

Curriculum Vitae

Personal Information

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Education

- **Ph. D** (2007), School of Electrical and Electronic Engineering, Nanyang Technological University, Republic of Singapore
- **B. Eng** (2002), Department of Control Science and Engineering, Huazhong University of Science and Technology, China.

Employment History

- **Jun. 2007 - present:** Associate professor, School of Computer Science and Technology, University of Science and Technology of China, Hefei, Anhui, 230027, P. R. China.
- **Dec. 2006 - present:** Executive Assistant Director of Nature Inspired Computation and Applications Laboratory (NICAL: <http://nical.ustc.edu.cn/>), School of Computer Science and Technology, University of Science and Technology of China.
- **Dec. 2006 - Jun. 2007:** Lecturer, Department of Computer Science and Technology, School of Information Science and Technology, University of Science and Technology of China.
- **Aug. 2006 - Dec. 2006:** Project Officer, School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore.

Awards and Honors

- **2009:** Young Faculty Career Award of the University of Science and Technology of China, awarded by the USTC Alumni Foundation.
- **2005:** Best Student Paper Award at the 2005 IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology, San Diego, California, USA, 14-15, November, 2005.

Professional Activities

- Member of IEEE and IEEE Computational Intelligence Society (CIS)

- Founding Chair of IEEE Task Force on Large Scale Global Optimization, Evolutionary Computation Technical Committee, IEEE Computational Intelligence Society (2007 -)
- Member of Continuing Education Sub-Committee, IEEE Computational Intelligence Society (2009)
- Member of Task Force on Evolutionary Computation in Dynamic and Uncertain Environments, Evolutionary Computation Technical Committee, IEEE Computational Intelligence Society (2008 -)

- **Journal/Book Series Editorship**
 1. Associate Editor of Computational Intelligence Magazine (2010 -)
 2. Editorial Review Board Member of *International Journal of Swarm Intelligence Research* (2009 -).
 3. Editorial Board Member of *International Journal of Bio-Inspired Computation* (2008 -).
 4. Editorial Review Board Member of *International Journal of Applied Evolutionary Computation* (2008 -).
 5. Guest co-editor of the special issue of *Frontiers of Computer Science in China* (Springer) on “From Nature to Computing and Back”, Vol. 3, No. 1, March 2009.
 6. Guest co-editor of the thematic issue of *Memetic Computing* (Springer) on “Memetic Algorithms for Evolutionary Multi-objective Optimization”, 2008.
 7. Guest co-editor of the special issue of *Information Sciences* (Elsevier) on “Nature Inspired Problem-Solving: Theories and Applications”, Vol. 178, No. 15, 1st August, 2008.

- **Invited Talks**
 1. Invited Plenary Talk, “Real-valued Evolutionary Optimization: Algorithms and Applications,” The 2009 Chinese Workshop on Intelligent Perception and Image Understanding, October 15-19, 2009, Xi’an, China.
 2. Invited Talk, “Feature Selection in Bioinformatics”, The 2008 UK-China Joint Workshop on “From Nature to Computing and Back”, February 21-24, 2008, Shanghai, China.

- **Chair/Organizer of Academic Events**
 1. Program Co-chair of the 2010 IEEE Congress of Evolutionary Computation (CEC2010), Barcelona, Spain.
 2. Publicity Co-Chair of the 2009 IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA 2009), November 15-18, 2009, Daejeon, Korea.
 3. Co-Chair of the 2008 International Workshop on Nature Inspired Computation and Applications (IWNICA’08), May 25-27, 2008, Hefei, China.
 4. Special Session Committee member of 2008 IEEE World Congress on Computational Intelligence (WCCI 2008), Chair of the special session on “Large Scale Global Optimization”.

- **Program Committee Member of**
 1. The 5th International Conference on Hybrid Artificial Intelligence Systems (HAIS’10), June 23-25, 2010, San Sebastián, Spain.
 2. The 3rd European Workshop on Bio-inspired algorithms for continuous parameter optimization (EvoNUM 2010), 7-9 April, 2010, Istanbul, Turkey.
 3. The 7th European Workshop on Evolutionary Algorithms in Stochastic and Dynamic Environments (EvoSTOC 2010), 7-9 April, 2010, Istanbul, Turkey.
 4. The 2009 International Conference on Intelligent Data Engineering and Automated Learning (IDEAL’09), September 23-26, Burgos, Spain.
 5. The 2009 International Conference on Soft Computing and Pattern Recognition (SoCPaR’09), December 4-7, Malacca, Malaysia.
 6. The 2009 World Congress on Nature and Biological Inspired Computing (NABIC’09), December 9-11, 2009, Coimbatore, India.
 7. The 8th International Conference on Machine Learning and Cybernetics (ICMLC’09), July 12-15, 2009, Baoding, Hebei, China.
 8. The 4th International Conference on Hybrid Artificial Intelligence Systems (HAIS’09), June 10-12, 2009, Salamanca, Spain.
 9. The 2009 IEEE Congress on Evolutionary Computation (CEC’09), May 18-21, 2009, Trondheim, Norway.

10. The 2nd European Workshop on Bio-inspired algorithms for continuous parameter optimization (EvoNUM'09), April 15-17, 2009, Eberhard Karls Universität, Tübingen, Germany.
 11. The 2009 IEEE Workshop on Memetic Algorithms (WOMA'09), March 30-April 2, 2009, Nashville, TN, USA.
 12. The 15th International Conference on Neural Information Processing (ICONIP'08), November 25-28, 2008, Auckland, New Zealand.
 13. The 7th International Conference on Simulated Evolution And Learning (SEAL'08), December 7-10, 2008, Melbourne, Australia.
 14. The 7th IEEE International Conference on Cybernetic Intelligent Systems, September 9-10, 2008, London, UK.
 15. The 7th International Conference on Machine Learning and Cybernetics (ICMLC'08), July 12-15, 2008, Kunming, China.
 16. The 3rd International Workshop on Hybrid Artificial Intelligence Systems (HAIS'08), September 24-26, Burgos, Spain.
 17. Workshop cum Summer School on Evolutionary Computing (WSSEC'08), August 18-22, 2008, Northern Ireland.
 18. The 21st International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA-AIE'08), June 18-20, 2008, Wroclaw, Poland.
 19. The First European Workshop on Bio-inspired Algorithms for Continuous Parameter Optimisation (EvoNUM'08), March 26-28, 2008, Napoli, Italy.
 20. IEEE SMC UK&RI 6th Conference on Cybernetic Systems, September 6-7, 2007, Dublin, Republic of Ireland.
 21. The 6th International Conference on Machine Learning and Cybernetics (ICMLC'07), August 19-22, 2007, Hong Kong, China.
- **Referee for The Following Journals:**
 1. IEEE Transactions on Evolutionary Computation
 2. Pattern Recognition
 3. Connection Science
 4. Knowledge and Information Systems
 5. Soft Computing
 6. Journal of Scheduling
 7. IEEE Transactions on Systems, Man and Cybernetics - Part B
 8. IEEE Transactions on Systems, Man and Cybernetics - Part C
 9. Neurocomputing
 10. Information Sciences
 11. Memetic Computing
 12. Computers & Operations Research
 13. International Journal of Software and Informatics
 14. Digital Signal Processing
 15. IEEE Transactions on Neural Networks
 16. IEEE Transactions on Nanobioscience
 17. IEEE Transactions on Computational Intelligence and AI in Games

Publications

Refereed Journal Papers:

1. T. Chen, **K. Tang**, G. Chen and X. Yao, "Analysis of Computational Time of Simple Estimation of Distribution Algorithms," *IEEE Transactions on Evolutionary Computation*, accepted, May 2009.
2. **K. Tang**, Y. Mei and X. Yao, "Memetic Algorithm with Extended Neighborhood Search for Capacitated Arc Routing Problems," *IEEE Transactions on Evolutionary Computation*, 13(5): 1151-1166, October, 2009.

3. **K. Tang**, G. Pugalenti, P. N. Suganthan, C. J. Lanczycki and S. Chakrabarti, "Prediction of functionally important sites from protein sequences using sparse kernel least squares classifiers," *Biochemical and Biophysical Research Communications*, 384(2): 155-159, June 2009.
4. G. Pugalenti, **K. Tang**, P. N. Suganthan and S. Chakrabarti, "Identification of structurally conserved residues of proteins in absence of structural homologs using neural network ensemble," *Bioinformatics*, 25(2): 204-210, 2009. doi:10.1093/bioinformatics/btn618
5. Y. Mei, **K. Tang** and X. Yao, "A Global Repair Operator for Capacitated Arc Routing Problem," *IEEE Transactions on Systems, Man, and Cybernetics: Part B*, 39(3): 723-734, June 2009.
6. X. Yu, **K. Tang**, T. Chen and X. Yao, "Empirical Analysis of Evolutionary Algorithms with Immigrants Schemes for Dynamic Optimization," *Memetic Computing*, 1(1): 3-24, 2009. doi: 10.1007/s12293-008-0003-6.
7. **K. Tang**, M. Lin, F. L. Minku and X. Yao, "Selective Negative Correlation Learning Approach to Incremental Learning," *Neurocomputing*, 72(13-15): 2796-2805, August, 2009.
8. Z. Yang, **K. Tang** and X. Yao, "Large Scale Evolutionary Optimization Using Cooperative Coevolution," *Information Sciences*, 178(15): 2985-2999, 2008.
9. G. Pugalenti, **K. Tang**, P. N. Suganthan, G. Archunan and R. Sowdhamini, "A Machine Learning Approach for The Identification of Odorant binding Proteins from Sequence-derived Properties," *BMC-Bioinformatics*, 8:351, September 2007. (Co-first author with G. Pugalenti)
10. **E. K. Tang**, P. N. Suganthan and X. Yao, "Gene Selection Algorithms for Microarray Data Based on Least Squares Support Vector Machine," *BMC-Bioinformatics*, 7:95, 27 February 2006.
11. **E. K. Tang**, P. N. Suganthan, X. Yao, "An Analysis of Diversity Measures," *Machine Learning*, 65: 247-271, 2006.
12. **E. K. Tang**, P. N. Suganthan and X. Yao and A. K. Qin, "Linear Dimensionality Reduction Using Relevance Weighted LDA," *Pattern Recognition*, 38(4):485-493, April 2005.

Selected Papers in Conference Proceedings:

1. T. Chen, P. K. Lehre, **K. Tang** and X. Yao, "When Is an Estimation of Distribution Algorithm Better than an Evolutionary Algorithm?," in *Proceedings the 2009 IEEE Congress on Evolutionary Computation (CEC2009)*, Trondheim, Norway, 18-21 May 2009, IEEE Press, pp. 1470-1477.
2. Z. Wang, **K. Tang** and X. Yao, "A Multi-objective Approach to Testing Resource Allocation in Modular Software Systems," in *Proceedings of the 2008 IEEE Congress on Evolutionary Computation (CEC2008)*, Hong Kong, 2008, pp. 1148-1153.
3. Z. Yang, **K. Tang** and X. Yao, "Multilevel Cooperative Coevolution for Large Scale Optimization," in *Proceedings of the 2008 IEEE Congress on Evolutionary Computation (CEC2008)*, Hong Kong, 2008, pp. 1663-1670.
4. Z. Yang, **K. Tang** and X. Yao, "Self-adaptive Differential Evolution with Neighborhood Search," in *Proceedings of the 2008 IEEE Congress on Evolutionary Computation (CEC2008)*, Hong Kong, 2008, pp. 1110-1116.
5. **E. K. Tang**, P. N. Suganthan and X. Yao, "Feature Selection for Microarray Data Using Least Squares SVM and Particle Swarm Optimization," in *Proceedings of the 2005 IEEE Symposium on*

Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), San Diego, USA, November 2005, pp. 9-17.

Research Student Supervision

Currently I'm co-supervising 10 PhD students and supervising 8 MSc students at the University of Science and Technology of China.

Teaching

Pattern Recognition (CS05148): For postgraduate student