

MJARC

MALAYSIA-JAPAN ADVANCED RESEARCH CENTRE

UNIVERSITI TEKNOLOGI MALAYSIA
KAMPUS PAGOH, JOHOR

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 MJARC

ABOUT US

Malaysia-Japan Advanced Research Centre (MJARC) is a research centre governed by the Malaysia-Japan International Institute of Technology (MJIT), Universiti Teknologi Malaysia. MJARC was launched in April 2018 and established as part of the 10th Malaysia Plan's initiative. It serves as a research and development centre specializing in the field of Sub-Critical Water Waste Management System (SCW-WMS).

Located at UTM Kampus Pagoh, the SCW-WMS Laboratory pioneers research in waste management and waste processing technologies. SCW-WMS Lab is one of the first facilities in ASEAN to house a large-scale Sub-Critical Water reactor capable of treating various organic wastes (eg. biomass waste and food waste) to produce high-quality products such as organic fertilizers, soil conditioning agents, and animal feed, etc.

VISION

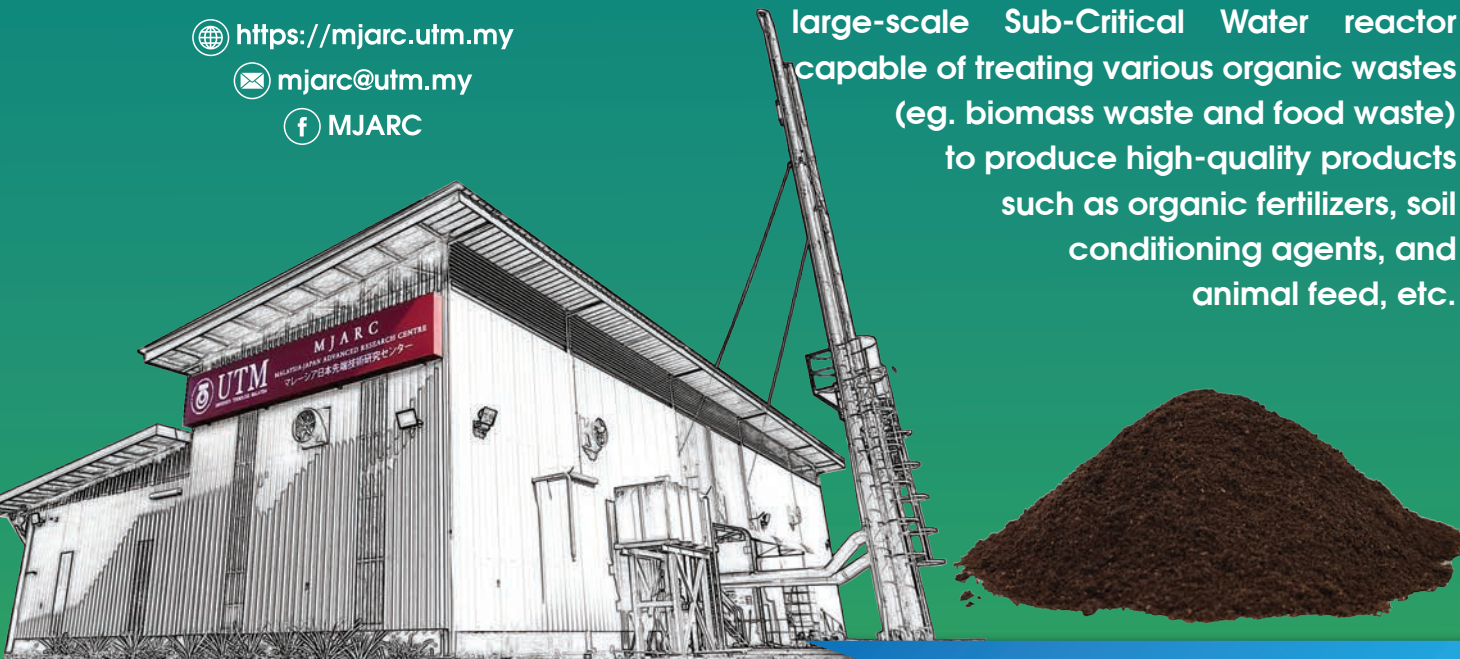
To become a world class advanced research centre, excelling in science, technology and socio-economy making significant contributions to the field of waste management.

MISSION

To provide sustainable and innovative solutions for solid waste management and the transformation to high-quality products.

FOCUS AREA

- 1) **Biomass Utilization:** Exploring novel ways to convert various forms of biomass into energy, biofuels and valuable chemicals.
- 2) **Waste-to-Energy:** Developing efficient methods to convert organic waste into renewable energy sources.
- 3) **Waste-to-Wealth:** Investigating strategies to convert waste materials into valuable resources, fostering economic benefits and sustainability.
- 4) **Bioconversion & Bioremediation:** Researching methods to utilize biological processes for converting waste and remediating environmental pollutants.
- 5) **Circular Economy Initiatives:** Promoting sustainability through the creation of circular systems for waste management.



SUBCRITICAL WATER TECHNOLOGY

Multipurpose Recycling Machine (MRM) is a subcritical water reactor that utilizes water as a solvent, operating under high-pressure and temperature conditions. It is designed to process various organic waste materials, converting them into valuable products such as fertilizers, organic acids, soil conditioners, etc.



OUR SERVICES

- 1) Research & Development:** Conducting innovative research projects to develop new waste management technologies, sustainable practices, and product development from waste.
- 2) Analysis and Testing Services:** Conducting analysis and testing of waste materials potential for recycling or conversion into useful products.
- 3) Consultancy Services:** Providing expertise and guidance in waste management strategies, technologies, and policies to stakeholders.
- 4) Training and Workshops:** Offering educational programs, workshops, and training sessions on waste management practices, technologies, and sustainability principles.
- 5) Technology Transfer:** Facilitating the transfer of innovative waste management technologies or solutions to industries or entities seeking sustainable waste solutions.



OUR ADDRESS

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