

# RISE

*Catalysing Global Research Excellence*

## *Robotics Technology:* Driving Innovation, Transforming Future

**ReNeU's 1<sup>st</sup>  
Anniversary**  
Galvanising Research Excellence

**UiTM's Global Effort  
in Training Young Aspiring  
Neuroscientists**



eISSN 2805-5683



9 772805 568009

*Unleashing Potentials  
Shaping the Future*



UiTM *di hatiku*

# RISE

Phone: 603-5544 2004 | E-mail: [tncpi@uitm.edu.my](mailto:tncpi@uitm.edu.my) | Web: <https://tncpi.uitm.edu.my/>  
Facebook: [tncpi.uitm](https://www.facebook.com/tncpi.uitm) | Youtube: TNCPI UiTM  
Instagram: [tncpi\\_uitm](https://www.instagram.com/tncpi_uitm) | Twitter: [tncpi\\_uitm](https://twitter.com/tncpi_uitm)

## ADMINISTRATION

---

**Prof. Ts. Dr Mohd Nazip Suratman**

Deputy Vice-Chancellor (Research & Innovation)  
Office of Deputy Vice-Chancellor (Research & Innovation)  
[nazip@uitm.edu.my](mailto:nazip@uitm.edu.my)  
603-5544 2004

**Dr Mohd Muzamir Mahat**

Head of Research Communication & Visibility Unit (UKPV)  
Research Communication & Visibility Unit (UKPV)  
[mmuzamir@uitm.edu.my](mailto:mmuzamir@uitm.edu.my)  
603-5544 3097

**Miss Nur Syazwani Ahamad Azahari**

Senior Statistician  
Strategic Information Unit  
[wawa@uitm.edu.my](mailto:wawa@uitm.edu.my)  
603-5544 3295

## ABOUT THE MAGAZINE

---

RISE Magazine is published by Office of the Deputy Vice-Chancellor (Research & Innovation) with the aim of highlighting the research and innovation on of experts from multidisciplinary fields in UiTM. It serves as a platform for researcher to showcase their high quality and impactful findings, activities and innovative solution through publication. Contribution of these ideas come from academicians, researchers, graduates and universities professionals who will enhance the visibility of research and strive to elevate Universiti Teknologi MARA to global standards. This is an effort to promote research as a culture that should be embraced by everyone.

## ABOUT UiTM

---

Universiti Teknologi MARA (UiTM) is a public university based primarily in Shah Alam, Malaysia. It has grown into the largest institution of higher education in Malaysia as measured by physical infrastructure, faculty and staff, and student enrollment. UiTM is the largest public university in Malaysia with numerous campuses throughout all 13 states in Malaysia. There is a mixture of research, coursework and programmes offered to the students. Office of the Deputy Vice-Chancellor (Research & Innovation) or known as TNCPI (*Timbalan Naib Canselor (Penyelidikan & Inovasi)*) serves a *Pusat Tanggungjawab (PTJ)* that navigates the research and innovation of university in achieving UiTM agenda. TNCPI office strives to mobilise the faculties, and campuses to move together and promotes cooperation among researchers in bringin UiTM as a leading global university of science, technology, and innovation by 2025.



# EDITORIAL TEAM

---

Patron

**Prof. Ts. Dr Mohd Nazip Suratman**  
Deputy Vice-Chancellor (Research & Innovation)

Chief Editor

**Dr Mohd Muzamir Mahat**  
Head of Research Communication & Visibility Unit

Editors

**Nur Syazwani Ahamad Azahari** – (Statistics & Information)  
**Nazarul Wirda Baharuddin** – (Content)  
**Ts. Dr Judith Gisip** – Guest Editor

Designers

**Muhammad Ammar Khaizuan**  
**Mohd Aizuddin Borhan Shah**

# FOREWORD

## VICE-CHANCELLOR



To excel globally, research must be weighed in as a key factor to navigate the university's direction in making an impact. This is especially when focusing on translational research where society can benefit greatly from its findings.

Congratulations to the Office of the Deputy Vice-Chancellor (Research and Innovation) on the publication of this magazine, aptly called RISE. I am pleased to see that the COVID-19 pandemic has not dampened UiTM researchers' pursuit of their dreams. The contents of these pages allow active research and innovation activities be shared with our stakeholders, local and international collaborators.

As UiTM aspires to be a world-renowned university by 2025, I believe that our current research practises are on track. For example, the featured article in the magazine highlights the key success of robotic technology ventured by our researcher, Associate Professor Dr Hanafiah Yussof, who formed a start-up company to advance robotic technology in Malaysia. His contribution to the robotics industry, the Robot Rehabilitation System for Autism Therapy, is an example of innovation that can transform the future.

In our pursuit of changing the future, we at UiTM are cognisant of the current and future direction of research to facilitate research from different disciplines. We have researchers using drones for pineapple plantations, exploring hybrid rockets with Equatorial Space System (ESS), and researching sanitation, collection, and sewage/wastewater treatment systems with Indah Water Konsortium (IWK) Sdn Bhd, to name a few of the work we have been actively involved in.

Hence, we will continue to contribute and make progress associated with processes and knowledge pivotal for impactful research, especially in developing knowledge-based technology that benefit society.

Ultimately, I am confident that the publication of this magazine will further strengthen the visibility of UiTM research and innovation.

Thank you.

**PROFESSOR Ts. DR HAJAH ROZIAH MOHD JANOR**

Vice-Chancellor

Universiti Teknologi MARA

# FOREWORD

DEPUTY VICE-CHANCELLOR (RESEARCH & INNOVATION)



I would like to congratulate the editorial team on the release of RISE, a research magazine highlighting our research and innovation efforts and accomplishments. The magazine exemplifies our office's synergistic and collaborative efforts, as well as those of our researchers and article contributors, to advance the visibility agenda.

As the office in charge of research and innovation, we are constantly hoping that every research result and invention will benefit the community through translational research. Assoc. Prof. Dr Hanafiah Yussof's Robot Rehabilitation System for Autism Therapy, for example, has aided the autism community in improving communication. Even more proud that this endeavour resulted in the formation of a start-up company.

Despite the COVID-19 pandemic, UiTM researchers continued to conduct relevant research activities despite the uncertainty. The scale of the events varies from a small effort to install solar panels at a rural school and organise virtual conferences to the use of drones and precision agriculture technology on pineapple plantations. Notably, a Bioextreem solution capable of inhibiting 99.99 percent of bacteria and viruses was also developed.

With these accomplishments, we will continue to support research efforts, particularly those aimed at developing knowledge-based technology with a social benefit in mind.

Finally, I believe that this magazine can serve as a platform for the visibility agenda by incorporating a wide range of science and research perspective, fostering more potential collaboration between UiTM researchers and local and international institutions and industries.

Thank you.

**PROFESSOR Ts. DR MOHD NAZIP SURATMAN**

Deputy Vice-Chancellor (Research & Innovation)

Universiti Teknologi MARA



# MESSAGE

## FROM THE CHIEF EDITOR



Alhamdulillah.

It gives me great pleasure to see this issue published. We received a massive and impactful submission to feature our UiTM community's research stories. Despite the difficult circumstances, UiTM researchers are proactive in carrying out research activities and events within their respective capacities.

Allow me to express my heartfelt gratitude to all of the authors of the articles in this magazine. The publication of this issue would have been far more difficult to achieve without their contributions. Here, we feature Assoc. Prof. Dr Hanafiah Yussof of the College of Engineering's beautiful journey into robotic technology. I believe that robotics has always been on the national agenda for its true mission in helping people. We chose to focus on robotics to honour a UiTM researcher who has dedicated his academic

career to assisting society through technological advancements. To all researchers out there, we hope that his inspiring journey will rekindle our enthusiasm for research.

The inaugural issue of the RISE magazine also features research achievements and the multidisciplinary research areas in UiTM which support national priorities. Research Nexus UiTM (ReNeU) celebrates its first anniversary in 2021, marking a major milestone in its journey. Faculty of Pharmacy is making a global impact towards producing young aspiring neuroscientists. The exploration of Lembah Benua has highlighted the wonderful forest as a potential research station. The potential of fine art logistic industry is also of utmost importance towards making Malaysia as a top art market hub. These are some of the exciting research stories and I invite you to discover more in this issue.

We sincerely hope to bring you more research news from the UiTM family in the coming issues. Have fun reading!

### **DR MOHD MUZAMIR MAHAT**

Head of Research Communication & Visibility Unit (UKPV)

Office of Deputy Vice-Chancellor (Research & Innovation)

Universiti Teknologi MARA



## EDITORIAL TEAM

Chief Editor

**Dr Mohd Muzamir Mahat**

Editors

**Nur Syazwani Ahamad Azahari** (Statistics & Information)

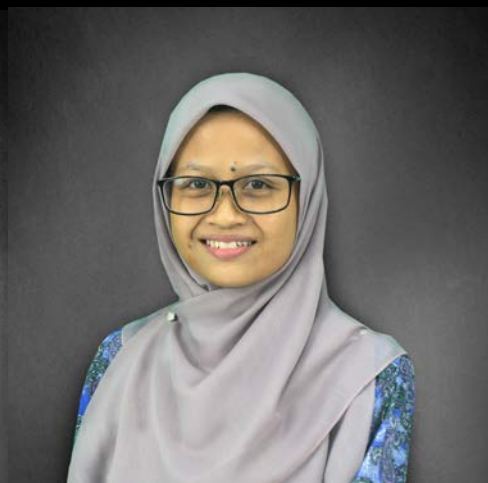
**Nazarul Wirda Baharuddin** (Content)

**Ts. Dr Judith Gisip** (Guest Editor)

Designers

**Muhammad Ammar Khaizuan**

**Mohd Aizuddin Borhan Shah**



# CONTENTS

NOVEMBER 2021

## FEATURE STORIES

Robotics Technology: Driving Innovation, Transforming Future	1
Hutan Simpan Lembah Benua Exploration 2021	7
Drone and Precision Agriculture Technology for Pineapple Plantation	9
A Project to Provide Solar-Powered Lighting Project to Rural Schools in Perak	10
Virtual Green Safe Cities Seminar (GRESA 2021)	12
Ads – UNNIZOL Hand Sanitizer	13
Good Bacteria That Lower Cholesterol: Myth or Truth?	15
MatE2U: Community Outreach by the Maternofetal and Embryo Research Group (MatE)	16
Nextgreen Global- UiTM Research Collaboration	17
IWK-UiTM Research Collaboration	18
Gait Recognition System for Mass Surveillance	19
Achievements	21
NANO-ElecTronic (NET) Research Group	22
Addressing Public Health Concerns Through University-industry Collaboration	24
Adaptive Strategies for Microbial Performance Through Optimization Approach	25
The Effectiveness of the ICQS Bukit Kayu Hitam and CIQ Sadao's 24-hour Operation	26
Green Event Research @ Borneo Jazz Festival	27
Ads – Dr Azri's Perfume	29

“

Collaboration between NEXTGREEN Global and UiTM will strengthen UiTM cooperation with public listed company in zero waste technology and renewable energy for sustainable development



”



17

Nextgreen Global- UiTM Research Collaboration

38

UiTM'S Global Effort in Training Young Aspiring Neuroscientists





# 42

High Energy Material Research Laboratory (HEMREL)



ReNeU's 1 <sup>st</sup> Anniversary – Galvanising Research Excellence	31
Potential of Fine Art Logistic Industry	33
Erasmus+ KA2: The Complexities of the Creation of a Validation Protocol for the Making4.0 Curriculum Between the Malaysian and European Education Systems	35
Clove, Habbatus Sauda, Neem and COVID-19	36
UiTM's Global Effort in Training Young Aspiring Neuroscientists	38
Ads - Paina (Pineapple Chili Sauce)	40
High Energy Material Research Laboratory (HEMREL)	42
Disruptions in Supply Chains and a Lesson from the COVID-19 Pandemic: A Retail Perspective	43
New Road-Side Speed Display Signs in Reducing Speeding Problem in Malaysia	45
The Data is Talking to You. Are You Listening?	46
Ads - UnaCoffee	48
Ads – RM Polypack Sdn Bhd	49



# 07

Hutan Simpan Lembah Benum Exploration 2021



UNIZZOL hand sanitizer:  
the enchanting bouquet

RM **4.90**

Scan for ordering  
and feedback





# Introducing UiTM's HICoE & CoE Directors

**HICoE**  
Higher Institution  
Centre of  
Excellence



**Prof. Dr. Jamaliah Said**  
*Accounting Research Institute  
(ARI)*

**CoE**  
Centre of  
Excellence

## Service Thrust



**Prof. Ir Ts Dr Mohd Nasir Taib**  
*Malaysia Institute of Transport  
(MITRANS)*



**Prof. Dr Sazzli Shahlan Kasim**  
*Cardio Vascular & Lung Research Institute  
(CaVaLRI)*



**Prof. Dr Jaafar Pyeman**  
*Institute of Business Excellence  
(IBE)*

**CoE**  
Centre of  
Excellence

## Research & Innovation Thrust



**Prof. Dr Norhayati Abd Hamid**  
*Institute of Infrastructure, Engineering &  
Sustainable Management (IIESM)*



**Prof. Datin Dr Hapizah Mohd Nawawi**  
*Institute of Pathology, Laboratory & Forensic  
Medicine (I-PPerForM)*



**Prof. Dr Nor Hadiani Ismail**  
*Atta-Ur-Rahman Institute for Natural  
Product Discovery (AuRIIns)*



**Prof. Dato' Dr Mohd Zaki Salleh**  
*Integrative Pharmacogenomics Institute  
(iPROMISE)*



**Prof. Dr Zurina Shaameri**  
*Institute of Science  
(IoS)*



**Prof. Ir Ts Datin Dr Wahidah Mansor**  
*Microwave Research Institute  
(MRI)*



**Assoc. Prof. Ir Dr Nofri Yenita Dahlan**  
*Solar Research Institute  
(SRI)*



**Prof. Ir Ts. Dr Yupiter Harangan  
Prasada Munurung**  
*Smart Manufacturing Research Institute  
(SMRI)*



**Prof. Sr Dr Zulkiflee Abd Latif**  
*Institute for Biodiversity & Sustainable  
Development (IBSD)*



**Prof. Dr Jasni Mohamad Zain**  
*Institute for Big Data Analytics & Artificial  
Intelligence (IBDAAI)*

# Congratulations

**PROF. DATIN DR  
HAPIZAH MD NAWAWI**

Faculty of Medicine  
Institute of Pathology, Laboratory & Forensic Medicine (I-PPerForM)  
and the Malaysian FH research team

on the successful publication in the flagship journal

**THE LANCET**

(Impact Factor: 79.321)

**Global perspective of familial hypercholesterolaemia:  
a cross-sectional study from the  
EAS Familial Hypercholesterolaemia  
Studies Collaboration (FHSC)**



## Achievements

# Congratulations

**Professor Dr Wong Tin Wui**

Faculty of Pharmacy &  
Smart Manufacturing Research Institute (SMRI)

Recipient of

**2021 TOP RESEARCH  
SCIENTISTS MALAYSIA (TRSM)**

(Precision Medicine: Precision Nanomedicine  
Design for Cancer and Diabetes)

from  
Deputy Vice-Chancellor (Research & Innovation)



# Congratulations

**Professor Dr Wong Tin Wui**

Integrative Pharmacogenomics Institute  
(IPROMISE)

Listed in the

**World's Top 2% Scientists  
in the field of  
Pharmacology & Pharmacy**



\*Source: PLoS Biol 18(10): e3000918. <https://doi.org/10.1371/journal.pbio.3000918>

**PLOS BIOLOGY**







UNIVERSITI  
TEKNOLOGI  
MARA

# PRODUCT OF Uitm

Copyright NOT No: CRLY00023422

Trade Secret Applies



FORMULATED IN LABORATORY

PRODUCTION IN HALAL-GMP ACCREDITED FACTORY

TO CONSUMER



**LONG LASTING PERFUME**

by

**INNOVATED FIXATIVE IN FRAGRANCE FOR A LASTING SCENT**



SAMPLE SET, RM 15.00

SPRAY, RM 39.90

ROLL ON, RM 18.00

LIST OF SCENTS	CODE	ODOUR DESCRIPTION	DESIGNATION	KKM NOT. NO
The Man	Romeo	Fresh-Citrusy-Musky	For Him	NOT200703742K
Founder's Fav.	001	Oriental	Unisex	NOT200703740K
Dr Azri X His Student	Daus Husny	Fresh-Musky-Fruity	Unisex	NOT200703739K
My Subject	Organic Chemistry	Sweet-Fruity-Floral	Unisex	NOT200703741K
My Love	Ayla	Sweet-Vanilla-Chocolate	Unisex	NOT210900275K
Crush	Najla	Flowery-Musky	For Her	NOT200703738K

Founder,

ChM. Dr Mohd Azri bin Ab Rani

Post Doctoral, Kyoto University, Japan.

PhD, Imperial College London, United Kindom.

Master Science (Chemistry), UKM, Malaysia.



Dr Azri's Perfume



drazrisperfume



+60138836684





# UiTM Research Strength Supporting National Priorities



<b>Industrial Technology</b>	01	Advanced Materials	<b>Cyber Technology</b>	01	Space & Satellite	<b>Health &amp; Wellness</b>	01	Preventive healthcare
	02	Smart Manufacturing		02	Big Data & Data Analytics		02	Sick Care
	03	Plant and Process		03	Cyber Security		03	Rehabilitative Care
	04	Construction & Infrastructure		04	Robotics & AI		04	Genomics
		05		Smart Sensors	05		Non-Communicable Disease	
<b>Logistics and Transportation</b>	01	Transportation	<b>Energy &amp; Environment</b>	01	Water Security		<b>Social Creativity &amp; Innovation</b>	01
	02	Logistics & Halal-hub		02	Renewable Energy	02		Islamic Finance Fintech
	03	EV-AV,		03	Environment & Climate Change	03		Socio Innovation
	04	UAV, Aviation		04	Solar Technology	04		B40-Talent
		05		Biodiversity	05	Entrepreneurship & Artrepreneur		
		06		Food Security	06	Socio-Economic		

Area      Sub-Area

# Erasmus+ KA2: The Complexities of the Creation of a Validation Protocol for the Making4.0 Curriculum Between the Malaysian and European Education Systems

by Prof. Dr Shahrman Zainal Abidin



**R**ecently, the trend in education is rapidly changing due to technological innovation and work demand. The framework of the co-creation approach for Malaysian interactive multimedia should be developed. The environment for teaching and learning must be adjusted, especially as the Industry 4.0 revolution approaches. Industry 4.0 refers to a further stage of development in the organisation and management of the whole system of the value chain involved in the manufacturing industry. The "fourth industrial revolution" is another word for this cycle. The Industry4.0 concept is widely used across Europe, particularly in the manufacturing sector in Germany. More specifically, in the United States and the English-speaking world, some writers also use 'Internet of Things,' 'Internet of All,' and 'Industrial Internet.'

All these words and definitions share the common understanding that traditional production and manufacturing methods are in the throes of a digital transformation. We are in the midst of a significant transformation regarding how we produce products, which involves digitising manufacturing in a cyber-physical systems environment—characterised by a fusion of technologies blurring the lines between the physical, digital, and biological. The term "Industry 4.0" refers to a fourth industrial revolution with four primary characteristics: 1) the vertical networking of smart production systems, such as smart factories and smart products, as well as the networking of smart logistics, production, marketing, and services, with a solid needs-oriented, individualised, and customer-specific production operation, 2) horizontal integration employing a new generation of global value-creation networks, including integration of business partners and

customers, and new business and cooperation models across countries and continents. 3) through-engineering throughout the entire value chain, including not only the manufacturing process but also the end product – that is, the entire product life cycle; and 4) acceleration through exponential technologies that, while not new in terms of development history, are only now capable of mass-market application as their cost and size have decreased (e.g., sensor technology) and computing power has massively increased.



Erasmus+





Among furniture manufacturers, and possibly the proposed university-level Industry 4.0 programme may be beneficial to train workers for the industry's future. Therefore, to benefit both consumers and producers, education needs to take part in the trend. The potential courseware should be developed with artistic skills practise to discover the technological, pedagogical, and content knowledge components in the design of the courseware. However, in design, the mental images interact with action schema to play a part in the designers' intuitive form-giving. The aesthetics in this perspective can be interpreted as a study of the effect of form-giving on human sensations towards the subject of furniture and design, especially the course offered at the university level.

In this particular section, three significant issues need to be addressed by the local institution that wanted to offer the programme before we relate the development of the new programme associated with Making 4.0. The three major issues of the new curriculum development in Malaysia involved locus standi, or legal standing of the programme, such as National Policy on Industry 4.0, National Timber Industry Policy 2009-2020, and the Code of Practice for Programme Accreditation. This project explores how this should be achieved and validated by developing a new master's degree course related to wood and furniture for Industry 4.0, known as Making 4.0



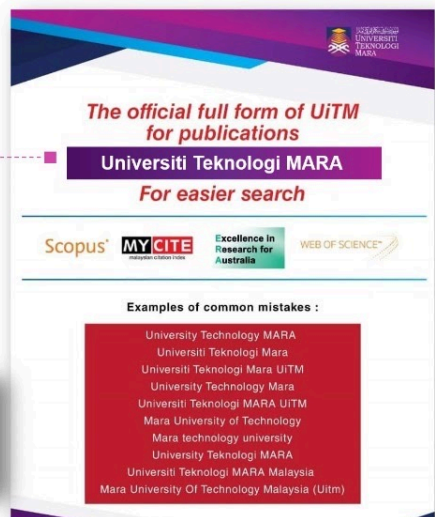
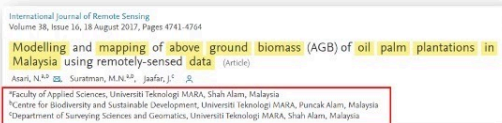




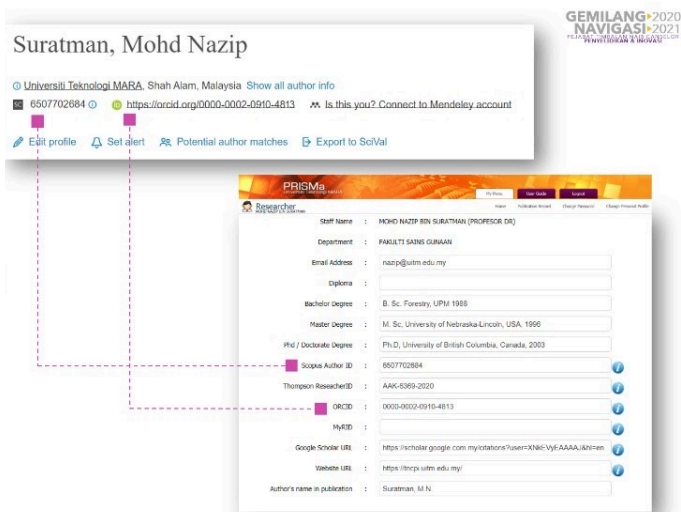
*Tropical Taste  
In Every Dish*

# Be Visible! Do the following...

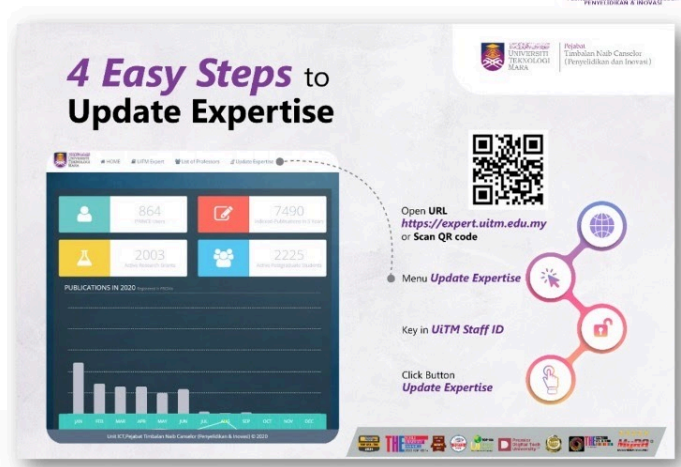
## 1 Use the Correct Affiliation



## 2 Update the Research ID



## 3 Update Expertise Information







**UNA**  
COFFEE

**READY-TO-MIX**



**SACHET**

**> 60,000 bottles**

**SOLD!**

**> 160 Usahawan UNA**

UnaCoffee is a product of UiTM and specially formulated by Ts Dr Aida Azmi, senior lecturer, Food Science & Technology, Faculty of Applied Sciences, UiTM Shah Alam since July 2019.

**Certified with:**



**In collaboration with:**



For **FeedYourFuture** Programme  
(Student Entrepreneurship)



For Women Empowerment  
Programme (WEMAP)



Batu Enam (K. Terengganu),  
Bukit Changgang,  
Bdr Saujana Putra



Desa Latania, Shah Alam  
Tmn Kota Pendamar, Klang



- 1) CRADLE COMMERCIALIZATION AWARD. IIDEX2019
- 2) GOLD AWARD. IIDEX2019 (National)
- 3) SILVER AWARD. PECIPTA2019 (International)
- 4) GOLD AWARD. IIDEX2020 (National)
- 5) FINALIST MALAYSIA COMMERCIALIZATION YEAR2020 (MOSTI)
- 6) LEADERS IN INNOVATION FELLOWSHIP, UK. 2020 (International)
- 7) GOLD AWARD. IIDEX2021 (National)
- 8) GOLD AWARD. RISE2021 (International)
- 9) SPECIAL AWARD – BEST OF THE BEST. RISE2021 (International)



UnaCoffee Official



@UnaCoffee Official



favfood.com.my



013-609 8042



**BITCOM**  
BUSINESS INNOVATION & TECHNOLOGY COMMERCIALIZATION CENTRE

# BIODEGRADABLE

RM Polypack Sdn Bhd

Manufacturing and trading all kinds of polymer and green products.

CEO: PM TS DR. RAHMAH MOHAMED



BiOBAG /  
BIOSTRAWs /  
DEGRADABLE  
BOTLES



[bitcom.uitm.edu.my](http://bitcom.uitm.edu.my)



Bitcom Uitm



[bitcom\\_uitm](https://www.instagram.com/bitcom_uitm)



[bitcomuitm](https://twitter.com/bitcomuitm)

# Acknowledgements

**Ts. Dr Judith Gisip**

Faculty of Applied Sciences, UiTM Shah Alam  
*Robotics Technology: Driving Innovation, Transforming Future*

**Dr Mohd Muzamir Mahat**

Research Communication & Visibility Unit (UKPV)  
*Hutan Simpan Lembah Benum Exploration*

**Dr Muhammad Asraf Hairuddin**

School of Electrical Engineering, College of Engineering UiTM,  
Campus Pasir Gudang, Johor  
*Drone and Precision Agriculture Technology for Pineapple Plantation*

**Dr Nur Azfahani Ahmad**

Faculty of Architecture, Planning & Surveying UiTM,  
Campus Sri Iskandar, Perak  
*A Project to Provide Solar-powered Lighting to Rural Schools in Perak*

**Dr Siti Rasidah Md Sakip**

Faculty of Applied Sciences, UiTM Shah Alam  
*Virtual Greensafe Cities Seminar (GRESA 2021)*

**Prof. Dr Kalavathy Ramasamy, Assoc. Prof. Dr Lim Siong Meng,  
Dr Faezah Sabirin & Nur Syakila Rohawi**  
Faculty of Pharmacy, UiTM, Campus Puncak Alam  
*Good Bacteria That Lower Cholesterol: Myth or Truth?*

**Prof. Dr Noor Ashikin Mohamed Noor Khan**

Faculty of Medicine UiTM, Campus Sungai Buloh  
*MatE2U: Community Outreach by the Maternofoetal and Embryo  
Research Group (MatE)*

**Assoc. Prof. Dr Siti Noor Hajjar Md Latip**

Research Nexus UiTM, ReNeU (Energy & Environment)  
*NEXTGREEN GLOBAL-UiTM Research Collaboration*

**Assoc. Prof. Dr Aidah Jumahat**

Research Nexus UiTM, ReNeU (Industrial Technology)  
*IWK-UiTM Research Collaboration*

**Dr Fakhrol Hazman Yusoff**

Faculty of Computer & Mathematical Sciences, UiTM Shah Alam  
*Gait Recognition System for Mass Surveillance*

**Assoc. Prof. Ir Ts. Dr Mohamad Hafiz Mamat**

School of Electrical Engineering, College of Engineering UiTM, Shah Alam  
*NANO-ElecTRonic (NET) Research Group*



# Acknowledgements

**Dr Nurdiana Samsulrizal**

Research Nexus UiTM, ReNeU (Health & Wellness)  
Faculty of Applied Sciences, UiTM Shah Alam

*Addressing Public Health Concerns Through University-Industry  
Collaboration*

**Assoc. Prof. Dr Khalilah Abdul Khalil**

Faculty of Applied Sciences, UiTM Shah Alam

*Adaptive Strategies for Microbial Performance Through  
Optimization Approach*

**Prof. Dr Roshima Said**

**Assoc. Prof. Dr Mohd Rizaimy Shaharudin**

Accounting Research Institute (ARI), UiTM

Faculty of Accountancy, UiTM, Campus Sungai Petani, Kedah

Faculty of Business and Management, UiTM, Campus Sungai Petani, Kedah  
*The Effectiveness of the ICQS Bukit Kayu Hitam and CIQ Sadao's 24-hour  
Operation*

**Assoc. Prof. Dr Norol Hamizah Zamzuri**

Research Nexus UiTM, ReNeU (Social Creativity & Innovation)

Faculty of Business and Management, UiTM Selangor

*Green Event Research @Borneo Jazz Festival*

**Prof. Dr Nooritawati Md Tahir**

Research Nexus UiTM, ReNeU

*ReNeU's 1<sup>st</sup> Anniversary– Galvanising Research Excellence*

**Assoc. Prof. Dr Rafeah Legino**

Research Nexus UiTM, ReNeU (Logistic & Transportation)

Faculty of Art & Design, UiTM Shah Alam

*Potential of Fine Art Logistic Industry*

**Prof. Dr Shahrیمان Zainal Abidin**

Research Nexus UiTM, ReNeU (Logistic & Transportation)

Faculty of Art & Design, UiTM Shah Alam

*Erasmus+ KA2: The Complexities of the Creation of a Validation  
Protocol for the Making4.0 Curriculum Between the Malaysian and  
European Education Systems*

**Dr Che Puteh Osman & Dr Normala Abd Latip**

Atta-ur Rahman Institute for Natural Product Discovery (AuRIns)

Faculty of Applied Sciences, UiTM Shah Alam

Faculty of Pharmacy, UiTM Campus Puncak Alam

*Clove, Habbatus Sauda, Neem and COVID 19*

# Acknowledgements

**Dato' Prof. Dr Abu Bakar Abdul Majeed**

Director Research Management Centre (RMC)  
Faculty of Pharmacy, UiTM Campus Puncak Alam

*UiTM's Global Effort in Training Young Aspiring Neuroscientists*

**Dr Shahril Anuar Bahari**

Business Innovation & Technology Commercialization Centre (BITCOM)  
Faculty of Applied Sciences, UiTM Shah Alam

*High Energy Material Research Laboratory (HEMREL)*

**Prof. Dr Jaafar Pyeman**

**Prof. Dr Veera Pandiyan Kaliani Sundram**

Institute of Business Excellence (IBE)  
Faculty of Business Management, UiTM Selangor

*Disruptions in Supply Chains and a Lesson from the COVID-19 Pandemic: A Retail Perspective*

**Dr Khairul Khaizi Mohd Shariff**

Microwave Research Institute (MRI)

*New Road-Side Speed Display Signs in Reducing Speeding Problem in Malaysia*

**Miss Nur Syazwani Ahamad Azahari**

Strategic Information Unit, Office of the Vice-Chancellor (Research and Innovation), UiTM

*The Data is Talking to You. Are You Listening?*





# RISE

*Catalysing Global Research Excellence*

## **Copyright and Disclaimer**

RISE Magazine is owned and published by the Office of the Deputy Vice-Chancellor (Research & Innovation), Universiti Teknologi MARA. This magazine is for informational purposes only. The information is true and accurate at the time of publication.

No person, organisation or party can copy or re-produce the content in the magazine or any part of this publication without a written consent from the editors' panel and the author of the content, as applicable. The publisher, authors and contributors reserve their rights with regards to copyright of their work. The copyright includes (and not limited to) the content and/or images used in any of the articles of this publication.

The content in the RISE magazine is made available on the terms and condition that the publisher, editors, contributors and related parties: shall have no responsibility for any action or omission by any other contributor, editor or related party; and are not responsible in any way for the actions or results taken by any person, organisation or any party on basis of reading information, or contributions in this publication.

©2021. Office of Deputy Vice-Chancellor (Research & Innovation), Universiti Teknologi MARA (UiTM), Shah Alam 40450, Selangor, MALAYSIA.