

RAHAYU TASNIM
AHMAD MUHSIN ITHNIN
ALI SELAMAT

MALAYSIA-JAPAN
INTERNATIONAL INSTITUTE
OF TECHNOLOGY

Commemorating

10 Years

of Achievements

マレーシア日本国際工科院

10周年記念

2011-2021

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY



UTM
UNIVERSITI TEKNOLOGI MALAYSIA



PERDANA
LEADERSHIP
FOUNDATION
YAYASAN
KEPIMPINAN
PERDANA



MALAYSIA-JAPAN
INTERNATIONAL INSTITUTE
OF TECHNOLOGY

Commemorating

10 Years

of Achievements

マレーシア日本国際工科院

10 周年記念

2011-2021

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY



PUSTAKA PERDANA



1013657





MALAYSIA-JAPAN
INTERNATIONAL INSTITUTE
OF TECHNOLOGY

Commemorating

10 Years

of Achievements

マレーシア日本国際工科院

10 周年記念

2011-2021

MALAYSIA-JAPAN INTERNATIONAL INSTITUTE OF TECHNOLOGY



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Penerbit
UTM Press

www.penerbit.utm.my

2023



PERDANA
LEADERSHIP
FOUNDATION
YAYASAN
KEPIMPINAN
PERDANA

First Edition 2023
© **RAHAYU TASNIM,**
AHMAD MUHSIN ITHNIN &
ALI SELAMAT
2023

Hak cipta terpelihara. Tiada dibenarkan mengeluarkan ulang mana-mana bahagian artikel, ilustrasi, dan isi kandungan buku ini dalam apa jua bentuk dan cara apa jua sama ada dengan cara elektronik, fotokopi, mekanikal atau cara lain sebelum mendapat izin bertulis daripada Timbalan Naib Canselor (Penyelidikan & Inovasi), Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor Darul Ta'zim, Malaysia. Perundingan tertakluk kepada perkiraan royalti atau honorarium.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording, or any information storage and retrieval system, without permission in writing from Deputy Vice-Chancellor (Research & Innovation), Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor Darul Ta'zim, Malaysia. Negotiation is subject to royalty or honorarium estimation.

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Rahayu Tasnim
Malaysia-Japan International Institute of Technology:
Commemorating 10 Years of Achievements 2011-2021/
Rahayu Tasnim, Ahmad Muhsin Ithnin, Ali Selamat.
ISBN 978-983-52-1926-9

1. Government Publication

Editor
ABDULLAH MOHD NAWI

Editor Penyelaras/*Acquisition Editor*
YOSMAN MOHD BAIN

Pereka Kulit/*Cover Designer*
HAFIZAH MOHAMAD AHYAH
PENERBIT UTM PRESS
UNIVERSITI TEKNOLOGI MALAYSIA, 81310 UTM Johor Bahru,
Johor Darul Ta'zim, MALAYSIA

Diterbitkan di Malaysia oleh/*Published in Malaysia by*
PENERBIT UTM PRESS
UNIVERSITI TEKNOLOGI MALAYSIA
81310 UTM Johor Bahru
Johor Darul Ta'zim, MALAYSIA

(PENERBIT UTM ahli
MAJLIS PENERBITAN ILMIAH MALAYSIA-MAPIM
dan anggota
PERSATUAN PENERBIT BUKU MALAYSIA-MABOPA
dengan no. keahlian 9101)

Diatur huruf oleh/*Typeset by*
NAZARUDDIN ABDUL HAMED
HAFIZAH MOHAMAD AHYAH

Dicetak di Malaysia oleh/*Printed in Malaysia by*
FIRDAUS PRINTING SDN. BHD
No. 28, Jalan PBS 14/4, Taman Perindustrian Bukit Serdang
43300 Seri Kembangan
Selangor Darul Ehsan, MALAYSIA

献辞 A SPECIAL TRIBUTE



YAB TUN DR. MAHATHIR MOHAMAD

Founder of MJIIT

Every successful project began with a vision. In our story, this one-of-a-kind vision was unveiled by Tun Dr. Mahathir himself, as part of Malaysia's unique Look East Policy blueprint. From a dream and vision, MJIIT now stands as an iconic higher education touchstone delivering Japanese oriented engineering education in the region.

献辞 A SPECIAL TRIBUTE



H.E. AMBASSADOR MASAHIKO HORIE

The 'Father' of MJIIT

A father's role is to unpretentiously nurture and provide the best of upbringing for his children. Our story involves an extraordinary role played by H.E. Ambassador Masahiko Horie beginning from day one of the setting up of MJIIT. Even till today, MJIIT is always in his mind. Ambassador Masahiko Horie never ceases to contribute to the higher education agenda of Malaysia and Japan, in any way he can.

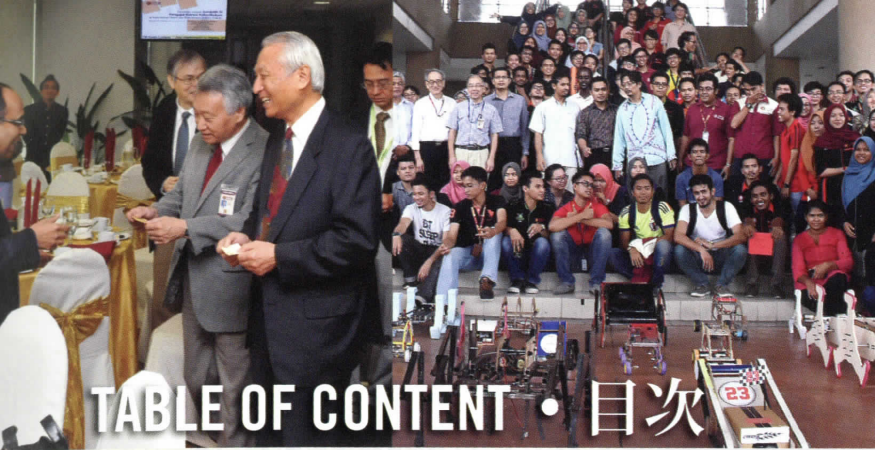


TABLE OF CONTENT • 目次

List of Contributors

Foreword • 前書き

Professor Datuk Ir. Ts. Dr. Ahmad Fauzi Ismail

Professor Ts. Dr. Ali Selamat

xi

x

xi

CHAPTER 1

THE BIRTH OF A SPECIAL G-G PROJECT AND THE START OF A SPECIAL JOURNEY

特別なG-Gプロジェクトと特別な旅の始まり

The Look East Policy Malaysia: At a Glance • マレーシア東方政策の概略

About Us • マレーシア日本国際工科院(MJIIT)について

Vision and Mission • ビジョンとミッション

How it All Began • 設立への道のり

The Official Launch of MJIIT • MJIIT創立式

1

2

6

9

10

24

CHAPTER 2**OUR FIRST FEW YEARS**

最初の数年間

Pioneering Leadership for the First 10 Years • 最初の10年間の先駆的なリーダーシップ	27
The Japanese Faces during Our First Few Years • 最初の数年間を共にした日本人職員たち	28
Academic Excellence • 優れた学問	31
Department of Mechanical Precision Engineering (MPE) • 機械精密工学科	33
Department of Electronic Systems Engineering (ESE) • 電子システム工学科	37
Department of Chemical and Environmental Engineering (CHEE) • 化学環境工学科	39
Post-Graduate Programmes • 大学院プログラム	40
Department of Management of Technology (MOT) • 技術経営学科	41
Statistic MJIT Students Enrollment • MJIT の在籍学生の統計	43
	44

CHAPTER 3**THE JAPANESE DNA**

日本の DNA

Unique Japanese Support • 独自の日本の支援	45
Japan International Cooperation Agency (JICA) • 独立行政法人国際協力機構	46
The Japanese University Consortium (JUC) • 日本大学コンソーシアム	48
Takasago Thermal Engineering Co. Ltd. (TTE) • 高砂熱学工業株式会社	53
The Japanese Chamber of Trade and Industry, Malaysia (JACTIM) • マレーシア日本人商工会議所	55
International Scholarships and Networks • 国際奨学金とネットワーク	57
Japanese Oriented Engineering Education • 日本型の工学教育	58
Senpai-Kohai • 先輩・後輩	59
Innovative Kohza (i-Kohza) • イノベティブ講座	59
Japanese Blended Courses • ブレンデッドコース	63
Learning Japanese Language and Culture • 日本語・日本文化学習	65
Japanese Language and Cultural Centre (JLCC) • 日本語・日本文化センター	67
	68

Japanese Mobility Programme 日本のモビリティプログラム	70
Global Mobility Programme (GMP) グローバルモビリティプログラム	74
Industrial Training in Japan 日本での企業実習	76
MJIIT's Very Own Japan Day MJIIT 独自のジャパンデー	78
CHAPTER 4	81
REACHING FOR THE STARS	
高い目標に向けての挑戦	
Research Achievement ・ 研究成果	82
MJIIT - Linkages and Networking ・ MJIIT - 連携とネットワーク	86
MJIIT Joint Laboratories with Japanese Company ・ 日本企業との共同研究所	87
MJIIT Joint / Contract Research with Japanese Company ・ 日本企業との共同研究・委託研究	88
Industries Partnership ・ 産業界との連携	89
State-of-the Art Laboratories ・ 最先端ラボラトリー	90
Our Teaching Labs ・ 教育用ラボラトリー	93
Our Advanced Labs ・ アドバンストラボラトリー	98
Our Service Labs ・ サービスラボラトリー	103
IKohza in Research Activities ・ 研究活動におけるイノベティブ講座	107
Sangaku-Renkei ・ 産学連携	113
Disaster Preparedness and Prevention Centre (DPPC) ・ 防災科学研究センター	115
MJIIT Staff Achievement ・ MJIITスタッフの功績	119
Graduate Employability ・ 卒業生の就職	121
Alumni Success Stories ・ 卒業生のサクセスストーリー	125
Leadership Lecture Series ・ リーダーシッププレクチャーシリーズ	126
MJIIT in the News ・ 報道にみるMJIIT	130

CHAPTER 5**OUR ASPIRATIONS FOR THE NEXT TEN YEARS**

次の10年に向けての目標

133

Our Aspirations • わたしたちの目標	134
Personal Notes to MJIIT • MJIITへのメッセージ	136
H.E. Ambassador Masahiko Horie	136
Professor Norio Sugiura	137
Dato' Seri Ir. Dr. Zaini Ujang	138
Professor Datuk Ir. Dr. Wahid Omar	138
Professor Dr. Yoshiyuki Yamashita	139
Dr. Naoki Umemiya	139
Professor Ir. Megat Johari Megat Mohd Noor	140
Professor Tachibana Masahiko	140
H.E. Mr. Masahiko Takizawa	141
Professor Datin Dr. Rubiyah Yusof	142
Professor Datuk. Ir. Ts. Dr. Ahmad Fauzi Ismail	142
Professor Ts. Dr. Ali Selamat	143

REFERENCES**144**

LIST OF CONTRIBUTORS

Head of Task Force

Ts. Dr. Ahmad Muhsin Ithnin

Book Authors

Dr. Rahayu Tasnim

Ts. Dr. Ahmad Muhsin Ithnin

Professor Ts. Dr. Ali Selamat

History and Way Forward Content

AP. Dr. Mohd Fauzi Othman

AP. Ir. Dr. Nurul Akmar Abu Husain

Dr. Lee Kee Quen

Dr. Khairunnisa Mohd Pa'ad

Dr. Hafizah Farhah Saipan@ Saipol

Dr. Farah Liana Mohd Redzuan

Ms. Ruzanna Abd Samad

Academic Excellence Content

AP. Dr. Nor Azwadi Che Sidik

Mdm. Siti Rahmah Othman

Organization and People Content

Mr. Zurik Azaham Aris

Ms. Nur Atiqah Zuhari

Mdm. Siti Nabihah Johari

Datin Huzaimah Yahya

Globalization and Japanese DNA Content

Professor Dr. Masafumi Goto

Dr. Takasei Okano

Dr. Nor Ruwaida Jamian

Dr. Rahayu Tasnim

Mdm. Hasparina Abdul Ghafar

Mr. Hamada Isamu

Achievement, Research, Laboratories, and Facilities Content

AP. Dr. Siti Hamidah Mohd. Setapar

Ts. Dr. Abd Halim Md Ali

Mdm. Mazliza Aini Abdul Majid

Mdm. Nur Shahira Bador Hisham

Media Interview, Design and Publication

Mr. Mohd Harith Jalil

Mr. Muhamad Syafik Rahmat

Mr. Muhammad Syafiq Yazid

Mdm. Nik Masriza Zakaria



FOREWORD 前書き

السَّلَامُ عَلَیْكُمْ وَرَحْمَةُ اللَّهِ وَبَرَکَاتُهُ
and sincere greetings to all.

It is with great pleasure that I share this special note with you in embracing the journey of a unique two-nations project, the Malaysia-Japan International Institute of Technology (MJIIT) of Universiti Teknologi Malaysia. This publication marks the 10th anniversary of MJIIT UTM and shares with readers the story of MJIIT's humble beginnings, challenging times, and celebration of its significant achievements. Universiti Teknologi Malaysia acknowledges MJIIT as a distinctive global brand under Malaysia's Look East Policy blueprint, fulfilling the nation's higher education agenda through talent development in research and education. As a bridge between two countries, MJIIT strives to maintain its excellent track record in advanced technology research, publication, and commercialisation efforts, while upholding harmony and balance.

More challenging times are expected in the near future, as the world grapples with sustainability issues, for instance, and this is where MJIIT should direct its resources by providing efficient and reliable solutions to address the nation's (and the world's) problems. With an added advantage of a vast network of Japanese counterparts, MJIIT will need to play a more outstanding role in assisting Malaysians in their daily routines. I am happy to witness this happening in MJIIT and to see such efforts put forth by the entire MJIIT staff and students throughout the years. I believe that MJIIT will be crafting more unique stories in the next ten years and will remain a significant project for both Malaysia and Japan in the long run.

Congratulations MJIIT!

PROFESSOR DATUK Ir. Ts. Dr. AHMAD FAUZI ISMAIL
Vice-Chancellor,
Universiti Teknologi Malaysia

FOREWORD 前書き



Konnichiwa, it is truly an honor to be expressing a few words in this awaited publication. I am glad that the story of MJIIT UTM, from its very first idea more than twenty years ago, to the involvement of various parties comprising two countries – from expert government officials to the unique list of past Prime Ministers of Malaysia and Japan – this book tells a special story of the making of Malaysia Japan International Institute of Technology (MJIIT) Universiti Teknologi Malaysia and its ten years of achievements.

As a product of the Look East Policy agenda myself, I am proud to be associated with MJIIT and championing its vision. This book marks the success of MJIIT's past leadership and teams and is hoped to charter its next leaders the path towards fulfilling the aspirations of both Malaysia and Japan, to achieve higher education excellence. For the past ten years, MJIIT has undergone a plethora of challenges, being a newly set up establishment in the region. Nonetheless, these challenges were treated as gateways for opportunities that would enhance professionalism, teamwork, harmony and efficiency. Working together with the Japanese has its ups and downs, but overall, we have learnt a lot and are still learning from the past steps that we made.

As a window binding both countries, MJIIT is seen as a platform where not only we learn from the Japanese, but on the other hand, the Japanese learn from us too. In this respect, the culture in MJIIT must be maintained so that learning is always two-ways and that learning never stops. Lifelong learning is very much encouraged in MJIIT and with the network of 30 Japanese University Consortium (JUC) members in Japan, MJIIT is at an added advantage to promote lifelong learning in more innovative ways.

I hope you will enjoy this coffee table reading, and learn from our humble story. Thank you.

PROFESSOR Ts. Dr. ALI SELAMAT
Dean,
Malaysia Japan International Institute of Technology (MJIIT)
Universiti Teknologi Malaysia Kuala Lumpur

PREFACE



As with the Malays, the Japanese are well known for their classic proverbs, or ことわざ (kotowaza). Among the famous Japanese kotozawa is 井の中の蛙大海を知らず (i no naka no kawazu taikai wo shirazu) which means; “A frog in a well knows nothing of the sea.”

This famous Japanese saying means people see the world through their limited perspectives. They are quick to judge and think highly of themselves.

This book is about sharing with you how Malaysia-Japan International Institute of Technology (MJIIT) has contributed in making Malaysians think about, and respect, the Japanese culture and more importantly to learn and be reminded of the limited perspective and insights one has if one is not exposed to the knowledge and wisdom of the rest of the world.

MJIIT, being the first of such models in the world to gain the trust and empowerment from the Japanese government to run both undergraduate and postgraduate engineering programmes, as well as niche researches in Malaysia, has contributed to the Look East Policy (LEP) Malaysia and has since then paved the way to many collaborations and partnerships (inclusive of the partnership of 30 Japanese Universities) and a multitude of Japanese multinational companies.

The year 2021 marks MJIIT's 10th year anniversary. While many have heard about MJIIT's achievements in the international arena, not many have understood to whom these achievements should be attributed, particularly in the context of the founding of MJIIT as a national agenda of two nations itself. This book encapsulates a 20-year flashback, honouring the important individuals who have worked tirelessly for years to make MJIIT happen and to benefit the thousands of young Malaysians aspiring to contribute back to the nation.

MALAYSIA-JAPAN
INTERNATIONAL INSTITUTE
OF TECHNOLOGY

Commemorating

10 Years

of Achievements

マレーシア日本国際工科院

10周年記念

2011-2021



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Penerbit
UTM Press



ISBN978-983-52-1926-9



9 789835 219269



PERDANA
LEADERSHIP
FOUNDATION
YAYASAN
KEPERMIMPINAN
PERDANA