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| **C:\Users\azizi.bkr\OneDrive - Universiti Malaya\Documents\MISC\Logo UM-06.png****UNIVERSITI MALAYA RESEARCH EXCELLENCE GRANT (UMREG) 2025**[Incomplete Form will be rejected]Note: Please ensure that this document is uploaded online via Ms. Forms UM 365 |
| **PRINCIPAL INVESTIGATOR (PI)**  |   |
| **PROJECT TITLE**  |   |
| **NEXT APPOINTED LEADER** |   |
| **Centre of Excellence (CoE)** **[Please select one (1) for CoE niche area and select respective research scopes]**  |
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| **No.** | **CoE Niche Area** | **(/)** | **No.** | **Research Scopes** | **(/)** |
| 1. | Rare Earth Elements(Head of CoE: Dr. Hijaz Kamal Hasnan) | ( ) | 1. | Sustainable Exploration and Extraction of Rare Earth Elements (REEs) in Malaysia | ( ) |
| 2. | Advanced REE Separation Technologies and Magnet Development for High-Purity Applications | ( ) |
| 3. | Policy, Economic Impact, and Social Sustainability of the REE Industry in Malaysia | ( ) |
| 2. | Quantum Information Science and Technology(Head of CoE: Prof. Dr. Vannajan Sanghiran Lee) | ( ) | 1. | Healthcare - Quantum Technology in Natural Products, AI-Powered mRNA Therapeutics, Quantum Machine Learning | ( ) |
| 2. | Environment - Integrating Blockchain, AI, and Quantum Computing for Advanced Air Pollution Monitoring and Mitigation | ( ) |
| 3.  | Materials - Advancing Sustainable Catalysis: Mechanisms of Magnetic Regulation of Spin Dynamics in Rare-Earth Orthoferrites (RFeO3) | ( ) |
| 3. | Aerospace Innovation(Head of CoE: Assoc. Prof. Dr Raja Ariffin Raja Ghazilla) | ( ) | 1. | Leveraging Digital Transformation for Sustainable Aerospace Manufacturing | ( ) |
| 2. | Future Aerial Drone System – Advanced Propulsion and Robust Payload Integration | ( ) |
| 3. | Enhancing Business Resilience in the Aerospace Industry Through Supply Chain Optimization | ( ) |
| 4. | Smart Mobility(Head of CoE: Ir. Ts. Dr. Yuen Choon Wah) | ( ) | 1. | Digital Transformation in Transportation - such as developing app and system for better mobility service (ride-sharing, e-hailing etc.) | ( ) |
| 2. | Urban mobility and community - such as first last mile connectivity, public transport study etc. | ( ) |
| 3. | Connected and Intelligent Transportation System - such as real-time traffic management study, V2X communication, smart infrastructure etc. | ( ) |
| 4. | AI in Transportation Management - such as using big data and AI model to improve transportation planning and operations etc. | ( ) |
| 5. | Micro, Small and Medium Enterprise (MSME)(Head of CoE: Assoc. Prof. Dr. Mazni Abdullah) | ( ) | 1. | Regulatory and Policy Frameworks in promoting MSME growth and resilience | ( ) |
| 2. | Sustainability and Green Practices for MSME | ( ) |
| 3. | Digital Transformation and Innovation in MSME | ( ) |
| 4. | Entrepreneurship and Social Equity in MSME development. | ( ) |
| 6. | Environmental, Social and Governance(Head of CoE: Dr. Noor Zalina Mahmood) | ( ) | 1. | Regulations and Standard related to ESG | ( ) |
| 2. | Biodiversity and climate change | ( ) |
| 3. | Financial initiatives for ESG | ( ) |

**Brief write-up on how your research is related and how it contributes to the CoE selected (not more than 150 words).** |
| **UM Thrust Areas [Please select one (1)]**  |
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| 1. | Nuclear energy and new energy transition | ( ) | 6. | Space science and new engineering spectrum | ( ) |
| 2. | Food sustainability and security | ( ) | 7. | Defence and security assets and inventory innovation and creation | ( ) |
| 3. | Semiconductor and chips | ( ) | 8. | Rare earths and critical minerals | ( ) |
| 4. | Nanotechnology and quantum exploration | ( ) | 9. | Comprehensive medical and health spectrum excellence | ( ) |
| 5. | Artificial Intelligence and digital robotic realms | ( ) | 10. | Social Science Advancement in Economic, Smart Finance, Societal, International Norms and Law, and Geopolitical Spectrum for the Nation and the World | ( ) |

 |
| **A**  | **TITLE OF PROPOSED RESEARCH** |
| **A (i)**  | **Title of Proposed Research Project:**    |
| **B**  | **DETAILS OF PRINCIPAL INVESTIGATOR (PI)** |
| **B (i)**  |

|  |  |  |
| --- | --- | --- |
| **Name of PI** | **:** |  |
| **MyKad / Passport Number** | **:** |  |
| **PTj / Faculty / Department / Centre / Unit** **(Please provide full address)** | **:** |  |
| **Email Address** | **:** |  |
| **Office Telephone No.** | **:** |  |
| **Handphone No.** | **:** |  |

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| **B (ii)**    | **Position (Please tick** *(√)***):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Associate Professor |  | Senior Lecturer  |  | Lecturer  |

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| **B (iii)** | **Type of Service (Please tick** *(√)***):**

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| --- | --- | --- |
|  | **Permanent**Date of Appointment:  | End Date:  |
|  |  |  |
|  | **Contract**Contract Expiry Date:        |  |

Note: 1. For permanent academic staff, a minimum duration of three (3) years before the date of retirement is required.
2. For contractual academic staff, a remaining minimum appointment period of two (2) years is required. Please provide a supporting document e.g. offer letter/letter of assurance from PTj and enclose in the Appendix.
 |
| **C** | **DETAILS OF NEXT APPOINTED LEADER** |
| **C (i)** |

|  |  |  |
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| **Name of Next Appointed Leader** | **:** |  |
| **MyKad/Passport Number** | **:** |  |
| **PTj/Faculty/Department/****Centre/Unit****(Please provide full address)** | **:** |  |
| **Email Address** | **:** |  |
| **Office Telephone No.** | **:** |  |
| **Handphone No.** | **:** |  |

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| **C (ii)**    | **Position (Please tick** *(√)***):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Associate Professor |  | Senior Lecturer  |  | Lecturer  |

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| **C (iii)**  | **Type of Service (Please tick** *(√)***):**

|  |  |  |
| --- | --- | --- |
|  | **Permanent**Date of Appointment:  | End Date:  |
|  |  |  |
|  | **Contract**Contract Expiry Date:        |  |

Note: 1. For permanent academic staff, a minimum duration of three (3) years before the date of retirement is required.
2. For contractual academic staff, a remaining minimum appointment period of two (2) years is required. Please provide a supporting document e.g. offer letter/letter of assurance from PTj and enclose in the Appendix.
 |
| **D**  | **RESEARCH INFORMATION** |
| **D (i)**  | **Name & Location of Research Institute/Centre/Laboratory/Group:**  |
| **D (ii)**   | **Duration of Research Project (24 months or 36 months):**  **Duration: \_\_\_\_\_\_\_\_\_\_\_ months**

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| --- | --- | --- | --- | --- | --- | --- |
| **From:**  |   |  |   | **To:**  |   |   |
|   | Month  | Year  |   |   | Month  | Year  |

    \*Estimated start date: August 2025 |

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| **D (iii)**  | **DETAILS OF CO-RESEARCHERS** 1. **UM Research Team Track Record**(Including Next Appointed Leader)

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| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **PTj / Faculty / Department / Centre / Unit** | **H-Index** | **Citations** | **No. of Publications\*\*** | **Role / Contribution**(Please specify) |
| 1. |   |   |   |   |   |   |
| 2. |   |   |   |   |   |   |
| 3. |   |   |   |   |   |   |
| 4. |  |  |  |  |  |  |
| 5. |  |  |  |  |  |  |

 1. **External Collaborator (MUST be relevant to the proposed research)**

Note: Please provide at least Letter of Intent (LoI) from the collaborator(s) and enclose in the Appendix.

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| **No.** | **Institution / Industry / Government Agency /** **Non-governmental Organization** | **Name of Researcher /** **Person in Charge (if any)** | **Role/ Contribution**(Please specify) |
| 1. |   |   |   |
| 2. |   |   |   |
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| **D (iv)**  | **RESEARCH OUTPUT**All outputs are compulsory to be fulfilled within the project period and must acknowledge UMREG as the primary source of funding. Every research project must produce the following research output:1. **Publication**
2. **Option 1: RM 50,000.00**

Please tick for each phase.

|  |  |  |
| --- | --- | --- |
| **Phase** | **Details** | **Please tick (√)** |
| **One (1)** | 1. Science & Technology
 | One (1) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | One (1) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |
| **Two (2)** | 1. Science & Technology
 | One (1) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | One (1) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |

Note: At least one (1) of the two (2) publications must be joint publications with international/industry collaborator(s)**.** 1. **Option 2: > RM 50,000.00 – RM 75,000.00**

 Please tick for each phase.

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| --- | --- | --- |
| **Phase** | **Details** | **Please tick (√)** |
| **One (1)** | 1. Science & Technology
 | Two (2) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | Two (2) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |
| **Two (2)** | 1. Science & Technology
 | One (1) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | One (1) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |

Note: At least two (2) of the three (3) publications must be joint publications with international/industry collaborator(s).1. **Option 3: > RM 75,000.00 – RM 100,000.00**

 Please tick for each phase.

|  |  |  |
| --- | --- | --- |
| **Phase** | **Details** | **Please tick (√)** |
| **One (1)** | 1. Science & Technology
 | Two (2) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | Two (2) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |
| **Two (2)** | 1. Science & Technology
 | Two (2) Q1/Q2 Web of Science-indexed publications |  |
| 1. Social Sciences, Arts and Humanities
 | Two (2) Q1/Q2 Web of Science-indexed publications/ Scopus-indexed publications |  |

**Note:** **At least two (2) of the four (4) publications must be joint publications with international/industry collaborator(s).** 1. **Human Capital Development**

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| One (1) postgraduate student in full-time research mode as a Graduate Research Assistant (GRA). | **Please tick (√)**

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| --- | --- |
| Master |  |
| PhD |  |

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1. **Others**

One (1) MoA/LoA/Research Agreement. \*The MoA must be signed and stamped (by LHDN). |
| **E**  | **RESEARCH DETAILS**  |
| **E (i)**      | **Detailed Proposal of Research Project:** 1. **Executive Summary (maximum 300 words)**(Please state in the form).
 |
| 1. **Lay Abstract** (Please state in the form).

(Reminder: A lay abstract or lay summary is a summary of complex research in plain, everyday language. It is important to prepare a lay abstract to tell the story of your research in simple, non-technical language. The lay abstract should be distinct from the scientific one and no more than 150 words). |
| 1. **Graphical Abstract (maximum 1 page-A4)** (Please enclose in the Appendix).
 |
| 1. **Research background including Introduction /Hypothesis /Research Questions and Literature Reviews** (Please state in the form).
 |
| 1. **SMART Objective (s) of the Research***\*\**

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| --- | --- |
| **SMART**  | i.e., **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**imely  |
| **SPECIFIC:**  | outline in a clear statement precisely what is required.  |
| **MEASURABLE**:  | include a measure to enable you to monitor progress and to know when the objective has been achieved.  |
| **ACHIEVABLE**:  | objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.  |
| **REALISTIC:**  | focus on outcomes rather than the means of achieving them  |
| **TIMELY**: (or time-bound) | agree with the date by which the outcome must be achieved.  |

Please write the SMART objective: |
| 1. **Methodology**:
2. Description of Methodology (Please state in the form)
3. Research Flow Chart (Please enclose in the Appendix)
4. Research Gantt Chart and Milestone (Please enclose in the Appendix)
 |
|   | 1. **Impact Statement on Quintuple Helix** (Please state in the form)

(please delineate/describe expected research deliverables on Society, Academia, Government, Industry and Environment. Maximum 200 words) |
| **E (ii)**  | **Risk Assessment**Applicants are required to identify research risks and submit a risk assessment plan for research project.

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| **Description of risk (Low/Medium/High)**  | **Proposed risk-mitigation measures**  |
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| **F** | **SUMMARY OF OVERALL BUDGET** |
|       | Please indicate your estimated budget for this research and **specific details/breakdown/justification** of expenditure according to the guideline.**Note: The allocated amount for each phase must constitute an equal 50% share of the total funds.**Option 1: RM 50,000.00Option 2: > RM 50,000.00 - RM 75,000.00Option 3: > RM 75,000.00 - RM 100,000.00**Phase 2 allocation will be disbursed upon achieving Phase 1 outputs and utilizing at least 75% of its initial funding.** |
| **Budget details****(Please provide specific details/breakdown/justification)** | **Amount requested (RM)** |
| **Phase 1 (RM)****(Please specify for each vote)** | **Phase 2 (RM)**Note: 1. Phase 2 funding will be disbursed only after publications in Phase 1 have been achieved.
2. Maximum period to achieve Phase 1 output targets:
	1. Maximum 18 months for a 24-month project.
	2. Maximum 24 months for a 36-month project.

**(Please specify for each vote)** | **Total (RM)** |
| **Vote 11000 –****Salary and wages**(e.g. salary per month) | Details/justification: | Details/justification: |  |
| Total (RM): | Total (RM): |
| **Vote 21000 –****Traveling and Transportation (Fieldwork only)**(e.g. details of fieldwork activities (location, transportation use, number of days, number of people involved, etc.). |  Details/justification: | Details/justification: |  |
| Total (RM): | Total (RM): |
| **Vote 24000 –****Rental**(e.g. research space, equipment, transportation and other items directly involved in the research. Vehicle rental must be with a licensed transport company) |  Details/justification: | Details/justification: |  |
| Total (RM): | Total (RM): |
| **Vote 27000 –****Research Materials & Supplies**(**Allowed**: Only research-related expenses;**Not allowed**: Purchases of stationery supplies, electronic devices and other ICT equipment, e.g. laptop / desktop / printer / external hard disk / etc.,) |  Details/justification: | Details/justification: |  |
|  Total (RM): | Total (RM): |
| **Vote 28000 –Maintenance and Minor Repair Services**(Only for minor repairs and renovation of buildings, laboratories, equipment or any other research-related items, maintenance cost of existing equipment during the project is allowed. Once the project has been completed, this cost will not be covered by the grant). |  Details/justification: | Details/justification: |  |
| Total (RM): | Total (RM): |
| **Vote 29000 –****Professional Services**(**Allowed**: Up to a maximum of total RM20,000.00 (RM10,000 each phase) per project for the page charge & researchers are encouraged to apply for the JPP Page Charge Fund ([UM Research Website](https://umresearch.um.edu.my/research-supports-and-facilities/research-policies/), any research-related services e.g. honorarium printing service, specific apps/software essential/directly related to the project, hospitality, data processing, etc.**Not allowed:** conference fees/proofreading service. |  Details/justification: | Details/justification: |  |
| Total (RM): | Total (RM): |
| **TOTAL AMOUNT (RM)** |  |  | **GRAND TOTAL (RM):** |

Note: Please refer to the UMREG 2025 Guidelines on the specific type of expenses permitted/not permitted under this grant.

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| **G** | **DECLARATION BY PRINCIPAL INVESTIGATOR** **(Please tick *(√)*):**  |
|       | **I hereby declare that:**  |
|  | 1. **Application of this research is presented for the UMREG 2025.**
 |
|  | 1. **This proposal is NOT being submitted for the other research grant(s).**
 |
|  | 1. **I do not have any internal nor external active grant.**
 |
|  | 1. **Have read, understood, and will implement all requirements stipulated in the UM Safety & Research Handbook and Code of Research Ethics. Failure to do so will result in disqualification of my application.**
 |
|  | 1. **Acknowledge UMREG 2025 for all outputs produced using this grant.**
 |
|  | 1. **have achieved all the promised output for other internal grants offered by the Research Cluster Office (if relevant).**
 |
|  | 1. **All information stated here is accurate, UM has the right to reject or to cancel the offer without prior notice if there is any inaccurate information given.**
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| **Principal Investigator’s Name & Signature:**(Electronic signature is allowed) |  |
| **Date:** |

Signature of all team members: |
| **Name** | **Signature** |
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| **H** |  **ENDORSEMENT BY HEAD OF CENTRE OF EXCELLENCE (COE)** |
|  |  **Comments:** ................................................................................................................................................................. .................................................................................................................................................................. ................................................................................................................................................................. **Name: Signature & Stamp:**  **Date:**  |

**Note:**  **THE APPLICATIONS SUBMITTED WILL BE TREATED IN FULL CONFIDENCE. THE DECISION OF THE UM COMMITTEE PANEL IS FINAL.**