

COMPLETION REPORT

Universiti Teknologi Malaysia
Zulhasni Bin Abdul Rahim

【Subject of Research Project】

The Acculturation of Society 5.0 in Management of Technology Ecosystem

This research explored the integration of Society 5.0 principles—originating from Japan’s vision of a super-smart, human-centered society—into the Management of Technology (MOT) education ecosystem. Recognizing the growing urgency to prepare future technology leaders who are ethically grounded and digitally literate, the project sought to operationalize Society 5.0 and AI concepts within postgraduate education frameworks in Malaysia and partner institutions in Asia.

To accomplish this, we employed a Delphi study methodology involving 30 international experts from academia and industry across 15 countries. Through iterative rounds of consultation, we identified, validated, and ranked five key curriculum integration dimensions: digital literacy, multidisciplinary collaboration, AI competency, ethical considerations, and sustainability education. High consensus (Kendall’s $W > 0.8$) was reached on the top three dimensions, confirming their critical relevance to MOT programs aiming to remain competitive and responsible in the era of digital transformation.

One of the main outputs of this research was a peer-reviewed paper titled “Integrating Sustainable Society 5.0 and AI Technologies in Management of Technology Education”, presented at the Malaysia-Japan Visionaries Conference (MJVC) 2024, which was later published as a conference proceeding. This publication outlined a proposed framework for MOT curriculum innovation and provided empirical validation of expert consensus around integrating Society 5.0 principles in education. Another key dissemination outcome was a feature article in UTM Nexus Magazine (April 2025 issue), highlighting the project’s real-world impact on Malaysian higher education and its alignment with national technology foresight and digital economy blueprints.

Beyond theoretical contributions, the project developed an actionable curriculum prototype for integration into postgraduate MOT programs at Universiti Teknologi Malaysia (UTM) and partner institutions. It includes dedicated modules on responsible AI, ethical technology deployment, sustainability-driven innovation, and collaborative cross-disciplinary project work.

The project’s broader impact lies in fostering an academic ecosystem that prepares future leaders for Society 5.0—not just in Malaysia, but also in developing contexts where technology can be a force for inclusive, sustainable progress. Our findings and framework are adaptable across ASEAN and South Asian contexts and contribute to United Nations SDGs, particularly SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure).

We extend our sincere gratitude to The Sumitomo Foundation for supporting this pioneering work and enabling the cross-border intellectual collaboration that brought this vision to life.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)

Title of Presentation: *Integrating Sustainable Society 5.0 and AI Technologies in Management of Technology Education*

- **Date:** 14–16 September 2024
- **Venue:** The University of Tokyo, Hongo Campus, Japan
- **Name of Conference:** *Malaysia-Japan Visionaries Conference (MJVC) 2024*
- **Presenter:** Ts. Dr. Zulhasni Abdul Rahim
- **Presenter ID:** SF-001
- **Affiliation:** Universiti Teknologi Malaysia (UTM)

Title of Presentation: Membudaya IR 4.0 dan Masyarakat 5.0 (Cultivating Industry 4.0 and Society 5.0)

- **Date:** 29 March 2024 (Friday)
- **Time:** 9:00 PM (Malaysia Time)
- **Venue:** Facebook Live – Lensa IPT Channel :
 - <https://www.facebook.com/share/p/4T522FaPZvvrPi8w/>
- **Name of Event/Platform:** Lensa IPT – TV1 / RTM Berita / MYTV / MJIIT Public Session
- **Presenter:** Ts. Dr. Zulhasni Abdul Rahim (Senior Lecturer & National TRIZ Expert, MJIIT-UTM)
- **Co-Speakers:**
 - **Prof. Emeritus Tan Sri Dato' Dzulkifli** (Rector, Universiti Islam Antarabangsa Malaysia)
 - **Prof. Dr. Ag. Asri Ag. Ibrahim** (Director, ICT and Communications, Universiti Malaysia Sabah)

Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

Title of Journal: *Integrating Sustainable Society 5.0 and AI Technologies in Management of Technology Education*

- **Proceeding name:** MJVC 2024 Proceedings
- **Publisher:** Springer Nature
- **Status of publication:** In progress
- **Presenters/Authors:**
 - **Ts. Dr. Zulhasni Abdul Rahim** – Universiti Teknologi Malaysia (Presenter)
 - **Prof. Dr. Naoki Ohshima** – Yamaguchi University, Japan
 - **Dr. Muhammad Saqib Iqbal** – NUST Business School, Pakistan

Book (Publisher and Date of the Book, Title and Author of the Book, etc.)

Title of article: The inspiration of Japan Society 5.0 in Kitakyusu's DX Centre

- **Date of Publication:** 16 April 2025
- **Venue:** Published in UTM Nexus Magazine (April 2025 Issue)
- **Name of Publication:** *UTM Nexus Magazine* – Official publication of Universiti Teknologi Malaysia
- **Authors:** Ts. Dr. Zulhasni Abdul Rahim – Universiti Teknologi Malaysia