International Joint Conference on AI-Driven Digital Twin (AIDT 2025)

Wednesday, 10 September 2025 - Thursday, 11 September 2025

Putrajaya

Key Topics

AI And Digital Integration

Explore the digital integration in the upstream/downstream sector amidst disruptions, technology transitions, and an agile workforce, while simultaneously evaluating the cybersecurity risks associated with enhanced technology deployment.

Examine the seamless incorporation of **AI and Digital Twin Technologies** into industrial ecosystems, focusing on interoperability, data-driven decision-making, and the role of **IoT, cloud computing, and edge analytics** in enhancing efficiency across industries. Discussions will cover strategies for **breaking data silos, improving cross-system communication, and enabling real-time insights** for smarter operations.

Effective Operation and Predictive Analysis

Deep Dive into the latest AI-driven predictive analytics models that optimize operational workflows, reduce downtime, enhance productivity, and improve risk management. This session will highlight data-driven maintenance strategies, machine learning algorithms for forecasting operational issues, and how AI and digital twins can simulate real-world scenarios to enhance decision-making.

Towards Net-zero and Resilient Future

Exploring the critical role of a Digital Twin and a data-driven ecosystem in the Sustainable Roadmap for achieving a Net Zero Future through the process of decarbonization

Experience the role of AI and Digital Twin technologies in advancing sustainability goals, energy efficiency, and carbon footprint reduction. Discussions will focus on how industries and academic experts can leverage digital innovation to transition towards Net Zero emissions, build environmental resilience, and align with global sustainability frameworks such as ESG (Environmental, Social, and Governance) and SDG (Sustainable Development Goals).

Best Practices and Case Studies

Gain insights from real-world applications of AI and Digital Twin implementations across various industries. This session will showcase successful digital transformation projects, lessons learned, and industry-specific best practices that have driven measurable improvements in efficiency, sustainability, and cost reduction.

Highlighting best practices and real-world examples, data ownership, and collaborative pathways.

Digitalizing Asset and Smart Manufacturing Performance

Improving business efficiency through digitalization in performance management, emphasizing effective data handling and operational models

Explore how digital twins, AI, and IoT are transforming asset management and smart manufacturing. Topics will include real-time monitoring, predictive maintenance, process automation, and data analytics for enhancing production efficiency, reducing waste, and improving overall equipment effectiveness (OEE).

Opportunities and Challenges

Navigating opportunities and challenges in corporate adaptation and change management while redefining leadership models.

Analyze the market potential, investment opportunities, and regulatory challenges surrounding AI and Digital Twin adoption. Experts will discuss key barriers such as data security, cybersecurity risks, infrastructure limitations, and workforce upskilling, while also highlighting emerging business models, growth opportunities and acceptance in the digital transformation space.

Digital Twin Impact and Implementation

Leveraging Digital Twin and Generative AI to gauge their impact on operational efficiency and productivity.

Understand the practical implications of Digital Twin technology across industries, from project planning, manufacturing and fabrication process, industrial operations and smart healthcare. This session will explore scalable implementation strategies, ROI measurement, value proposition, and integration with AI and IoT to maximize the impact of digital twin solutions.