

# Mengjie (Meng) Zhang's Curriculum Vitae

## Personal Information

Full Name: Mengjie Zhang  
Qualifications: BE(1989), ME (1992), PhD (2001) RMIT  
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<http://ecs.victoria.ac.nz/Groups/ECRG/WebHome>

## Current Position

I am currently an Associate Professor in Computer Science at the School of Engineering and Computer Science at Victoria University of Wellington, New Zealand. I am currently leading the Evolutionary Computation Research Group at the School.

## Employment Record

- Jan 2009 – present: Associate Professor, School of Engineering and Computer Science, VUW, NZ
- Jan 2005 – Dec 2008: Senior Lecturer, School of Mathematics, Statistics and Computer Sciences, VUW
- 2006 – present: Guest Professor, Artificial Intelligence Research Center and Colleague of Mechanical and Electrical Engineering, Agricultural University of Hebei, China.
- Jul 2000 – Dec 2004: Lecturer, School of Mathematics, Statistics and Computer Sciences, VUW, NZ
- Mar 1997 – Jul 2000: Head Tutor, Department of Computer Science, RMIT University, Australia
- Jul 1992 – Dec 1995: Associate lecturer and Lecturer, Artificial Intelligence Research Centre and College of Mechanical and Electrical Engineering, Hebei Agricultural University, China

## Research Related Duty/Appointments

- 2010 – present: Associate Editor, IEEE Transactions on Evolutionary Computation
- 2010 – present: Editorial Board, Evolutionary Computation Journal.
- 2009 – present: Board member of the IEEE Evolutionary Computation Technical Committee, IEEE Computational Intelligence Society
- 2010–2012: Member of the MIS Panel, Marsden Fund, New Zealand.
- 2010 – present: IEEE Senior member.
- Sep 2008 – Feb 2009: Member of the Internal PBRF Panel (MIST), VUW.
- Jan 2009 – present: Associate Dean (Postgraduate Research), Faculty of Engineering, VUW.
- Jan 2009 – present: Chair of Graduate Committee, School of Engineering and Computer Science, VUW.
- Jan 2009 – present: Postgraduate Research Thesis Coordinator, School of Engineering and Computer Science, VUW.
- Jan 2007 – Dec 2008: Thesis Coordinator of Computer Science, School of Mathematics, Statistics and Computer Science, VUW.
- Jan 2009 – present: Member of the Research committee, School of Engineering and Computer Science, VUW.

## Research Areas

I conduct research in the following areas of Computer Science and Intelligent Systems:

- Evolutionary Computation (Genetic Programming, Particle Swarm Optimisation, etc.)
- Evolutionary Computer Vision and Image Analysis
- Data Mining and Machine Learning

## Teaching Experience

Since 2000 I have developed and taught courses from introductory computer science to specialised international tutorials:

- Redeveloped lectures for a first year course on introductory computing
- Lead development of a new second-year course on Program and Data Structure
- Redeveloped a course of a second-year stream on the File Structure (part of Software and System Development)
- Redeveloped a course of a second year stream on Computer Organisation
- Redeveloped a course of a third year stream on Machine Learning and Evolutionary Computing
- Lead development of new four year course on Data Mining, Neural Networks and Genetic Programming
- Taught international tutorials on Principle and Applications of Genetic Programming, Genetic Programming for Classification, Evolutionary Computer Vision and Image Analysis, and Artificial Intelligence and Evolutionary Computing. (In Genetic and Evolutionary Computation Conference, Australasian Summer School on Computational Intelligence, etc.)

## Summary of Research Profile:

- I have had over 140 fully refereed publications, among which there are 20 papers published in ARC A/A\* conferences and journals in recent four years in the areas of Genetic Programming and Evolutionary Computation.
- I have had over \$1.2 million research grants since 2001, and I am the Principal Investigator (PI) for about 75% of them. In particular, I successfully got two Marsden grants (one in 2005 and the other in 2008) within the recent five years as the PI and actually the sole investigator of the two grants. The recent one in the 2008 round was the largest among the 11 successful grants across the whole MIS panel. I also successfully got a Postdoctoral fellow award from the BuildIT in 2009 (which allows me to employ a postdoctoral fellow for two years), which is one out the only three such awards from the whole country in the 2009 round.
- I have been supervising over 30 PhD, MSc thesis and BSc (Hon) research students and postdoctoral/research fellows and assistants as the principal supervisor in the recent six years in the areas of Genetic Programming and Evolutionary Computation.
- I have been invited and examined over 15 PhD and MSc theses as an *external examiner* for a number of universities including the University of York (UK), NUS (Singapore), UNSW, RMIT, UTS, Deaken and Adelaide (Australia), and Auckland, Otago, Canterbury and Massey (NZ).
- I have been invited to organise and chair four international conferences. He has also served on the program committees as a PC member for over 50 international conferences in related research areas. These include all the major conferences for Genetic Programming, and also 16 ARC A conferences.
- I have been invited to chair and organise over 30 sessions at large international conferences.
- I have been serving as an associate editor or editorial board member for four international journals and as a regular reviewer for over 10 international journals including IEEE TEC, IEEE TSMC, Evolutionary Computation Journal, which are ARC A\*/A rank journals.
- Since 2006, I have been listed as one of the top 10 international GP researchers (the only one is Australia/New Zealand among these) ranked by the GP bibliography (<http://www.cs.bham.ac.uk/~wbl/biblio/gp-html/index.html>).

## RESEARCH FUNDING AND AWARDS

### National and International Research Grants

1. **2009-2011** *Toward Optimal Offspring Selection in Genetic Programming*. BuildIT Postdoctoral Fellowship Award, New Zealand. 2009-2011. Grant: \$123,053 (excluding GST). (PI) **This is one of the only three awards in the 2009 round in the whole country**
2. **2009-2012**: *Genetic Programming for Classification Tasks*, **Marsden Fund** award (08-VUW-014). Grant: \$465,000. (**This is the largest grant in the MIS panel in the 2008 round. I am the PI and the sole investigator**)
3. **2006-2008**: *Novel Program Structures in Genetic Programming for Multiclass Classification Tasks*, National **Marsden Fund** Award (05-VUW-017/VUW0501). Grants: \$140,000. (**as the PI and the sole investigator**)
4. **2005-2007**: *Study of Theory and Method of identification of Authors in Chinese Email*, **Natural Science Foundation** of Hebei Province (China) (F2006000537). Grant: \$50,000. (as the first AI)
5. **2001-2004**: *Novel Interactive Software Tools for Teaching English as a Second Language*, Research contract from the **New Economy Research Fund (NERF)**, New Zealand. Research Grant: \$330,000. (as a main AI and also the contact person for the computer science discipline, leading a team in COMP side. This project also involves the other discipline, linguistics, and A/Prof David Crabbe was the leader.)

### University-Level Research Funds

1. **2009-2010**: Internal PBRF Round grant. \$3,500. VUW.
2. **2009-2010**: Novel PSO Topologies and Search Algorithms for Pattern Classification. University Research Fund, Victoria University of Wellington. Grant: \$25,000. (PI)
3. **2009-2010**: Evolutionary Multiple-criterion Optimization for Visual Object Detection. University Research Fund, Victoria University of Wellington. Grant: \$20,000. (with Mark Johnston)
4. **2008-2009**: Particle Swarm Optimisation for Image Recognition. **University Research Fund**, VUW, 2008-2009. Grant: \$38,239. (as the PI)
5. **2008-2009**: Simplification and Class Imbalance in Genetic Programming. **University Research Fund**, Victoria University of Wellington, 2008-2009. Grant: \$22,580. (with Mark Johnston)
6. **2007**: *Novel Genetic Programming Methods for Image Recognition Tasks*, **University Research Fund**, VUW, NZ (URF 7/39): \$48,000. (as the PI, the **largest grant at VUW for 2007**)
7. **2005-2006**: *Novel Program Representation in GP for Classification Tasks*. **University Research Fund**, VUW, NZ (URF 6/9): \$45,500. (as the PI)
8. **2004-2005**: *Novel Genetic Programming Techniques for Classification Tasks*, **University Research Fund**, VUW, NZ (URF 5/13) \$25,200. (as the PI)
9. **2004**: *Multiclass Object Recognition Using Genetic Programming*, **University Research Fund**, VUW, NZ (URF 4/28) \$12,200. (as the PI)

### Faculty/School Research Grants

- **2009**: Faculty Strategic Research Grants (for Research assistants). \$6000. Science Faculty, VUW.
- **2008-2009**: Faculty Strategic Research Grants, \$7400. Science Faculty, VUW.
- **2006**: Research and Study Leave Grant: \$13,300. Science Faculty, VUW.
- **2007**: Overseas Conference Leave Grant: \$5,200. Science Faculty, VUW.
- **2004**: Overseas Conference Leave Grant: \$4,800. Science Faculty, VUW.

### Distinction/Awards

- **2009**: My PhD student, Kourosh Neshatian and me as the co-author, got the best student paper award at the 22nd Australasian Joint Conference on Artificial Intelligence
- **2004-2006**: Best paper nominations at European Conference on Evolutionary Computing in Image Analysis and Signal Processing, 2004, 2005 and 2006 (three times)
- **2006-2008**: The author's paper "Neural networks and genetic algorithms for domain independent object detection" was awarded one of the five **Top Accessed Articles** in *International Journal of Computational Intelligence and Applications*.

## RESEARCH STUDENT/FELLOW SUPERVISION

### Current Research Students/Fellows

1. Ammar Moheemmed. Particle Swarm Optimisation for Outlier Detection. Postdoctoral/Research Fellow. October 2009 – Jan 2010.
2. Kourosh Neshatian. Genetic Programming. BuildIT Postdoctoral Fellow. March 2010–Feb 2012.
3. Urvesh Bhowan, Genetic Programming for Classification with Unbalanced Data, PhD Thesis. 2009. (BuildIT PhD Scholarship and Marsden PhD Scholarship holder).
4. Mahdi Setayeshbarhaghi. Particle Swarm Optimisation for Classification Tasks. PhD Thesis, 2009. (VUW PhD Scholarship holder)
5. Rohitash Chandra. Evolutionary Computer Vision. PhD Thesis, 2009. (VUW PhD Scholarship holder)
6. Nabeel Younus Khan. Genetic Programming for Feature Selection in Classification. PhD Thesis. 2009. (Victoria PhD scholarship holder)
7. Wenlong (Bruce) Fu, Particle Swarm Optimisation for Image Recognition. PhD Thesis. 2010. (Victoria VC's Strategic PhD Scholarship holder).
8. Sara Sharifzadeh. Genetic Programming. PhD Thesis. 2010. (Victoria PhD Scholarship holder).
9. Muhammad Iqbal. Learning Classifier Systems. PhD Thesis. 2010. (Victoria PhD Scholarship holder).
10. Kourosh Neshatian. Genetic Programming for Pattern Recognition. PhD Thesis, 2007. (In Progress) (VUW PhD Scholarship holder)
11. Will Smart. Fragment Analysis in Genetic Programming. PhD Thesis. 2005. (In Progress) (VUW VC's Strategic PhD Scholarship holder)
12. Alan David Kenzit. Genetic Programming. MSc Thesis, 2008. (In Progress)
13. Carlton Downey. Linear Genetic Programming for Multi-class Classification. MSc Thesis. 2010. (Victoria Masters Scholarship holder).
14. Daniel Atkins. Evolutionary Art and Image Generation. Summer Research Scholarship project. Nov 2009 – Feb 2010. (Summer Research Scholarship holder)
15. Jan Larres. Genetic Programming for Evolving Loops and Recursive Structures for Classification. Summer Research Scholarship project. Nov 2009 – Feb 2010. (Summer Research Scholarship holder)
16. Lee Macri. PSO for Image Recognition. Summer Research Scholarship. Summer Research Scholarship project. Nov 2009 – Feb 2010. (Summer Research Scholarship holder)
17. Thomas Liddle. Evolutionary Multi-objective Optimisation for Object detection. Summer Research Scholarship project. Nov 2009 – Feb 2010. (Summer Research Scholarship holder)
18. Rachel Hunt. Genetic Programming with Class Imbalance Problems. Summer Research Assistant. Nov 2009 – Feb 2010.
19. Chris Bruniges. Evolutionary Computing for Car Racing. Summer Research Assistant. Nov 2009 – Feb 2010.
20. Ben Haughey. Learning Classifier Systems. Summer Research Assistant. Nov 2009 – Feb 2010.

### Past Research Fellows/Students/Assistants

1. Carlton Downey. Genetic Programming for Classification Tasks. BSc(Honours) Research Project. 2009.
2. Ammar Moheemmed. Particle Swarm Optimisation for Classification and Image Recognition. Postdoctoral/Research Fellow. October 2007 – Jan 2009.
3. Jason Xie. An Analysis of Selection in Genetic Programming. PhD Thesis. Feb 2009. (VUW PhD Scholarship holder)
4. Phillip Boyle. Gaussian Processes for Regression and Optimisation. PhD thesis, May 2007.

5. Phillip Wong. Removing Redundancy and Reducing Fitness Evaluation Costs in Genetic Programming. MSc Thesis, September 2008. (VUW Masters Scholarship holder)
6. Hamish Evans. Particle Swarm Optimisation for Image Classification. BIT(Honours) Research Project. 2008.
7. Barret Chin. Neural Networks and Genetic Programming for Fast Object Detection. BSc(Honours) Research Project. 2007.
8. Grant Patterson. Fitness Functions in Genetic Programming for Classification with Unbalanced Data. Research assistant. Jan – Jun 2007.
9. Phillip Wong. Simplification of Programs in Genetic Programming. Research Assistant, August 2006 – Feb 2007.
10. Christopher Fogelberg. Linear Genetic Programming. Research Assistant, Oct 2005 – June 2006.
11. Xiaoli Ma. Genetic Programming for Regression and Classification Tasks. Masters Thesis, 2007.
12. Xin Li. Weed Identification and Recognition in Wheat Field. Masters Thesis, 2007.
13. Daniel McGaughran. Genetic Programming: Evolving Simulated Human-Generated Programs with Loops and Control Structures in Genetic Programming . BSc (Honours) Research Project, 2005.
14. Phillip Wong. Simplification of Genetic Programs during Evolution. BSc (Honours) Research Project, 2005.
15. Christopher Fogelberg. Linear Genetic Programming for Multi-class Classification Problems. BSc (Honours) Research Project, 2005.
16. Minh Duc Cao. Classification of Scientific Papers Using Machine Learning, BSc (Honours) Research Project, 2005.
17. Weijun (Norman) Lou. Improving Crossover in Genetic Programming for Image Recognition, BSc (Honours) Research Project, 2004-2005.
18. Will Smart. Genetic Programming for Object Recognition, Masters Thesis, 2005.
19. Jason Xie. Speech Analyser in an ICAI System for TESOL. Masters Thesis, 2004.
20. Yun Zhang. Genetic Programming for Multiclass Object Classification, BSc (Honours) Research Project, 2004.
21. Malcolm Lett. Improving Training Performance of Genetic Programming for Object Detection, BSc (Honours) Research Project, 2004.
22. Bunna NY. Neural Networks and Genetic Algorithms for Object Classification and Detection, BSc (Honours) Research Project, 2003.
23. William Smart. Genetic Programming for Multiclass Object classification. BSc (Honours) Research Project, 2003.
24. Urvesh Bhowan. Fitness function with program size in genetic programming for multiclass object classification. BSc (Honours) Research Project, 2003.
25. Mark Pritchard, Genetic Programming for Object Detection, BSc (Honours) Research Project, 2002.
26. Roy Chow. Multiple Class Object Detection Using Pixel Statistics in Neural Networks, BSc (Honours) Research Project, 2002.

## PROFESSIONAL ACTIVITIES

### Program/Track Co-Chairs for International Conferences

- Area Chair, the 10th Asian Conference on Computer Vision (ACCV 2010), Queenstown, New Zealand. 8–12 November 2010.
- Special Session Chair, 2012 IEEE Congress on Evolutionary Computation (2012 IEEE World Congress on Computational Intelligence). Brisbane, Australia.
- Publication Chair, the 23rd Australasian Joint Conference on Artificial Intelligence (AI'10), Adelaide Australia, 7–10 December 2010.
- Track Chair, 2009 IEEE Congress on Evolutionary Computation (CEC 2009), Trondheim, Norway, May 18-21, 2009.
- Senior PC member, the 22nd Australasian Joint Conference on Artificial Intelligence (AI'09), Melbourne Australia, 2–5 December 2009.
- Program Co-Chair, the 7th International Conference on Simulated Evolution and Learning (SEAL2008), Melbourne, Australia. 7–10 December 2008.
- Program Co-Chair, the 21st Australasian Joint Conference on Artificial Intelligence (AI'08), Auckland, New Zealand, 1–5 December 2008.

### Associate Editors/Editorial Board Member for International Journals

- Associate Editor, IEEE Transactions on Evolutionary Computation. 2010-2013.
- Editorial Board member, Evolutionary Computation Journal. 2010-2015.
- Associate Editor, Journal of Artificial Evolution and Applications, 2008– present
- Associate Editor, International Journal of Computer Science & Applications, 2007 – 2010.
- Editorial Board Member, International Journal of Applied Evolutionary Computation , 2007– present.
- Editorial Board Member, International Journal of Computational Science, 2006– present.

### Reviewer/Referee of International Journals

1. IEEE Transactions on Evolutionary Computation (IEEE TEC), 2003– present.
2. IEEE Transactions on Systems, Man, and Cybernetic (Part B) (IEEE TSMC), 2006–present.
3. Evolutionary Computation Journal (ECJ), 2006–present.
4. Genetic Programming and Evolvable Machines. 2006–present.
5. Pattern Recognition Letters (PRL), 2005–present.
6. International Journal of Computational Intelligence and Applications (IJCIA), 2003–present.
7. International Journal of Software Engineering and Knowledge Engineering (IJSEKE). 2007–2008.
8. International Journal on Knowledge-Based Engineering and Intelligent Systems (KES Journal). 2007–2009.
9. Knowledge and Information Systems (KAIS). 2006–2009.
10. International Journal of Information Technology (IJIT), 2007–2009.
11. Neural Computing, 2006–2009.
12. Computational Intelligence and Neuroscience (CIN). 2007–2009.
13. Science and Engineering Ethics. 2008.

### Program Committee Membership for International Conferences

1. 2010 IEEE Conference on Evolutionary Computation (CEC 2010), Barcelona, Spain, July 18–21, 2010.
2. The 13th European Conference on Genetic Programming (EuroGP 2010), Istanbul, Turkey. 7–9 April 2010.

3. 2010 Genetic and Evolutionary Computation Conference (GECCO 2010), Portland, USA. 7–11 July 2010.
4. International Conference on Pattern Recognition (ICPR 2010), Istanbul, Turkey, 23–26 August.
5. The second International Conference on Advanced Intelligence (ICAI 2010), Beijing, 20–23 2010.
6. 2010 International Conference on Active Media Technology (AMT 2010), Toronto, Canada, August 28–30, 2010
7. The 12th European workshop on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP 2010). Istanbul, Turkey. 7–9 April 2010.
8. The second European Workshop on Environmental Issues (EvoENVIRONMENT2010). Istanbul, Turkey. 7–9 April 2010.
9. The first European Workshop on Evolutionary Intelligence (EvoINTELLIGENCE 2010). Istanbul, Turkey. 7–9 April 2010.
10. 2009 IEEE Conference on Evolutionary Computation (CEC 2009), Trondheim, Norway, May 18–21, 2009.
11. The 12th European Conference on Genetic Programming (EuroGP 2009), Tubingen, Germany. 15–17 April 2009.
12. 2009 Genetic and Evolutionary Computation Conference (GECCO 2009), Montreal, Canada. 8–12 July 2009.
13. The 5th International Conference on Neural Computing (ICNC'09), Tianjin, China. 14–16 August 2009.
14. The 6th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'09). Tianjin, China. 14–16 August 2009.
15. International Conference on Evolutionary Computation (ICEC 2009), Madeira, Portugal. 5–8 October 2009.
16. Australian Conference on Artificial Life (ACAL09), Melbourne, Australia. 1–4, December 2009
17. The 11th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP 2009). Tubingen, Germany. 15–17 April 2009.
18. The first European Workshop on Environmental Issues (EvoENVIRONMENT2009), Tubingen, Germany. 15–17 April 2009.
19. The 24th International Conference Image and Vision Computing New Zealand (IVCNZ 2009), Wellington, New Zealand. last week of November 2009.
20. The 22nd Australasian Joint Conference on Artificial Intelligence (AI'09), Melbourne Australia, 1–4 December 2009.
21. IADIS International Conference on Intelligent Systems and Agents (ISA 2009). Algarve, Portugal. 21 – 23 June 2009
22. 2008 IEEE Conference on Evolutionary Computation (CEC 2008), Hong Kong, 1–6 June 2008.
23. The 11th European Conference on Genetic Programming (EuroGP 2008), Napoli, Italy, 26–28 March 2008.
24. The 12th Pacific-Asian International Conference on Knowledge Discovery in Databases (PAKDD 2008). Osaka, Japan, 20–23 May 2008.
25. The 1st International Conference on Advanced Intelligence (ICAI-08), Beijing, China. 19–22 October, 2008
26. The 10th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP2008), Napoli, Italy, 26–28 March 2008.
27. The 6th International Conference on Simulated Evolution and Learning (SEAL2008), Melbourne, Australia. 7–10 December 2008.
28. IADIS International Conference Intelligent Systems and Agents (ISA 2008). Amsterdam, The Netherlands. 22–24 July 2008.

29. The 2nd International Workshop on Domain Driven Data Mining (DDDM 2008), Pisa, Italy, December 15, 2008
30. Natural Language Processing and Ontology Engineering Workshop (NLPOE 2008), Sydney, Australia. 9–12 December 2008.
31. The 23rd International Conference Image and Vision Computing New Zealand (IVCNZ2008), Lincoln, New Zealand. 26–28 November 2008.
32. 2007 IEEE Conference on Evolutionary Computation (CEC 2007), Singapore, 25–28 September 2007.
33. The 11th Pacific-Asian International Conference on Knowledge Discovery in Databases (PAKDD2007), Nanjing China. 22–25 May 2007.
34. The 20th Australian Joint Conference on Artificial Intelligence: AI2007. Gold Coast, Australia, 2–6 December 2007.
35. The 9th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP2007). Valencia, Spain, 11-13 April 2007.
36. The 22nd International Conference Image and Vision Computing New Zealand (IVCNZ2007), Hamilton, New Zealand. 5–7 December 2007.
37. The 3rd International Conference on Neural Computing (ICNC'07). Haikou, China. 24- 27 August 2007.
38. The 2nd International Conference on Knowledge Science, Engineering and Management (KSEM 2007). Melbourne, Australia, November 28-30, 2007
39. IADIS International Conference Intelligent Systems and Agents (ISA 2007). Lisbon, Portugal. 3–5 July 2007.
40. The 1st International Workshop on Domain Driven Data Mining (DDDM2007). San Jose, California, USA. 12–15 August 2007.
41. 2006 IEEE Conference on Evolutionary Computation (CEC 2006), Vancouver, Canada, 16–21 July 2006.
42. The 10th Pacific-Asia International Conference on Knowledge Discovery in Databases (PAKDD 2006). Singapore, 9–12 April 2006.
43. The sixth International Conference on Simulated Evolution and Learning (SEAL2006), Hefei, China, October 15–18, 2006
44. The 8th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP2006), Budapest, Hungary. 10–12 April 2006.
45. The 3rd Asian Pacific Workshop on Genetic Programming (APWGP2006), Vietnam. October 2006.
46. The 19th Australian/Australasian Joint Conference on Artificial Intelligence (AI2006). Hobart, Australia. 4–8 December 2006.
47. The 21st International Conference Image and Vision Computing New Zealand (IVCNZ2006), Great Barrier Island, New Zealand. 27–29, November 2006.
48. The 9th Pacific Rim International Conference on Artificial Intelligence (PRICAI2006), Guilin, China. 7–11 August 2006.
49. IADIS International Conference Intelligent Systems and Agents (ISA2006).
50. International Conference on Intelligent Systems Design and Applications (ISDA2006), Jinan, China. 16–18 October 2006.
51. The 18th Australian/Australasian Joint Conference on Artificial Intelligence (AI2005). Sydney, Australia. 5–9 December 2005.
52. The 7th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP2005), Lausanne, Switzerland. 30 March – 1 April 2005.
53. The 20th International Conference Image and Vision Computing New Zealand (IVCNZ2005), Dunedin, New Zealand. 28–29 November, 2005.
54. IADIS International Conference Intelligent Systems and Agents (ISA2005).

55. The 2nd Asian Pacific Workshop on Genetic Programming: APWGP2004, Cairns, Australia, 2–3 December 2004
56. The 6th European Conference on Evolutionary Computation in Image Analysis and Signal Processing (EvoIASP2004). Coimbra, Portugal, April 5-7, 2004
57. The 8th International Conference on Knowledge-Based Intelligent Information and Engineering Systems (KES 2004). Wellington, New Zealand. 20–24 September 2004.
58. Australasian Workshop on Data Mining and Web Intelligence (AWDMWIW 2004). Dunedin, New Zealand. 18–22 January 2004.
59. The 19th International Conference Image and Vision Computing New Zealand (IVCNZ2004), Akaroa, New Zealand. 21–23 November 2004.
  
60. The 18th International Conference Image and Vision Computing New Zealand (IVCNZ2003), Palmerston North, New Zealand. 26–28 November 2003.
61. The 17th International Conference Image and Vision Computing New Zealand (IVCNZ2002), Auckland, New Zealand. 26–28 November 2002.
62. The 16th International Conference Image and Vision Computing New Zealand (IVCNZ2001), Dunedin, New Zealand. 26–28 November 2001.

### **Professional Memberships**

- Board Member, Evolutionary Computation Technical Committee (ECTC), IEEE Computational Intelligence Society, 2009–2010
- Committee Member, IEEE New Zealand Central Section. 2007 – present.
- Senior Member of IEEE, IEEE Computer Society, IEEE Computational Intelligence Society, and IEEE Systems, Man, and Cybernetics Society, 2005 – present.
- Member of ACM (2006 – present), ACM SIGEVO Group (2005 – present).

## PUBLICATIONS

### Refereed Journal Articles

1. Michael Kirley, **Mengjie Zhang** and Xiaodong Li. "Special Issue on Simulated Evolution and Learning". *Evolutionary Intelligence*. Vol 2, No. 4. pp. 149-150.. DOI: <http://dx.doi.org/10.1007/s12065-009-0033-0>. Springer. Dec 2009.
2. **Mengjie Zhang**, Xiaoying Gao and Weijun Lou. "A New Crossover Operator in Genetic Programming for Object Classification". *IEEE Transactions on Systems, Man, and Cybernetics–Part B: Cybernetics*. Vol. 37, No.5, 2007. pp. 1332-1243.
3. Daniel McGaughran, **Mengjie Zhang (corresponding author)**. "Evolving More Representative Programs with Genetic Programming". *International Journal of Software Engineering and Knowledge Engineering*. Vol. 19, No. 1. 2009. pp. 1–22.
4. David Kinzett, Mark Johnston and Mengjie Zhang. "Numerical simplification for bloat control and analysis of building blocks in genetic programming". (*Journal of*) *Evolutionary Intelligence*. Vol 2, No. 4. pp. 151-168. DOI: <http://dx.doi.org/10.1007/s12065-009-0029-9>. Springer. Dec 2009.
5. **Mengjie Zhang**, Phillip Wong. "Genetic Programming for Medical Classification: A Program Simplification Approach". *Genetic Programming and Evolvable Machines*. Vol. 9. 2008. pp.229-255.
6. Xiaoying Gao, Le Phong Bao Vuong, and **Mengjie Zhang (corresponding author)**. "Detecting Data Records in Semi-Structured Web Sites Based on Text Token Clustering". *Journal of Integrated Computer-Aided Engineering (ICAE)*. Vol. 15, No. 4, 2008. pp. 297–311.
7. **Mengjie Zhang**, Phillip Wong. "Explicitly Simplifying Evolved Genetic Programs During Evolution". *International Journal of Computational Intelligence and Applications*. Vol. 7, No. 2, 2008. pp. 201-232.
8. Peter Andrae, Huayang Xie, **Mengjie Zhang (corresponding author)**. "Genetic Programming for Detecting Rhythmic Stress in Spoken English". *International Journal of Knowledge-Based and Intelligent Engineering Systems (KES Journal)*. Special Issue on Genetic Programming. Vol. 12, No. 1, 2008. pp. 15-28.
9. **Mengjie Zhang**, Christopher Graeme Fogelberg, Yuejin Ma. "A Linear Structured Approach and A Refined Fitness Function in Genetic Programming for Multi-class Object Classification". *Connection Science*. Vol. 19. No. 4, 2007. pp. 339-359.
10. **Mengjie Zhang**. "Improving Object Detection Performance with Genetic Programming". *International Journal on Artificial Intelligence Tools*. Vol. 16, No.5, 2007. pp. 849-873.
11. **Mengjie Zhang**, Urvesh Bhowan, Bunna Ny. "Genetic Programming for Object Detection: A Two-Phase Approach with an Improved Fitness Function". *Electronic Letters on Computer Vision and Image Analysis*. Vol. 6, No. 1, 2007. pp. 27-43.
12. Xin Li, Jinguo Zhang, **Mengjie Zhang**, Li Zhao. "An Approach to Identification of Weed in Wheat Fields". *Journal of Agricultural Mechanization Research*. Vol. 2007, No. 5. 2007. pp. 64-68.
13. Xiaoli Ma, Guifa Teng, **Mengjie Zhang**. "Carbon Potential Prediction Using Genetic Programming". *Control and Automation*. Vol. 23, No. 9. 2007. pp.239-241.
14. **Mengjie Zhang**, Will Smart. "Using Gaussian Distribution to Construct Fitness Functions in Genetic Programming for Multiclass Object Classification". *Pattern Recognition Letters*. Vol. 27, Issue 11. 2006. pp.1266-1274.
15. **Mengjie Zhang**, Malcolm Lett. "Genetic Programming for Object Detection: Improving Fitness Functions and Optimising Training Data". *IEEE Intelligent Informatics Bulletin (formerly known as IEEE Computational Intelligence Bulletin)*. Vol. 7, No. 1, 2006. pp. 12-21.
16. **Mengjie Zhang**. "Mining Small Objects in Large Images Using Neural Networks". *Studies in computational intelligence*. Vol. 6. Springer, 2005. pp. 289-314.
17. Dong Wang, **Mengjie Zhang**. "A New Approach to Multiple Class Pattern Classification with Random Matrices". *Journal of Applied Mathematics and Decision Sciences*. Vol. 9, No. 3, 2005. pp. 165-175.

18. **Mengjie Zhang** and Victor Ciesielski. “A Domain Independent Approach to Multiclass 2D Object Detection Using Neural Networks and Genetic Algorithms”. *International Journal on Computational Intelligence*, **Vol. 4**, No. 1. 2004. pp.77–108. **(One of the five Top Accessed Articles in 2006–2008)**
19. Xiaoying Gao, **Mengjie Zhang**, Peter Andreae. “Automatic Pattern Construction for Web Information Extraction”. *International Journal of Uncertainty, Fuzziness, and Knowledge Based Systems*. **Vol. 12**, No. 4. 2004. pp. 447-470.
20. Xiaoying Gao, **Mengjie Zhang**. “A Knowledge Learning Approach to Information Extraction from Multiple Text Based Web Sites”. *International Journal of Artificial Intelligence Tools*. **Vol. 13**, No. 3. 2004. pp. 721-738.
21. **Mengjie Zhang**, Victor Ciesielski and Peter Andreae. “ A Domain Independent Window-Approach to Multiclass Object Detection Using Genetic Programming”. *EURASIP Journal on Applied Signal Processing, Special issue on Genetic and Evolutionary Computation for Signal Processing and Image Analysis*. **Vol. 2003**, No. 8. 2003. pp. 841–859.
22. **Mengjie Zhang**, “Object Mining in Image Data Using Neural Networks”, *Communications of Information and Computing Machinery*, **Vol. 5**, No.2 (2002), pp.107-112.
23. Liu Fengqin, **Zhang Mengjie** and Yang Qing. “Design and Implementation of the Object-Oriented Knowledge Representation System”. *Journal of Computer Application in Agriculture*, **Vol. 1**, No.3, September 1993. pp. 21–26,
24. **Zhang Mengjie**, Teng Quifa, Huang Lihua and Zhao Li. “Object-Oriented Technology and its application to Expert Systems”. *Journal of Office Automation (Japan)*, **Vol. 14**, No.3-4, 1993. pages 171-173.
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