

Title: Transforming Healthcare and Beyond: The Power of AI, IoT, and HCI in Data-Driven Innovation

Abstract: In a rapidly evolving digital landscape, the integration of Artificial Intelligence (AI), the Internet of Things (IoT), and Human-Computer Interaction (HCI) has the potential to revolutionize industries far beyond healthcare. This keynote will explore how these technologies, when combined, can drive transformative change in data analysis, decision-making, and system efficiency. It will illustrate how AI-driven analytics and IoT data streams, supported by effective HCI frameworks, provided unprecedented real-time insights and enhanced public health outcomes during the COVID-19 pandemic. Looking ahead, the same principles that empowered healthcare can be applied across various critical fields, including smart systems, big data, and signal processing. By addressing challenges like data accuracy and system adaptability, and advancing AI techniques and HCI frameworks, new opportunities for innovation and efficiency can be unlocked. The discussion will focus on the profound impact of AI, IoT, and HCI integration on multiple industries, emphasizing how these technologies can meet today's evolving needs while laying the groundwork for future advancements, ultimately enhancing both our technological landscape and the human experience.

Speaker: Dr. Farhad Mehdipour, Director of Research and Head of Department

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Bio: Dr. Farhad Mehdipour is a seasoned educator and R&D expert with over 25 years of experience in information technology, specializing in cutting-edge fields such as the Internet of Things (IoT), artificial intelligence (AI), data analytics, and cybersecurity. He is deeply committed to cultivating an inclusive, engaging, and innovative learning environment, with a mission to inspire students to excel not only in their technical abilities but also as creative problem-solvers and lifelong learners.

Currently, Dr. Mehdipour serves as the Director of Research and Head of the Information Technology Department, as well as a Principal Academic at Otago Polytechnic Auckland International Campus, New Zealand. In these roles, he is a vital member of the Executive Leadership Team, the Research and Ethics Committee, and the Academic Committee. He has developed various programmes and courses in data analytics, business intelligence, IoT, and cloud computing.

Dr. Mehdipour's academic career is marked by notable achievements, including his post-doctorate research at Kyushu University, where he played a key role in designing the architecture for a Single Flux Quantum (SFQ)-based Computing System. This work was part of a collaborative project involving several leading universities in Japan. From 2010 to 2016, he was an Associate Professor at the E-JUST Center of Kyushu University, where he co-supervised several master's and PhD students.

Since relocating to New Zealand, Dr. Mehdipour has continued to thrive in both academia and industry, focusing on Data Science, IoT, and Cybersecurity. He is a prolific researcher, with over 100 peer-reviewed articles to his name, including book chapters in highly regarded journals and conference proceedings. In 2012, he founded the International Smart Sustainable Development Conference and Project Showcase. He is also a Senior Member of IEEE.