

# Curriculum Vitae of Chiang-Ju Chien

## Contact Information

Affiliation : Department of Electronic Engineering, Huafan University, Taiwan

Address : Department of Electronic Engineering, Huafan University, No. 1, Huafan Road, 223,  
Shihding, New Taipei City, Taiwan.

Email : [cjc@cc.hfu.edu.tw](mailto:cjc@cc.hfu.edu.tw)

Tel : +886-2-26632102 ext 4120

Fax : +886-2-26633234

## Education

1988/09 - 1993/01 : **Ph.D. Degree**

Department of Electrical Engineering, National Taiwan University, Taiwan

## Professional Positions

1. 2007/01 - present : **Professor**  
Department of Electronic Engineering, Huafan University, Taiwan
2. 2015/08 – present : **Secretary General**  
Secretariat, Huafan University, Taiwan
3. 2012/02 – 2015/07 : **Dean**  
College of Engineering and Management, Huafan University, Taiwan
4. 2011/08 - 2012/07 : **Convener**  
Internal Control and Audit Committee, Huafan University, Taiwan
5. 2005/08 - 2011/07 : **Secretary General**  
Secretariat, Huafan University, Taiwan
6. 2000/08 - 2005/07 : **Department Chair**  
Department of Electronic Engineering, Huafan University, Taiwan
7. 1993/08 - 2006/12 : **Associate Professor**  
Department of Electronic Engineering, Huafan University, Taiwan
8. 1993/02 - 1993/06 : **Postdoctoral Fellow**  
Institute of Information Science, Academia Sinica, Taiwan

## Academic Services

### A. National Science Council (NSC), Taiwan

1. 2011/01 – 2013/12 : **Final Review Committee Member for NSC Research Project**  
Control Engineering Program, National Science Council (NSC), Taiwan
2. 2007/01 - 2007/12 : **Final Review Committee Member for NSC Research Project**  
Control Engineering Program, National Science Council (NSC), Taiwan
3. 2012/01 - 2012/12 : **Planning Committee Member**  
Control Engineering Program, National Science Council (NSC), Taiwan
4. 2008/01 - 2008/12 : **Planning Committee Member**  
Control Engineering Program, National Science Council (NSC), Taiwan
5. 2005/01 - 2005/12 : **Planning Committee Member**  
Control Engineering Program, National Science Council (NSC), Taiwan

## **B. Conference Service (since 2002)**

### **1. Member of International Affairs Chairs**

*The 6<sup>th</sup> Data-Driven Control and Learning System Conference*, Chongqing, China, May 26-27, 2017.

### **2. Member of International Affairs Chairs**

*The 5<sup>th</sup> Data-Driven Control and Learning System Conference*, Yinchuan, China, May 28-31, 2016.

### **3. Associate Editor**

*The 11th IEEE International Conference on Control & Automation (IEEE ICCA 2014)*, Taipei, Taiwan, 2014.

### **4. Program Committee Member**

*2012 International Conference on Fuzzy Theory and It's Applications*, Taiwan, 2012.

### **5. Program Committee Member**

*The National Conference on Fuzzy Theory and It's Applications*, Taiwan, 2002, 2004-2014

### **6. Associate Editor and Program Committee Member**

*The 5th IEEE International Conference on Cybernetics and Intelligent Systems and the 5th IEEE International Conference on Robotics, Automation and Mechatronics (CIS-RAM 2011)*, 2011

### **7. Workshop and Tutorial Co-chair**

*2010 SICE Annual Conference 2010 in Taiwan*, Taipei, Taiwan, August 18-21, 2010.

### **8. Advisory Committee Member**

*Symposium on Learning Control at IEEE CDC 2009*, Shanghai, China, December 14-15, 2009.

### **9. Program Committee Member**

*IEEE International Conference on Systems, Man and Cybernetics*, Taipei, Taiwan, 2006.

### **10. Local Arrangement Committee Member**

*2004 IEEE Conference on Control Applications*, Taipei, Taiwan, 2004

## **C. Journal Reviewer (since 2002)**

**Advances in Difference Equations; Advanced Robotics; Asian Journal of Control, Automatica; Control Engineering Practice; Complexity; Fuzzy Sets and Systems, IEE Proc. Control Theory & Applications; IEEE/ASME Transactions on Mechatronics; IEEE Control Systems Magazine; IEEE Transactions on Automatic Control; IEEE Transactions on Cybernetics; IEEE Transactions on Fuzzy Systems; IEEE Transactions on Industrial Electronics; IEEE Transactions on Neural Network; IEEE Transactions on System, Man and Cybernetics, Part A; IEEE Transactions on System, Man and Cybernetics, Part B; Information Sciences; International Journal of Automation and Computing; International Journal of Automation and Control; International Journal of Control; International Journal of Computer Applications in Technology; International Journal of Electrical Engineering; International Journal of Fuzzy Systems; International Journal of Information and Management Science; International Journal of Robust and Nonlinear Control; International Journal of Systems and Science; ISA Transactions; Journal of Franklin Institute; Journal of Intelligent Material Systems and**

Structures; Journal of Marine Science and Technology; Journal of Mathematical Control Science and Applications; Journal of Process Control; Journal of Systems and Control Engineering; Journal of the Chinese Institute of Engineers; Journal of Vibration and Control; Mechatronics; Mathematical Problems in Engineering; Neurocomputing.

### Honors and Awards

1. **First Prize of Best Paper Award : 2016**  
“Localization approach towards anchor to node in wireless sensor networks,” *The 2016 International Automatic Control Conference (CACCS 2016)*, Taichung, Taiwan, November 9-11, 2016.
2. **Top research articles published in 2014 and 2015 at International Journal of Fuzzy Systems**  
“A fuzzy-neural adaptive terminal iterative learning control for fed-batch fermentation processes”, *International Journal of Fuzzy Systems*, Vol. 17, Issue 3, pp. 423-433, 2015.
3. **Keynote Speaker : 2014**  
“Revisit of PID-type iterative learning control from memory capacity point of view”, *The 3rd International Workshop on Learning Control*, Qingdao, China, April 25-27, 2014.
4. **The most-accessed papers from 2011 at Asian Journal of Control : 2012**  
“Decentralized adaptive fuzzy neural iterative learning control for nonaffine nonlinear interconnected systems”, *Asian Journal of Control*, Vol. 13, No. 1, pp. 94-106, 2011.
5. **Best Paper Award : 2009**  
“Theoretical design and FPGA chip implementation for type 2 fuzzy iterative learning controllers,” *2009 The 17th National Conference on Fuzzy Theory and Its Applications*, Kaohsiung, Taiwan, December 18-19, 2009.
6. **Excellent Research Teacher : 1997, 1998, 1999, 2004, 2005, 2006, 2009, 2012**  
Huafan University
7. **Excellent Service Teacher : 2003, 2005, 2006, 2011, 2012**  
Huafan University
8. **Excellent Research Award : 1995, 1997, 1999**  
National Science Council, Taiwan (This award has been ceased at 2000)

### Project and Grants

1. 2017/08 ~ 2018/07 : **Principal Investigator**
2. **【The Adaptive Iterative Learning Control for Nonlinear Systems with Iteration-time-varying Parameters】**, Ministry of Science and Technology, Taiwan, MOST106-2221 -E-211-001.
3. 2016/08 ~ 2017/07 : **Principal Investigator**  
**【Design and Application of Discrete Fuzzy Adaptive Controller for Repetitive and Non-Repetitive Control Tasks】**, Ministry of Science and Technology, Taiwan, MOST105-2221 -E-211-006.
4. 2015/08 ~ 2016/07 : **Principal Investigator**  
**【On the Study of Terminal, Partial Trajectory and Full Trajectory Iterative Learning Control】**, Ministry of Science and Technology, Taiwan, MOST104-2221-E-211-010.
5. 2015/08 ~ 2016/07 : **Co-Principal Investigator**  
**【The Study of Coordinated Adaptive Iterative Learning Control for Freeway Multi-Ramp Metering Using Improved Bacterial Foraging Optimization based Desired Traffic Density**

- Planning】 , Ministry of Science and Technology, Taiwan, MOST104-2221-E-211-009.
6. 2014/01 ~ 2016/12 : **Co-Principal Investigator (International Collaboration with Prof. Shen Dong, Beijing University of Chemical Technology, China)**  
【Design and Analysis of Iterative Learning Control Algorithms of Stochastic Systems for Unusual Tracking References】 , National Science Foundation of China, China, 61304085.
  7. 2014/01 ~ 2017/12 : **Co-Principal Investigator (International Collaboration with Prof. Ronghu Chi, Qingdao University of Science and Technology, China)**  
【Data-driven Point-to-Point Iterative Learning Control and Applications in the High-Speed and High-Precision Positioning】 , National Science Foundation of China, China, 61374102.
  8. 2014/08 ~ 2015/07 : **Principal Investigator**  
【Design and Application of Iterative Learning Controller From Memory Capacity Point of View】 , Ministry of Science and Technology, Taiwan, MOST103-2221-E-211-010.
  9. 2014/08 ~ 2015/07 : **Co-Principal Investigator**  
【Model Reference Adaptive ILC for MIMO Nonlinear Systems based on Observer Design】 , Ministry of Science and Technology, Taiwan, MOST103-2221-E-211-012.
  10. 2013/08 ~ 2014/07 : **Principal Investigator**  
【Design and Application of Discrete Adaptive Iterative Learning Control for Discrete Nonlinear Systems】 , National Science Council, Taiwan, NSC102-2221-E-211-011.
  11. 2012/08 - 2013/07 : **Principal Investigator**  
【Design and Application of Two Classes of Iterative Learning Controller】 , National Science Council, Taiwan, NSC101-2221-E-211-008.
  12. 2010/08 - 2012/07 : **Principal Investigator**  
【Design and Experiment of Fuzzy Neural Adaptive Controller for Repeatable and Unrepeatable Control Tasks】 (two years project), National Science Council, Taiwan, NSC99-2221-E-211-011-MY2.
  13. 2010/08 - 2011/07 : **Co-Principal Investigator**  
【Design of Adaptive Iterative Learning Controller Based on Variable Circuit Structure】 , National Science Council, Taiwan, NSC99-2221-E-211-012.
  14. 2009/08 - 2010/07 : **Principal Investigator**  
【Theory and Implementation of Fuzzy Neural Network Based Iterative Learning Controller】 , National Science Council, Taiwan, NSC 98-2221-E-211-015.
  15. 2008/08 - 2009/07 : **Principal Investigator**  
【Theory Analysis and Application of Adaptive Iterative Learning Controller (II)】 , National Science Council, Taiwan, NSC97- 2221-E-211-003.
  16. 2007/08 - 2008/07 : **Principal Investigator**  
【Theory Analysis and Application of Adaptive Iterative Learning Controller (I)】 , National Science Council, Taiwan, NSC96- 2221-E-211-019.
  17. 2006/08 - 2007/07 : **Principal Investigator**  
【Design, Analysis and Experiment of Iterative Learning Control for Piezoelectric Actuators】 , National Science Council, Taiwan, NSC95-2221-E-211-006.
  18. 2005/08 - 2006/07 : **Principal Investigator**  
【Decentralized Fuzzy Adaptive Iterative Learning Controller for Interconnected Nonlinear Systems】 , National Science Council, Taiwan, NSC94-2213-E-211-008.
  19. 2004/08 - 2005/07 : **Principal Investigator**  
【Analysis and Implementation of Iterative Learning Controller Using Current Error Design】 , National Science Council, Taiwan, NSC93-2218-E-211-002.

20. 2003/08 - 2004/07 : **Principal Investigator**  
**【Theoretical Analysis and FPGA Implementation of Recurrent Fuzzy Neural Adaptive Iterative Learning Controller】** , National Science Council, Taiwan, NSC92-2213-E-211-002.
21. 2003/08 - 2004/07 : **Co-Principal Investigator**  
**【The Development of VHDL Program Generator for FIR filters with Signed-powers-of-two Coefficients】** , National Science Council, Taiwan, NSC92-2218-E-211-002.
22. 2002/08 - 2003/07 : **Principal Investigator**  
**【Study of Adaptive Iterative Learning Control System with Initial State Errors】** , National Science Council, Taiwan, NSC91-2213- E-211-001.
23. 2001/08 - 2002/07 : **Principal Investigator**  
**【Design and Implementation of a Class of New Adaptive Iterative Learning Controller】** , National Science Council, Taiwan, NSC90 -2213-E-211-002.
24. 2000/08 - 2001/07 : **Principal Investigator**  
**【Design and Implementation of Fuzzy Iterative Learning Controller for Non-affine Nonlinear Systems】** , National Science Council, Taiwan, NSC89-2218-E-211-001.
25. 1999/08 - 2000/07 : **Principal Investigator**  
**【Model Reference Iterative Learning Control Systems】**, National Science Council, Taiwan, NSC 89-2213-E-211-008.
26. 1998/08 - 1999/07 : **Principal Investigator**  
**【Study of Discrete Iterative Learning Controller Using Fuzzy Neural Network Design】** , National Science Council, Taiwan, NSC88-2213-E-211-005.
27. 1997/08 - 1998/07 : **Principal Investigator**  
**【Study of Digital Implementation for Iterative Learning Controller】** , National Science Council, Taiwan, NSC87-2213- E-211-006.
28. 1996/08 - 1997/07 : **Principal Investigator**  
**【A New Iterative Learning Controller Combining Feedback and Feedforward Design】** , National Science Council, Taiwan, NSC86-2213-E-211-004.
29. 1995/08 - 1996/07 : **Principal Investigator**  
**【A New Iterative Learning Controller for Nonlinear Time-varying Systems】** , National Science Council, Taiwan, NSC85-2213-E- 211-007.
30. 1994/08 - 1995/07 : **Principal Investigator**  
**【Adaptive Variable Structure Control for Nonlinear Systems】**, National Science Council, Taiwan, NSC84-2212-E-211-002.

## **Publications**

### **A. Journal Papers (Since 2000)**

1. Na Lin, Ronghu Chi, Biao Huang, Chiang-Ju Chien, Yuanjing Feng, “An E-HOIM based data-driven adaptive TILC of nonlinear discrete-time systems for non-repetitive terminal point tracking,” Accepted, *Asian Journal of Control*, 2017.
2. Ying-Chung Wang, Chiang-Ju Chien, Ronghu Chi and Zhongsheng Hou, and Ching-Hung Lee, “Adaptive iterative learning control for freeway traffic flow systems using improved bacterial foraging optimized desired traffic densities planning,” *International Journal of Fuzzy Systems*, (SCI), DOI: 10.1007/s40815-016-0231-8, 2016.
3. Dong Shen, Wei Zhang, Youqing Wang, Chiang-Ju Chien, “On almost sure and mean square convergence of P-type ILC under randomly varying iteration lengths,” *Automatica*, (SCI), Vol. 63, pp. 359-365, 2016.

4. Ronghu Chi, Zhongsheng Hou, Shangtai Jin, Danwei Wang and Chiang-Ju Chien, "Enhanced data-driven optimal terminal ILC using current iteration control knowledge," *IEEE Transactions on Neural Networks and Learning Systems*, (SCI), Vol.26, No.11, pp. 2939-2948, 2015.
5. Ying-Chung Wang, Chiang-Ju Chien, Ronghu Chi and Zhongsheng Hou, "A fuzzy-neural adaptive terminal iterative learning control for fed-batch fermentation processes," *International Journal of Fuzzy Systems*, Vol. 17, Issue 3, pp. 423-433, 2015.
6. Chiang-Ju Chien, Yu-Chung Hung and Ronghu Chi, "On the current error based sampled-data iterative learning control with reduced memory capacity", *International Journal of Automation and Computing*, Vol.12, No.3, pp. 307- 315, 2015.
7. Ying-Chung Wang and Chiang-Ju Chien, "An observer-based model reference adaptive iterative learning controller for nonlinear systems," *International Journal of Fuzzy Systems*, Vol. 16, No. 1, pp. 73-85, 2014.
8. Ying-Chung Wang and Chiang-Ju Chien, "An observer based adaptive iterative learning control using filtered-FNN design for robotic systems," *Advances in Mechanical Engineering*, (SCI), Vol. 2014, Article ID 471418, 14 pages, 2014. doi:10.1155/2014/471418.
9. Ying-Chung Wang, Chiang-Ju Chien and Chi-Nan Chuang, "An output based adaptive iterative learning control with particle swarm optimization for robotic systems," *Applied Mechanics and Materials*, Vols. 479-480, pp. 737-741, 2014.
10. Ying-Chung Wang, Chiang-Ju Chien and Chi-Nan Chuang, "Adaptive iterative learning control of robotic systems using backstepping design," *Transactions of the Canadian Society for Mechanical Engineering*, Vol. 37, No. 3, pp.591-601, 2013.
11. Ying-Chung Wang and Chiang-Ju Chien, "Design and analysis of fuzzy-neural discrete adaptive iterative learning control for nonlinear plants", *International Journal of Fuzzy Systems*, Vol. 15, No. 2, pp.149-158, 2013.
12. Ying-Chung Wang, Chiang-Ju Chien and Chi-Nan Chuang, "Backstepping adaptive iterative learning control for robotic systems," *Applied Mechanics and Materials*, Vols. 284-287, pp. 1759-1763, 2013.
13. Ying-Chung Wang and Chiang-Ju Chien, "Repetitive tracking control of nonlinear systems using reinforcement fuzzy-neural adaptive iterative learning controller", *Applied Mathematics & Information Sciences*, Vol. 6, No. 3, pp. 473-481, September 2012.
14. Ying-Chung Wang and Chiang-Ju Chien, "An output-recurrent-neural-network-based iterative learning control for unknown nonlinear dynamic plants," *Journal of Control Science and Engineering*, Volume 2012, Article ID 545731, 9 pages, 2012.
15. Ying-Chung Wang and Chiang-Ju Chien, "Decentralized adaptive fuzzy neural iterative learning control for nonaffine nonlinear interconnected systems," *Asian Journal of Control*, Vol. 13, No. 1, pp. 94-106, 2011.
16. Fu-Shin Lee, Jhen-Cheng Wang and Chiang-Ju Chien, "B-Spline network based iterative learning control for trajectory tracking of a piezoelectric actuator," *Mechanical Systems and Signal Processing*, Volume 23, Issue 2, pp. 523-538, February 2009.
17. Chiang-Ju Chien and Abdelhamid Tayebi, "Further results on adaptive iterative learning control of robot manipulators," *Automatica*, Vol. 44. No. 3, pp. 830-837, 2008.
18. Chiang-Ju Chien, "A combined adaptive law for fuzzy iterative learning control of nonlinear systems with varying control tasks," *IEEE Transactions on Fuzzy System*, Vol. 16, No. 1, pp. 40-51, 2008.
19. Abdelhamid Tayebi and Chiang-Ju Chien, "A unified adaptive iterative learning control framework for uncertain nonlinear systems," *IEEE Transactions on Automatic Control*, Vol. 52,

- No. 10, pp. 1907-1913, 2007.
20. Fu-Shin Lee, Chiang-Ju Chien, and Jhen-Cheng Wang, "Trajectory tracking of piezoelectric actuators using state compensated iterative learning control," *Journal of Intelligent Material Systems and Structures*, Vol. 18, No. 6, pp. 555-567, 2007.
  21. Chia-Yu Yao, Chun-Te Hsu, and Chiang-Ju Chien, "Stability analysis of fourth-order charge-pump PLLs using linearized discrete-time models," *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E90-C, No. 3, pp. 628-633, 2007.
  22. Chiang-Ju Chien, Fu-Shin Lee and Jhen-Cheng Wang, "Enhanced iterative learning control for a piezoelectric actuator system using wavelet transform filtering," *Journal of Sound and Vibration*, Volume 299, Issue 3, pp. 605-620, 2007.
  23. Chiang-Ju Chien, "An adaptive PID-type iterative learning controller for nonlinear systems with non-repeatable control tasks," *Journal of the Chinese Institute of Engineering*, Vol. 29, No. 2, pp. 279-287, 2006.
  24. Ying-Chung Wang, Chiang-Ju Chien, and Der-Tsai Lee, "A hybrid adaptive scheme of fuzzy-neural iterative learning controller for nonlinear dynamic systems," *International Journal of Fuzzy Systems*, Vol. 7, No. 4, pp. 147-157, 2005.
  25. Fu-Shin Lee, Chiang-Ju Chien, Jhen-Cheng Wang, and Jui-Jung Liu, "Application of a model-based iterative learning technique to tracking control of a piezoelectric system," *Special Issue on Precision Motion Control and Instrumentation, Asian Journal of Control*, (SCI), Vol. 7, No. 1, pp. 29-37, 2005.
  26. Chia-Yu Yao, Hsin-Horng Chen, Chiang-Ju Chien, and Chun-Te Hsu, "A high-level synthesis procedure for linear-phase fixed-point FIR filters with SPT coefficients," *International Journal of Electrical Engineering*, Vol. 12, No. 1, pp. 75-84, 2005.
  27. Chia-Yu Yao, Hsin-Horng Chen, Tsuan-Fan Lin, Chiang-Ju Chien, and Chun-Te Hsu, "A novel common subexpression elimination method for synthesizing fixed-point FIR filters," *IEEE Transactions on Circuits and Systems I*, Vol. 51, No. 11, pp. 2215-2221, 2004.
  28. Chiang-Ju Chien, Chun-Te Hsu and Chia-Yu Yao, "Fuzzy system based adaptive iterative learning control for nonlinear plants with initial state errors," *IEEE Transactions on Fuzzy Systems*, Vol. 12, No. 5, pp. 724-732, 2004.
  29. Ying-Chung Wang, Chiang-Ju Chien and Ching-Cheng Teng, "Direct adaptive iterative learning control of nonlinear systems using an output recurrent fuzzy neural network," *IEEE Transactions on Systems, Man and Cybernetics - Part B*, Vol. 34, No. 3, pp. 1348-1359, 2004.
  30. Chiang-Ju Chien and Chia-Yu Yao, "Iterative learning of model reference adaptive controller for uncertain nonlinear systems with only output measurement," *Automatica*, Vol. 40, No. 5, pp. 855-864, 2004.
  31. Chiang-Ju Chien and Chia-Yu Yao, "An output based adaptive iterative learning controller for high relative degree uncertain linear systems," *Automatica*, Vol. 40, No. 1, pp. 145-153, 2004.
  32. Chia-Yu Yao and Chiang-Ju Chien, "A partial MILP algorithm for the design of linear phase FIR filters with SPT coefficients," *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E85A, No. 10, pp. 2302-2310, 2002.
  33. Chiang-Ju Chien and Li-Chen Fu, "An iterative learning control of nonlinear systems using neural network design," *Special Issue on Iterative Learning Control, Asian Journal of Control*, Vol. 4, No.1, pp. 21-29, 2002.
  34. Chiang-Ju Chien, "A sampled-data iterative learning control using fuzzy network design," *Special Issue on Iterative Learning Control, International Journal of Control*, Vol. 73, No. 10,

pp. 902-913, 2000.

## **B. Conference Papers (Since 2000)**

1. Chiang-Ju Chien, Ying-Chung Wang, Meng Joo Er, "On the adaptive fuzzy control of discrete-time nonaffine nonlinear systems with unknown control direction," *2017 International Conference on Fuzzy Theory and Its Applications (iFuzzy 2017)*, Kenting, Pingtung, Taiwan, Nov. 12-15, 2017.
2. Shaobao Li, Meng-Joo Er, Ning Wang, and Chiang-Ju Chien, "Adaptive fuzzy output regulation for formation control of unmanned surface vehicles," *2017 International Conference on Fuzzy Theory and Its Applications (iFuzzy 2017)*, Kenting, Pingtung, Taiwan, Nov. 12-15, 2017.
3. Chiang-Ju Chien, Ying-Chung Wang, Meng Joo Er, "A novel adaptive iterative learning control for continuous-time nonlinear systems with iteration-varying uncertainties," *2017 International Automatic Control Conference (CACs 2017)*, Kenting, Pingtung, Taiwan, Nov. 12-15, 2017.
4. Rajasekar Venkatesan, Meng-Joo Er, Ning Wang, and Chiang-Ju Chien, "Progressive learning strategies for multi-class classification," *2017 International Automatic Control Conference (CACs 2017)*, Kenting, Pingtung, Taiwan, Nov. 12-15, 2017.
5. Chiang-Ju Chien, Ying-Chung Wang, Meng Joo Er, Dong Shen, Ronghu Chi, "An adaptive iterative learning control for discrete-time nonlinear systems with iteration -varying uncertainties," *2017 IEEE 6th Data Driven Control and Learning Systems Conference*, Chongqing, China, May 26-27, 2017.
6. Lanjing Wang, Dong Shen, Xuefang Li, Chiang-Ju Chien, Ying-Chung Wang, "Sampled-data iterative learning control for nonlinear systems with iteration varying lengths," *2017 IEEE 6th Data Driven Control and Learning Systems Conference*, Chongqing, China, May 26-27, 2017.
7. Chiang-Ju Chien, Ying-Chung Wang, Meng Joo Er, Dong Shen and Ronghu Chi, "A new design of adaptive terminal iterative learning control for nonlinear systems," *The 2016 International Automatic Control Conference (CACs 2016)*, Taichung, Taiwan, November 9-11, 2016.
8. Meng Joo Er, Shi Zhang, Baihai Zhang, Chiang-Ju Chien, and Feifan Wang, "Localization approach towards anchor to node in wireless sensor networks," *The 2016 International Automatic Control Conference (CACs 2016)*, Taichung, Taiwan, November 9-11, 2016.
9. Ying-Chung Wang, Chiang-Ju Chien, Ronghu Chi and Dong Shen, "A direct adaptive iterative learning control for nonaffine nonlinear discrete-time systems with unknown control directions," *2016 International Conference on Fuzzy Theory and Its Applications (iFuzzy 2016)*, Taichung, Taiwan, November 9-11, 2016.
10. Chiang-Heng Chien, Chen-Chien Hsu, Wei-Yen Wang, Wen-Chung Kao and Chiang-Ju Chien, "New solutions to the premature convergence problem in Monte Carlo localization," *The 6th IEEE International Conference on Consumer Electronics*, Berlin, Germany, September 5-7, 2016.
11. Chiang-Heng Chien, Chen-Chien Hsu, Wei-Yen Wang, Wen-Chung Kao and Chiang-Ju Chien, "FPGA-implemented corner feature extracting simultaneous localization and mapping," *The 6th IEEE International Conference on Consumer Electronics*, Berlin, Germany, September 5-7, 2016.
12. Chiang-Heng Chien, Chen-Chien Hsu, Wei-Yen Wang, Wen-Chung Kao and Chiang-Ju Chien, "Global localization of Monte Carlo localization based on multi-objective particle swarm optimization," *The 6th IEEE International Conference on Consumer Electronics*, Berlin, Germany, September 5-7, 2016.
13. Ronghu Chi, Xiaohe Liu, Zhongsheng Hou and Chiang-Ju Chien, "A novel adaptive iterative learning control via data-driven approach," *The 35th Chinese Control Conference (CCC 2016)*,



Chengdu, China, July 27-29, 2016.

14. Shaobao Li, Meng Joo Er, Chiang-Ju Chien and Ning Wang, "An adaptive output regulation approach for formation control of heterogeneous multi-agent systems," *The 2016 IEEE Congress on Evolutionary Computation (IEEE CEC 2016)*, Vancouver, Canada, July 24-29, 2016.
15. Chiang-Ju Chien, Ya-Syuan Shu, "Study of a class of sampled-data ILC from the point of performance improvement and memory capacity," *The 28th Chinese Control and Decision Conference (2016 CCDC), The 5th Data-Driven Control and Learning Systems (2016 DDCLS)*, Yinchuan, China, May 28-31, 2016.
16. Ying-Chung Wang, Chiang-Ju Chien, and Chun-Hung Wang, "A fuzzy-neural adaptive iterative learning control for freeway traffic flow systems," *International MultiConference of Engineers and Computer Scientists*, Hong Kong, March 16-18, 2016.
17. Ying-Chung Wang, Chiang-Ju Chien, and Chun-Hung Wang, "A discrete robust adaptive iterative learning control for a class of nonlinear systems with unknown control direction," *International MultiConference of Engineers and Computer Scientists*, Hong Kong, March 16-18, 2016.
18. Ying-Chung Wang and Chiang-Ju Chien, "A fuzzy iterative learning control for nonlinear discrete-time systems with unknown control directions," *The 54th IEEE Conference on Decision and Control*, Osaka, Japan, December 15-18, 2015.
19. Ying-Chung Wang and Chiang-Ju Chien, "Adaptive iterative learning control for traffic flow systems using improved bacterial foraging optimization based desired traffic densities planning," *2015 International Conference on Fuzzy Theory and Its Applications (iFUZZY 2015)*, Yilan, Taiwan, November 18-20, 2015.
20. Jianxiang Zhang, Xisheng Dai and Chiang-Ju Chien "Iterative learning control for nonlinear distributed parameter switched systems with time delay," *The 2015 International Automatic Control Conference (CAC2015)*, Yilan, Taiwan, November 18-20, 2015.
21. Chiang-Ju Chien, Ying-Chung Wang, Dong Shen and Ronghu Chi, "Design of fuzzy adaptive iterative learning control for nonaffine nonlinear discrete-time systems," *The 34th Chinese Control Conference*, Hangzhou, China, July 28-30, 2015.
22. Jian Han, Dong Shen and Chiang-Ju Chien, "Terminal iterative learning control for discrete-time nonlinear system based on neural networks," *The 34th Chinese Control Conference*, Hangzhou, China, July 28-30, 2015.
23. Chiang-Ju Chien, Ying-Chung Wang, Ronghu Chi and Dong Shen, "An adaptive terminal iterative learning control for nonaffine nonlinear discrete-time systems," *The 27th Chinese Control and Decision Conference (2015 CCDC)*, Qingdao, China, May 23-25, 2015.
24. Ronghu Chi, Yu Liu, Zhongsheng Hou, Shangtai Jin and Chiang-Ju Chien, "A novel terminal iterative learning control for nonlinear systems with high-order error information," *The 27th Chinese Control and Decision Conference (2015 CCDC)*, Qingdao, China, May 23-25, 2015.
25. Dong Shen, Zhang Wei, Youqing Wang and Chiang-Ju Chien, "Almost sure and mean square convergence of ILC for linear systems with randomly varying iteration lengths," *The 27th Chinese Control and Decision Conference (2015 CCDC)*, Qingdao, China, May 23-25, 2015.
26. Yiwen Luo, Meng-Joo Er, Li Ling Yong and Chiang-Ju Chien, "Intelligent control and navigation of an indoor quad-copter," *The 13th International Conference on Control, Automation, Robotics and Vision (ICARCV 2014)*, Singapore, December 10-12, 2014.
27. Chiang-Ju Chien, Ying-Chung Wang and Ronghu Chi, "Sample-data adaptive iterative learning control for a class of unknown nonlinear systems," *The 13th International Conference on*

- Control, Automation, Robotics and Vision* (ICARCV 2014), Singapore, December 10-12, 2014.
28. Ying-Chung Wang, Chiang-Ju Chien and Meng-Joo Er, "An observer-based adaptive iterative learning controller for MIMO nonlinear systems with delayed output," *The 13th International Conference on Control, Automation, Robotics and Vision* (ICARCV 2014), Singapore, December 10-12, 2014.
  29. Ying-Chung Wang, Chiang-Ju Chien and Ronghu Chi, "A fuzzy neural network based adaptive terminal iterative learning control for nonaffine nonlinear discrete-time systems," *2014 International Conference on Fuzzy Theory and Its Applications* (iFuzzy 2014), Kaohsiung, Taiwan, November 26-28, 2014.
  30. Ying-Chung Wang, Chiang-Ju Chien and I-Hong Jhuo, "Model reference adaptive iterative learning control for nonlinear systems using observer design," *2014 IEEE International Conference on Fuzzy Systems*, (FUZZ-IEEE 2014), Beijing, China, July 6-11, 2014.
  31. Ying-Chung Wang and Chiang-Ju Chien, "An observer-based model reference adaptive iterative learning controller for MIMO nonlinear systems," *The 11th IEEE International Conference on Control & Automation* (IEEE ICCA 2014), Taichung, Taiwan, June 18-20, 2014.
  32. Chiang-Ju Chien, Yu-Chung Hung and Ronghu Chi, "Design and analysis of current error based sampled-data ILC with application to position tracking control of DC motors," *The 11th IEEE International Conference on Control & Automation* (IEEE ICCA 2014), Taichung, Taiwan, June 18-20, 2014.
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