Journal Publications:

1. W. Chang, Benli Peng, <u>A.S. Khan</u>, M. Alwazzan, Y.Y. Zhang, X.D. Li, **Y. Tong**, and Chen Li, "Grain Size Effect on the Wettability of As-Grown Graphene and Dropwise Condensation," ***Carbon***, Vol. 171, pp. 507-513, 2021, Jan. 2021.

2. W.M. Li, Z.K. Wang, F.H. Yang, T. Alam, M.N. Jiang, X.P. Qu, F.Y. Kong, <u>A.S. Shehab Khan</u>, M.J. Liu, M. Alwazzan, **Y. Tong**, and C. Li, "Super Capillary Architecture-activated Boundary Layer for Highly Stable and Efficient Two-phase Transport", ***Advanced Materials***, 32(2) (2020),1905117.

3. <u>Zibo Meng</u>, <u>Shizhong Han</u>, Ping Liu, and **Yan Tong**, "Improving Speech Related Facial Action Unit Recognition by Audiovisual Information Fusion," ***IEEE Transactions on Cybernetics***, Vol. 49, No. 9, pp. 3293 – 3306, September 2019.

4. <u>Zibo Meng</u>, <u>Shizhong Han</u>, and **Yan Tong**, "Listen to Your Face: Inferring Facial Action Units from Audio Channel", ***IEEE Trans. on Affective Computing***, Vol. 10, No. 4, pp. 537-551, Oct. – Dec. 1, 2019.

5. Yuewei Lin, **Yan Tong**, Yu Cao, Youjie Zhou, and Song Wang, "Detecting Infrequently Moving Foreground from Background with Frequent Local Motions: A Background Subtraction based Approach," ***IEEE Transaction on Circuits and Systems for Video Technology***, Vol. 27, No. 6, June 2017.

6. Tamanna Alam, <u>Ahmed Shehab Khan</u>, Wenming Li, Fanghao Yang, **Yan Tong**, Jamil Khan, and Chen Li, "Transient force analysis and bubble dynamics during flow boiling in silicon nanowire microchannels," ***International Journal of Heat and Mass Transfer***, V. 101, pp. 937-947, October 2016.

7. <u>Zibo Meng</u>, <u>Shizhong Han</u>, Min Chen, and **Yan Tong**, "Audiovisual Facial Action Unit Recognition using Feature Level Fusion," ***International Journal of Multimedia Data Engineering and Management***, Vol. 7, No. 1, pp. 60-76, August, 2016.

8. Jonathan Kenneth Bunn, <u>Shizhong Han</u>, **Yan Tong,** Yan Zhang, Jianjun Hu, and Jason Ryan Hattrick-Simpers, "Generalized Machine Learning Algorithm for Automatic Phase Attribution in High-throughput Experimental Studies," ***Journal of Materials Research***, Vol. 30, No. 7, pp. 879-889, April, 2015.

9. **Yan Tong**, Xiaoming Liu, Frederick W. Wheeler, and Peter Tu, "Semi-supervised Facial Landmark Annotation," ***Computer Vision and Image Understanding (CVIU)***, Vol. 116, No. 8, pp. 922-935, August, 2012.

10. **Yan Tong**, Jixu Chen, and Qiang Ji, "A Unified Probabilistic Framework for Spontaneous Facial Action Modeling and Understanding," ***IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)***, Vol. 32, No. 2, pp. 258-273, February 2010.

11. Cassio P. de Campos, Lei Zhang, **Yan Tong**, and Qiang Ji, "Semi-Qualitative Probabilistic Networks in Computer Vision Problems," ***Journal of Statistical Theory and Practice (special Issue on "Imprecision")***, Vol. 3, No. 1, pp. 197-210, 2009.

12. **Yan Tong**, Yang Wang, Zhiwei Zhu, and Qiang Ji, "Robust Facial Feature Tracking under Varying Face Pose and Facial Expression," ***Pattern Recognition***, Vol. 40, No. 11, pp. 3195-3208, November 2007.

13. **Yan Tong**, Wenhui Liao, and Qiang Ji, "Facial Action Unit Recognition by Exploiting Their Dynamic and Semantic Relationships," ***IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)***, Vol. 29, No. 10, pp. 1683-1699, October 2007.

Conference Publications:

1. Jie Cai, Zibo Meng, Ahmed Shehab Khan, Zhiyuan Li, Shizhong Han, and **Yan Tong**, "Identity-Free Facial Expression Recognition using Conditional Generative Adversarial Network," in *Proceedings of 2021 IEEE International Conference on Image Processing (**ICIP 2021**), September 2021.

2. Ahmed Shehab Khan, Zhiyuan Li, Jie Cai, and **Yan Tong**, "Regional Attention Networks with Context-aware Fusion for Group Emotion Recognition," in *Proceedings of 2021 IEEE Winter Conference on Applications of Computer Vision (**WACV 2021**)*, Jan. 2021.

3. Zhiyuan Li, Shizhong Han, Ahmed Shehab Khan, Jie Cai, Zibo Meng, James O'Reilly, and **Yan Tong**, "Pooling Map Adaptation in Convolutional Neural Network for Facial Expression Recognition," in *Proceedings of IEEE International Conference on Multimedia and Expo (**ICME2019**)*, 2019.

4. Ahmed Saaudi, **Yan Tong**, and Csilla Farkas, "Probabilistic Graphical Model on Detecting Insiders: Modeling with SGD-HMM," in *Proceedings of the 5th International Conference on Information Systems Security and Privacy (**ICISSP 2019**)*, 2019.

5. Ahmed Saaudi, Al-ibadi Zaid, **Yan Tong**, and Csilla Farkas, "Insider Threats Detection using CNN-LSTM Model," in *Symposium on Cyber Warfare, Cyber Defense, & Cyber Security (**CSCI-ISCW**)*, 2019.

6. James O'Reilly, Ahmed Shehab Khan, Zhiyuan Li, Jie Cai, Xiangyu Hu, Min Chen, and **Yan Tong**, "A Novel Remote Eye Gaze Tracking System Using Line Illumination Sources," in *Proceedings of IEEE 2nd International Conference on Multimedia Information Processing and Retrieval (**MIPR2019**)*, 2019.

7. Jie Cai, Zibo Meng, Ahmed Shehab Khan, Zhiyuan Li, James O'Reilly, Shizhong Han, Ping Liu, Min Chen, and **Yan Tong**, "Feature-level and Model-level Audiovisual Fusion for Emotion Recognition in the Wild," in *Proceedings of IEEE 2nd International Conference on Multimedia Information Processing and Retrieval (**MIPR2019**), 2019.*

8. Ahmed Shehab Khan, Zhiyuan Li, Jie Cai, Zibo Meng, James O'Reilly, and **Yan Tong**, "Group-level Emotion Recognition using Deep Models with A Four-stream Hybrid Network," in *Proceedings of the 6th Emotion Recognition in the Wild Challenge,* in conjunction with *ACM International Conference on Multimodal Interaction (**ICMI2018**), 2018.*

9. Shizhong Han, Zibo Meng, Zhiyuan Li, James O'Reilly, Jie Cai, Xiaofeng Wang, and **Yan Tong**, "Optimizing Filter Size in Convolutional Neural Networks for Facial Action Unit Recognition," in *Proceedings of IEEE Conference on Computer Vision and Pattern Recognition (**CVPR2018**)*, 2018.

10. Jie Cai, Zibo Meng, Ahmed Shehab Khan, Zhiyuan Li, James O'Reilly, and **Yan Tong**, "Island Loss for Learning Discriminative Features in Facial Expression Recognition," in *Proceedings of IEEE Conference on Automatic Face and Gesture Recognition (**FG2018**)*, Xi'an, May, 2018.

11. Ming-Ching Chang, Yi Yao, Guan Li, **Yan Tong**, and Peter Tu, "Cloud Tracking for Solar Irradiance Prediction," in *Proceedings of International Conference on Image Processing (**ICIP2017**),* Beijing, China, September 2017.

12. Zibo Meng, Xiaochuan Fan, Xin Chen, Min Chen, and **Yan Tong**, "Detecting Small Signs from Large Images," in *Proceedings of International Conference on Information Reuse and Integration (**IRI2017**),* San Diego, August 2017.

13. Zibo Meng, Ping Liu, Jie Cai, Shizhong Han, and **Yan Tong**, "Identity-Aware

Convolutional Neural Network for Facial Expression Recognition," in *Proceedings of IEEE Conference on Automatic Face and Gesture Recognition (__FG2017__)*, Washington DC, May, 2017.

14. Shizhong Han, Zibo Meng, Ahmed Shehab Khan, and **Yan Tong**, "Incremental Boosting Convolutional Neural Network for Facial Action Unit Recognition," in *Proceedings of the 30th Annual Conference on Neural Information Processing Systems (__NIPS 2016__)*. (**Acceptance rate 23.6%**)

15. Tamanna Alam, Wenming Li, Fanghao Yang, Ahmed Shehab Khan, **Yan Tong**, Jamil Khan, Jing Li, Zuankai Wang, and Chen Li, "Force Analysis of Bubble Dynamics in Flow Boiling Silicon Nanowire Microchannels," *Micro/Nanoscale Heat & Mass Transfer International Conference (__MNHMT16__)*, Biopolis, Singapore, January, 2016.

16. Zibo Meng, Shizhong Han, Min Chen, and **Yan Tong**, "Feature Level Fusion for Bimodal Facial Action Unit Recognition," *IEEE International Symposium on Multimedia (__ISM15__)*, Miami, December, 2015. (**Acceptance rate 25.5%**)

17. Shizhong Han, Zibo Meng, Ping Liu, and **Yan Tong**, "Facial Grid Transformation: A Novel Face Registration Approach for Improving Facial Action Unit Recognition," *IEEE International Conference on Image Processing (__ICIP14__)*, Paris, October, 2014. (**Acceptance rate 44%**)

18. Ping Liu, Joey Tianyi Zhou, Ivor Tsang, Zibo Meng, Shizhong Han, and **Yan Tong**, "Feature Disentangling Machine-A Novel Approach of Feature Selection and Disentangling in Facial Expression Analysis," *European Conference on Computer Vision (__ECCV14__)*, Zurich, September, 2014. (**Acceptance rate 25.07%**)

19. Ping Liu, Shizhong Han, Zibo Meng, and **Yan Tong**, "Facial Expression Recognition via a Boosted Deep Belief Network," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR14__)*, Columbus, June, 2014. (**Acceptance rate 29.88%**) (cited by 144)

20. Sanjeev Singh, Rufeng Meng, Srihari Nelakuditi, **Yan Tong**, and Song Wang, "SideEye: Mobile Assistant for Blind Spot Monitoring," *International Conference on Computing, Networking and Communications (__ICNC2014__),* Honolulu, February, 2014. (**Acceptance rate < 27%**)

21. Ping Liu, Shizhong Han, and **Yan Tong**, "Improving Facial Expression Analysis using Histograms of Log-Transformed Nonnegative Sparse Representation with a Spatial Pyramid Structure," *IEEE Conference on Automatic Face and Gesture Recognition (__FG2013__),* Shanghai, April, 2013. (**Acceptance rate 35%**)

22. Sanjeev Singh, Srihari Nelakuditi, **Yan Tong**, and Romit Roy Choudhury, "Your Smartphone Can Watch the Road and You: Mobile Assistant for Inattentive Drivers," in Proceedings of *ACM International Symposium on Mobile Ad Hoc Networking and Computing (__MobiHoc__)*, pp. 261-262, June 2012.

23. Xiaoming Liu, **Yan Tong**, Frederick Wheeler, and Peter Tu, "Facial Contour Labeling via Congealing," *European Conference on Computer Vision (__ECCV10__)*, Crete, Greece, September, 2010. (**Acceptance rate 27%**)

24. **Yan Tong,** Frederick W. Wheeler, and Xiaoming Liu, "Improving Biometric Identification Through Quality-based Face and Fingerprint Biometric Fusion," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR10__) Workshop on Biometrics*, 2010.

25. Xiaoming Liu, **Yan Tong**, Frederick W. Wheeler, and Peter Tu, "Simultaneous Alignment and Clustering for an Image Ensemble," *IEEE International Conference on Computer Vision (__ICCV09__),* Kyoto, September, 2009. (**Acceptance rate 20%**)

26. **Yan Tong**, Xiaoming Liu, Frederick W. Wheeler, and Peter Tu, "Automatic Facial Landmark Labeling with Minimal Supervision," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR09__)*, Miami, June, 2009. (**Acceptance rate 26.2%**)

27. Necmiye Ozay, **Yan Tong**, Frederick W. Wheeler, and Xiaoming Liu, "Improving Face Recognition with a Quality-based Probabilistic Framework," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR09__) Workshop on Biometrics*, Miami, June, 2009. (**Best Paper Honorable Mention Award**)

28. **Yan Tong**, Jixu Chen, and Qiang Ji, "Modeling and Exploiting the Spatio-temporal Facial Action Dependencies for Robust Spontaneous Facial Expression Recognition," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR09__) Workshop on CVPR for Human Communicative Behavior Analysis*, Miami, June, 2009.

29. **Yan Tong** and Qiang Ji, "Learning Bayesian Networks with Qualitative Constraints," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR08__)*, Anchorage, June, 2008. (**Acceptance rate 32%**)

30. Cassio de Campos, **Yan Tong**, and Qiang Ji, "Constrained Maximum Likelihood Learning of Bayesian Networks for Facial Action Recognition," *European Conference on Computer Vision (__ECCV08__)*, Marseille, France, October, 2008. (**Acceptance rate 28%**)

31. Lei Zhang, **Yan Tong**, and Qiang Ji, "Active Image Labeling and Its Application to Facial Action Labeling," *European Conference on Computer Vision (__ECCV08__)*, Marseille, France, October, 2008. (**Acceptance rate 28%**)

32. Jixu Chen, **Yan Tong**, Wayne Gray, and Qiang Ji, Eye tracking, "A Robust 3D Eye Gaze Tracking System using Noise Reduction," *Eye Tracking Research & Applications Symposium,* 2008.

33. Lei Zhang, **Yan Tong** and Qiang Ji, "Interactive labeling of facial action units," *International Conference on Pattern Recognition (__ICPR08__)*, 2008.

34. **Yan Tong**, Wenhui Liao, Zheng Xue, and Qiang Ji, "A Unified Probabilistic Framework for Facial Activity Modeling and Understanding," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR07__)*, Minneapolis, June, 2007. (**Acceptance rate 28%**)

35. Wenhui Liao, **Yan Tong**, Zhiwei Zhu and and Qiang Ji, "Robust Object Tracking with a Case-base Updating Strategy," *International Joint Conference on Artificial Intelligence (__IJCAI-07__)*, Hyderabad, India, January, 2007. (**Acceptance rate: 15.7%**)

36. **Yan Tong**, Wenhui Liao, and Qiang Ji, "Inferring Facial Action Units with Causal Relations," *IEEE Conference on Computer Vision and Pattern Recognition (__CVPR06__)*, New York city, June, 2006. (**Acceptance rate 28%**)

37. **Yan Tong**, Yang Wang, Zhiwei Zhu, and Qiang Ji, "Facial Feature Tracking using a Multi-State Hierarchical Shape Model under Varying Face Pose and Facial Expression," *International Conference on Pattern Recognition (__ICPR06__)*, Hongkong, August, 2006.

38. **Yan Tong** and Qiang Ji, "Multiview Facial Feature Tracking with a Multi-modal Probabilistic Model," *International Conference on Pattern Recognition (__ICPR06__)*, Hongkong, August, 2006.

Book chapters:

1. **Yan Tong** and Qiang Ji, "Exploiting Dynamic Dependencies among Action Units for Spontaneous Facial Action Recognition," in *Emotion Recognition: A Pattern Analysis Approach*, Editors: Amit Konar and Aruna Chakraborty, pp. 47-67, Wiley, Jan 2015.
2. P. H. Tu, G. W. Brooksby, G. Doretto, D. W. Hamilton, N. Krahnstoever, J. B. Laflan, X. Liu, K. A. Patwardhan, T. Sebastian, **Y. Tong**, J. Tu, F. W. Wheeler, C. M. Wynnyk, Y. Yao, and T. Yu, "Video Analytics for Force Protection," in *Distributed Video Sensor Networks,* Editors: B. Bhanu, C. V. Ravishankar, A.K. Roy-Chowdhury, H. Aghajan, and D. Terzopoulos, pp. 405-425, Springer London, 2011.
3. Yongmian Zhang, Jixu Chen, **Yan Tong** and Qiang Ji, "Spontaneous Facial Expression Analysis and Synthesis for Interactive Facial Animation," in *Computer Vision for Multimedia Applications: Methods and Solutions*, Editors: Jinjun Wang, Jian Cheng, and Shuqiang Jiang, pp. 20-37, IGI Global, 2011.
4. Lei Zhang, **Yan Tong**, and Qiang Ji, "Probabilistic Graphical Models and Their Applications in Computer Vision," in *Handbook of Pattern Recognition and Computer Vision (4th edition)*, Editor: C. H. Chen, pp. 129-156, World Scientific Publishing, 2009.
5. **Yan Tong,** Wenhui Liao, and Qiang Ji, "Automatic Facial Action Unit Recognition By Modeling Their Semantic And Dynamic Relationships," in *Affective Information Processing*, Editors: Jianhua Tao and Tieniu Tan, pp. 159-180, Springer, 2009.
6. **Yan Tong** and Qiang Ji, "Automatic Eye Position Detection and Tracking under Natural Facial Movement," in *Passive Eye Monitoring: Algorithms, Applications, and Experiments*, Editors: Riad I. Hammoud, pp. 83-107, Springer, 2008.