and the growth of industry and society through MJIIT, followed by series of discussions for collaborative activities to strengthen partnership.

After several meetings between MJIIT and TTE, both agreed to establish “Education and Research Fund”, which will support establishment of a new i-Kohza in the field of Thermal/Environmental Systems as well as providing grant for research and development activities to promote academic research and scientific technology in Malaysia and ASEAN. The establishment of a new iKohza will strengthen education and research activities at MJIIT through “i-Kohza” or a research group, which is a fundamental base of education and research at MJIIT as a core feature of Japanese style engineering education. In addition, the grant will encourage wide range of education and research activities by MJIIT with a view to contributing to industrial advances, human resources development, and strengthening of international cooperation in Malaysia and ASEAN.

1. Fund for Establishment of i-Kohza

MJIIT and TTE will establish i-Kohza named “TAKASAGO Thermal/Environmental Systems (TTES) – For Sustainable Development by Low Carbon and Energy Saving Technologies”.

The i-Kohza will focus on fields of renewable energy and energy saving technologies. It will encourage education and research activities related to energy issues in Malaysia and ASEAN, by making a paradigm shift from a society dependent on natural resources, in collaboration with other i-Kohzas providing research to promote the fundamental researches on the efficient usage of the residue.
2. Fund for TAKASAGO Education and Research Grant

The Grant is aimed at contributing to industrial advances, human resources development, and strengthening of international cooperation among Malaysia, ASEAN and Japan.

The Grant will support education activities for the cultivation of human resources by subsidizing investigation research, science and technology research and research development by MJIIT academics, for the development of industries and economies of Malaysia and ASEAN. It will cover a wide range of academic activities and basic research related to science/technology at MJIIT, including

1) international mutual understanding and economic cooperation,
2) protection of global environment,
3) basic research on promoting energy conservation and renewable energy, and
4) The healthy youth development.

The collaboration between MJIIT and TTE was announced during the MJIIT dinner, when a MJIIT Appreciation Certificate was presented to Mr. Atsushi Ouchi, President of TTE, by Professor Dr. Hamdani Saidi, Campus Director, UTM Kuala Lumpur.

It is expected that the partnership between MJIIT and TTE, starting with the establishment of an Education and Research Fund, will further strengthen the relationships between the two countries. The Fund is scheduled to be established early in 2015 to be finalized after continuous discussion between MJIIT and TTE. - MJIIT Website
MJIIT - JUC Joint International Symposium 2014
(MJJIS 2014)

Malaysia Japan International Institute of Technology (MJIIT) - Japanese University Consortium (JUC) Joint International Symposium is an annual conference organized by MJIIT and JUC since 2012. JUC is a consortium which consists of twenty-five Japanese universities and strongly supports the academic program at MJIIT, in creating a distinctive working culture and employs a holistic approach. The event was hosted by MJIIT in 2012 and 2014, whilst in 2013 MJJIS was hosted by Tokai University in Japan.

The objective of the conference is to promote communication and dialogue among MJIIT, JUC, industry and other ASEAN institutes for future collaboration, as well as to foster friendship between researchers, engineers and students from related organizations. The event is also supported by Embassy of Japan, Japan International Cooperation Agency (JICA) and Look East Policy.

The scope of the symposium was on Electrical System Engineering, Mechanical Precision Engineering, Environmental and Green Technology, and Management of Technology. The targeted authors were post-graduate students and young researchers.

The 2014 symposium managed to attract a total number of 91 participants from Malaysia and Japan. Fifty participants were from various Japanese institutions, including one company, whilst the other 41 participants were from local Malaysian universities, including the host.

The Japanese participants were from Tokyo University of Science, Tokai University, Meiji University, Ray Tron, INC., Kyushu University, Kinki University, Osaka University, Nagaoka University of Technology, Shibaura Institute of Technology, Kyushu Institute of Technology and Tsukuba University. While participants from local universities were from Universiti Teknologi Malaysia (UTM), Universiti Sains Malaysia (USM), and Universiti Malaya (UM).

For next year, the venue of symposium will be at Yamaguchi University, Japan.
MJTS 2014 was held from 12th November – 13th November 2014, at Razak Tower, Universiti Teknologi Malaysia Jalan Sultan Yahya Petra, Kuala Lumpur, Malaysia. It is held in conjunction with two other events, Malaysia-Japan Joint International Symposium 2014 (MJJIS 2014) and ASEAN University Network/South-east Asia Engineering Education Development Network 2014 (AUN/SEED-Net 2014).

Malaysia-Japan Tribology Symposium was created to spearhead the contribution and advancement of tribological technology/knowledge across the two countries. In addition, cultural exchange between Japanese and Malaysian counterparts is also an objective the symposium aims to achieve.

The event began its life as Malaysia-Japan Tribology Meeting, which took place at MJIIIT’s Advanced Precision Laboratory during 27-28 August 2012. Thanks to the attention the event received from various institutions, both from Japan and Malaysia, the event was able to expand its scope, thus through its next iterations, was able to adopt the title “Malaysia-Japan Tribology Symposium” from the third iteration.

MJTS 2014, and its previous iterations, is conducted by Prof Dr Kanao Fukuda, the head for Tribology and Precision Machining i-Kohza (research group). The event saw 24 participants from Malaysian and Japanese universities: Tokyo University of Science, Tokai University, Meijo University, Kanazawa University, Kyushu University, University of Malaya, Universiti Teknologi Malaysia, Universiti Teknologi MARA, Universiti Kebangsaan Malaysia, International Islamic University of Malaysia, Universiti Teknikal Malaysia Melaka, Universiti Malaysia Sabah, and Malaysia-Japan International Institute of Technology. - Faidhi Radzi
The 7th AUN/SEED-Net Regional Conference on Electrical and Electronic Engineering (EEE) was organized to fulfill the goal in strengthening the network of electrical engineering education communities. The aim of conference is to encourage young researchers from Electrical & Electronics Engineering background to share new and innovative ideas and/or findings with the delegates. The event was held from 12 to 13 November 2014 at Dewan Jumaah, UTM Kuala Lumpur.

AUN/SEED-Net is mainly supported by the Japanese Government through the Japan International Cooperation Agency (JICA), and partially supported by the ASEAN Foundation. AUN/SEED-Net activities are implemented by the AUN/SEED-Net Secretariat with the support of the JICA Project for AUN/SEED-Net, which is now based at Chulalongkorn University, Thailand. To date the AUN/SEED-Net consists of 26 leading Member Institutions (selected by the Ministries in charge of higher education of respective countries) from 10 ASEAN countries with the support of 14 leading Japanese Universities (selected by Japanese Government).

The conference is a platform to share the most updated technology and research of regional common issues as well as to publicize research work of AUN/SEED-Net members. This conference provides an opportunity for a productive exchange of knowledge and lessons learned among participants that leads to successful collaboration with a wider range of network, and resulting in human resources development in the region for the future prosperity of ASEAN to each engineering field.

This conference has included a diversity of topics presented by authors from many different south East Asian institutions to the development of new ideas and new directions in research and applied technology.

Professor Tomoaki Ohtsuki
Keio University
“Wireless Communications Using Learning Algorithm”

Dr. Hafizal Mohamad
MIMOS Berhad
“Internet of Things”

Professor Hiroshi Esaki
University of Tokyo
“Smart Campus Implementation with IEEE1888 - Strategic use of Cloud and Data Center”

Professor Masaharu Imai
Osaka University
“Energy Efficient Data Compression Technologies for Advanced Medical/Healthcare Systems”

Professor Jun Taniguchi
Tokyo University of Science
“Three-Dimensional Rapid Nano-Fabrication Process for Polymer And Metal Materials”

Professor Takao Onoye
Osaka University
“An Approach to High-speed Human Detection based on Statistical Techniques”

Professor Jun-ichi Takada
Tokyo Institute of Technology
“Dynamic Body Area Channels: Challenge In Body Area Network”
The short visit program by the Graduate School of Innovation and Technology Management, Yamaguchi University (YUMOT) was held between 24th - 27th November, 2014. This program started in 2013 and last year was the second arrangement, developed jointly by YUMOT and MJIIT-MOT. The delegates included 5 part-time students and a professor of YUMOT. The purpose of this year's program was to enhance the participants' knowledge and perspective regarding standardization strategy of Malaysian government on the Halal certification and the reaction from business world.

First day, we organized the welcome reception for YUMOT and had lunch together to encourage networking. YUMOT students and some MJIIT-MOT students took lectures about halal market which was given by the lecturer from Halal Industry Development Corporation (HDC) in the afternoon.

Second day, we visited JFE Engineering in the morning. JFE Engineering is one of the large Japanese companies in environment and energy industry engaging in pipeline project, plant project and related technologies. The students learnt how this company has adapted to Malaysian business culture. They visited NITTsu Transport Services in the afternoon. This company is also one of the largest Japanese transportation companies. The company is trying to get halal certification for logistics as the first runner among the foreign transportation companies. The representative from the company referred the difficulties and tips for successful entry to halal market and the role of halal certification as a part of the company's strategy.

On the third day, students took global standardization lecture at MJIIT by Dr. Nakanishi, former adjunct professor of Osaka university. The lecture reflected Dr. Nakanishi's experience as a practitioner, giving students insights on why Japan often lose in standardization game.

Fourth day, we visited DreamEdge, a high-tech Malaysian IT company specializing in digital engineering services. We could see cutting-edge digital designing technology and know business strategy tapping the technology. YUMOT students presented their idea as to business opportunity in Malaysia reflecting the lessons learnt in the program to the faculties and students of MJIIT-MOT as the closure of program.

- Ayaka Kobatake
JACTIM Research Proposal Competition 2014 was open to all MJIIT post-graduate and undergraduate students. The competition was sponsored by JACTIM (The Japanese Chamber of Trade and Industry, Malaysia). The methods of competition were paper work submission and oral presentation.

On 20 November 2014, JACTIM Oral Presentation 2014 was held at Advanced Precision Lab, Level 4, North Wing, MJIIT Building. Postgraduate category had to present their paper work while undergraduate category presented their posters. Oral presentation were judged by Mr. Syahril and M. Azmi from Honda Malaysia.

The winners of each categories as follows:

<table>
<thead>
<tr>
<th>Main Activities</th>
<th>PhD</th>
<th>Master</th>
<th>Undergraduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Champion</td>
<td>Norhayati binti Ismail</td>
<td>Muhamad Ezral bin Ghazali</td>
<td>Nur Naazira binti Abu Rahim Saidatul Atiqah binti Harjimi</td>
</tr>
<tr>
<td>2nd Place</td>
<td>Noor Fazreen binti Dzulkaffi</td>
<td>Mohd Hamdi bin Abd Hamid</td>
<td>Nurul Aisyah binti Mazlan Nuar’ Azzalia binti Ruzi</td>
</tr>
<tr>
<td>3rd Place</td>
<td>Suhana binti Jalil</td>
<td>Norrashidah binti Mokhtar</td>
<td>Aiman Noorhakim binti Amir Lyrice Mujat</td>
</tr>
<tr>
<td>Topic</td>
<td>Natural radioactivity from non-nuclear power generation industries: Environmental and radiological impact for environmental sustainability.</td>
<td>Viability of Subcritical Water as a Green Solvent for the Extraction of Zingiber Zerumbet Bioactive Compounds.</td>
<td>Development of an inverse design algorithm for a slotted disc spring to achieve desired load displacement.</td>
</tr>
<tr>
<td>4th Place</td>
<td>Muhamad Azhar bin Abd Wahid</td>
<td>Muna binti Mohd Kamali</td>
<td>Wee Yien Ann Tham Chun Yang</td>
</tr>
<tr>
<td>5th Place</td>
<td>Norfazrina Hayati binti Mohd Yatim</td>
<td>Nurtasbiyah binti Yusof</td>
<td>Chua Chih Ping Yeo Kye Wei</td>
</tr>
<tr>
<td>6th Place</td>
<td>Nurshafinaz Mohd Maruai</td>
<td>Andrew Dino Anak Najib</td>
<td>Muhammad Nazhirul bin Ramli Muhammad Nazirul Saifwan bin Zulkifli</td>
</tr>
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CEREMONY FOR PRESENTATION OF JACTIM FOUNDATION SUPPORT TO MJIIIT & FELLOWSHIP AWARDING TO RESEARCH COMPETITION WINNER STUDENTS

On 27th November 2014, the Ceremony for Presentation of JACTIM Foundation Support to MJIIIT & Fellowship Awarding to Research Competition Winner Students was held at Bilik Ilmuan 1, Anjung Razak, UTM Kuala Lumpur.

The event started with opening speech by Campus Director, Prof. Dr. Hamdani Saidi followed by speech by Mr. Hajime Tokuda, Chairman of International Culture Exchange (ICE) Committee, JACTIM. The event continued with presentation of JACTIM Foundation Support to MJIIIT. Then, Awarding Research Competition Winner Students took place. Six undergraduate student groups, six Master’s programme students and six Ph.D students received their awards.

Students who won the first prize from each category gave their appreciation speech after the prize giving. The event ended with closing speech by Prof. Datin Dr. Rubiah Binti Yusof, presentation of token of appreciation to JACTIM Foundation and photo session.
**MJIIT JAPAN DAY 2014**

Japan Day 2014 was held on 13 December 2014. It took place at the Main Hall Menara Razak, Jumaah Hall and MJIIT building within UTM Kuala Lumpur Campus, organized by Malaysia—Japan International Institute of Technology supported by Embassy of Japan in Malaysia and Japan International Cooperation Agency.

Japan Day is an annual event organized by Malaysia - Japan International Institute of Technology (MJIIT), UTM Kuala Lumpur, to welcome prospective students and surrounding communities to experience a one-day academic cum cultural event at the beautiful faculty. This event showcased the uniqueness of the faculty, from the blend of Malaysian and Japanese style engineering academic programs, innovative R&D activities, globally diverse faculty members and wide range of authentic Japanese culture.

The event started with welcoming remarks by MJIIT Dean, Prof. Dr. Rubiyah binti Yusof followed by academic briefings and performances by MJIIT students. As the program is part of promotion of MJIIT, there were academic activities which are engagement with MJIIT students and staff and MJIIT Tours together with i-KOHZA experience.

There were also workshop, cultural demonstration and competition for students. Cultural demonstration showed The Making of Sushi, Japanese Dance, Music and Martial Arts. At the same time, competitions for students were held, such as a treasure hunt, calligraphy, origami and tele-match. The workshop of calligraphy and origami was opened to the public. There were also food stalls selling Malay and Japanese menus and booths for the public to take photos wearing Yukata and playing kendama.

The closing ceremony and prize giving was held at Main Hall Menara Razak. Closing remarks was given by Guest of Honor, H.E. Dr. Makio Miyagawa, Ambassador, Embassy of Japan in Malaysia, followed by prize giving for MJIIT Japan Day 2014 Competition and MJIIT Photography Competition 2014.
**PUSAT TEKNOLOGI KELAPA SAWIT (POMTEC) FACTORY VISIT**

In tandem with MJTS 2014, a factory visit to Pusat Teknologi Kelapa Sawit (POMTEC), Labu, Negeri Sembilan took place. The visit took place on 14th November 2014, and saw attendees from MJTS 2014 and committee members taking part in the visit. The objective of the visit was to observe the processing of palm oil, and its properties as a bio-degradable alternative form of oil. - Faidhi Radzi

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**MJTS 2014 EXCELLENT STUDENT RESEARCH AWARD RECIPIENTS**

Congratulations to:

1. **Moinuddin Quazi**, University of Malaya, "Adhesion of PVD multilayer ceramic coating on AA7075-T6 aerospace alloy"

2. **Kanae Yamamoto**, Kanazawa University, "Friction properties of laminated composite materials of α-TCP-filled poly (vinyl alcohol) hydrogels"

3. **Zaid Ali Subhi**, Malaysia-Japan International Institute of Technology, "Analysis on the mechanism of humidity to influence the very early stage of sliding under different load"

for receiving the **Excellent Student Research Award** for their respective papers during the 3rd Malaysia-Japan Tribology Symposium, on 12th-13th November 2014.
INTRODUCTION TO I-KOHZA: CENTRE OF LIPIDS ENGINEERING & APPLIED RESEARCH

Prof. Dr. Noor Azian Hj. Morad
Head of Centre of Lipids Engineering & Applied Research
Malaysia-Japan International Institute of Technology (MJIIT)

CLEAR, as a branch of chemical engineering, has been at the core of the university mission since its founding in 1987. Formerly known as LASER (Lipid Applied Center and Engineering Research). The center was established in order to fill the need of the program to undertake researches in the engineering and technology of palm oil and oleo-chemical processing. Apart of the vision, CLEAR aimed to become the premier Nobel Laureate – producing research and development institution, providing leadership and impetus for the development of a highly diversified, value-added, globally competitive and sustainable researchers in industry.

The research areas and expertise offered by CLEAR include the identification of palm oil physical properties, the application of basic principle and fundamental theories of chemical engineering in chemical industry such as application of supercritical fluid extraction, crystallisation process, membrane technology, solid-liquid and liquid-liquid extraction, drying process including combined with microwave, bioprocess, adsorbent development and application of nanomaterials and method development of chromatogram analysis, laboratory work and hands-on experimental procedures including process operational and safety procedures, modeling and simulation and process and plant integration.

In 1995, CLEAR has signed an MOU with Guthrie Berhad to conduct a research on palm oil processing engineering and design. Then in 2009, CLEAR was appointed as a centre of excellence under Research Alliance of Biotechnology. Currently, CLEAR is operating efficiently with 15 active staff, total equipment (pilot plant, analysis and chemical process) worth RM 3 million and total research grant of about RM 3.5 millions throughout 2008-2010.

OBJECTIVES
The main objective of CLEAR is to enhance its role as a center of excellence in research, in collaboration with faculties and other research institutes for the advancement of UTM through:
- The enhancement of the management and administration of CLEAR
- The enhancement of the ability of CLEAR to generate knowledge and income by focusing on integrated and multidisciplinary research areas;
- The enhancement of research collaboration with other Research Institutes, Universities and Company
- The establishment of units and high-level research facilities for UTM and other researchers

VISION
To be a world class centre for research, development and commercialization in lipid engineering and applied research.

MISSION
To carry out the frontier research in the lipid engineering and applied research towards the development and commercialization concomitant with national and global aspiration.
SUMMARY OF INBOUND AND OUTBOUND ACTIVITY AT MJIIT IN YEAR 2014

A total of 430 students were involved in outbound and inbound activities in 2014. Inbound activities refer to involvement of visiting students to MJIIT for visit, academic program, internship, non-graduating/exchange students program or specific designed program such as AIMS and others. Outbound activities are the activities by MJIIT students abroad for joint supervision, internship, or any specific designed program such as JENESYS, AIMS, IIP and others.

The total participation of inbound activities are 213 students while for outbound activities are 217 MJIIT students. Most of the participants for outbound activities are from Japanese Consortium Universities (JUC). The most active universities sending their students to MJIIT are Yamaguchi University and Tokyo University of Agriculture and Technology. These inbound and outbound activities encouraged students to learn and appreciate other languages and culture and widen their network.