

# Online Technical Talk

## Engineering the Digital ID Revolution: Managing Transformation, Integration, and Operational Readiness

### Synopsis

The digital ID revolution is redefining the fabric of modern operations, especially in sectors like manufacturing, logistics, and public infrastructure. This talk explores how engineering leadership can strategically drive the integration of intelligent ID systems powered by technologies such as RFID, NFC, IoT, and AI.

These systems not only enhance real-time traceability and security but also serve as key enablers of digital transformation, enabling data-driven decision-making and operational agility. Emphasis will be placed on the challenges of cross-platform integration, policy alignment, and infrastructure scalability, as well as strategies for workforce readiness and stakeholder adoption. Through case studies and forward-looking insights, this session highlights how engineering management can bridge the gap between innovation and implementation, ensuring that digital identity solutions are not only technologically sound but also operationally sustainable and future-ready.

Participants will leave with actionable frameworks to lead transformation into a rapidly evolving industrial and digital ecosystem.



### About the Speaker

#### Prof. Ir. Dr. Widad Ismail

Professor Ir. Dr. Widad Ismail is a leading figure in electronic and electrical engineering with over two decades of experience bridging academia and industry. She is the founder of the Auto-ID Research Laboratory (AIDL) at Universiti Sains Malaysia (USM), the country's first fully commercialized lab specializing in RFID, IoT, and wireless sensor technologies. Through AIDL, she has led the commercialization of five innovative products and generated multiple income for USM. Her leadership has secured 49 industry collaborations and consultancy projects, aligning research with real-world manufacturing, healthcare, and logistics needs.

Dr. Widad has served as Principal Investigator for 29 grants, including international projects with Japan, the USA, and Europe. Her focus on engineering solutions for smart manufacturing and operational efficiency has positioned her as a catalyst for digital transformation. Her work continues to shape Malaysia's industrial landscape through applied research, talent development, and strategic industry partnerships.



**16 Aug 2025 (Sat)**



**10.00am – 12.00pm**



**BEM CPD Hours: 2**  
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Moderator

**Ir. Khoo Kah Ling**

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