Yu-Ting Kao

EDUCATION

09/2008 – 06/2019 College of Engineering, National Taiwan University
Ph.D., Graduate Institute of Industrial Engineering

09/2004 – 06/2008 College of Engineering, National Tsing Hua University
B.S., Department of Industrial Engineering and Engineering Management
Minor in Department of Economics, College of Technology Management

RESEARCH INTERESTS

Computer Vision
Mathematical Modeling
Simulation
Optimization
Computer Vision

EXPERIENCE

02/2026 – present National Taiwan University
Project-Based Assistant Professor

07/2022 – 01/2026 KKCompany Technologies
Staff Research Engineer, Research Advancement

11/2019 – 07/2022 Compal Electronics, Inc., Taipei, Taiwan
Deputy Manager, Advanced Analytics

06/2017 – 11/2019 Brilliant Knowbot Machines Co. Ltd.
Manufacturing Technology Specialist

05/2015 – 05/2016 Ecole Nationale Supérieure des Mines of Saint Etienne (EMSE), France
Graduate Student Study Abroad Program（千里馬計畫）

06/2012 – 12/2012 Taiwan Semiconductor Manufacturing Company, Hsinchu, Taiwan
Internship

07/2009 – 09/2009 Inotera Memories Inc. (now Micron Technology Taiwan), Linkou, Taiwan
Summer Internship

PUBLICATIONS

Journal

- **Y.-T. Kao** and S.-C. Chang, "Setting daily production targets with novel approximation of target tracking operations for semiconductor manufacturing," *Journal of Manufacturing Systems*, vol. 49, pp. 107-120, 2018. (SCI) (IF:12.3)
- **Y.-T. Kao**, S. Dauzère-Pérès, J. Blue, and S.-C. Chang, "Impact of integrating equipment health in production scheduling for semiconductor fabrication," *Computers & Industrial Engineering*, vol. 120, pp. 450-459, Jun. 2018. (SCI) (IF: 6.7)

Conference

- D. -J. Huang, **Y.-T. Kao**, T.-H. Chuang, Y.-C. Tsai, J.-K. Lou, S.-H. Guan, "Sb-vqa: A stack-based video quality assessment framework for video enhancement," *in proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 1613-1622, 2023.
- **Y.-T. Kao**, S.-C. Chang, S. Dauzère-Pérès, and J. Blue, "Generalized Overall Equipment Effectiveness for Integrated Scheduling and Process Control," *in proceedings of International Symposium on Semiconductor Manufacturing (ISSM2016)*, December 2016, Tokyo, Japan.
- **Y.-T. Kao**, S.-C. Chang, S. Dauzère-Pérès, and J. Blue, "Integrating equipment health in job shop scheduling for semiconductor fabrication," *in proceedings of 15th International Conference on Project Management and Scheduling*, April, 2016, Valencia, Spain.
- **Y.-T. Kao**, S.-C. Chang, S. Dauzère-Pérès, and J. Blue, "Opportunity for improving fab effectiveness by Predictive Overall Equipment Effectiveness (POEE)," in *e-Manufacturing & Design Collaboration Symposium 2016*, September, 2016, Hsinchu, Taiwan.
- **Y.-T. Kao**, S. Dauzère-Pérès, and J. Blue, "Integrating equipment health in job shop scheduling for semiconductor fabrication," in *15th International Conference on Project Management and Scheduling*, April, 2016, Valencia, Spain.
- **Y.-T. Kao**, C.-M. Chang, S.-C. Chang, "Do we still need daily production target setting in fully automated fabs?" *in proceedings of E-Manufacturing & Design Collaboration Symposium (eMDC2014),* Hsinchu, Taiwan, 2014, pp. 1-4.
- **Y.-T. Kao**, C.-M. Chang, S.-C. Chang, "Daily Target Setting with Inclusion of Induced Variability," *in proceedings of International Symposium on Semiconductor Manufacturing (ISSM2014)*, Tokyo, Japan, 2014, pp. 1-4.
- **Y.-T. Kao**, S.-C. Chang, C.-M. Chang, "Target Setting with Consideration of Target-induced Operation Variability for Performance Improvement of Semiconductor Fabrication," *in proceedings of IEEE Conference on Automation Science and Engineering (CASE2014)*, Taipei, Taiwan, August 2014.
- **Y.-T. Kao**, S.-C. Zhan, S.-C. Chang, "Bottleneck-centric pull and push allocation and sequencing of wet-bench and furnace tools," *in proceedings of e-Manufacturing & Design Collaboration Symposium (eMDC2013)*, Hsinchu, Taiwan, 2013, pp. 1-4.
- **Y.-T. Kao**, S.-C. Zhan, S.-C. Chang, "Effective Bottleneck Centric Allocation and Sequencing of Wet-bench and Furnace Tool Groups," *in proceedings of International Symposium on Semiconductor Manufacturing (ISSM2012)*, Tokyo, Japan, 2012, pp. 1-4.
- **Y.-T. Kao**, S.-C. Zhan, S.-C. Chang, "Efficient and Waiting Time Violation-free Furnace Tool Allocation via Integration of Sequencing Constraints," *in proceedings of e-Manufacturing & Design Collaboration Symposium (eMDC2012)*, Hsinchu, Taiwan, 2012, pp. 1-4.
- **Y.-T. Kao**, S.-C. Zhan, S.-C. Chang, J.-H. Ho, P. Wang, P.-B. Luh, S. Wang, F. Wang, J. Chang, "Near Optimal Furnace Tool Allocation with Batching and Waiting Time Constraints," *in proceedings of IEEE Conference on Automation Science and Engineering (CASE2011)*, Trieste, Italy, 2011, pp. 108-113.
- **Y.-T. Kao**, S.-C. Chang, P. B. Luh, S. Wang, H. Chuang, J. Chang, J.-Y. Chang, P. Wang, S.-C. Zhan, "Effective WIP Flow Estimation for Daily Fab Production Target Setting with Consideration of

Variability," *in proceedings of International Symposium on Semiconductor Manufacturing (ISSM2010)*, Tokyo, Japan, 2010, pp. 1-4.

- S. Wang, F. Wang, J. Chang, J.-Y. Chang, S.-C. Chang, P. Wang, P. B. Luh, **Y.-T. Kao**, S.-C. Zhan, "Optimal Wet-Furnace Machine Allocation for Daily Fab Production," *in proceedings of International Symposium on Semiconductor Manufacturing (ISSM2010)*, Tokyo, Japan, 2010, pp. 1-4.
- S.-C. Chang, B.-J. Liao, **Y.-T. Kao**, A. Chen, "Priority Cycle Time Behavior Modeling for Semiconductor Fabs," *in proceedings of First International Conference on Advances in System Simulation (SIMUL2009),* Porto, Portugal, 2009, pp. 38-43.