



HANDBOOK FOR NEW LECTURERS

RESEARCH & INNOVATION

Version 1.0 2026

<https://fki.ums.edu.my>



Faculty of
Computing
& Informatics



UMS
UNIVERSITI MALAYSIA SABAH



WELCOME MESSAGE



Assoc. Prof. Dr Mohd Hanafi Ahmad Hijazi
Dean
Faculty of Computing & Informatics

Dear Colleagues,
Welcome to the Faculty of Computing and Informatics (FKI),
Universiti Malaysia Sabah.

You are now part of a vibrant community committed to advancing research, innovation, and societal impact. At FKI, we believe in empowering ideas and transforming knowledge into solutions that matter. Through platforms like SPARK@FKI, we support your journey from research to real-world impact.

We look forward to your contributions as we build a stronger, smarter, and more sustainable digital future—together.

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ABOUT FACULTY OF COMPUTING & INFORMATICS

The Faculty of Computing and Informatics (FKI) is a faculty with a strong focus on future-ready technologies, committed to excellence in computing education, research, and innovation. Strategically positioned in East Malaysia, FKI serves as a key driver of digital talent development and technology innovation aligned with national and regional priorities.

FKI is also proud to be one of the official Premier Digital Tech Institutions (PDTI), a recognition by Malaysia Digital Economy Corporation (MDEC) for its excellence in nurturing industry-ready digital talent and advancing high-impact research in technology.

Home to a diverse academic community, FKI focuses on areas such as computer science, software engineering, cybersecurity, artificial intelligence, data science, information technology and human-centered computing. Our research and innovation activities are closely aligned with Sustainable Development Goals (SDGs), ESG principles, and Malaysia's digital transformation agenda.

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RESEARCH AND INNOVATION SECTION



As a new academic staff member, your journey into research and innovation begins here. This handbook is designed to guide you through our research ecosystem, helping you discover resources, and connect you with opportunities to grow your research impact.

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OUR VISION, MISSION & STRATEGIC GOALS



Vision

To be a catalyst in advancing intelligent, secure, and human-centered digital innovations that empower sustainable development, tropical biodiversity excellence and inclusive, green, and digital research aspirations.

Mission

To drive interdisciplinary research and innovation that advances intelligent technologies for regional priorities such as biodiversity, sustainable agriculture, and community development; fosters digital trust through secure and ethical systems; and enhances human-centered solutions—while embedding Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG) principles to support inclusive and resilient growth.

Strategic Goals

- Enhance research quality and publication outputs.
- Secure competitive national and international grants.
- Promote innovation, IP generation, and commercialisation.
- Nurture research talent and postgraduate supervision.
- Align research with SDG and ESG priorities.

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MEET THE TEAM



**Ts. Dr. Norazlina binti
Khamis**
Deputy Dean P&I



**Pn. Molly Donna
Awang Sham**
Head of Administration



En. Leopold Modies Falix
Senior Administrative
Assistant



Pn. Diana Kimmuan
Assistant Science Officer



FKI RESEARCH ECOSYSTEM

FKI fosters a vibrant and collaborative research ecosystem that supports interdisciplinary exploration, applied innovation, and impactful knowledge creation. Our ecosystem is structured around focused Research Groups (RGs) aligned with five key research clusters:

1. **Computational Machine Intelligence**
2. **Secure and Trusted Digital Ecosystem**
3. **Data Science, Technologies & Decision Intelligence**
4. **Human-Centered and Digital Experience**
5. **Creative Software and Language Technologies**



Each RG operates as a community of researchers and postgraduate students working on targeted domains and aligned with national priorities such as the **Malaysia Digital Economy Blueprint (MyDIGITAL)**, **Sustainable Development Goals (SDGs)**, and **Environmental, Social, and Governance (ESG)** frameworks.

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FKI RESEARCH ECOSYSTEM

FKI conducts research that addresses real-world challenges through technology-driven solutions. Our research is strategically aligned with national and global development goals. Our multidisciplinary research efforts are organized under five major domains:

Sustainable Agriculture & Aquaculture

Intelligent Environment & Biodiversity

Smart Technologies & Innovation

Smart Healthcare

Digital Security



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FKI RESEARCH ECOSYSTEM

Research Group (RG)/Lab (RL)

FKI has a diverse range of Research Groups (RGs) and Research Labs (RLs), each focusing on distinct and strategic areas of computing, aligned with national priorities, Sustainable Development Goals (SDGs), and emerging technological trends.

These RGs/RLs serve as collaborative hubs for researchers, postgraduate students, and industry partners to conduct impactful, interdisciplinary research.

Below is the list of active RGs and RLs at FKI:

AI Synergy (AIS RL)

Leader: Prof. Dr. Rayner Alfred

Optimization & Visual Analytics (OVA RL)

Leader: Dr. Jackel Chew Vui Lung

Cybersecurity (CS RL)

Leader: Dr. Salmah Binti Fattah

Data Technologies & Applications (DATA RL)

Leader: Assoc. Prof. Dr. Mohd Hanafi Ahmad Hijazi

Decision Support Systems (DSS RG)

Leader: Dr. Tamrin Bin Amboala

Human-Centred Cognitive Computing (H3C RG)

Leader: Dr. Zaidatol Haslinda Binti Abdullah Sani

Language Engineering & Application Development (LEAD RG)

Leader: Dr. Samry @ Mohd Shamrie Bin Sainin

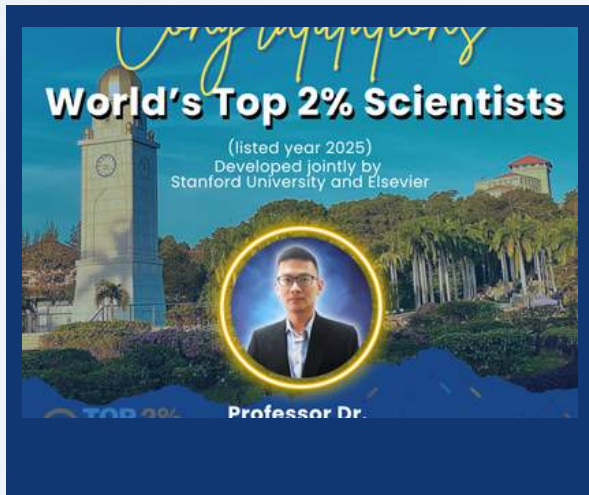
Creative Computing (CC RG)

Leader: Dr. Suaini Binti Sura

These groups are the backbone of FKI's research ecosystem and provide opportunities for collaboration, student supervision, and innovation-driven projects. New lecturers are highly encouraged to join a relevant RG/RL based on their expertise and interests.



OUR SUCCESS STORY



At FKI, research is not just about publication—it is about making a difference. Over the years, FKI has built a strong portfolio of impactful research, award-winning innovations, and national recognition through strategic partnerships and passionate researchers. Here are some of our proudest milestones.



... FKI KPIS' FOR P&I

To ensure research excellence and align with both faculty and university strategic goals, all academic staff at the FKI are expected to meet the following FKI's **Key Performance Indicators (KPIs)**. These KPIs reflect FKI's commitment to impactful research, international visibility, and innovation-driven outcomes.

1. Publication Target

- Minimum Requirement: At least **1 SCOPUS- or WoS-indexed** journal paper per academic year/active staff (**main author/corresponding author**)
- Target: 90% of academic staff publish annually

2. Grant Acquisition Target

- Minimum Requirement: Actively apply for grants as a **Principal Investigator (PI)**
- Target: 80% of academic staff secure at least one internal or external grant as PI

3. Postgraduate Supervision

- All staff are encouraged to:
 - Co-supervise Master's and PhD students
 - Actively engage in Research Group (RG) or Research Lab (RL) activities
 - Support postgraduate research aligned with RG/RL themes

4. Innovation & Intellectual Property (IP)

- Staff are encouraged to:
 - File for Intellectual Property (IP) such as patents, copyrights, trademarks
 - Prototype and test research outputs for commercialisation
 - Engage with SPARK@FKI programs for structured IP support



... FKI KPIS' FOR P&I

✚ FKI KPIs (Subject to Review)

A) Local Staff

- Expected to fulfil publication, grant, and supervision KPIs as part of e-LNPT performance assessment.
- Priority given to participation in national-level research and innovation initiatives (e.g., MyRA, MOHE grants).

KPI/Grade	Scopus-indexed Publication		Active Grant (RM '000)	IP Filing
	Journal	Other publications		
DS45/ DS11	1	1	30 (w/o PhD) 60 (w PhD)	1
DS51/52 DS13	2	1	30 (w/o PhD) 60 (w PhD)	1
DS53/54 DS14	3	2	100	2
VK7	4	3	150	3



... FKI KPIS' FOR P&I

✚ FKI KPIs (2026 onwards & Subject to Review)

B) International Staff

- Expected to contribute to FKI's internationalisation efforts through:
 - Joint publications with global collaborators
 - Grant applications involving international funding bodies or institutions
 - Mentoring of postgraduate students, especially international candidates

KPI/Grade	Consultation	Research/ Innovation Competition (Internationally Recognized)	IP Applicatio n Submissio n	National Grant	International / Industry Grant	WoS/ Scopus Indexed Journal	Other Publications
DS51/52 DS13	RM25000	1 Gold	1	RM 100000	RM20000	3	1
DS53/54 DS14	RM25000	1 Gold	1	RM 150000	RM50000	4	2

Meeting these KPIs ensures your alignment with FKI's research mission and contributes to your academic progression, research recognition, and institutional reputation.



... P&I SUPPORT UNITS

Several dedicated units are in place to support and empower your research, from grant application to innovation commercialisation. These units provide structured guidance, resources, and services to help you succeed in meeting your research and innovation goals.

1. Research & Innovation Section (TDPI – Timbalan Dekan Penyelidikan & Inovasi)

This section serves as the focal point for all research and innovation-related matters at the faculty level. Key functions include:

- Coordinating internal and external grant applications
- Managing publication and IP incentives (e.g., PatentStar, indexed journal reward schemes)
- Tracking staff performance via research KPIs and output reports
- Providing support for research group activities and innovation programs

2. Research Management Centre (PPP – Pusat Pengurusan Penyelidikan) (<https://www.ums.edu.my/ppp/>)

A university-level entity responsible for overseeing the research governance and compliance. Key functions include:

- Managing all grant application submissions via <https://ppi.ums.edu.my/SMPPPI/Default.aspx>
- Facilitating ethics clearance for research involving human or animal subjects
- Monitoring project progress and disbursement of research funds



(<https://www.ums.edu.my/ppip/>)

- Handling Intellectual Property (IP) filings including patents, copyrights, and trademarks
- Supporting start-up and spin-off (SuSO) development
- Facilitating commercialisation pathways, industrial partnerships, and revenue-generating consultations

These support units work together to ensure a seamless and empowering research journey—from idea generation to innovation impact.



... RESEARCH VISIBILITY AND INDEXING

Enhancing the visibility of your research is crucial for academic recognition, citation impact, and institutional benchmarking. At FKI, all researchers are encouraged to actively maintain their research profiles and ensure that their scholarly outputs are discoverable on reputable indexing platforms.

Key Indexing Platforms

To maximise reach and impact, you are encouraged to publish in journals and proceedings indexed by:

- **SCOPUS/ Web of Science (WoS)**
- **MyCite (Malaysian Citation Index)**
- **IEEE Xplore, SpringerLink, ACM DL (for computing & engineering fields)**

Publishing in indexed platforms contributes to your KPIs and supports UMS's MyRA (Malaysian Research Assessment) performance.

Researcher Visibility Profiles

All staff must maintain and update their academic profiles regularly:

- **Google Scholar/ORCID iD/SCOPUS Author ID/ResearchGate**

These platforms improve discoverability, enable accurate citation tracking, and reflect your research contributions globally.

To strengthen our collaborative **research visibility** and improve **faculty-wide citation metrics**, all academic staff are strongly encouraged to **cite at least one publication** by a fellow FKI colleague in their own scholarly work, **where relevant and appropriate**.



... RECOGNITION & INCENTIVES

To encourage and reward research excellence, the FKI offers various forms of recognition and incentives for academic staff. These are designed to motivate continuous scholarly output, innovation, and impactful engagement.

🏆 Faculty-Level Recognition (*subject to change)

- Best Researcher Award
 - Annual recognition for outstanding research performance based on publications, grants, supervision, and innovation impact.
- High-Impact Publication Award
 - Given to staff who publish in top-tier (Q1/Q2) SCOPUS/WoS journals.
- Innovation & Commercialisation Award
 - Awarded to researchers whose work leads to IP filings, patents, or commercial spin-offs.

💰 Incentive Schemes (UMS & Faculty Level, *subject to change)

- Indexed Publication Incentives
 - Financial rewards based on the tier and indexing of published papers.



... RECOGNITION & INCENTIVES

- IP Incentives
 - Incentives for successful filing of patents, copyrights, or industrial designs (e.g., through the PatentStar initiative, *subject to change).
- Grant Achievement Incentives
 - Special recognition for securing large-scale external grants or industry-matching funds.
- Conference Participation Support
 - Limited funding assistance for presenting at international indexed conferences (based on the availability of funding).

🎯 Other Benefits

- Enhanced visibility for career progression (promotion, confirmation, etc.)
- Priority consideration for research-related travel, seed grants, and workshops
- Opportunities to represent FKI in national innovation showcases and competitions

FKI is committed to building a culture of research excellence by acknowledging your efforts and supporting your journey from ideas to impact.





P&I-RELATED STANDARD OPERATING PROCEDURES (SOP), GUIDELINES AND FORMS

1. Research Grant



Research Guidelines
Faculty of Computing and Informatics
(FKI), UMS



Research Guidelines
Research Management Centre, UMS



2. Publications



Guidelines & Forms
Faculty of Computing and Informatics
(FKI), UMS



Guidelines & Forms
UMS Press



<https://fki.ums.edu.my>



CONTACT INFORMATION



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For inquiries, assistance, or more information, please feel free to reach out to the respective departments using the provided contact details. We are here to assist you.



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