

The background of the book cover is a composite image. The upper portion shows a clear blue sky with a few wispy clouds and a large, white wind turbine. The lower portion features lush green trees with sunlight filtering through the leaves, creating a warm, golden glow. The overall theme is sustainable living and smart technology.

INTELLIGENT SOLUTIONS FOR SUSTAINABLE LIVING

IoT and Smart Technologies

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Editors

**NURUL AZMA ZAKARIA
ZAHEERA ZAINAL ABIDIN**

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INTELLIGENT SOLUTIONS FOR SUSTAINABLE LIVING

IoT and Smart Technologies

Intelligent Solutions for Sustainable Living: IoT and Smart Technologies showcases innovative, tech-driven research presented at **CoNeSciNTech 2024**, organized by **Universiti Teknikal Malaysia Melaka (UTeM)** in collaboration with **Universitas Internasional Batam (UIB)**. This volume highlights how IoT and smart technologies are transforming sustainability efforts across agriculture, waste management, industry, and entrepreneurship.

From smart farming systems and secure waste solutions to human-centric industrial applications, these studies offer fresh perspectives on resource efficiency, environmental sustainability, and localized innovation. This book is an essential reference for researchers, professionals, and policymakers aiming to build smarter, more sustainable communities through intelligent, connected solutions.



NURUL AZMA ZAKARIA is an accomplished academican, researcher, and senior lecturer at the Faculty of Information and Communication Technology, UTeM. She is a certified IoT professional who specializes in the IoT, embedded systems, computer systems, and low-power networking. She actively mentors undergraduate and postgraduate students, nurturing the next generation of technologists and researchers. Her academic journey includes a Bachelor's degree in Engineering from the University of Salford, UK, a Master's degree from the UMIST, UK, and a PhD from Saitama University, Japan. Before joining academia, Nurul Azma honed her skills in Malaysia's industrial sector, working with SIRIM Berhad, a leading industrial research and technology organization, and later with Maxis Communications Berhad, where she contributed to technical operations in the telecommunications industry. She co-authored Raspberry Pi for Networking Projects and served as editor for multiple book chapters in IoT, CPS, and STEM education. She also holds copyrights for several innovative systems and technology solutions developed through her research projects. She has earned recognition in innovation competitions and successfully secured competitive research grants, including RAGS and FRGS, supporting projects on IPv6 migration and 6LoWPAN. Driven by a commitment to advancing knowledge and fostering young talents, she continues to explore new research frontiers and collaborative opportunities in engineering and information technology. She can be reached at azma@utem.edu.my.



ZAHEERA ZAINAL ABIDIN's began as a project analyst at ExxonMobil, KLCC after earning her IT degree from the University of Canberra, Australia. She later pursued two Master's degrees—Quantitative Sciences and Computer Networking—from UTeM, which launched her academic career at UNIKL-MIT and later UTeM. She completed her Ph.D. at UTeM and is certified by the CISCO Academy. Zaheera teaches data communication, computer networking, and computer security. She authored Swarm Intelligence for Iris Recognition and co-authored chapters-in-book called Physical Security and Protection of Identity, and a children's tech book, titled Siri Saya Ingin Tahu Teknologi: Pembakar Roti. She served as Associate Editor-in-Chief of JACTA (2019–2024), contributed to Malaysian-Indexed journal, and secured grants from Ministry of Higher Education and industry. Her work earned multiple awards, and she actively consults for public and private sectors. Reach her at zaheera@utem.edu.my.



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