

The University of Melbourne news, November 2022:

Dr. Mohammad Goudarzi receives two “IEEE Outstanding Ph.D. Dissertation Awards”

Dr Mohammad Goudarzi has received two “Outstanding PhD Dissertation Awards” from the Institute of Electrical and Electronics Engineers (IEEE) Technical Committee on Scalable Computing (TCSC) and the IEEE Technical Committee on Cloud Computing (TCCLD). These awards recognise Goudarzi's thesis titled "[Energy and Time Aware Scheduling of Applications in Edge and Fog Computing Environments.](#)”

Smart agriculture, smart transportation, smart healthcare, and industrial Internet of Things (IoT) applications now depend on Cloud and Edge Data Centres as their main infrastructure. The successful and effective execution of computation-intensive and latency-critical IoT applications fundamentally rely on dynamic and optimal resource management.

However, existing resource management methods ignore resource contention, high scalability, high adaptability, and complicated environmental dynamics.

To fill the gap in this field, Dr Goudarzi has developed brand-new metaheuristics and machine learning-based methodologies and algorithms for effective resource management in large-scale distributed systems.

He also designed, developed, and deployed a cutting-edge containerised and distributed software system that enables a variety of resource management strategies in Cloud and Edge computing environments.

Supervised by Professor Rajkumar Buyya and Professor Marimuthu Palaniswami, the results of Dr Goudarzi's study have had a significant impact on the development of IoT, Edge and Cloud computing, energy and time aware resource management, and software engineering in general.

Dr. Goudarzi's research publications have appeared in top class journals including IEEE Transactions on Mobile Computing and contributed to two open-source software systems.

Both the IEEE TCSC and IEEE TCCLD Outstanding PhD Dissertation Awards are given each year to honour individuals who have earned their PhDs during the previous two years and have produced exceptional dissertations in scalable computing with applications. Dr. Goudarzi is the only one to have this a unique honour of receiving the best thesis awards from both IEEE committees in 2022.