

MALAYSIA-JAPAN ADVANCED RESEARCH CENTRE (MJARC)

- Dr Pramila Tamunaidu, Senior Lecturer, Director
- Prof Dr Masafumi Goto, Professor
- Ts Ir Dr Liew Peng Yen, Senior Lecturer
- Ts Dr Abd Halim Md Ali, Senior Lecturer
- Ts Dr Vekes Balasundram, Senior Lecturer

NUMBER OF STUDENTS

- Ph.D : 13 students
- Master: 17 students
- Bachelor: 14 students

RESEARCH KEYWORDS

Waste Treatment & Management Technologies, Energy Systems & Recovery

OUTLINE OF IKOHZA

A new research group working on many transdisciplinary projects focusing of advanced technologies and solutions on

- 1) Waste-to-Wealth, Waste-to- Energy
- 2) Effluent treatment
- 3) Energy systems and recovery
- 4) Pre & Post-disaster Waste management

Our SDGs



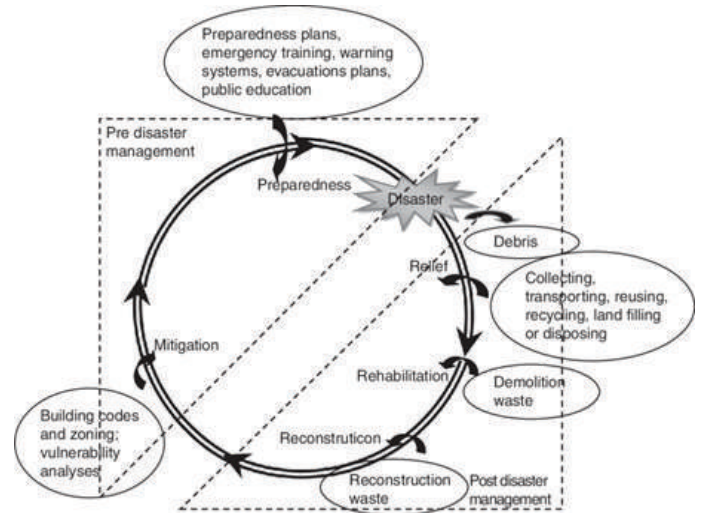
CURRENT RESEARCH

- **RESEARCH 1:** Transformation of agricultural waste to high quality products using sub-critical water technology

- 1) Subcritical Water Technology is a Green technology – water as solvent to break organic materials
- 2) Organic materials - Decomposed into smaller molecules within 1 hour
- 3) Solid and liquid products can be formulated into soil rehabilitizer, fertilizer, animal feed and biodegradable packaging



- **RESEARCH 2:** Environmental impact and techno-economic assessment on energy systems based on various renewable energy supply and hydrogen energy supply chain, as well as waste management system
- **RESEARCH 3:** Multi-energy system planning for industrial-urban symbiosis and eco-industrial park
- **RESEARCH 4:** Pre & Post Disaster Waste Management Developing mechanisms for handling, treatment, reuse, and recycling of disaster-generated debris that must comply to standard technical practice in solid waste management system as well as the emergency response and recovery system



MERIT OF THE TECHNOLOGY

MJARC has the strength to offer multiple services from fundamental research and development to commercialization and innovation. The expertise in MJARC has vast experience in processes and product development mainly in waste treatment and transformation as well as energy systems and recovery. However, we are also active in Knowledge-Transfer-Programs and impart our knowledge to a vast group of people including professionals, students and also community.

POSSIBLE INDUSTRY APPLICATION

Our services include but not limited to:-

- 1) Research-Development-Commercialization-Innovation
- 2) Consultancy
- 3) Techno-economic Assessment
- 4) Certified Professional Training
- 5) Community Engagement Training/ Workshops / Seminars

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