



# FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS) 2024 OPENING BRIEFING

**Prof. Dr. Zulkurnain Abdul Malek**  
**RMC Director**

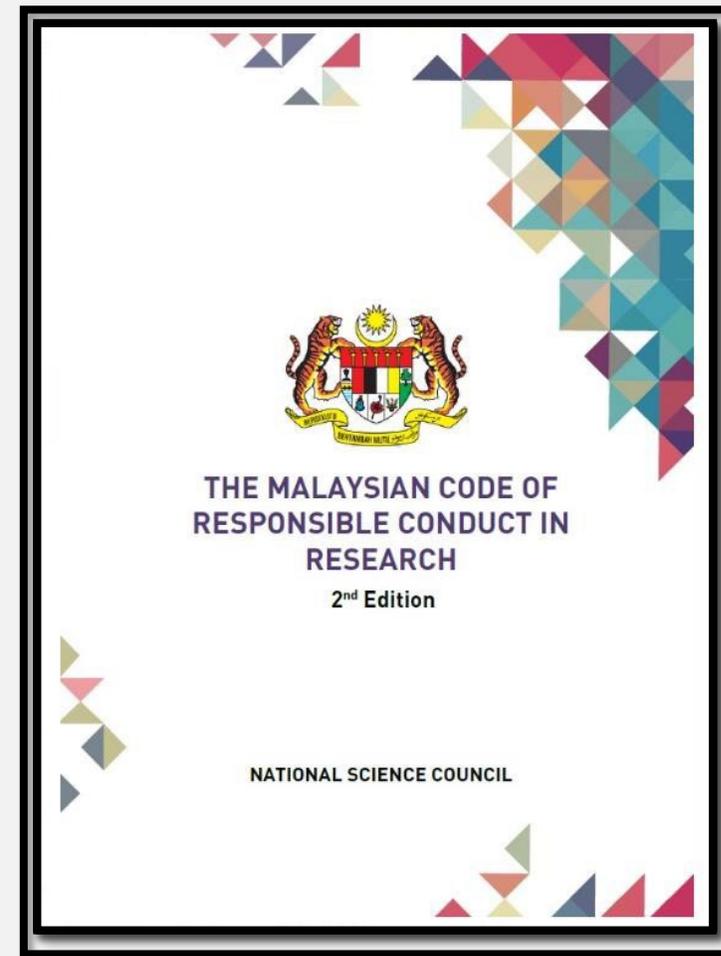
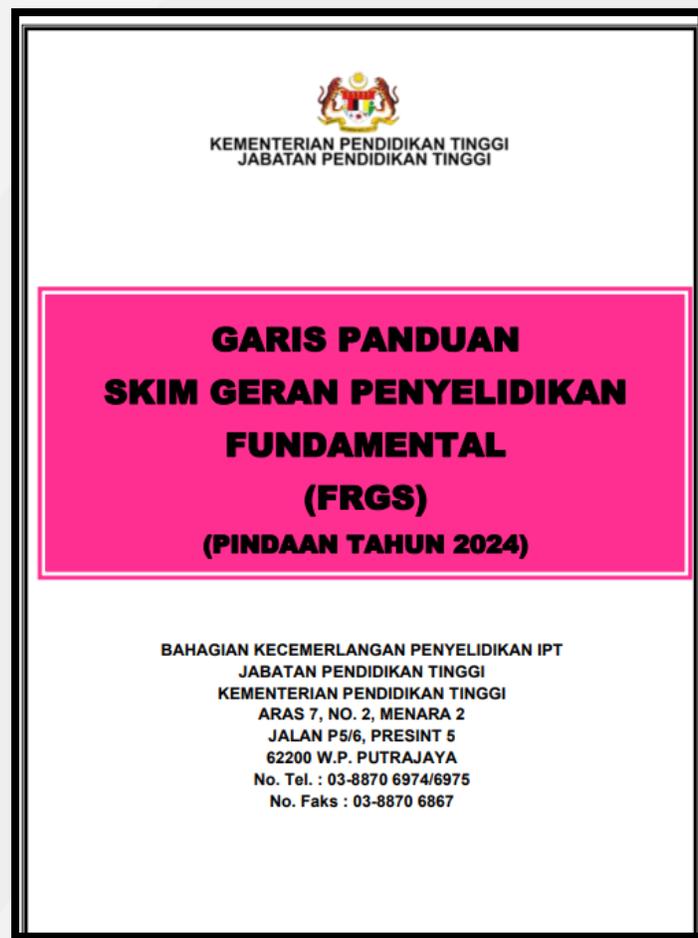
**6 November 2023**  
**2.30 – 3.30 pm**

# SCHEDULE

## GRANT APPLICATION WORKFLOW: FRGS 2024

No	Description	Date	PIC
1	Announcement of grant opening	30-Oct-23	RMC
2	Briefing session (WEBEX ONLINE)	6-Nov-23 (2.30 petang)	RMC Director
3	Proposal preparation and submission in MYGRANTS	30-Oct to 22-Nov-23 <b>before 5.00pm</b>	Project Leader
4	Appointment evaluation panel, Assigning proposal and briefing from Panel Expert	23-Nov to 30-Nov-23	RA/ Panel Expert
5	1st round evaluation process (Amendment/ Recommended/ Not Recommended)	1 Dec to 18-Dec-23	Panel/ RA/ PL
6	Amendment and Resubmission of Proposal	19-Dec to 30-Dec-23	
7	2nd round of evaluation process (Recommended/ Not Recommended)	1-Jan to 13-Jan-24	Panel/ RA
8	Final recommendation from RA to RMC	14-Jan to 20-Jan-24	RA
9	Endorsement and analysis by RMC for JKPD meeting	21-Jan to 28-Jan-24	RMC
10	Submission to KPT in MYGRANTS system	29-Jan to 30 Jan-24	RMC

# REFERENCES



# RESEARCH & SUB RESEARCH DOMAIN

## PURE AND APPLIED SCIENCES

Biochemistry, Biotechnology, Biology, Chemistry, Materials Science, Mathematics and Statistics, Physics, Geology and Geoscience.

## SOCIAL SCIENCES

Anthropology, Psychology, Sociology, Political Science, Business (Including Accounting, Finance, Marketing, Entrepreneurship), Management (Organisational Behaviour), Geography, Economics, Communication, Ethnography.

## INFORMATION AND COMMUNICATION TECHNOLOGY

Software, Artificial Intelligence, Computer Network, Information System, Theory of Computation, Hardware Design, Data Science and Data Analytics, Cyber Security, Cloud Computing & IoT, Virtual Reality, Augmented Reality and Multimedia.

## TECHNOLOGY AND ENGINEERING

### TECHNOLOGY

Energy and Green Technology, Construction and Construction Materials, Infrastructure and Transportation, Security Physical System.

### ENGINEERING

Mechanical and Manufacturing, Chemical and Process Engineering, Electrical and Electronic, Aerospace, Material and Polymer, Civil and Structural

## ENVIRONMENT AND HERITAGE

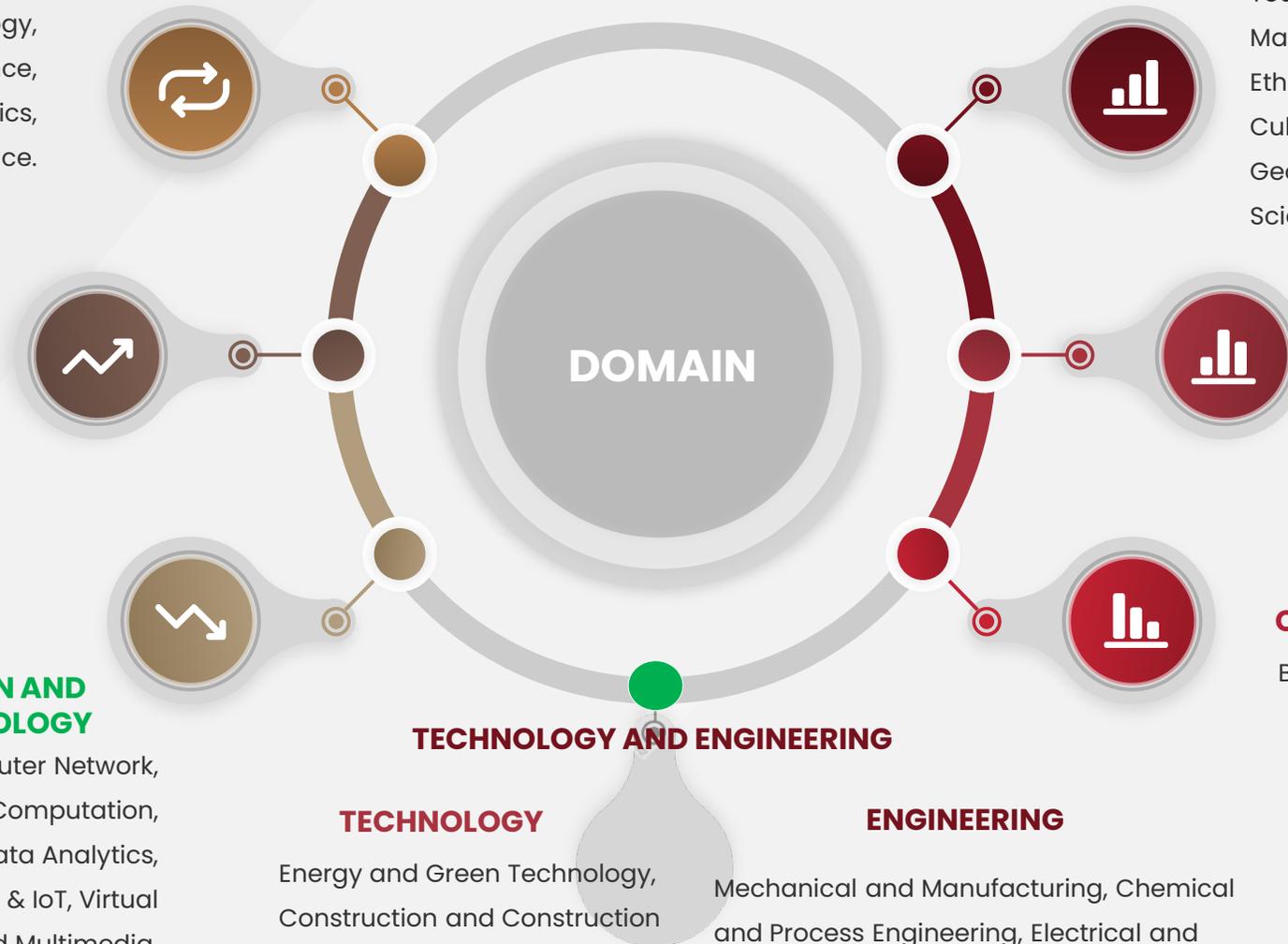
Tourism, Environment, Forestry, Agriculture, Marine, Archaeology, Geoscience, Ethnography, Heritage, Culture, Biodiversity, Culinary, Alternative Medicine, Geomatics/ Geoinformatics/ Remote Sensing, Space Science.

## ARTS AND APPLIED ARTS

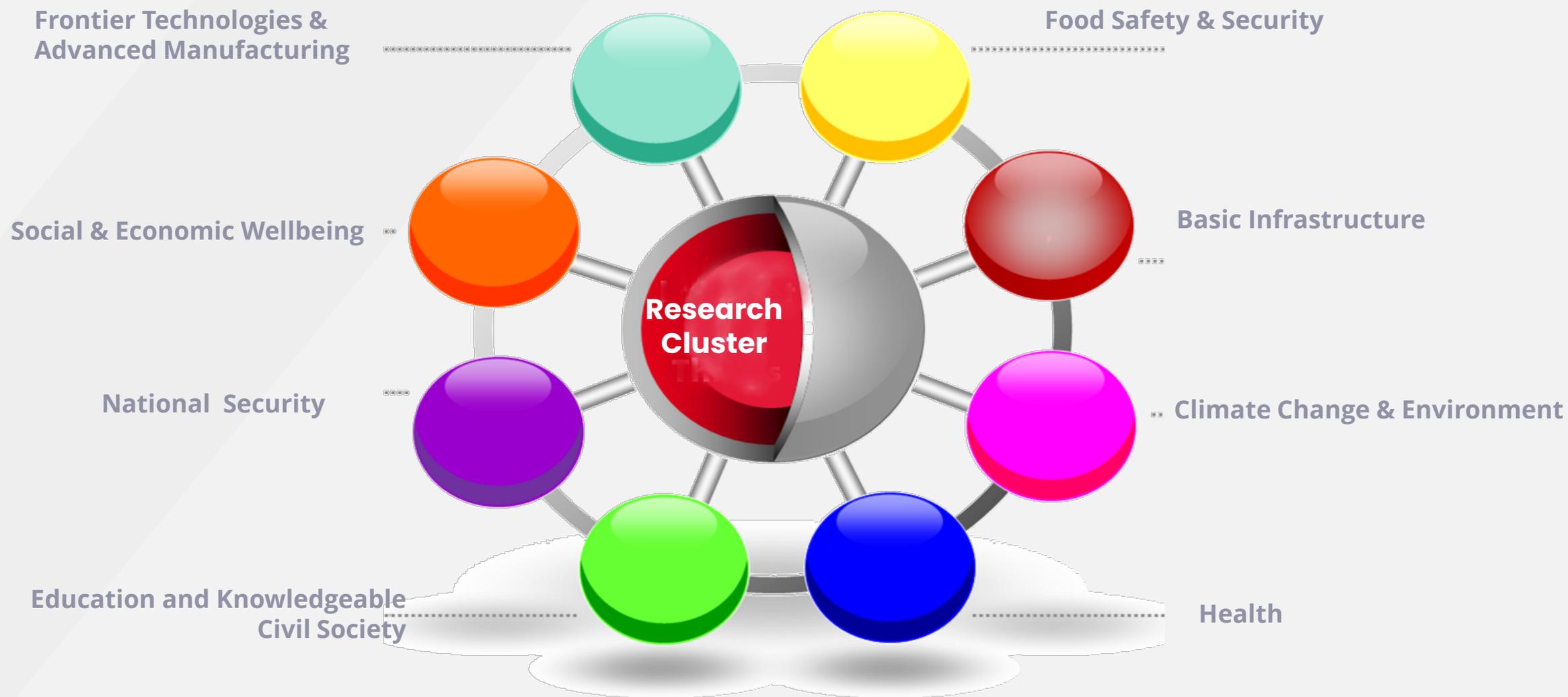
Language and Linguistic, Literature, Religion, Philosophy, Civilization, History, Art, Culture, Education, Orang Asli Education, Policies and Law, Built Environment.

## CLINICAL AND HEALTH SCIENCES

Basic Medical Sciences, Clinical Studies, Medicine, Surgery, Oncology, Community Medicine, Preventive Medicine, Health Science, Dental, Medical Microbiology, Nursing, Parasitology, Pathology, Pharmacy, Pharmacology.



# RESEARCH CLUSTER



# BIG BOLDS

**01** Governance and Institutional Framework

**02** Legislation Related to Corruption

**03** Fiscal Sustainability and Financial System

**04** HGHV Industry Based on Energy Transition

**05** Targeted Subsidies

**06** Enculturation of MADANI Society

**07** Social Protection Reform

**08** Housing for the Rakyat

**09** Strengthening Healthcare Services

**10** Strengthening National Security And Defense

**11** Digital- and Technology-based HGHV Industries

**12** High value E&E HGHV Industry

**13** Agriculture and Agro-based Industry

**14** Rare Earths HGHV Industry

**15** Empowering MSMEs and Social Enterprises

**16** Streamlining the Public Transport Network

**17** Future-ready Talent

# MySTIE

## Malaysian Science, Technology, Innovation and Economy

# 10

**SOCIO-ECONOMIC DRIVERS**



### ENERGY

This sector is constituted by a complex and inter-related network of entities involved in the production, management and distribution of energy to fuel the economy and improve the quality of life of the *rakyat*. This includes both renewable and non-renewable energy sources.



### BUSINESS & FINANCIAL SERVICES

This sector encompasses services that support business functions broader economy, such as Information Communication Technologies (ICT), logistics, financial services and other professional services.



### CULTURE, ARTS & TOURISM

Malaysia is a confluence of diverse range of people and cultures. This sector covers a wide array of activities including expression and application of creative content and artworks. Tourism sector leverages on the diverse cultural heritage and natural resources of Malaysia.



### MEDICAL & HEALTHCARE

Medical and healthcare encompass all goods, services and payment mechanisms for prevention, restoration, cure, maintenance of one's physical, mental or emotional well-being.



### SMART TECHNOLOGY AND SYSTEMS (NEXT-GENERATION ENGINEERING & MANUFACTURING)

Smart technology and systems that create resilient utilisation of resources through self-monitoring, troubleshooting, optimising and integrating manufacturing processes and supply chains. This allows for adaptive data-driven decisions and intelligent cyber-physical systems.



### SMART CITIES & TRANSPORTATION

Smart cities and transportation involve integration of physical and natural infrastructure with advanced technologies to deliver sustainable, resilient, and prosperous living conditions.



### WATER & FOOD

Water and food are core to the sustainable development of communities across the globe. This demands a well-integrated ecosystem to ensure water and food security to address the challenges of rising population, urbanisation, climate change and economic disparities.



### AGRICULTURE & FORESTRY

Agriculture and forestry is an important socio-economic driver for Malaysia. Agriculture encompasses crops, livestock, and fisheries. Agriculture and forestry are key sectors for food security, employment and revenue generation for the country.



### EDUCATION

Education spans from pre-school to post-doctoral and continuing education. The purpose of education is to nurture a creative society and a skilled workforce. The education sector is also an important revenue earner for the country.



### ENVIRONMENT & BIODIVERSITY

Preserving and conserving the natural environment and biodiversity of Malaysia are important in harnessing its value for sustainable development. This requires a sustainable approach to unlocking the value of terrestrial and marine ecosystems.

# SUSTAINABLE DEVELOPMENT GOALS



# MINISTRY RELATED TO THE PROJECT

**JPM - Prime Minister's Department**

**KKDW - Ministry of Rural and Regional Development**

**KSM - Ministry of Human Resources**

**KASA - Ministry of Natural Resources, Environment and Climate Change**

**MITI - Ministry of Investment, Trade and Industry**

**KDN - Ministry of Home Affairs**

**KPT - Ministry of Higher Education**

**KPWKM - Ministry of Women, Family and Community Development**

**KPDN - Ministry of Domestic Trade and Cost of Living**

**MOTAC - Ministry of Tourism, Arts and Culture**

**MOF - Ministry of Finance**

**KPKT - Ministry of Local Government Development**

**KKM - Ministry of Health**

**KLN - Ministry of Foreign Affairs Malaysia**

**KKR - Ministry of Works**

**MINDEF - Ministry of Defence**

**MOT - Ministry of Transport**

**KBS - Ministry of Youth and Sports**

**MPIC - Ministry of Plantation and Commodities**

**KPN - Ministry of National Unity**

**KPM - Ministry of Education**

**MAFS - Ministry of Agriculture and Food Security**

**KUSKOP - Ministry of Entrepreneur and Cooperatives Development**

**MOSTI - Ministry of Science, Technology and Innovation of Malaysia**

**KKMM - Ministry of Communications and Digital**

# DURATION, ALLOCATION AND OUTPUT

## Duration

2 **OR** 3 YEARS

## Max. Amount

RM 250,000

## Talent

- 3 years :
  - At least 1 GRA PhD OR 2 GRA Master OR combination (Research mode)
  - If 2 GRA - One (1) MUST Local Student
- 2 years :
  - At least 1 GRA Master (Research Mode)
- Main supervisor for GRA - Principal Investigator / Co-researcher
- Non-Malaysian Project leader MUST appoint Local Student.

\*\* Expected Output - **Do not over-promise**

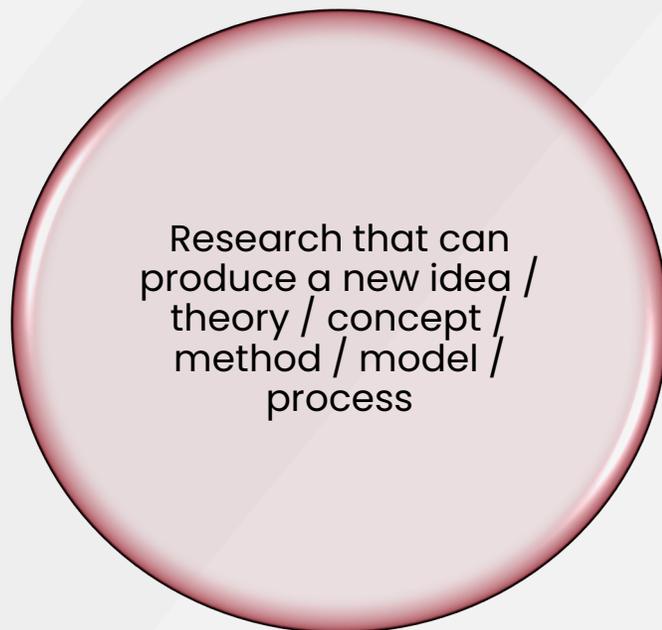
## Publication

- 2 Indexed journals (WoS/Scopus/ERA/MyCITE)
- 1 MUST indexed in WoS
- ENCOURAGE - industry co-author
- Acknowledgement to FRGS, MOHE must be clearly in each publication

## Intellectual Property

Not compulsory

# EVALUATION CRITERIA



**AND**



**OR**



# BUDGET

## V11000

## V21000

## V24000 V27000

## V28000

## V29000

## V35000

- **Ph.D**  
max **RM 2,800**  
/month
- **Master**  
max **RM 2,300**  
/month

- Max **40%**
- International conference – Max **20%** - Project leader & Research member (Max. 2 participants)
- **GRA may attend international conferences within ASEAN countries ONLY.**

- Justification
- Quotation **EXCEPT** online (Lazada/Shopee/etc.)

- University asset
- Justification
- Quotation

- Attend course/short-term program – 1 time – min. 2 weeks – max. 3 months – max. **5 %**
- **APC (indexed journal) –Max. RM 10,000**
- Justification
- Quotation
- **Can appoint RA max. 3 months before GRA was appointed.**

- Justification
- Quotation **EXCEPT** online (Lazada/Shopee/etc.)
- Max. **40%**



# UNALLOWED PURCHASE



**BIL ELEKTRIK DAN INVOIS CUKAI**

**TENAGA NASIONAL**

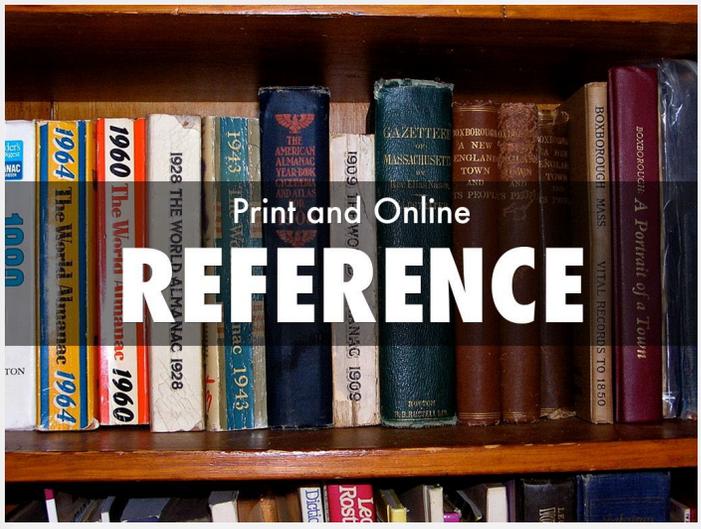
**TERIMA KASIH**  
 Kerana Membayar Dalam Tempoh 30 Hari  
 TNB Carline  
 1-300-88-5454

Jumlah Perlu Dibayar RM 162.20      Tarikh Bili : 23.07.2018      Bili : OPC

Tunggakan	RM	112.25	Bayar Sebahagian	Terima Kasih	
Caj Semasa	RM	275.03			
Penggunaan	RM	0.02			
Jumlah Bili	RM	162.20	22.08.2018		
Bil Terdahulu	RM	237.30	Bayaran Akhir	RM	112.25
(22.06.2018)			(22.07.2018)		
Jenis Bilan		Bilangan	Sebahagian		
Tempoh Bili		21.06.2018 - 21.07.2018 (31 Hari)			
Tarif		A-Kediaman			
Blok Tarif (kWh/kV)		Kegunaan (kWh/kV)	Kadar (RM)	Amanah (RM)	
200		200.00	0.2180	43.60	
100		100.00	0.3340	33.40	
300		300.00	0.5160	154.80	
300		75.00	0.5460	41.50	
Jumlah			676.00	273.30	

**Keterangan** | Tidak Kena GST | Kena GST | Jumlah

*hasrulhasnan.com*



# ADDITIONAL INFORMATION



**JPT** JABATAN  
PENDIDIKAN  
TINGGI

## SIMPLIFIED PATENT SEARCH REPORT

[using Lens.org (<http://lens.org/>)]

Version 1/2022

Keywords Used	<i>(type in the keywords used in your search)</i>	The Number of Patents Found using Keywords Used	<i>(copy and paste the number)</i>
		Link to the Search Result on Lens.org	<i>(paste the link of your search result copied from the Share box)</i>

Answer these questions using 'YES' or 'NO'

NO.	QUESTIONS	(YES / NO)	REMARKS (IF ANY)
<b>COMPULSORY SECTION</b>			
1	Has the number of patents published above on		

### G. Patent Search (describe how your research output shall produce an innovative idea or technology that has the potential to be a solution for stakeholders (community, industry, government etc.) and offers a unique proposition)

To identify if the researcher is able to coherently present a compelling argument for his/her proposal in light of the IP landscape and factors identified in the (Yes/No) Section. The answer would reflect an understanding of the applicant's research advantage and limitations and the prospect of moving the completed research beyond this stage of funding. Must use the same keywords in section A(iii). For patent search please visit [www.lens.org](http://www.lens.org)  
\*For patent search results analysis please use this form [Simplified Patent Search Report](#)

500 words left

### H. Research Collaborator

- Industrial Linkages (Please identify any industry or end-user group involved in the project, and describe its role/contribution to the project)
- Agency/Organisation (Please identify all agencies/organisations collaborating in the project, and describe their role/contribution to the project)

### I. Risk Assessment (Please provide justification that may cause delays in, or prevent implementation of, the project as proposed above; estimate also the degree of risk)

Consider an appropriate approach to working in the current conditions

500 words left

Risk	Low	Medium	High	Justification
1. Technical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Timing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# FRGS LETTER OF INTENT (LoI)

## Kandungan Lol

- 1) Nama Universiti Teknologi Malaysia
- 2) Nama entiti Kerjasama
- 3) Nyatakan Lol ini ialah untuk tujuan projek penyelidikan FRGS 1/2013
- 4) Tajuk projek
- 5) Nama Ketua Projek
- 6) PTJ Ketua Projek
- 7) Lol ini adalah bagi tujuan kerja penyelidikan yang dinyatakan dan dipersetujui oleh kedua-dua belah pihak
- 8) Tujuan/fokus kerjasama : Contoh: Proses optimization dijalankan bersama entiti Kerjasama
- 9) Tempoh kerjasama :hanya nyatakan sepanjang projek aktif
- 10) Pembatalan Lol : Sila nyatakan syarat pembatalan Lol ini
- 11) Tanda tangan pihak UTM : Prof. Dr. Zulkurnain Abdul Malek, Pengarah Pusat Pengurusan Penyelidikan
- 12) Tanda tangan pihak entiti kerjasama: Setaraf dengan Pengarah Pusat Pengurusan Penyelidikan (RMC) UTM
- 13) Tarikh tanda tangan bagi kedua-dua belah pihak
- 14) Boleh menggunakan Bahasa Melayu atau Bahasa Inggeris

## Peringatan:

- 1) Tidak dibenarkan menggunakan template yang lepas (2022). Template Lol perlu dijana sendiri oleh Penyelidik.
- 2) Tidak perlu masukkan jumlah peruntukan.
- 3) Jangan masukkan isu sensitif yang boleh menjejaskan reputasi UTM.
- 4) Boleh emelkan Lol kepada [srmrmc@utm.my](mailto:srmrmc@utm.my) bagi tujuan mendapatkan tandatangan Pengarah RMC.

# RMC TEAM

## PROJECT MANAGEMENT AND MONITORING DIVISION (PMMD). RMC



Pn. Sapiah Sulaiman RMC JB 019-754 0079 [sapiah@utm.my](mailto:sapiah@utm.my)

### Project Management Section

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 Pn. Siti Nursarah Md Zamani	RMC KL	03-2615 4312	<a href="mailto:sitinursarah@utm.my">sitinursarah@utm.my</a>

### Project Monitoring Section

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 Siti Asiah binti Tukirin	RMC JB	013-735 3868	<a href="mailto:asiahtukirin@utm.my">asiahtukirin@utm.my</a>
 Pn. Farahnatasha binti Zainuddin	RMC JB	011-5501 0395	<a href="mailto:farahnatasha@utm.my">farahnatasha@utm.my</a>

# RESEARCH ALLIANCE TEAM

## Research Officer@Research Alliances



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# THANK YOU



In the Name of God for Mankind



[utm.my](http://utm.my)



[univteknologimalaysia](https://www.facebook.com/univteknologimalaysia)



[utmofficial](https://www.instagram.com/utmofficial)