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# RISE

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## ABOUT THE MAGAZINE

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RISE Magazine is published by Office of the Deputy Vice-Chancellor (Research and Innovation) with aims to highlight a research and innovation on multidisciplinary expert of 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 stride to elevate Universiti Teknologi MARA to global standards. This is an effort to promote research as a culture that is accepted by all expertise.

## ABOUT UiTM

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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 and Innovation) or known as TNCPI (*Timbalan Naib Canselor (Penyelidikan dan Inovasi)*) serves as a *Pusat Tanggungjawab* (PTJ) navigate the research and innovation of university in achieving UiTM agenda. TNCPI office strives to mobilize faculty, and campuses to move together and cooperation of researchers to become a leading global university of science, technology, and innovation by 2025.

# EDITORIAL TEAM

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# FOREWORD

*Bismillahirrahmanirrahim.*

*Alhamdulillah*, all praises to Allah SWT and a heartfelt congratulations to the Office of Deputy Vice-Chancellor (Research and Innovation) on the publication of RISE Magazine (October Issue, No. 2) in promoting visibility for UiTM's research and its researchers.

I am thrilled to have witnessed a growing number of article publications and research innovations endeavoured by our fellow researchers. Thank you for all the effort, time, and energy that you have selflessly spent for the university.

The sustainability theme chosen for this edition is wise, apt, and timely. While striving to become a Globally Renowned University (GRU) and attaining Sustainable Development Goals (SDGs), we must ensure that our research activities are in line with the 17 goals set by the United Nations (UN) as well as the university's strategic plan.

UiTM is proud with the progressive development of renewable energy and currently 7 campuses are equipped with solar photovoltaic rooftops. This supports Malaysia's noble cause of becoming a carbon-neutral nation by 2050. Green Retrofit Framework for Sustainable Residential Refurbishment Project was also initiated with

plausible effectiveness to increase the number of green buildings and eventually will help reduce the emission of Green House Gases (GHG).

Our researchers have also begun to use Green Polysaccharides material for wound healing which is greener and environmentally benign. Other noteworthy projects are the use of Resistograph to assess the accuracy of Wood Density (WD) prediction, the application of 3D printing technology in simulating real experiences of halal animal slaughtering, as well as lipid reduction via systematic screening to make our planet more sustainable.

I am delighted with the research ambience that has now become an acceptable culture in UiTM. GRU2025 is definitely achievable with continuous effort and dedication made by members of UiTM as we work towards helping the nation and the world to achieving SDGs by 2030.

Thank you.

**PROFESSOR DATUK TS. DR HAJAH ROZIAH MOHD JANOR**  
Vice-Chancellor  
Universiti Teknologi MARA



## FOREWORD

Congratulations to the editorial team on the publication of RISE magazine Issue 2, 2022, serving as a platform to showcase our pride in UiTM research and innovations.

We chose *Sustainability* as the theme for this edition. Despite its definition that may be contextual and vary across the field, we can't deny its essence and impacts on our daily life, and that every one of us should gracefully embrace.

Under this umbrella, we have witnessed an array of projects carried out by UiTM researches in various genres of research, driven to help the community in the short and long run. Flipping each page of this magazine and seeing how far we have become as a university sends unflagging goosebumps- signaling how proud I am to be part of this huge family.

Research has no longer been alien to us. We could see that the propagated activities in the quest of finding answers to problems have mushroomed over the years. It has become somewhat the bread and butter of academics other than teaching and learning. Its role has been significantly proven to elevate teaching community to a better level.

TNCPI Office seeks continuous support from every researcher, academician, and administrator to keep your momentum in doing research and innovations. Perhaps, through a stronger research ecosystem, this will help us to become a Globally Renowned University by 2025. We will keep providing supports, rewards and facilities needed in boosting the morale of our researchers.

Lastly, I hope RISE can be the front page of UiTM exhibiting the business that we are doing. Every time you go for a conference or any meeting with potential collaborators, please share RISE with them. We never know how much opportunities that will come knocking our doors just from that gesture.

Thank You.

**PROFESSOR TS. DR NORAZAH ABD RAHMAN**

Deputy Vice-Chancellor (Research & Innovation)  
Universiti Teknologi MARA

# MESSAGE FROM THE CHIEF EDITOR

Alhamdulillah

It gives me great pleasure to see RISE issue # II published. We have received a huge number of impactful submissions to be featured as our #KeluargaUiTM's research stories. Despite the difficult circumstances of post-covid19, 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. Not to forget all editorial members who worked hard to ensure its publication was on schedule. The publication of this issue would have been far more difficult to achieve without their contributions. In this edition, we feature seven researchers from both science and technology and social sciences disciplines with their views and experiences in sustainability-related research and their efforts for mobilising sustainable development. Also, RISE II presents the achievements of the multidisciplinary domains by distinguished UiTM research groups.



I believe that sustainability should be the nucleus of any research agenda. Prominent researchers around the world are focusing on the call to address global livelihood and wellbeing. Hence, we at UiTM should embed and embrace the principles of Sustainable Development Goals in our research efforts.

To all researchers out there, we hope that the amazing stories in RISE II will rekindle our enthusiasm for research. We sincerely hope to bring you more research news from the #keluargaUiTM in the coming issues. I invite you to discover RISE II and be inspired. Enjoy reading!

**ASSOC. PROF. DR MOHD MUZAMIR MAHAT**

Head of Research Communication & Visibility Unit (UKPV)  
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# Humanitarian Crises:

## The Role of Islamic Finance



**Assoc. Prof. Dr Amirul Afif Muhamat**  
Faculty of Business and Management,  
(UiTM Selangor, Puncak Alam Campus)

**M**uslims have been practising Islamic finance since the time of Prophet Muhammad (peace be upon him). There are disparities, in terms of products, modes of transaction, and the manner the processes are governed. Nonetheless, the *raison d'être* of Islamic finance is to ensure that business transactions are conducted fairly for all parties involved; and the subject matter of the transactions are *halal* with benefits brought to mankind. This ethos is significant because Muslims consider their actions to be part of their submissions to Allah, which will be judged in the afterlife.

Time passes, and so do Islamic finance, but the foundation remains the same. The current state of Islamic finance as an industry demonstrates that this niche industry is progressing well, with the latest Islamic Financial Services Industry Stability Report 2020 indicating that the industry has recorded 11.4 percent global growth despite various challenges which includes foreign exchange volatility, geopolitical issues, and trade wars.

In terms of products and services, the industry is now at par with the conventional financial sector, which offers a wide selection of products and services for customers to choose from. For the non-Muslims, Islamic finance is viewed as equal and comparable to Socially Responsible Investment (SRI), where the emphasis is to ensure that investors and issuers, whether individuals or corporations, participate in financial transactions that contribute to the betterment of people and the environment. According to the Bank Negara's Sustainable Responsible Investment in Malaysia and the Region research, SRI instruments have reached almost USD 1.9 trillion in 2020 in terms of its global assets.



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# Humanitarian Crises:

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Geopolitical crises have generated humanitarian concerns in many parts of the world, particularly in Asia, Africa, and currently in the Eastern Europe, as the result of the conflict between Russia and Ukraine. A huge number of the population are experiencing displacement and have become refugees as a result of the turmoil. According to the United Nations (UN), almost 82.4 million people have been forcefully displaced globally in 2020. Therefore, the international community needs to step in to secure the refugees' well-being. Accordingly, one of the critical issues that must be addressed when supporting the refugees is the financial implication.

Islamic finance has the strength to play a crucial role by providing financial instruments that are geared to help humanitarian causes. Non-governmental organisations (NGOs), relief agencies, or government agencies, for example, can issue humanitarian *sukuk* to raise funds for needy refugees. To name a few, *sukuk* can be structured using several Islamic financial models such as partnership (*mudharabah* and *musharakah*), agency (*wakalah*), endowment (*waqf*), and hybrid contracts. Each model requires a unique approach. For instance, humanitarian *sukuk* based on endowment or *waqf* will not require the issuer to pay for return to its investors, as opposed to humanitarian *sukuk* based on partnership, which requires a pre-agreed profit to be delivered to the investors.

In March 2022, the UN High Commissioner for Refugees (UNHCR) and the Islamic Solidarity Fund for Development (ISFD), the latter is backed by the Islamic Development Bank (IsDB); have agreed to establish the Global Islamic Fund for Refugees, an innovative Islamic philanthropy fund that is designed to be a sustainable and Shariah-compliant resource mobilisation to support the forcibly displaced persons worldwide.

This demonstrate the highly essential role that the Islamic finance may play as global financial instruments that are capable of serving the world irrespective of the diversity faiths. This is not only consistent with the *maqasid Shariah*, but also with the UN's Sustainable Development Goals (SDGs).



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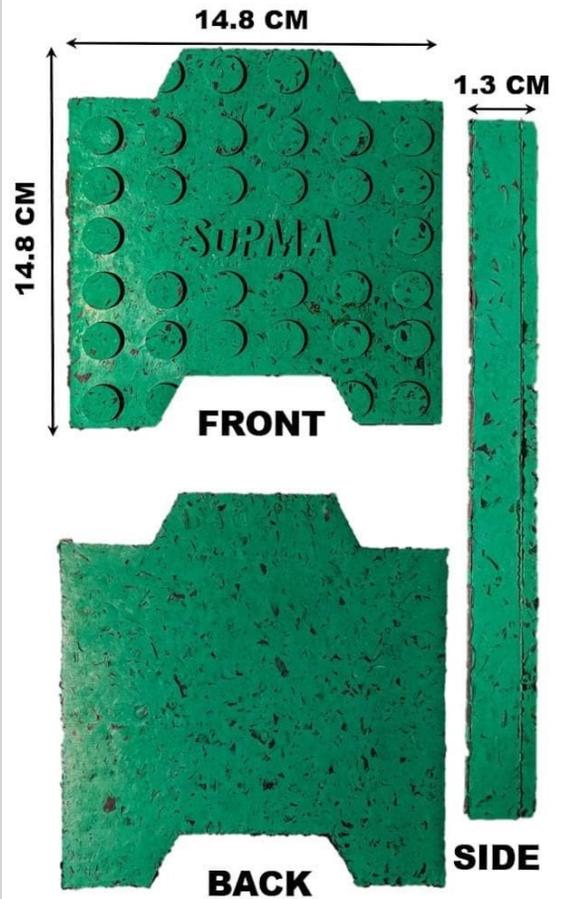
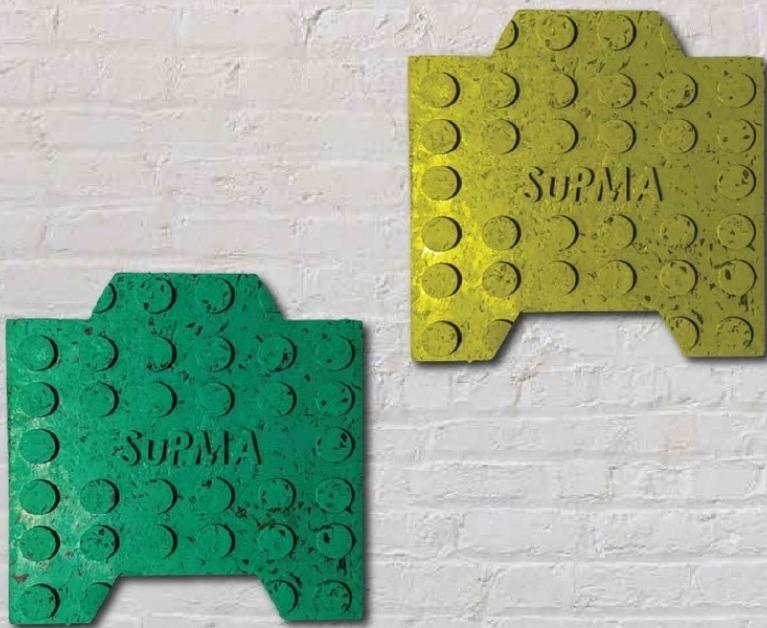
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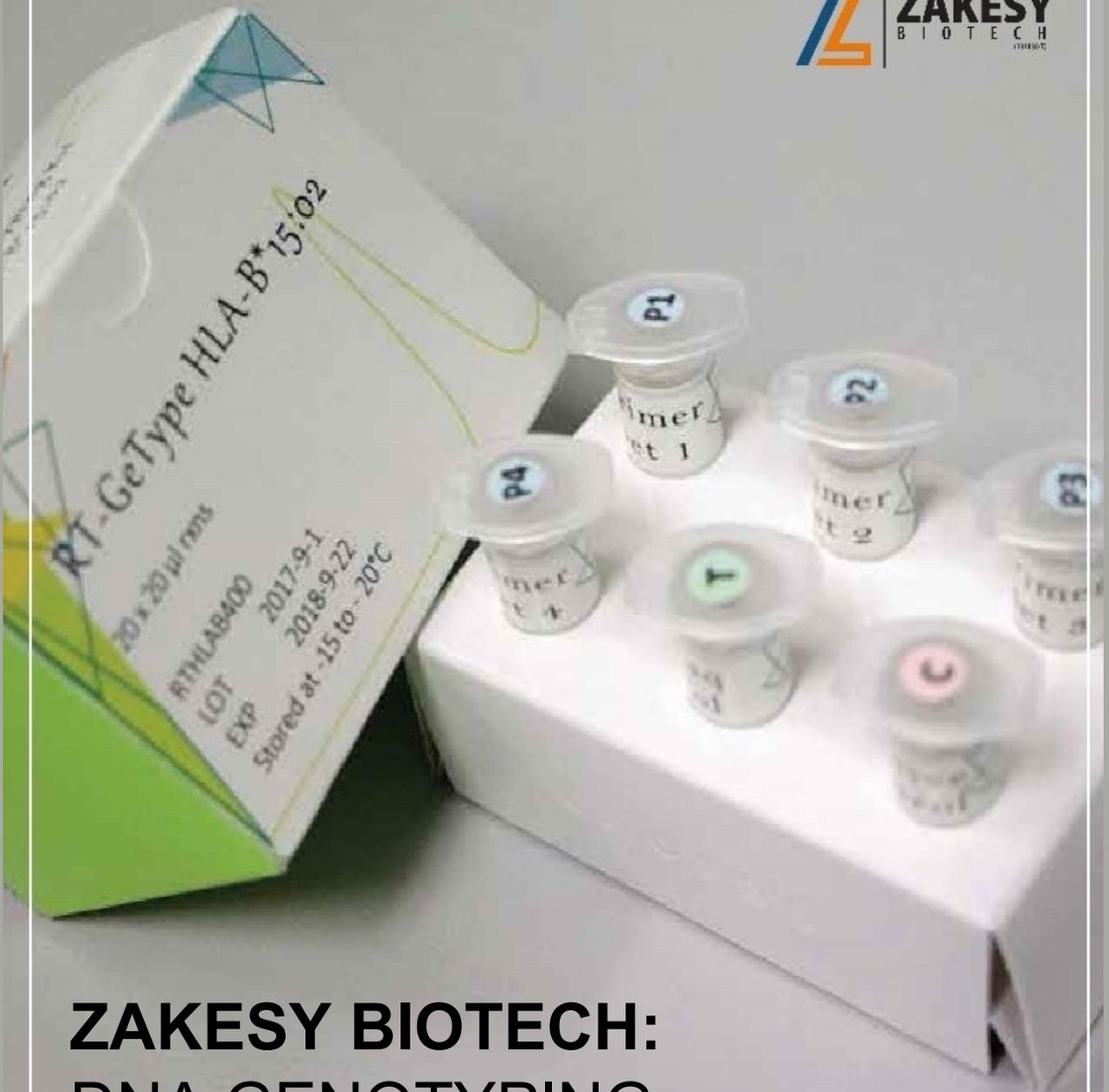
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