

سخنرانان كنفرانس

Digital Transformation and Emerging Technologies: From Connected Devices to Intelligent Experiences



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Abstract

The rapid evolution of digital technologies has changed not only how we design and produce, but also how we think about value in an interconnected world. In this keynote, I will reflect on my journey exploring the intersection of digital transformation, Industry 4.0, and the Internet of Things, drawing from "IoT-enabled Smart Appliances under Industry 4.0: A Case Study."

Beyond the technology, the talk examines what happens when everyday products become intelligent partners, when data begins to inform empathy, and when automation must still serve human purpose. Using real-world examples from industry and research, I will share lessons on integrating IoT and Digital Twin technologies to create responsive, sustainable, and meaningful innovation ecosystems.

The discussion will extend toward Industry 5.0, where collaboration between humans and machines becomes not a replacement, but a relationship built on trust, adaptability, and shared creativity.

Biography

He serves as an editor for Machines and Frontiers in Manufacturing Technology and has actively contributed to over 200 peer reviews for leading Q1 journals (ORCID: 0000-0002-2631-9955). His work has earned distinctions such as the Best Paper Award at the 49th International Conference on Computer & Industrial Engineering (CIE49). An entrepreneurial problem-solver, Dr. Aheleroff has earned distinctions including First Prize at Auckland's IoT & AR Hackathon and shortlisting of his med-tech startup Bunion3D in the \$100K Challenge, which reflects his ability to translate research into real-world innovation. He was also awarded the New Zealand Prime Minister's Scholarship for Latin America (NZ PMSLA). With more



than two decades of professional experience, Dr. Aheleroff has led transformative programs for Fortune 500 companies, including SUEZ, TOTAL, and MTN, driving innovation across the energy, water, and telecommunications sectors. His leadership combines engineering depth with strategic governance to deliver sustainable operational excellence. He holds professional certifications in PMP®, PRINCE2®, PSM, CoBIT®, and ITIL®, and completed executive education at Harvard Business School. As a member of PMI, Engineering New Zealand, and the Institute of IT Professionals NZ, Dr. Aheleroff continues to advance the frontiers of Industry 4.0 technologies and sustainable Industry 5.0 ecosystems.

