

MINI SYMPOSIUM

2026



Professor Seyedali Mirjalili is a globally recognised leader in artificial intelligence and optimisation. He is best known for his pioneering work on nature-inspired algorithms and their applications in science, engineering, and industry.

He is a Professor of Artificial Intelligence at Torrens University Australia and the founder of the Centre for Artificial Intelligence Research and Optimization.

He also holds distinguished and honorary professorships in Hungary, the Czech Republic, the Philippines, and Jordan. Professor Mirjalili has published more than 700 research outputs. His work has received over 180,000 citations, and he has an h-index of 157. Since 2023, he has been ranked among the world's leading AI researchers in the Stanford University-Elsevier rankings of the world's most influential scientists. Beyond his research, Professor Mirjalili actively promotes responsible and inclusive AI through collaborations with industry, government, and the wider community.

He also serves as an editor for five leading AI journals and regularly shares his expertise through keynote speeches, media interviews, public talks, and a TED Talk on the transformative potential of artificial intelligence.

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Obuda University-Room F09

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Automating Optimization with Agile Workflows and Large Language Models

The increasing complexity and difficulty of optimization problems today have greatly raised the need for efficient and accurate algorithms. Evolutionary computation techniques have proven to be effective and, in many cases, superior for tackling challenging real-world problems. To fully realize their potential, however, solving these problems requires a systematic optimization framework that carefully structures each step. In this talk, I will introduce an agile and iterative workflow approach that encourages close collaboration between optimization experts and decision-makers. This approach ensures that algorithms are used effectively and reduces the risk of failure from unforeseen changes. I will also discuss the philosophy of prioritizing simplification over pure optimization, which shows how streamlined processes can often yield better results than overly complex ones. The talk also covers a new approach that integrates Large Language Models (LLMs) into various stages of the optimization lifecycle to increase autonomy. This emerging technology enables algorithms to adapt dynamically based on real-time feedback, which bring us closer to fully automated intelligent optimization systems. This advancement represents a transformative path for both research and practical applications with the potential to make complex optimization more accessible and beneficial for society.



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