DISASTER PREPAREDNESS AND PREVENTION CENTER (DPPC)

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NUMBER OF STUDENTS

- Ph.D : 19 students
- Master: 11 students

RESEARCH KEYWORDS

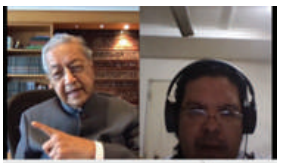
DRR, Community Resilience, Space Science R&D, Policy, Corporate Governance, Islamic Finance, Engineering Education, Open Innovation, SGD, Technology Mapping, Patent Analytics, Cultural Heritage, Urban Conservation, Climate Action in the Buildings Sector, Green Technology, Fire Risks Assessment, Sustainable Cities.

OUTLINE OF IKOHZA

The Disaster Preparedness and Prevention Center (DPPC), is a leading disaster risk reduction and management (DRRM) institute in multi-hazards and climate change to strengthen community resilience. DPPC ikohza aims to champion in providing DRRM solutions through technology driven and risk-informed sustainable development agenda; to lead and facilitate high-end laboratories, facilities and asset management services for disaster related event; to become a regional hub for building a safer and disaster resilient community through a transdisciplinary approach; to facilitate national and international collaborations in applied research, training and field practices for disaster resilience.

CURRENT RESEARCH

- **RESEARCH 1:**
  Local Government DRR Capacity Survey



- **RESEARCH 2:** Development of a Framework for Evaluating the Benefits of Space Science R&D in Malaysia

- **RESEARCH 3 :** Debris Flow Modelling and Water Quality Implications after the 2015 Sabah Earthquake

- **RESEARCH 4:** Multi Approach Guideline for Resilient Office Buildings towards Reducing Disaster Risk (MAGROB)

- **RESEARCH 5:** Urban Morphology Study of Seremban Historic Town Centre

- **RESEARCH 6:** Integral Aspects for Sustainable City Development of Malaysian Cities through Study of Their Early Urban Morphological Characters

MERIT OF THE TECHNOLOGY

1) The crux of this survey is to examine the DRRM capacity of state and local governments and their agencies.
2) The simulated result could provide important insight for improving the management of hazards and risks in this tectonically active area.
3) The guideline framework for evaluation space science R&D benefits with regards to the social-economic development of the nation
4) To assess the risks faced by the office building owners during flood in monsoon season and examine the mitigation approach from both the structural and nonstructural measures for office building.

POSSIBLE INDUSTRY APPLICATION

1) Focusing on risk analysis and relevant inputs using the PESTEL (Political, Economic, Social, Technological, Legal, and Environmental) and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis methods.

2) Space science R&D can be evaluated using Triple Bottom Line (TBL) theory to measure the performance or output of space science R&D consists societal, environmental and economics. Generally, this framework will be a good start in preparing Malaysia to have Malaysia Space Act (MSA) and become a versatile space emerging countries and in line with international initiative such as UNISPACE+50 and Space 2030.

3) Assessing the current status of the building and recognising the areas or fields that can be improved to enhance the resilience of the building, especially in facing natural disaster such as flood.

- Development of urban conservation plan and management
- Heritage impact assessment
- Identification of significant heritage for national heritage listing
- Adaptive reuse of heritage buildings
- Fire risks assessment of cultural heritage
- Physical characterization of urban form
- City planning for spatial sustainability

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