

MINI SYMPOSIUM

2026



Amir H Gandomi, Amir H. Gandomi is internationally recognised as one of the world's most highly cited and influential researchers, known for pioneering contributions to global optimisation, machine learning, big data analytics, and evolutionary computation. His work spans engineering, computer science, artificial intelligence, and data-driven modelling, and has shaped multiple research fronts worldwide. He is an ARC DECRA Fellow and Professor of Data Science in the Faculty of Engineering and Information Technology at the University of Technology Sydney (UTS). Demonstrating exceptional research momentum, he was promoted to Full Professor only four years after completing his PhD, a distinction achieved by very few academics globally and reflecting his rapid and sustained international impact. He is also affiliated with Obuda University, Budapest, as a Distinguished Professor.

Professor Gandomi has received numerous prestigious honours acknowledging his contributions to science and engineering, including the 2026 Thomas Hawksley Gold Medal, 2025 IEEE HITE Award, 2025 Sigma Xi YI Award, 2024 IEEE TCSC Award for Excellence in Scalable Computing, the 2023 Achenbach Medal (bestowed at Stanford University), and the 2022 Walter L. Huber Prize, the highest-level mid-career research award in all areas of civil engineering. He has published more than 500 peer-reviewed journal articles and 15 books, collectively exceeding 84,000 citations (H-index=125+). He has been repeatedly recognised as one of the world's most influential scientific minds and a Highly Cited Researcher by Clarivate Analytics for six consecutive years. His global standing is further highlighted by his ranking as the 327th top computer scientist worldwide and 4th in Australia. In the most recent Stanford University-Elsevier analysis of the world's most impactful researchers, he is ranked 29th internationally in the Artificial Intelligence and Image Processing subfield (2024). Recently, he is ranked 3rd Best Computer Scientist in Australia by research.com. Professor Gandomi holds editorial roles across several top-tier journals, including EiC of IJHPCA, AE with IEEE Networks and IEEE Internet of Things Journal, and frequently serves as Editor and Guest Editor for leading outlets in artificial intelligence, optimisation, and computational engineering. He is also regularly invited to deliver keynote and plenary lectures at major international conferences and scientific forums.

September 8, 2026

Obuda University-Room F09

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Evolving Intelligence for Social Good: Towards Automated, Explainable, and Resilient AI

Artificial intelligence is transforming how complex societal, scientific, and engineering challenges are understood and addressed. However, realizing its potential for social good requires systems that are not only powerful, but also autonomous, explainable, reliable, and capable of operating under uncertainty.

This plenary presentation introduces Evolved Machine Intelligence, a paradigm inspired by evolutionary adaptation that enables AI systems to discover models, strategies, and solutions with limited human intervention. It explores how evolutionary learning, particularly genetic programming, can advance automated machine learning while producing transparent and interpretable models. The presentation also examines how domain knowledge can be integrated into learning processes to improve accuracy, efficiency, and scientific relevance. Beyond learning, the talk considers the role of evolutionary intelligence in solving complex, large-scale, and many-objective optimization problems that remain difficult for conventional methods. It highlights advances in domain-informed optimization, benchmark development, and hybrid intelligent approaches that combine complementary learning and search mechanisms. Particular attention is given to uncertainty-aware learning and robust optimization, which are essential for the responsible deployment of AI in dynamic and high-stakes environments. Through selected real-world applications, the presentation demonstrates how Evolved Machine Intelligence can support trustworthy decision-making and deliver adaptive, interpretable, and resilient solutions. Collectively, these developments provide a pathway towards a new generation of AI that is not merely computationally capable, but also aligned with the broader goal of creating measurable and lasting societal value.



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