

IEEE CIS Guest Lecture
Prof Mengjie Zhang (IEEE Fellow, IEEE Distinguished Lecturer (DLP))

Speaker:	Prof. Mengjie Zhang (IEEE Fellow, IEEE Distinguished Lecturer (DLP))
Hosted Chapter:	IEEE Computational Intelligence Society (CIS), Victorian Section, Australia
Coordinator:	Malka N. Halgamuge, Chair VIC CIS (malka_nisha@ieee.org)
Date of Event:	Wednesday 20th September 2023
Time:	5.00 – 6.00 pm (AEST)
Number of Participants:	45 (Online)
VIC CIS Chapter website:	https://r10.ieee.org/victorian-cis
Title:	Evolutionary Machine Learning: Research, Applications and Challenges

Abstract:

Since the 1990s, evolutionary computation techniques have been widely used to solve machine learning tasks. In this talk, I will firstly provide a brief overview of machine learning and evolutionary computation, then provide a narrow view and a broad view of evolutionary machine learning. After discussing the state-of-the-art research and applications of the main paradigms of evolutionary machine learning and their success in classification, feature selection, regression, clustering, computer vision and image analysis, scheduling and combinatorial optimisation, and evolutionary deep learning, the main challenges and lessons will be discussed. If time allows, I will provide an overview of our recent developments and discuss potential opportunities.

Biography:

Mengjie Zhang is a Fellow of Royal Society of New Zealand, a Fellow of Engineering New Zealand, a Fellow of IEEE, an IEEE Distinguished Lecturer, currently Professor of Computer Science at Victoria University of Wellington, where he heads the interdisciplinary Evolutionary Computation and Machine Learning Research Group. He is also the founding Director of the Centre for Data Science and Artificial Intelligence at the University.

His research is mainly focused on AI, machine learning and big data, particularly in evolutionary learning and optimisation, feature selection/construction and big dimensionality reduction, computer vision and image analysis, scheduling and combinatorial optimisation, classification with unbalanced data and missing data, and evolutionary deep learning and transfer learning. Prof Zhang has published over 800 research papers in refereed international journals and conferences. He has been serving as an associated editor for over ten international journals including IEEE Transactions on Evolutionary Computation, IEEE Transactions on Cybernetics, the Evolutionary Computation

Journal (MIT Press), and involving major AI and EC conferences as a chair. He received the “EvoStar/SPECIES Award for Outstanding Contribution to Evolutionary Computation in Europe” in 2023. Since 2007, he has been listed as a top five (currently No. 4) world genetic programming researchers by the GP bibliography (<http://www.cs.bham.ac.uk/~wbl/biblio/gp-html/index.html>). Prof Zhang is a past Chair of the IEEE CIS Intelligent Systems Applications Technical Committee, the IEEE CIS Emergent Technologies Technical Committee and the IEEE CIS Evolutionary Computation Technical Committee, a vice-chair of the IEEE CIS Task Force on Evolutionary Feature Selection and Construction, a vice-chair of the IEEE CIS Task Force on Evolutionary Computer Vision and Image Processing, and the founding chair of the IEEE Computational Intelligence Chapter in New Zealand.

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IEEE VIC CIS Chapter

Category: Distinguished Lecturer Program (DLP)



Title: Evolutionary Machine Learning: Research, Applications and Challenges
Speaker: Prof Mengjie Zhang (IEEE Distinguished Speaker, IEEE Fellow), Victoria University of Wellington, New Zealand
Location: Virtual - Zoom (<https://unimelb.zoom.us/j/84910928039?pwd=bkkvc2pkWjRpWU1Eb1hFbEdrei9LZz09>)
Time: 5.00 – 6.00 pm (AEST) Wednesday 20th September 2023
Register: <https://events.vtools.ieee.org/m/373944> (please register here)
For further details, contact: Malka N. Halgamuge, Chair VIC CIS (malka_nisha@ieee.org)
VIC CIS Chapter website: <https://r10.ieee.org/victorian-cis>



IEEE Computational Intelligence Society (CIS), Victorian Section, Australia

Evolutionary Machine Learning: Research, Applications and Challenges

Title: Evolutionary Machine Learning: Research, Applications and Challenges

Location: Virtual (Zoom)

Time: 5.00 – 6.00 pm (AEST) Wednesday 20th September 2023

Register: <https://events.vtools.ieee.org/m/373944>

Event Contact: Malka N. Halgamuge, Chair VIC CIS
Email: malka_nisha@ieee.org

This is a part of the IEEE Victorian Computational Intelligence Society (CIS) series of talks. The online delivery is kindly hosted by IEEE Victorian Section.

11. Category: Distinguished Lecturer Program (DLP)

Title: Evolutionary Machine Learning: Research, Applications and Challenges

Speaker: Prof Mengjie Zhang (IEEE Distinguished Speaker, IEEE Fellow), Victoria University of Wellington, New Zealand

Location: Virtual-Zoom <https://unimelb.zoom.us/j/84910928039?pwd=bkkvc2pkWjRpWU1Eb1hFbEdrei9LZz09>

Time: 5.00 – 6.00 pm (AEST) Wednesday 20th September 2023

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VIC CIS Chapter website: <https://r10.ieee.org/victorian-cis>



IEEE Victoria CIS Chapter DL Talk, Melbourne, Australia, 20 September 2023

Evolutionary Machine Learning: Research, Applications and Challenges

Mengjie Zhang, FRSNZ, FEngNZ, FIEEE, IEEE DL

Evolutionary Computation and Machine Learning Research Group

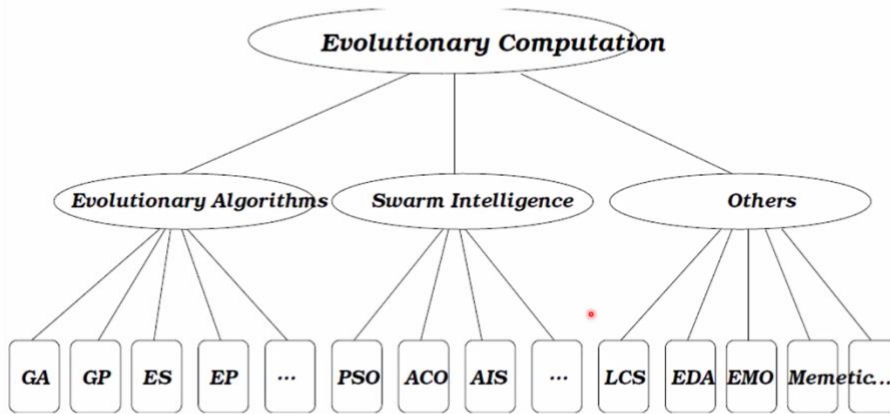
Centre for Data Science and Artificial Intelligence

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Evolutionary Computation Paradigms



EC = Evolutionary optimisation + Evolutionary learning

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Acknowledgement

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- Thanks Bing Xue, Ying Bi, Harith Al-Sahaf, Qi Chen, Bach Hoai Nguyen, Andrew Lensen, Fangfang Zhang, Yi Mei, Su Nguyen, and other members in our **Evolutionary Computation and Machine Learning** Research Group
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PROG-70141-CNZSDS-LCR (NS-TIF)
 - Huayin Academician Workstation VUW-E3791



Participants (45)

Search

	Malka Halgamuge (me)	 
	Jayanie Ranaba Madduma... (Host)	 
	Mengjie Zhang	 
	Nisal Ranasinghe (Co-host)	 
	Ahsan Morshed	 
	Belinda Huang	 
	Bernardi Pranggono	 
	Binh Tran	 
	Botao	 
	Carl McMillan	
	Cheng	 
	Chunyu Wang	 
	Daniel	 
	dburgos	 
	Diem Pham	 
	Franx	 
	Hengzhe-Zhang-VUW	 
	Huixiana Zhen	 

REPORT AND ATTENDANCE**Report Info**

A report has been filed for
CH10305 - Victorian Section Chapter, CIS11
by Malka Halgamuge
at 20 Sep 2023 08:23 PM.

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19**IEEE Attended ?**

34

Guests Attended ?

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