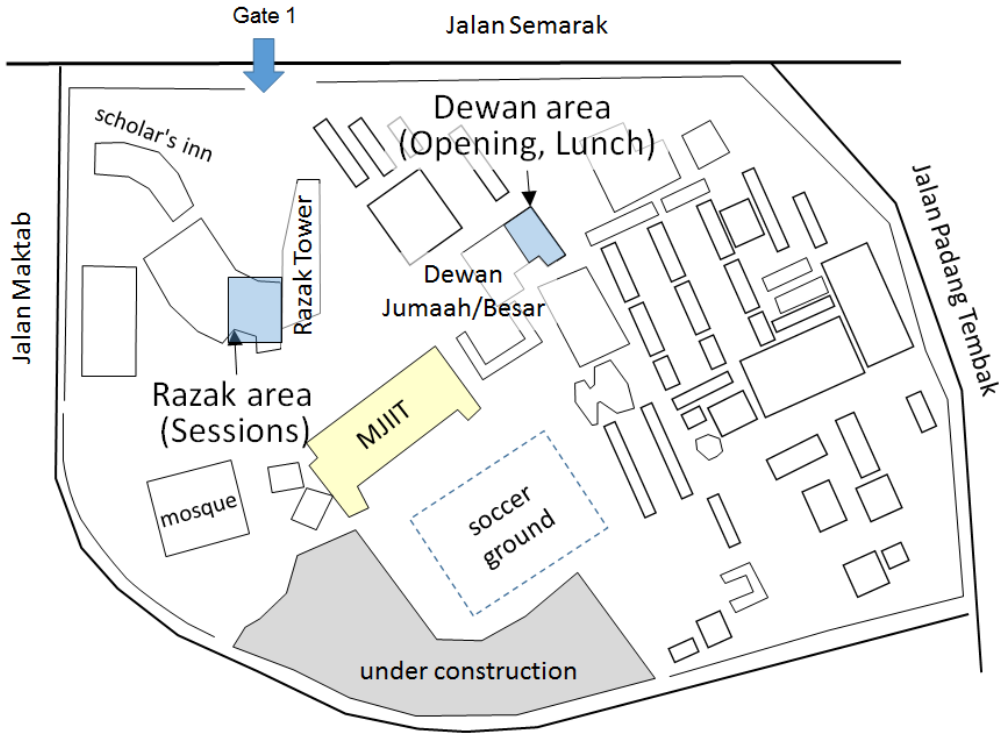
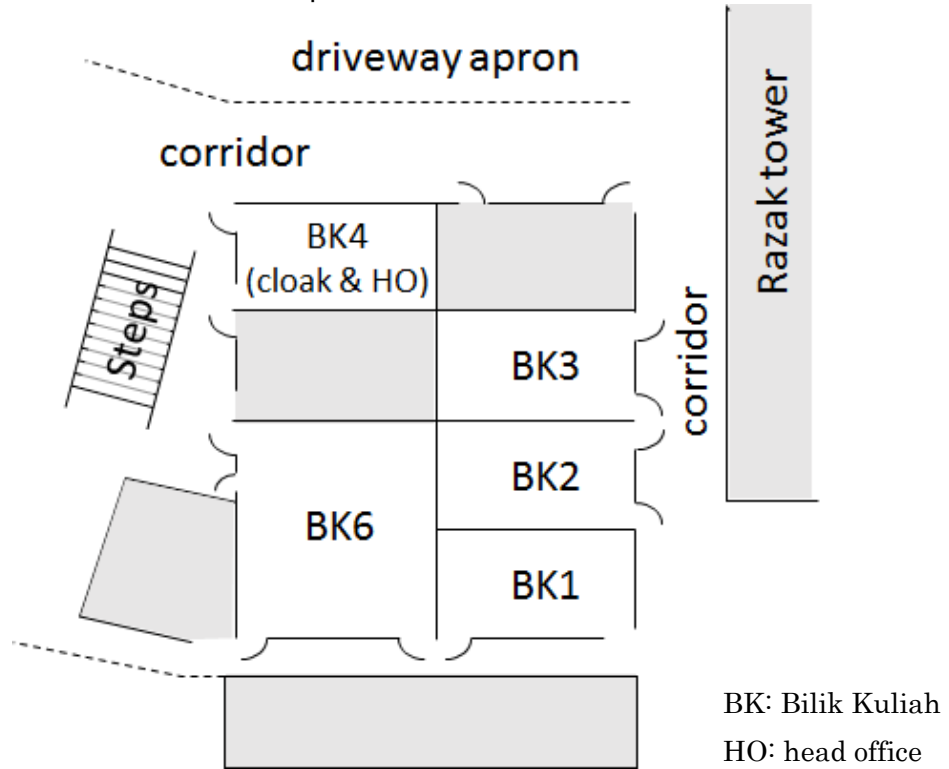


# Map of UTM International Campus



## Map of Razak area





## Time and Place

### Registration

- 12 Nov., Wednesday
  - 8:30 - 12:50, Lobby, Dewan Jumaah
  - 14:00~16:00, Bilik Kuliah 4, Razak area
- 13 Nov., Thursday
  - 9:00~ 12:50, Lobby, Jumaah Hall
  - 14:00~16:00, Bilik Kuliah 4, Razak area

### Opening

- 12 Nov., Wednesday
  - 9:30 – 10:00, level 2, Dewan Jumaah

Industrial talk, Keynote speech and Invited talk  
Level 2, Dewan Jumaah

### Lunch

- 12 Nov., Wednesday
  - 12:50 – 14:00, level 1, Dewan Besar
- 13 Nov., Thursday
  - 12:40 – 14:00, level 1, Dewan Besar

### MJIIT dinner

- 12 Nov., Wednesday
  - 20:00 – 22:00, Banquet hall, InterContinental Kuala lumpr

### Cloak & Head Office

- 12 Nov., Wednesday
  - 8:30 – 18:00, Bilik Kuliah 4, Razak area
- 13 Nov., Thursday
  - 9:00 – 18:00, Bilik Kuliah 4, Razak area

12 Nov. Wednesday					
MTG	MJIT			Tribo	MTG
Venue	Room 1 (BK* 1)	Room 2 (BK* 2)	Room 3 (BK* 3)	Room T (BK* 6)	Venue
9:30	Registration				9:30
10:00	Opening Ceremony (Dewan Jumaah)				10:00
10:30	Industrial talk (Dewan Jumaah)				10:30
11:10	Keynote speech 1 (Dewan Jumaah)			Tribo 1: Materials 1	11:10
12:10	Invited talk (Dewan Jumaah)				12:50
12:50	Lunch (Dewan Besar)				12:50
14:00	1A1-ESE: Control & Signal processing	1A2-MPE: Fluid & flows	1A3-EGT: Environmental Problems	Tribo 2: Lubrication 1	14:00
15:40	Tea break (IBS Banquet Hall, Level 12, Razak tower)				15:40
16:00	1E1-ESE: Discharge	1E2-ESE: Processing	1E3-ESE: Thrusters	Tribo 3: Fundamentals and applications	16:00
17:40					17:40
20:00	MJIT dinner (InterContinental KL)				20:00
22:00					22:00

BK: Bilik Kuliah

Industrial talk, Keynote speech and Invited talk

❁ Industrial talk: Internet of Things

Speaker, Hafizal Mohamad, MIMOS Berhad

❁ Keynote speech 1: Wireless Communications Using Learning Algorithm

Speaker, Tomoaki Ohtsuki, Keio University

❁ Invited talk: Smart Campus Implementation with IEEE1888 -- Strategic use of Cloud and Data Center

Speaker, Hiroshi Esaki, University of Tokyo

13 Nov. Thursday					
MTG	MJIIT			Tribo	MTG
Venue	Room 1 (BK* 1)	Room 2 (BK* 2)	Room 3 (BK* 3)	Room T (BK* 6)	Venue
9:40	Registration				9:40
10:40	Keynote speech 2 (Dewan Jumaah)				10:40
11:00	Coffee break (Dewan Besar)				11:00
12:40	2M1-ESE: Semiconductor	2M2-MPE: Education Engineering	2M3-ESE: Wireless Communication	Special Symposium	11:00
14:00	Lunch (Dewan Besar)				12:50
15:40	2A1-MPE: Communication System	2A2-MPE: Energy saving	2A3-MPE: Navigation	Tribo 4: Materials 2	14:00
16:00	Tea break (IBS Banquet Hall, Level 12, Razak tower)				15:40
17:40	2E1-ESE: Sensor Network	2E2-MPE: Machining &Joining	2E3-MPE: Engine	Tribo 5: Lubrication 2	16:00
					17:40

BK: Bilik Kuliah

Keynote speech

❁ Keynote speech 2: Natural Coagulants in Water Treatment

Speaker, Megat Johari Megat Mohd Noor, MJI IT

Regular Session Schedule  
(Time: presentation 15 min + Q&A 5 min)

12 Nov., Wednesday AM (11:00-12:40)

**Session Tribo-1: Materials 1** Room T (Bilik Kuliah 6)  
Chair: Mariyam Jameelah Binti Ghazali, Universiti Kebangsaan Malaysia

- 1 Cavitation erosion of diamond like carbon coating tested in deionized water**  
Noel Lo Tokyo University of Science
- 2 Adhesion of PVD multilayer ceramic coating on AA7075-T6 aerospace alloy**  
Moinuddin Quazi University of Malaya
- 3 Realization of low frictional property of TiB<sub>2</sub>-MoS<sub>2</sub> composite films with low MoS<sub>2</sub> content**  
Masatoshi Arai Tokai University
- 4 Effect of piston material on piston skirt lubrication at initial engine start-up speed**  
Mubashir Gulzar University of Malaya
- 5 Tribological properties of molybdenum di-sulfide dispersed stainless steel using surface plastic flow process**  
Hatsuhiko Usami Meijo University

12 Nov., Wednesday PM 1 (14:00-15:40)

**Session 1A1: ESE Control & Signal processing** Room 1 (Bilik Kuliah 1)

- 1 Collision avoidance in swarm intelligent using particle swarm optimization and Gaussian smoothing**  
Diah Arianti MJIIT
- 2 A comparative of conventional controllers for omnidirectional robots**  
Nobutake Hiraoka Tokai University
- 3 Implementation of phrase-based speech recognition system with automatic gain control**  
Sumino Kazuya RayTron, INC.
- 4 A study of fuzzy logic on bleeding detection**  
Rosdiana Shahril MJIIT
- 5 Development of the test system for VIL/VIH test and AC timing test**  
Aizuddin Shaali Masri Tokai University

**Session 1A2: Fluid dynamics** Room 2 (Bilik Kuliah 2)

- 1 Development of a miniaturized laser doppler velocimeter for detecting slip velocity**

- Nobutomo Morita Kyushu University
- 2 **Effects of the angle of incident light on blood flow value in laser doppler flowmetry**
- Kei Nishihara Kyushu University
- 3 **Visualization of longitudinal vortices shedding from cruciform two-cylinder systems with different geometries**
- Mizuyasu Koide Fukushima National College of Technology
- 4 **Effect of grooves shape to aerodynamic characteristics of square and circular cylinder**
- Tengku Mohammad Fikri Hanif Tengku Fadil Hisham Tokai University
- 5 **The effect of surface structure s on the flow characteristics soccer ball with or without rotation**
- Gou Yagi Tokai University

**Session 1A3-EGT: Environmental Problems** Room 3 (Bilik Kuliah 3)

- 1 **Factor that influence customer intention to purchase of green property in Malaysia**
- Norizan Mohamad Ia Universiti Teknologi Malaysia
- 2 **Pollution reduction technology in palm oil mill through effluent treatment and management**
- Muhammad Aiman bin Abu Bakar MJIT
- 3 **Effect of different environments on *Aspergillus oryzae* metabolism**
- Takayoshi Kimura Kinki University
- 4 **Sustainable palm oil research in Malaysia: past trends and future directions**
- Rory Padfield MJIT

**Session Tribo-2: Lubrication 1** Room T (Bilik Kuliah 6)

- 1 **The evaluation of modified surface curvature cup lubricated with palm kernel**
- Syahrullail Samion Universiti Teknologi Malaysia
- 2 **Relation between tribological properties of rubber and surface roughness parameters under oil lubrication**
- Tomoaki Iwai Kanazawa University
- 3 **Friction evaluation of eco-friendly bio lubricant**
- Diyar I. Ahmed Universiti Teknologi MARA
- 4 **Biobased lubricants: gearing up as engine oil for a green world**
- N.W.M. Zulkifli University of Malaya

12 Nov., Wednesday PM 2 (16:00-17:40)

**Session 1E1-ESE: Discharge** Room 1 (Bilik Kuliah 1)

- 1 **Development of Laser beam welding for reduced activation ferritic/martensitic steel F82H to construct blanket modules for fusion reactors**  
Hiroaki Mori Osaka University
- 2 **Discharge current distribution to underwater due to spark discharge on water surface of a 1D model**  
Nur Shahida Midi Tokai University
- 3 **Experimental study on humidity dependence on AC negative partial discharge patterns of thin wire-plate electrode arrangement**  
Soban Try Tokai University
- 4 **Clarification of growth enhancement effect of plants by optimizing antioxidative activity induced by oxygen plasma**  
R. Ono Kyushu University
- 5 **Al-water fed chemically augmented DC arcjet**  
Naoto Yanagida Tokai University

**Session 1E2 -MPE: Processing**

Room 2 (Bilik Kuliah 2)

- 1 **Development of micro pH sensor using sputtering method**  
Daiki Kaneko Tokai University
- 2 **Prediction of action of the crystal growth by a lattice mismatch simulation**  
Kei Ito Tokai University
- 3 **Deposition of interlayer for painless micro needle and stress analysis**  
Katsuhiro Fukaya Tokai University
- 4 **Evaluation of additive element for barium titanate by using first-principles calculation**  
Yutaka Yasoda Tokai University
- 5 **Control of light absorbance of metals by surface asperity formation using oxidation-reduction treatment**  
Masanori Suzuki Osaka University

**Session 1E3-ESE: Thrusters**

Room 3 (Bilik Kuliah 3)

- 1 **A laser-electrostatic hybrid thruster**  
Ryo Edamura Tokai University
- 2 **Magnetic field measurement of a laser assisted pulsed plasma thruster**  
Nao Akashi Tokai University
- 3 **Thrust performance of a short-pulse laser-assisted pulsed plasma thruster**  
Yuji Oigawa Tokai University
- 4 **Short pulse discharge characteristics of a laser-assisted pulsed plasma thruster**  
Hiroshi Hosokawa Tokai University
- 5 **Characterization of laser-driven vehicle for atmospheric flight applications**  
Takumi Oyama Tokai University



**Session Tribo-3: Fundamentals and applications**

Room T (Bilik Kuliah 6)

Chair: Hatsuhiko Usami, Meijo University

- 1 **In-situ observation of plastic flow behaviour during scuffing by long time and short interval observation system**  
Yasuo Matsuzaki Kyushu University
- 2 **Effect of second phase morphology on wear resistance of Fe-TiC composites**  
Mariyam J. Ghazali Universiti Kebangsaan Malaysia
- 3 **Personal authentication by comparison of ground reaction forces during walking**  
Kenji Kuraishi Kanazawa University
- 4 **Thin surface layers of iron-based alloys deposited by TIG hardfacing**  
S.A. Adeleke International Islamic University Malaysia
- 5 **Analysis on the mechanism of humidity to influence the very early stage of sliding under different load**  
Zaid Subhi Universiti Teknologi Malaysia

13 Nov., Thursday AM (11:00-12:40)

**Session 2M1-ESE: Semiconductor**

Room 1 (Bilik Kuliah 1)

- 1 **Properties of ZnO thin films grown with N<sub>2</sub>O gas using high-temperature H<sub>2</sub>O generated by a catalytic reaction**  
Kanji Yasui Nagaoka University of Technology
- 2 **Biocompatibility evaluation of carbon nanotubes based on chirality**  
Sachiko Imori Tokai University
- 3 **The irradiation effect on carbon nanotube Schottky transistors**  
Ali Pourasl Universiti Teknologi Malaysia
- 4 **The characterization of hydrophilic nano-carbon particle as its application as a counter electrode for dye sensitized solar cell**  
Mojgan Kouhnavard MJIT
- 5 **Selective aspect ratio of CNTs based on annealing temperature by TCVD method**  
Amin TermehYousefi MJIT

**Session 2M2-MPE: Education Engineering**

Room 2 (Bilik Kuliah 2)

- 1 **Development of electronic gadgets for educational purposes in the field of robotics and mechatronics**  
Nurul Izzati Azlizan Tokai University
- 2 **Design competition and student delegate program aiming at education for promising engineers**  
Jun Kobayashi Kyushu Institute of Technology

- 3 **Difference makes difference: parallel project-based learning courses in Malaysia and Japan**

Tohru Suwa MJIT

- 4 **Education and research based on collaboration with industry**

Takashi Yamamoto MJIT

**Session 2M3-ESE: Wireless Communication** Room 3 (Bilik Kuliah 3)

- 1 **A wireless tele-healthcare system for rural inhabitants in Malaysia**

Ishtiak Al Mamoon MJIT

- 2 **Construction of an efficient architecture for cognitive radio ad-hoc networks**

Nafees Mansoor Universiti Teknologi Malaysia

- 3 **An application of broadcast based information sharing system to a community information network**

Ayami Manaka Tokai University

- 4 **Modulation instability in a nonlinear metamaterial waveguide**

Yasuhiro Tamayama Nagaoka University of Technology

13 Nov., Thursday PM 1 (14:00-15:40)

**Session 2A1-ESE: Communication System** Room 1 (Bilik Kuliah 1)

- 1 **Evaluation of location data supplementing information transfer method over MANET**

Kei Kobayashi Tokai University

- 2 **An information and communication technology based smart city**

Kuheli Mondal MJIT

- 3 **Security measurement method of recognition-based graphical password**

Touraj Khodadadi MJIT

- 4 **Robust framework for disaster mitigation using heterogeneous networks**

Wee Kiat New MJIT

**Session 2A2-MPE: Energy saving** Room 2 (Bilik Kuliah 2)

- 1 **Application of tabu search to optimal operation planning for residential PEFC-CGS considering ramping rate**

Satoshi Nomoto Meiji University

- 2 **A study on output fluctuation characteristics of floating offshore wind turbine generators and their impacts upon grid power quality**

Naoto Suenaga Meiji University

- 3 **Magnetostriction energy harvester using mechanical vibrations**

Tianyu Fan Tokai University

- 4 **Improvement of energy harvesting by vibroacoustic coupling**  
Hiroyuki Moriyama Tokai University
- 5 **Design of boost DC-DC converter for open-cathode pem fuel cell in developing off-grid power system**  
Aida Den MJIT

**Session 2A3-MPE: Navigation**

Room 3 (Bilik Kuliah 3)

- 1 **Modelling an unmanned airplane for the development of a flight simulator**  
Mitsuru Enomoto Tokai University
- 2 **Preliminary static stability estimation and analysis of Agrotech 2020 UAV**  
Azizul Abdullah Universiti Sains Malaysia
- 3 **Effects on aerodynamic force of changing dragonfly's flapping the phase relationship**  
Fuma Sakai Tokai University
- 4 **Controlled of 4 wheel steering (4WS) electric vehicle on icy road condition (uphill cornering)**  
Muhamad Zharif Muhamad Tokai University

**Session Tribo-4: Materials 2**

Room T (Bilik Kuliah 6)

Chair: Salmiah Kasolang, Universiti Teknologi MARA

- 1 **Frictional properties of DLC films in hydrogen conditions**  
Hikaru Okubo Tokyo University of Science
- 2 **Friction properties of laminated composite materials of  $\alpha$ -TCP-filled poly (vinyl alcohol) hydrogels**  
Kanae Yamamoto Kanazawa University
- 3 **The effect on friction coefficient and wear rate of palm kernel activated carbon-epoxy (PKAC-E) composite at different temperatures**  
Noor Ayuma Mat Tahir Universiti Teknikal Malaysia Melaka
- 4 **Potentials of bio-adhesive effects on banana leaves for elevated temperature applications**  
H. A. Hassan Universiti Kebangsaan Malaysia
- 5 **Investigation of wear and wear particles from shelf-aged crosslinked UHMWPE under different contact pressures**  
Lei Zhang Kyushu University

13 Nov., Thursday PM 2 (16:00-17:40)

**Session 2E1-ESE: Sensor Network**

Room 1 (Bilik Kuliah 1)

- 1 **Study on the method for extending lifetime of movable sensor network**  
Yuuki Shibuya Shibaura Institute of Technology

- |   |  |                      |       |
|---|--|----------------------|-------|
| 2 | <b>Energy efficient handover management in cluster based wireless sensor network</b> | Mahdi Zareei         | MJIIT |
| 3 | <b>A proposed framework for early heart attack diagnosis system</b>                  | Ahmad Shahrizal Sani | MJIIT |
| 4 | <b>New nodes joining in dynamic cluster based wireless sensor network</b>            | Asim Zeb             | MJIIT |

**Session 2E2-MPE: Machining &Joining**

Room 2 (Bilik Kuliah 2)

- |   |  |                        |                    |
|---|--|------------------------|--------------------|
| 1 | <b>Multi-objective ergonomic design method for engineering and physiological characteristics</b>         | Masatoshi Muramatsu    | Tokai University   |
| 2 | <b>Deformational control by multiplex geometry of C shaped PZTs</b>                                      | Takashi Torigata       | Tokai Univ.        |
| 3 | <b>Trial of metal-metal joining by unusual wetting on laser-treated surface fine crevasse structure</b>  | Masashi Nakamoto       | Osaka University   |
| 4 | <b>Development of tool motion sstimation method for cutting force prediction in high speed machining</b> | Ahmad Lutfi bin Othman | Saitama University |

**Session 2E3-MPE: Engine**

Room 3 (Bilik Kuliah 3)

- |   |  |                         |                  |
|---|--|-------------------------|------------------|
| 1 | <b>Investigation on exhaust emission characteristics of diesel engine using water in diesel emulsion as fuel</b> | Mohamad Azrin bin Ahmad | MJIIT            |
| 2 | <b>A study on flame temperature and soot production vharacteristics of FAME mixed diesel oil</b>                 | Mohammad Haris Mokhtar  | Tokai University |
| 3 | <b>Effect of ambient temperature and ambient oxygen concentration on diesel combustion</b>                       | Souhei Nagaharu         | Tokai University |
| 4 | <b>Improvement of the stability of the 20cc hydrogen rotary engine by control of the temperature rise</b>        | Shingo Mizota           | Tokai University |

**Session Tribo-5: Lubrication 2**

Room T (Bilik Kuliah 6)

Chair: TBD

- |   |  |                      |                           |
|---|--|----------------------|---------------------------|
| 1 | <b>The tribological properties of <i>Leucaena leucocephala</i> seed oil as bio-lubricant</b>                       | M. Kamel Wan Ibrahim | Universiti Malaysia Sabah |
| 2 | <b>Hydrodynamic lubrication mechanism of textured surfaces based on moment balance</b>                             | Kazuyuki Yagi        | Kyushu University         |
| 3 | <b>Effects of cam shaft speed and lubricant temperature on lubricant film thickness between cam/tappet contact</b> |                      |                           |

Arslan Ahmed

University of Malaya

4 **Alternating metal forming lubricant: mineral oil-based to palm oil-based lubricant**

Syahrullail Samion

Universiti Teknologi Malaysia

5 **Tribological characteristic of palm oil bio-lubricant modified of titanium oxide nanoadditives**

Mohd Zulfadhli bin Shaari

Universiti Teknologi MARA

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Special symposium Schedule

(Time: presentation 15 min + Q&A 5 min)

13 Nov., Thursday AM (11:00-12:40)

**Education of tribology**

Room T (Bilik Kuliah 6)

Chair: Takashi Yamamoto, MJIIT

**S-1 Introduction to MYTRIBOS**

Mariyam Jameelah Binti Ghazali

Universiti Kebangsaan Malaysia

**S-2 Educational activities in the Japanese Society of Tribologists**

Sinya Sasaki

Tokyo University of Science

**S-3 Tribology education in Malaysia**

Salmiah Binti Kasolang

Universiti Teknologi MARA

**S-4 Innovative experience learning event through problem-solving game "Science of Friction & Puzzles: Can You Save the Earth?"**

Alan Hase

Saitama Institute of Technology

**Photo session**