

Faa-Jeng Lin (林法正)　IEEE /IET/CIEE/AAIS Fellow
Deputy Minister, National Science and Technology Council (NSTC), Taiwan
Chair Professor, Dept. of Electrical Engineering, National Central University
300, Chungda Rd., Chungli, Taoyuan 32001, Taiwan
Tel: (O) 886-3-4227151~34532
E-mail: linfj@ee.ncu.edu.tw
http://www.ee.ncu.edu.tw/~linfj/

Sep. 29, 2026

Professor Lin is currently Chair Professor at the Department of Electrical Engineering, National Central University (NCU), Taiwan. He is also Executive Director, Taiwan Power Company. His research interests include AC servo motor drives, photovoltaic power generation systems, wind turbine generation systems, smart grid, intelligent control theories (fuzzy systems, neural networks and evolutionary computation), nonlinear control theories (adaptive and sliding-mode), control theory applications, inverters/converters, and DSP-based computer control systems. For the past 30 years, he has published nearly 230 SCI journal papers including 113 IEEE Trans. Papers, 149 conference papers and 19 patents in the areas of intelligent control, nonlinear control, motor drives, renewable energy and smart grid. His H-index of 65 in Google Scholar reflects 13382 citations. Moreover, his work has been widely cited. Several of these papers have helped to establish research areas such as fuzzy neural network control of motor drives and motion control systems, and intelligent control of renewable energy resources. He has been elevated to Fellow by the IEEE in 2017. Additionally, he was Deputy Minister, National Science and Technology Council (NSTC), Taiwan, from 2024 to 2026; President, National Applied Research Laboratories (NARLabs), Taiwan, from 2022 to 2024; Dean, College of Electrical Engineering and Computer Science, NCU, from 2021-2022.

Areas of Research

1. Synchronous and induction motor servo drives (rotating and linear)
2. Renewable energy systems
3. Microgrid and smart grid
4. Intelligent control systems including fuzzy, neural network and evolutionary computation
5. Nonlinear and adaptive control
6. Power electronics
7. Magnetic levitation
8. Piezoceramic actuator
9. DSP-based computer control systems and computer interface
10. Digital and analog circuits, VHDL, Spice

Education

1993 Ph. D. Electrical Engineering, National Tsing-Hua University.
1985 M. Sc. Electrical Engineering, National Cheng-Kung University.
1983 B. Sc. Electrical Engineering, National Cheng-Kung University.

Professional Experience

2024-2026 Board Director, National Chung-Shan Institute of Science and Technology (NCSIST)
2024-2026 Deputy Minister, National Science and Technology Council (NSTC), Taiwan
2022-2024 President, National Applied Research Laboratories, Taiwan
2023- Board Director, National Atomic Research Institute, Taiwan
2021-2022 Dean, College of Electrical Engineering and Computer Science, National Central University
2021-2024 Board Director, United Renewable Energy Company, Taiwan
2019-2021 Member, Science and Technology Policy Advisory Office, Board of Science & Technology, Executive Yuan, Taiwan
2017- Executive Director, Taiwan Power Company
2017-2021 Adjunct Research Fellow, Office of Science and Technology, Executive Yuan, Taiwan
2016-2021 Board Director, Taiwan Electric Research and testing Center
2013-2017 Director, United Research Centers, National Central University
2010-2019 Chair, Smart Grid Focus Center, National Energy Project I and II, Taiwan
2010- Chair Professor, Department of Electrical Engineering, National Central University
2007-09 Chair, Power Engineering Division, National Science Council, Taiwan
2007-09 Distinguished Professor, Department of Electrical Engineering, National Central University
2006-07 Dean, Office of Academic Affairs, Professor, Department of Electrical Engineering, National Dong Hwa University
2003-05 Dean, Office of Research and Development, Professor, Department of Electrical Engineering, National Dong Hwa University
2001-03 Professor and Chairperson, Department of Electrical Engineering, National Dong Hwa University
1998-01 Professor, Department of Electrical Engineering, Chung Yuan Christian University
1993-98 Associate professor, Department of Electrical Engineering, Chung Yuan Christian University
1989-90 Lecturer, Department of Electrical Engineering , Lien-Ho Institute of Technology
1988-89 Group Leader, Chung-Shan Institute of Science and Technology (CSIST) Develop the following system: 1. Automatic testing system for missile. 2. Single board computer system. 3. Measurement and testing of aerodynamic control system.
1987 Testing Engineer, CSIST division at Fort Worth, Texas, U.S.A.

Test and design avionics system - MFD, HUD etc.

1985-86 Software and Hardware Engineer, CSIST

Awards

1. Excellent Research Award, National Science Council, Taiwan, 1993 to 2000.
2. Outstanding Research Professor Award, Chung Yuan Christian University, Taiwan, 2000
3. Excellent Young Electrical Engineer Award, the Chinese Electrical Engineering Association, Taiwan, 2000.
4. The Crompton Premium Best Paper Award, the Institution of Electrical Engineers (IEE), United Kingdom, 2002.
5. Best Paper Award, Taiwan Power Electronics Conference, Taiwan, 2004~2006, 2009, 2011.
6. Outstanding Research Award, National Science Council, Taiwan, 2004.
7. Outstanding Research Professor Award, National Dong Hwa University, Taiwan, 2004.
8. Outstanding Technology Award, Precision CNC Servo Competition, Ministry of Education, Taiwan, 2004.
9. Outstanding Professor of Electrical Engineering Award, the Chinese Electrical Engineering Association, Taiwan, 2005.
10. Fellow, The Institution of Engineering and Technology (IET, former IEE), 2007.
11. Distinguished Professor, National Central University, Taiwan, 2008.
12. Project for Outstanding Researcher, National Science Council, Taiwan, 2008.
13. Best Paper Award, Applications Competition of Matlab/Simulink, Taiwan, 2009.
14. Chair Professor, National Central University, Taiwan, 2010.
15. Outstanding Research Award, National Science Council, Taiwan, 2010.
16. Outstanding Automatic Control Engineering Award, Chinese Automatic Control Society, Taiwan, 2011.
17. Best Paper Award, Applications Competition of Texas Instrument Asia, Taiwan, 2012.
18. Chair Professor, National Central University, Taiwan, 2013.
19. Outstanding Contribution Award, Power Engineering Division, National Science Council, Taiwan, 2013.
20. Outstanding Research Award, National Science Council, Taiwan, 2013.
21. Best Paper Award, Industrial Technology Research Institute, Taiwan, 2013.
22. The second place, Texas Instruments innovation challenge DSP/MPU Design Contest 2014, Taiwan.
23. Excellent Patent Award, National Central University, Taiwan, 2014.
24. Excellent Patent Award, National Central University, Taiwan, 2015.
25. Outstanding Professor of Engineering Award, the Chinese Institute of Engineers, Taiwan, 2016.
26. Chair Professor, National Central University, Taiwan, 2016.
27. Excellent Patent Award, National Central University, Taiwan, 2016.
28. The Most Cited Researchers in Electrical and Electronic Engineering: Developed

for ShanghaiRanking's Global Ranking of Academic Subjects 2016 by Elsevier
29. Best Paper Award, R. O. C. Symp. on Electrical Power Eng., 2016
30. Fellow, The Institute of Electrical and Electronics Engineers (IEEE), 2017
31. Project for Research Fellow, MOST, 2017
32. Excellent Patent Award, National Central University, Taiwan, 2018.
33. Excellent Technology Transfer Award, National Central University, Taiwan, 2018.
34. Chair Professor, National Central University, Taiwan, 2019.
35. Honorary Chair Professor, National Chin-Yi University of Technology, Taiwan, 2019.
36. Best Paper Award, Proc. 17th Taiwan Power Electronics Conference, 2020
37. Best Paper Award, 41th R. O. C. Symp. on Electrical Power Eng., 2020
38. Excellent Technology Transfer Award, National Central University, Taiwan, 2020.
39. Project for Research Fellow, MOST, 2020
40. Outstanding Research Fellow Award, MOST, Taiwan, 2021.
41. Excellent Industry and University Cooperation Award, National Central University, Taiwan, 2022.
42. Chair Professor, National Central University, Taiwan, 2022.
43. 29th TECO Award, 2022.
44. Fellow, The Chinese Institution of Electrical Engineering (CIEE), Taiwan, 2022.
45. Fellow, Asia-Pacific Artificial Intelligence Association (AAIA), 2023. Now International Academy of Artificial Intelligence Sciences (AAIS) since Jan. 2016.
46. Outstanding Contribution Award of Power Electronics, Taiwan Power Electronics Association, 2023.
47. Engineering Medal of Electrical Engineering, The Chinese Institution of Electrical Engineering (CIEE), Taiwan, 2024.
48. Best Paper Award 2024 International Automatic Control Conference (CACS), Oct. 31, 2024, Taoyuan, Taiwan.
49. The 69 th Academic Award, Ministry of Education
50. Best Paper Award, Proc. 22th Taiwan Power Electronics Conference, 2025
51. Best Poster Presentation Award, IEEE Industrial Applications Society 2025 (IAS2025) Annual Meeting, June 2025, New Taipei City, Taiwan.

Academic Activities

IEEE Activities

1. Member of IEEE SMC, IE and CIS Fellow Evaluating Committee (2018-)
2. Keynote Speaker, IEEE International Conference on Intelligent Green Building and Smart Grid (IEEE IGBSG), China Three Gorges University, Sep., 2019
3. Speaker, IEEE SMC Beijing Capital Region Chapter Seminar, University of Science and Technology Beijing, Nov. 12, 2018
4. Keynote Speaker, IEEE International Conference on Intelligent Green Building and Smart Grid (IEEE IGBSG), Taiwan, Apr. 22-25, 2018

5. Program Committee Member, IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2017), 2017
6. Honorary General Co-Chair, 3rd IEEE International Future Energy Electronics Conference (IFEEC), 2017
7. IEEE Fellow (2017-)
8. Associate Editor, IEEE Trans. Power Electronics (PE) (2016-2025)
9. Honorary Technical Program Chair, 2nd IEEE International Future Energy Electronics Conference (IFEEC), 2015
10. Technical Co-Chair, FUZZ-IEEE 2014
11. Honorary Technical Program Chair, 1st IEEE International Future Energy Electronics Conference (IFEEC), 2013
12. Chair, Taipei Chapter, IEEE Computational Intelligence Society (2012-2015)
13. Chair, Fuzzy Systems on Renewable Energy, Special Session in FUZZ-IEEE 2011-2022
14. Chair, Student Activities and Award Committee, FUZZ-IEEE 2011
15. Associate Editor, IEEE Trans. Fuzzy Systems (FS) (2011-2018, 2025-)
16. Chair, Task Force on Fuzzy Systems on Renewable Energy, Fuzzy Systems Technical Committee, IEEE Computational Intelligence Society (2010-2017)
17. ADCOM candidate, IEEE CIS, 2010
18. Technical Committee Member, Fuzzy Systems Technical Committee, IEEE Computational Intelligence Society (2010-)
19. Program Committee Co-Chair, IEEE Power Electronics and Drives System Conference (2009)
20. Officer, Student Activities, IEEE Taipei Section (2009-2010)
21. Director, IEEE Taipei Section (2009-2010)
22. Chair, Taipei Chapter, IEEE Industrial Electronics and Power Electronics (IE/PEL) Society (2007-2010)
23. IEEE Senior Member (1999-)
24. IEEE Member (1993-1999)

<u>IEEE-Sponsored Conference Activities</u>

1. General Co-Chair, The 2018 International Automatic Control Conference (CACS 2018), Taoyuan City, Taiwan
2. General Co-Chair, International Conference on Fuzzy Theory and Its Applications (iFUZZY), 2017
3. Program Co-Chair, International Conference on Fuzzy Theory and Its Applications (iFUZZY), 2015
4. General Co-Chair, International Conference on Fuzzy Theory and Its Applications (iFUZZY), 2013
5. Exhibition Committee Co-Chair, International Conference on System Science and Engineering (2010, sponsored by IEEE CIS Taipei Chapter)
6. Award Committee Chair, Best Students' Papers Awards, Taiwan Power Electronics Conference (2009, sponsored by IEEE IE/PEL Taipei Chapter)
7. Award Committee Chair, Best Students' Papers Awards, R. O. C. Symposium on

Electrical Power Engineering (2009, sponsored by IEEE IE/PEL Taipei Chapter)
8. Organizing Committee Member, R. O. C. Symposium on Electrical Power Engineering (2006-, sponsored by IEEE IE/PEL Taipei Chapter)
9. Organizing Committee Member, Taiwan Power Electronics Conference (2006-, sponsored by IEEE IE/PEL Taipei Chapter)
10. Program Committee Member, Conference on Fuzzy Theory and Its Applications, Taiwan (2002-2022)

Non-IEEE Acitivities

1. General Co-Chair, International Conference "Green Energy and Smart Grids" August 6-10, 2018, Irkutsk, Russia
2. Member of International editorial board, Energy Systems Research, Melentiev Energy Systems Institute, SB RAS.
3. Chair, SBRAS-MOST Joint Symposia, 2017 GREEN ENERGY: SMART GRID
4. Honorary President, Taiwan Smart Grid Industry Association (2018-)
5. Chair, SBRAS-MOST Joint Symposia, 2016 Interdisciplinary Research for Sustainable Development of Energy and Environment
6. President, Taiwan Smart Grid Industry Association (2012-2016)
7. Committee Member, Smart Grid Master Plan, Ministry of Economic Affairs, Taiwan (2011-)
8. Member of Assessment Committee of Universities, Ministry of Education, Taiwan (2011-2012)
9. Vice President, Taiwan Smart Grid Industry Association (2010-2011)
10. Chair and PI, Smart Grid and AMI, National Energy Project, National Science Council, Taiwan (2010-2018)
11. Director, The Chinese Automatic Control Society, Taiwan (2010-2011)
12. Chair, Power Engineering Division, National Science Council, Taiwan (2007-2009)
13. Regional Editor – Asia Pacific, IET Electric Power Applications (2009-2017)
14. Keynote Speaker, Australia Universities Power Engineering Conference (2008)
15. Accreditation Member, Institute of Engineering Education, Taiwan (2007-)
16. Editorial Board, IET Electric Power Applications (2005-2008)
17. Member of Assessment Committee of Universities of Science and Technology, Ministry of Education, Taiwan (2005-2016)
18. International Steering Committee Member, IET Linear drives and Industrial Applications Conference (LDIA) (2003-2016)
19. Editor-in-Chief, Journal of Power Electronics, Taiwan (2003-2007)
20. Organizing Committee Chair, International Computer Symposium, Taiwan (2002)
21. Director, Power Electronics Association, Taiwan (2001-2007)

Important Academic Contributions

Academic Achievements

Prof. Lin's contributions are well recognized by the intelligent control and renewable energies communities; he is a pioneering researcher in his discipline. According to the databases of IEEE Xplore and Thomson Reuters ISI Web of Science, he is the pioneer to apply fuzzy neural network on real-time control of the servo motor drive, which can increase the control precision of the motor servo drives. Therefore, IEEE Systems, Man, & Cybernetics (SMC) Magazine invited Prof. Lin to publish his contribution in an invited article "Online Autotuning of a Servo Drive Using Wavelet Fuzzy Neural Network to Search for the Optimal Bandwidth" in its Oct. 2018 issue. Moreover, he has very distinguished contribution in the development of intelligent control technologies of microgrid and smart grids and renewable energy resources, which can increase the penetration rate of renewable energy resources. According to the databases of IEEE Xplore and Thomson Reuters ISI Web of Science, he is also the pioneer to apply fuzzy neural network on real-time control of PV power plant and microgrid. Owing to his contributions on the intelligent control of microgrid, the following two articles: "Increasing the Penetration Rate of Renewable Energy Resources by Intelligent Controlled Microgrid" and "Intelligent Control of Grid-Connected Microgrid with Virtual Inertia" have been published by Taiwan Research Highlight, Engineering & Technologies, in 2020 and 2021, respectively.

Listed below are evidence of the impact of Prof. Lin's work: his H-index of 65 in Google Scholar reflects 13382 citations (Nov. 2024). In addition, in the "World's Top 2% Scientists 2020", which was released by Stanford University recently by using Scopus publication impact scores (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3?fbclid=IwAR3hwMId0tq0xhZPCGwiXtLEdwuvn7TToIafNeLgF8ezaRT9lQ__svOHvc4), his total ranking is 16,699 among nearly 8 million scholars (Lin, Faa Jeng); his ranking in the subfield of Electrical & Electronic Engineering is 41 among all 105,029 scholars worldwide. He is literally a highly cited scholar in his expertise field. Furthermore, In the "World's Top 2% Scientists 2022" (https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6), his total ranking is 16,699; his ranking in the subfield of Electrical & Electronic Engineering is 46 among 111,935 scholars worldwide. Additionally, the total research budget of him from NSTC is more than 80 million NTD for the past 8 years (2017-2024).

Prof. Lin's contributions are well recognized by the power and control engineering communities. He has received the Outstanding Research Award from National Science Council (NSC), now NSTC, in 2004, 2010 and 2013. This award is one of the highest honors bestowed in academia of Taiwan, indicating that he is a pioneering scholar in the intelligent systems and control areas. He also received the Outstanding Electrical Engineering Professor Award from the Chinese Institute of Electrical Engineering in 2005 for his contributions to research and education in his discipline. Moreover, he has received Outstanding Automatic Control Engineering Award from Chinese Automatic Control Society

in 2011; the Outstanding Professor of Engineering Award, the Chinese Institute of Engineers, Taiwan, 2016; Chair Professor Award from National Central University in 2010, 2013, 2016, 2019 and 2022; Honorary Chair Professor Award from National Chin-Yi University of Technology in 2019; Outstanding Research Fellow Award, Ministry of Science and Technology (MOST), Taiwan, 2021. Furthermore, he is a Fellow of the Institution of Engineering and Technology (IET, former IEE) since 2007. In addition, owing to his contributions to intelligent control systems for motor drives and motion control, he has been elevated to Fellow by the IEEE in 2017.

Prof. Lin's career is dedicated to the development of intelligent AC motor servo drive systems, and intelligent control techniques for smart grid and renewable energy resources for more than 30 years. He has a good reputation in this research field both in the national and international communities. His contributions to the development of smart grid technologies and industries in Taiwan are well recognized. Therefore, he has received the 29th TECO Award, 2022, in the field of Mechanical Engineering/Energy/Environmental Technology, Outstanding Contribution Award of Power Electronics, Taiwan Power Electronics Association, 2023 and Engineering Medal of Electrical Engineering, The Chinese Institution of Electrical Engineering (CIEE), Taiwan, 2024.

Industrial Cooperation

Prof. Lin is also served as a consultant for industries in Taiwan and has transferred many technologies to several companies in Taiwan. For instance, sensorless control of synchronous motor drive using high-frequency signal injection technology has been transferred to Myson Century Inc. in 2013; active filter algorithm for microgrid has been transferred to Chung-Hsin Electric Machinery Mfg. Inc. in 2017; low voltage ride through technology for the grid connected PV power plant has been transferred to Controlnet International Inc. also in 2017; PV and battery energy storage system management system for microgrid has been transferred to NextDrive Inc., Taiwan, in 2019; intelligent parameters identification and gain autotuning technologies have been transferred to Racing Electric Instrument Inc., Taiwan, and Delta Electronics Inc., Taiwan, for new type of servo motor drives in 2018 and 2021, respectively.

Through the project "Research of Power Regulation and Field Implementation for Smart Multi-level Microgrid" of MOST in 2021, a 100-kW smart multi-level microgrid demo site is designed and constructed in NCU. The demo site can be operated in both grid-connected and islanded mode with 100% renewable energy including 70-kW solar power, 35-kW fuel cell, and 110-kWh energy storage system. In addition, the technologies of energy management system of micorgrid have been transferred to NextDrive Inc. and Taiwan Cement Company (TCC) in 2022. These two companies will develop their technologies and products, such as aggregator and grid-connected battery energy storage system, to join the ancillary

service of Taiwan Power Company. The scale of the business has been estimated to be a few billion NTD per year. In addition, the total payment from the private companies for the technologies transferring of him is over 10 million NTD for the past 8 years (2017-2024). Additionally, the technologies of energy management system of microgrid also have been transferred to Wistron Inc. in 2024 to help the company to build its intelligent grid dispatch system with information/communication/control of energy. The technology transfer fees are 9.5 million NTD and Prof. Lin is the co-PI. Thus, his contributions have high impact to the smart grid and renewable energy industries in Taiwan.

Academic Services

Prof. Lin was principal investigator (PI) of the National Energy Program (NEP) "Energy Research Collaboration between Taiwan's top universities and elite research centers and The California Institute of Technology (CALTECH)" from 2012 to 2014. The total research budget is 157 million NTD for three years. Under the support of this program, CALTECH and Taiwan's top universities and elite research centers jointly supported faculty members to carry out research projects on relevant topics of energy technologies such as fuel cells, solar PV, thermoelectric, CO2 capture and conversion, biofuels and smart grid. One of the CALTECH participants Dr. Frances Arnold has won the 2018 Nobel Prize in Chemistry for "the directed evolution of enzymes," according to the award citation. Parts of her contributions were supported by this project. Moreover, her counterparts in Academia Sinica, Taiwan, are still using the directed evolution of enzymes in their laboratory for the development of biofuel technologies.

He was the chair and PI for Smart Grid Focus Center Project, NEP, Taiwan. This center aims to integrate Taiwan's R&D resources in smart grid and renewable energy resources to formulate overall development strategies of smart grid and supporting industries development (IEEE Smart Grid Newsletters, Aug. 2015). The total research budget was more than 1.6 billion NTD for five years (2014~2018), and all major research institutes, universities and private companies in the field of smart grid have joined this project. More than thirty major power facilities companies such as Tatung and Delta have invested billions NTD in this project. Under his leadership, the revenues from technology transfer are over 197 million NTD including smart metering interface, in home display, energy saving adapter, digital protective relay, energy management systems and micro-grid control system. Intelligent systems have also been developed in this project for the converter control of renewable energy resources, modeling and optimization of smart grid, and forecasting of wind and solar power. Additionally, he has also held the position of Executive Director at Taiwan Power Company for many years, assisting in the planning of smart grid technology research and the direction of industry development. In 2022, the Singapore Power Group ranked 94 global electricity companies based on the Smart Grid Index, and Taiwan Power Company was ranked second in the world.

The candidate previously served as the President of NARLabs, where he led NARLabs towards steady growth and development, while supporting the government in advancing technological initiatives. The results of his efforts across three main pillars are as follows: (1) The candidate fully utilized NARLabs' interdisciplinary research strengths to assist NSTC in executing the "Net Zero Technology Program," accelerating the layout and practical application of forward-looking net-zero technologies. He also supported the "Chip Innovation Program" to advance generative AI, pioneering semiconductor processes, and advanced IC design, thereby fostering academic research and promoting new industries. (2) He advanced an organizational enhancement plan to optimize human resources, improve various management mechanisms, and facilitate digital transformation within NARLabs, while strengthening talent retention and recruitment measures to build an agile team. (3) He published NARLabs' first sustainability report, presenting the management performance of various ESG and SDGs sustainability issues, underscoring the institution's commitment and determination toward sustainable operations.

Talent Foster

Under the candidate's leadership and guidance, his research teams have graduated a total of 17 doctoral students and 130 master's students over the past thirty years. Under the candidate's rigorous supervision and training, students' research foundations are solid. In addition to publishing 230 SCIE international journal papers with students, the students have also received numerous prestigious awards both domestically and internationally. These include the Best Paper Award at the Industrial Technology Research Institute's Mechanical and Systems Research Institute in 2013, and the second place in the Texas Instruments Innovation Challenge DSP/MPU Design Contest 2014 in Taiwan, among others. Students have also won multiple Outstanding Paper Awards at the Taiwan Power Electronics Conference and Power Engineering Conference, the National Science Council's Future Technology Award, and the National Central University President's Scholarship. Graduates are now employed at academic institutions both in Taiwan and abroad (such as National Taiwan University of Science and Technology, National Taiwan Normal University, National United University, National Defense University, etc.), research and development organizations (such as ITRI, Taiwan Institute of Economic Research, National Chung-Shan Institute of Science and Technology, Chunghwa Telecom Research Institute, etc.), as well as in the industry, contributing to the development of Taiwan's high-tech industries.

During the candidate's tenure as the PI of Smart Grid Focus Center Project, NEP, Taiwan, significant attention was paid to talent development. In the second phase of the program (2014-2018), in addition to promoting various smart grid demonstration projects and assisting Taiwan Power Company in implementing smart grid-related infrastructure, a total of 189 doctoral students and 869 master's

students participated in the program (according to the final project report of the second phase of the NEP). Many of these students are now employed in domestic smart grid and green energy-related industries, research institutions, and state-owned enterprises.

As the Dean of the College of Electrical Engineering and Computer Science at National Central University, the candidate served as the lead for the Ministry of Education's "University Students' Bilingual Learning Program." This program primarily focuses on enhancing bilingual learning for college students and promotes the use of English-language instruction in undergraduate courses at the College of Electrical Engineering and Computer Science at National Central University. This initiative aims to improve students' English skills to meet industry needs, enhance the international competitiveness of faculty and students, and attract more international students to study at the university.

Five most distinct contributions of the candidate in recent 5 years

In the past three decades, he has produced great research results in the areas of intelligent control theory applications, servo motor drive and control, renewable energy resources control and microgrid. His results have been particularly distinguished in the areas of advanced intelligent control of AC servo motor drives and intelligent control of microgrid and renewable energy sources. According to the journal paper information of IEEE and IET from IEEE Xplore, he has made great contributions in the theoretical innovations and technological developments for above two research areas, and occupies a globally leading role in these fields. The most important five research achievements in recent five years are listed below:

- **Intelligent Control Technologies of Smart Grid and Renewable Energy Sources**

The development of operation and intelligent control technologies of smart grid and renewable energy sources (RESs) including active islanding detection, control of battery energy storage system (BESS), control of three-phase squirrel-cage induction generator (IG), low-voltage ride through (LVRT) control of PV system for weak grid condition is very important for the increasing of penetrating rate of RESs. Some intelligent controlled RESs have been proposed for stand-alone or grid-connected power applications through ac–dc and dc–ac power converters. Moreover, fuzzy neural networks (FNNs) based intelligent controllers have been introduced as the regulating controllers for both the dc-link voltage and the ac line voltage of the dc–ac power inverter. Furthermore, the on-line training algorithms based on backpropagation have been derived to train the connective weights, means and standard deviations of the FNNs in real time [1]-[4]. In addition, voltage stabilization is an important task for the microgrid power control [2]. The long transient response of voltage caused by the grid transition from the grid-connected

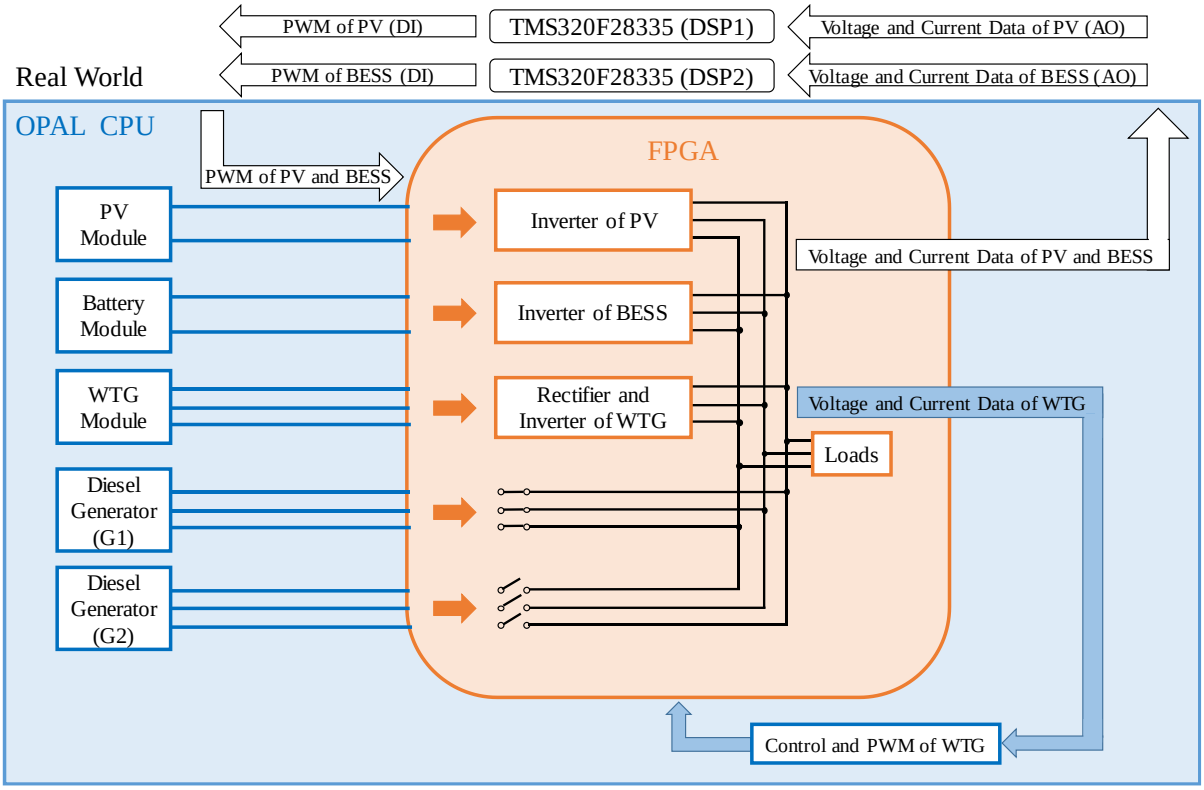
mode to the islanded mode or the power variations would deteriorate the operation of the voltage protective relay. This would lead to the difficulty of integration for the renewable energy and the storage system. To solve this problem, the asymmetric membership function based wavelet petri fuzzy neural network (AMFWPFNN) controller is proposed for the voltage stabilization control of storage system in [2] to provide fast response speed and mitigate the transient impact. To investigate the performance of the proposed microgrid controller and examine the compliance with the settings in IEC Std. 60255, Cimei Island in Taiwan is studied. Through the hardware in the loop (HIL) mechanism built with OPAL-RT real-time simulator as shown in the following figure [2], the effectiveness of proposed controller can be verified. The intelligent control algorithms for both the PV and BESS are implemented using two separate TMS320F28335 DSPs as shown in the following figure. Additionally, the most important publications of recent five years are listed below:

[1] F. J. Lin, K. H. Tan, W. C. Luo, and G. D. Xiao,"Improved LVRT Performance of PV Power Plant Using Recurrent Wavelet Fuzzy Neural Network Control for Weak Grid Condition," IEEE Access, vol. 8, pp. 69346-69358, 2020.

[2] F. J. Lin, C. I. Chen, G. D. Xiao, and P. R. Chen,"Voltage Stabilization Control for Microgrid with Asymmetric Membership Function Based Wavelet Petri Fuzzy Neural Network," IEEE Trans. Smart Grid, vol. 12, no. 5, pp. 3731-3741, 2021. (Increasing the Penetration Rate of Renewable Energy Sources by Intelligent Controlled Microgrid, Taiwan Research Highlight, Engineering & Technologies, Nov. 16, 2021)

[3] F. J. Lin, J. C. Liao, C. I. Chen and P. R. Chen, "Voltage Restoration Control for Microgrid with Recurrent Wavelet Petri Fuzzy Neural Network," IEEE Access, vol. 10, pp. 12510-12529, 2022.

[4] F. J. Lin, J. C. Liao, Y. M. Zhang, and Y. C. Huang, "Optimal Economic Dispatch and Power Generation for Microgrid Using Lagrange Multipliers-based Method with HIL Verification," IEEE Systems Journal, vol. 17, no. 3, pp. 4533-4544, 2023.



Structure of OPAL-RT and peripherals for power control [2]

- **Intelligent Fuzzy Neural Networks Controllers with for IPMSM Servo Drive System**

This research aims to create FNNs based intelligent control systems to alter the inherent nonlinear and time-varying control characteristics of an interior permanent magnet synchronous motor (IPMSM) drive system in practical applications by using intelligent control algorithms [5]-[8]. Novel maximum torque per ampere (MTPA) method based on power perturbation for a field-oriented control (FOC) IPMSM drive system was also proposed. Moreover, the influence of current and voltage harmonics to the MTPA control can be eliminated effectively. In [7], an intelligent nonsingular terminal sliding mode control recurrent Petri probabilistic fuzzy neural network (INTSMCRPPFNN) that features an intelligent nonsingular terminal sliding mode control was proposed for an IPMSM servo drive as shown in the following figure. First, a nonsingular terminal sliding mode control (NTSMC) system was designed in [7] to track the states of a nonlinear time-varying system. Creating a working NTSMC for practical applications is quite complex because the detailed system dynamics, which includes the unpredictability of the controlled plant, is not available beforehand. Thus, a recurrent Petri probabilistic fuzzy neural network with asymmetric membership function (RPPFNN-AMF) which can act as a close substitute for the ideal NTSMC to resolve its existing complications was suggested in [7]. Furthermore, asymptotical stability is assured by using the Lyapunov stability method, which generates the RPPFNN-AMF's online learning algorithms. The proposed control algorithms are implemented in a TMS320F28075

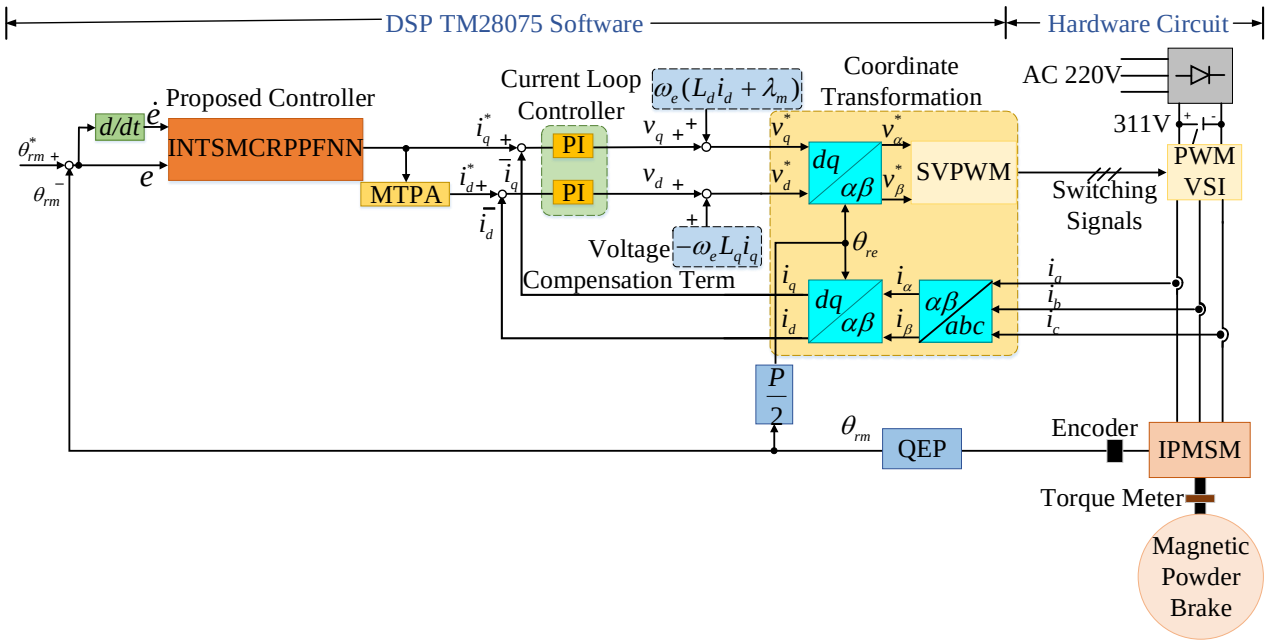
32-bit DSP with 120MHz as shown in the following figure [7]. Additionally, the most important publications of recent five years are listed below:

[5] F. J. Lin, S. G. Chen, S. Li, H. T. Chou, and J. R. Lin, "Online Auto-Tuning Technique for IPMSM Servo Drive by Intelligent Identification of Moment of Inertia," IEEE Trans. Industrial Informatics, vol. 16, no. 12, pp. 7579-7590, 2020.

[6] F. J. Lin, C. W. Liu, and P. L. Wang, "Voltage Control of IPMSM Servo Drive in Constant Power Region with Intelligent Parameter Estimation," IEEE Access, vol. 10, pp. 99243-99256, 2022.

[7] F. J. Lin, P. L. Wang, and I. M. Hsu, "Intelligent Nonsingular Terminal Sliding Mode Controlled Nonlinear Time-Varying System Using RPPFNN-AMF," IEEE Trans. Fuzzy Systems, vol. 32, no. 3, pp. 1036 -1049, 2024.

[8] F. J. Lin, F. H. Deng, and P. Y. Huang, "Intelligent Backstepping Control of Nonlinear Time-Varying System with Interval Type-2 Recurrent Fuzzy Neural Network Estimator," IEEE Access, vol. 12, pp. 135873-135885, 2024.



Control block diagram of intelligent control DSP-based IPMSM position servo drive [7]

- **High-performance Synchronous Reluctance Motor Drive System Using Intelligent Control**

The purpose of this research is to develop a high-performance synchronous reluctance motor (SynRM) drive system and its control methods [9]-[12]. Since the SynRM does not require the rare earth permanent magnet, it can possess both the characteristics of high efficiency and performance. Moreover, the DSP-based position and speed controllers are developed to control the high-performance SynRM drive system. The core of the hardware processor is a Texas Instruments TMS320F28075 DSP, and the proposed control methods are realized in the DSP

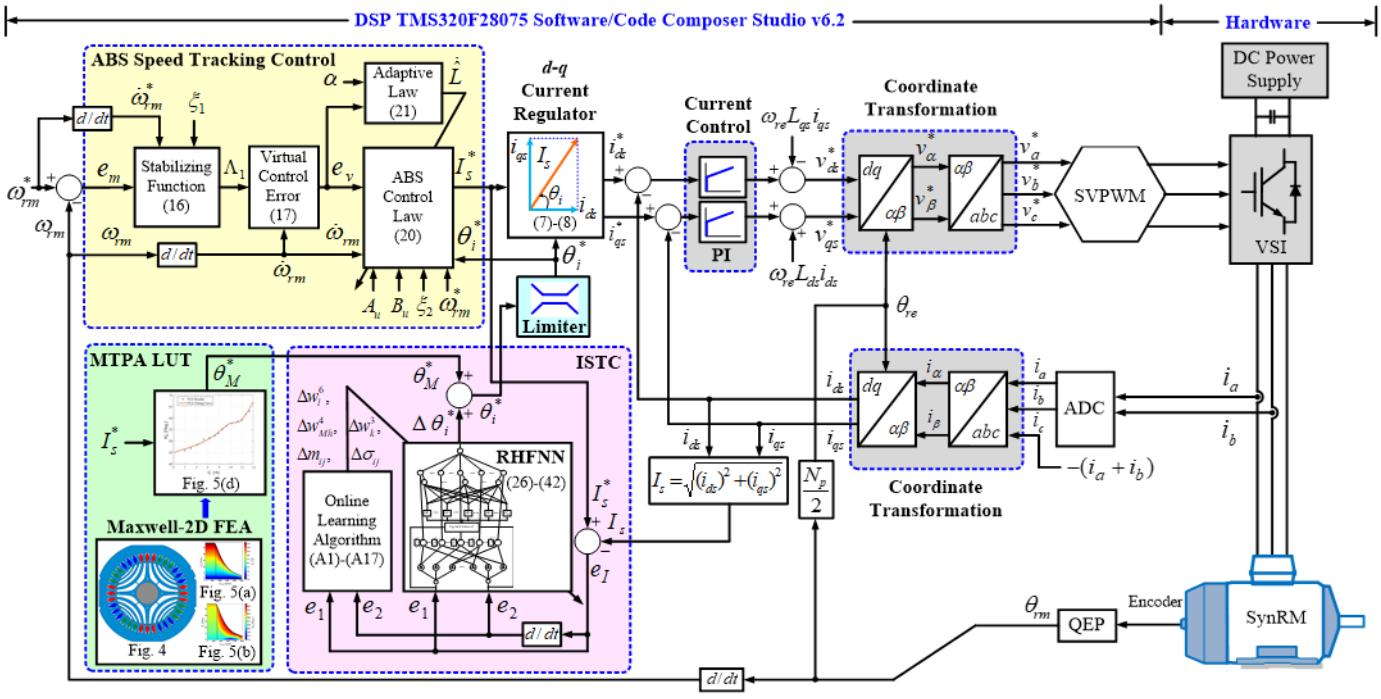
using the “C” language. Furthermore, the rotor position and speed of SynRM are measured by using an encoder via peripheral expansion circuit board and quadrature encoder pulse interface, and the phase current signals are obtained by using the hall current sensors and via the analog to digital converter. Finally, a SynRM drive system using the FOC is achieved. In terms of controller design, the developed intelligent backstepping control (IBSC), adaptive computed current (ACC) speed control, recurrent feature selection fuzzy neural network (RFSFNN) and recurrent Legendre fuzzy neural network (RLFNN) are adopted to improve the speed and position control performance of SynRM and to achieve the MTPA control for minimizing the stator copper loss. The most important publications of recent five years are listed below:

[9] F. J. Lin, M. S. Huang, S. G. Chen, C. W. Hsu, and C. H. Liang “Adaptive Backstepping Control for Synchronous Reluctance Motor Based on Intelligent Current Angle Control,” IEEE Trans. Power Electronics, vol. 35, no. 7, pp. 7465–7479, 2020.

[10] S. G. Chen, F. J. Lin, C. H. Liang, and C. H. Liao, “Intelligent Maximum Power Factor Searching Control Using Recurrent Chebyshev Fuzzy Neural Network Current Angle Controller for SynRM Drive System,” IEEE Trans. Power Electronics, vol. 36, no. 3, pp. 3496-3511, 2021.

[11] F. J. Lin, S. G. Chen, M. S. Huang, C. H. Liang, and C. H. Liao, “Adaptive Complementary Sliding Mode Control for Synchronous Reluctance Motor Based on Direct-Axis Current Control,” IEEE Trans. Industrial Electronics, vol. 69, no. 1, pp. 141-150, 2022.

[12] S. G. Chen, F. J. Lin, M. S. Huang, S. P. Yeh and T. S. Sun, “Proximate Maximum Efficiency Control for Synchronous Reluctance Motor via MRCT and MTPA Control,” IEEE/ASME Trans. Mechatronics, vol. 28, no. 3, pp. 1404 -1414, 2023.



High-performance Synchronous Reluctance Motor Drive System Using Intelligent Control [9]

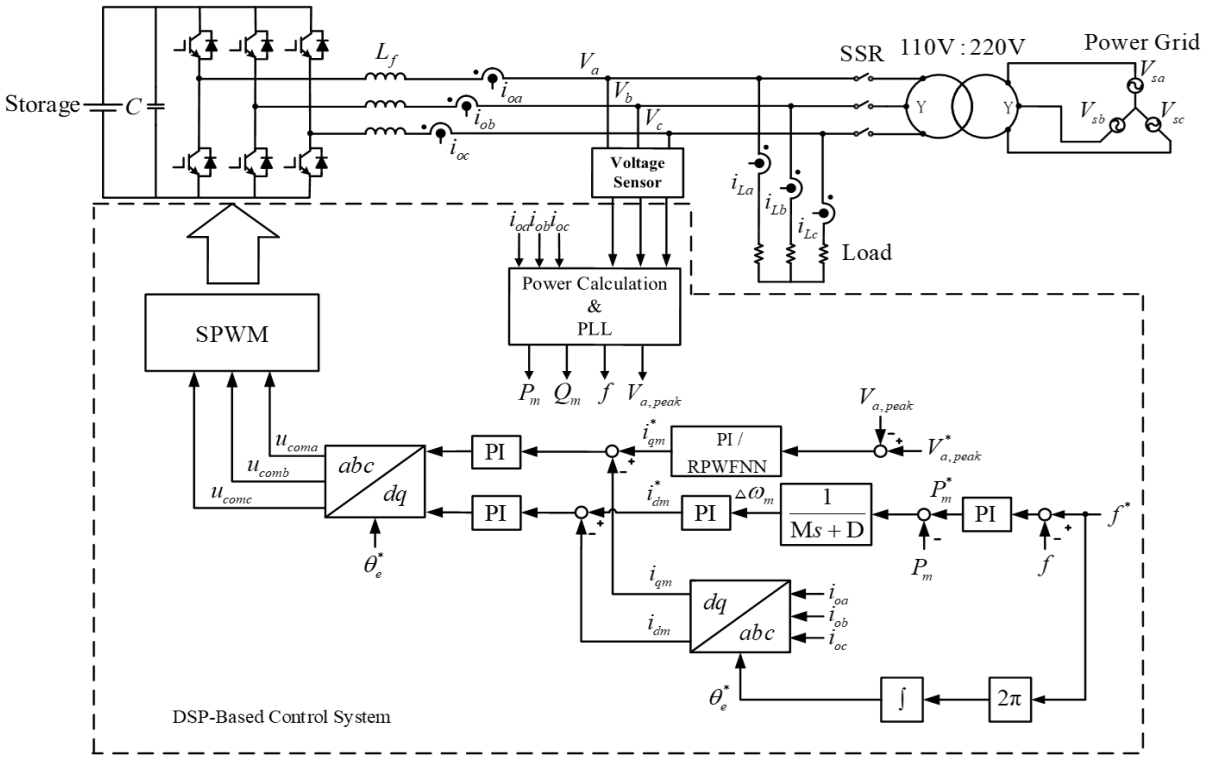
● Intelligent Control of Grid-Connected Microgrid with Virtual Inertia

A microgrid with virtual inertia using master–slave control is proposed in this research to overcome the drawbacks of traditional inverter-based distributed generators for lack of inertia and without grid-forming capability [13]-[15]. The microgrid using master–slave control is composed of a storage system, a PV system and a varying resistive three-phase load. The storage system and PV system are regarded as the master unit and the slave unit, respectively, in the microgrid. Moreover, in order to improve the reactive power control in grid-connected mode and the transient response of microgrid during the switching between the grid connected mode and islanding mode, an online trained recurrent probabilistic wavelet fuzzy neural network (RPWFNN) is proposed to replace the conventional proportional-integral (PI) controller in the storage system in [13] as shown in the following figure. Furthermore, when the microgrid is operated in islanding mode, the load variation will have serious influence on the voltage control of the microgrid. Thus, the RPWFNN control was also proposed to improve the transient and steady-state responses of voltage control in the microgrid. Additionally, the most important publications of recent five years are listed below:

[13] K. H. Tan, F. J. Lin, C. M. Shih, and C. N. Kuo, “Intelligent Control of Microgrid with Virtual Inertia Using Recurrent Probabilistic Wavelet Fuzzy Neural Network,” IEEE Trans. Power Electronics, vol. 35, no. 7, pp. 7451-7464, 2020. (Intelligent Control of Grid-Connected Microgrid with Virtual Inertia, Taiwan Research Highlight, Engineering & Technologies, March 20, 2020)

[14] F. J. Lin, K. H. Tan, T. Y. Tseng, and M. Y. Lee, “Intelligent Controlled Microgrid for Power Sharing and Load Shedding Improvements,” IEEE Trans. Power Electronics, vol. 37, no. 7, pp. 7928 - 7940, 2022.

[15] F. J. Lin, K. H. Tan, X. Y. Weng, and Y. R. Li, “An Improved Droop Control of Microgrid Using Intelligent Variable Droop Coefficient Estimation,” IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 12, no. 4, pp. 4117-4132, Aug. 2024.



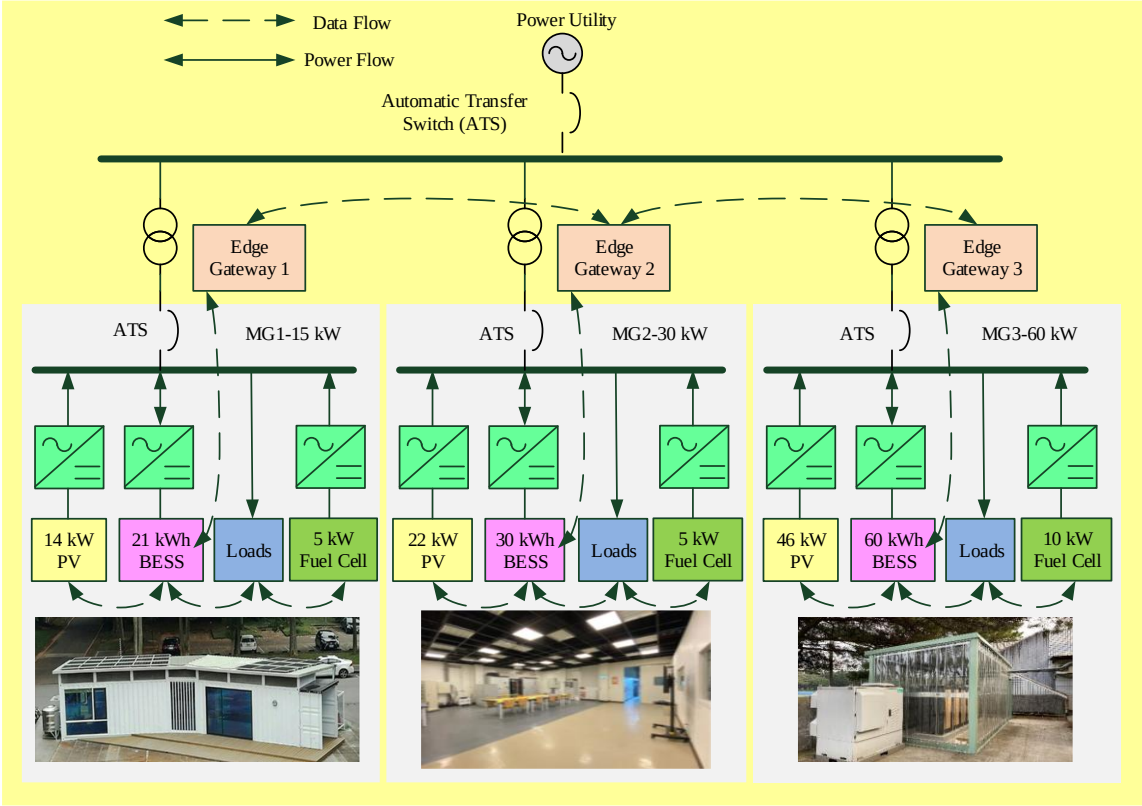
Control Block of Intelligent Control of Grid-Connected Microgrid with Virtual Inertia [13]

● Field Implementation for Smart Multi-level Microgrid

Through the project "Research of Power Regulation and Field Implementation for Smart Multi-level Microgrid" of MOST in 2021, a 100-kW smart multi-level microgrid demo site is designed and constructed in NCU. The demo site can be operated in both grid-connected and islanded mode with 100% renewable energy including 70-kW solar power, 35-kW fuel cell, and 110-kWh energy storage system. The interconnected microgrid system can provide power supply for each other. In this way, the non-planning energy can be regarded as the backup power source and promote the optimization of energy usage. To achieve the optimal power regulation and stability of system operation, this project has designed a smart multi-level interconnected microgrid based on intelligent control techniques considering the distributed control architecture and operation cost of grid. The key techniques in this project include: (1) power converter design and control with the power sharing function, (2) coordinated control of renewable energy and load shedding strategy for the individual microgrid, (3) energy management and optimization of operation cost in the microgrid, (4) power control and regulation technique for the interconnected microgrid, (5) optimal energy dispatch and control for the interconnected microgrid, (6) model of fuel cell and dynamic control strategy in the microgrid, and (7) power generation forecasting technique of renewable energy. The field implementation and photos are shown in the following figures.

Through this project, the technologies of energy management system of micorgrid have been transferred to NextDrive Inc. and Taiwan Cement Company

(TCC) in 2022. These two companies will develop their technologies and products, such as aggregator and grid-connected battery energy storage system, to join the ancillary service of Taiwan Power Company. The scale of the business has been estimated to be a few billion NTD per year. Moreover, the technologies of energy management system of microgrid also have been transferred to Wistron Corporation in 2024 to help the company to build its intelligent grid dispatch system with information/communication/control of energy.



Field Implementation of 100-kW Smart Multi-Level Microgrid in NCU



Switches of Solar Panel of MG2 and MG3



Installation of Solar Panel



Storage Systems of MG2 and MG3



Switches of Interconnected System



Hydrogen Fuel Cell



MG1 System

Photos of 100-kW Smart Multi-Level Microgrid in NCU

Publications

A. SCIE and International Journal Papers: (First Author is also the Corresponding Author; Times Cited/Google Scholar, Dec. 2022)

[1] F. J. Lin, C. I. Chen, Y. T. Cheng, and Y. H. Wu, " Topology Optimization of Modular Rundling Microgrids as a System of Systems for Resilient Transportation Energy Using KADDQN and Resilience Index," IEEE Systems Journal, Accepted, 2026. (SCIE)

[2] S. G. Chen, F. J. Lin*, S. R. Lee, X. D. Wang, and B. Y. Huang "Online Enhanced Efficiency Control for Synchronous Reluctance Motor," IEEE Trans. Industrial Applications, Accepted, 2026. (* Corresponding Author, SCIE)

[3] S. G. Chen, F. J. Lin*, B. Y. Huang, S. R. Lee, and X. D. Wang, "Adaptive Computed Flux Control for SynRM with Modified MTPA and Enhanced Transient Control," IEEE/ASME Trans. Mechatronics, Accepted, 2026. (* Corresponding Author, SCIE)

[4] F. J. Lin, K. H. Tan, C. T. Lin, C. Y. Wang, and W. K. Wei, "Droop Controlled Microgrid Using Intelligent Pre-Synchronization for Grid Connection," IEEE Journal of Emerging and Selected Topics in Power Electronics, Accepted, 2026. (SCIE)

[5] C. Y. Chen, F. J. Lin, P. J. Chen, C. C. Chen, and C. T. Wu, "Optimal Home Energy Management System for a Residential Grid Connected Microgrid using Improved Slime Mould Algorithm," IEEE Systems Journal, Accepted, 2026. (SCIE)

[6] F. J. Lin, S. Y. Chen, C. X. Xu, and H. H. Hsu, "Model Predictive Current Control Using Adaptive Neural Network Based Sliding Mode Observer for IPMSM," IEEE Access, vol. 13, pp. 178556-178570, 2025. (SCIE, IF 3.745, 35/156) MOST 112-2221-E-008-010-MY3

[7] C. G. Chen, F. J. Lin*, T. S. Sun, and F. H. Teng, "Intelligent Backstepping Controlled Synchronous Reluctance Motor Position Servo Drive with PPFNN," International Journal of Fuzzy Systems, Published Online, Oct. 24, 2025. (* Corresponding Author, SCIE, IF 4.406, 29/137) NSTC 112-2221-E-008-010-MY3

[8] C. I. Chen, F. J. Lin, Z. M. Su, and Y. T. Cheng, "Frequency and Voltage Stabilization with Polynomial Petri Fuzzy Neural Network Based Control Strategy for Microgrid Clusters," IEEE Systems Journal, vol. 19, no. 3, pp. 801-812, Sep. 2025. (SCIE, IF 3.987, 31/156) NSTC 113-2218-E-008-016

[9] F. J. Lin, K. H. Tan, Z. Y. Kuan, and C. Y. Wang, "Droop Controlled Microgrid with Intelligent PV-DSTATCOM for Power Quality Improvement," IEEE Trans. Power Electronics, vol. 40, no. 9, pp. 12754-12769, Sep. 2025. (SCIE, IF 6.373, 22/266) NSTC 113-2218-E-008-016.

[10] F. J. Lin, S. Y. Chen, I. M. Hsu, and C. H. Hsu, "Robust Deadbeat Predict Current Control Using Intelligent Integral Sliding Mode Control for Interior Permanent Magnet Synchronous Motor Drive," IEEE Transactions on Transportation Electrification, vol. 11, no. 3, pp. 8282-8293, June 2025. (SCIE,

IF 6.519, 28/235) MOST 109-2221-E-008 -024 -MY3.
[11] F. J. Lin, F. H. Deng, and P. Y. Huang, "Intelligent Backstepping Control of Nonlinear Time-Varying System with Interval Type-2 Recurrent Fuzzy Neural Network Estimator," IEEE Access, vol. 12, pp. 135873-135885, 2024. (SCIE, IF 3.745, 35/156) MOST 112-2221-E-008-010-MY3
[12] F. J. Lin, S. Y. Lu, M. C. Hu, and Y. H. Chen, "Stochastic Optimal Strategies and Management of Electric Vehicles and Microgrids," Energies, 2024, 17, 3726. (SCIE, IF 3.0, 63/112)
[13] F. J. Lin, K. H. Tan, X. Y. Weng, and Y. R. Li, "An Improved Droop Control of Microgrid Using Intelligent Variable Droop Coefficient Estimation," IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 12, no. 4, pp. 4117-4132, Aug. 2024. (SCIE, IF 5.5, 58/275) NSTC 112-2218-E-008-011
[14] F. J. Lin, P. L. Wang, and I. M. Hsu, "Intelligent Nonsingular Terminal Sliding Mode Controlled Nonlinear Time-Varying System Using RPPFNN-AMF," IEEE Trans. Fuzzy Systems, vol. 32, no. 3, pp. 1036 -1049, 2024. (SCIE, IF 9.518, 10/266) MOST 109-2221-E-008-024-MY3
[15] Y. H. Liao, F. J. Lin, Y. Zhou, W. R. Lai, and X. S. Huang, "A Bidirectional Grid-Tied ZVS Three-Phase Converter Based on DPWM and Digital Control," Energies, 2023, 16, 6453. (SCIE, IF 3.2, 27/151)
[16] S. Y. Chen, F. J. Lin, and T. A. Pu, "Hierarchical Power Management System for a Fuel Cell/Battery Hybrid Electric Scooter," IEEE Trans. Transportation Electrification, vol. 10, no. 2, pp. 4583-4593, June 2024. (SCIE, IF 6.519, 28/235)
[17] F. J. Lin, M. S. Huang, Y. C. Chien, and S. G. Chen, "Intelligent Backstepping Control of Permanent Magnet Assisted Synchronous Reluctance Motor Position Servo Drive with Recurrent Wavelet Fuzzy Neural Network," Energies, 2023, 16, 5389. (SCIE, IF 3.2, 27/151) MOST 110-2221-E-008-054-MY3
[18] F. J. Lin, C. F. Chang, Y. C. Huang, and T. M. Su, "A Deep Reinforcement Learning Method for Economic Power Dispatch of Microgrid in OPAL-RT Environment," Technologies, 2023, 11, 96. (SCIE, IF 3.6, 21/103) MOST 111-3116-F-008-003
[19] F. J. Lin, J. C. Liao, Y. M. Zhang, and Y. C. Huang, "Optimal Economic Dispatch and Power Generation for Microgrid Using Lagrange Multipliers-based Method with HIL Verification," IEEE Systems Journal, vol. 17, no. 3, pp. 4533-4544, 2023. (SCIE, IF 3.987, 31/156) MOST 110-3116-F-008-001
[20] F. J. Lin, M. S. Huang, C. Y. Hung, and Y. C. Chien, "Intelligent Computed Torque Control of Permanent-Magnet Assisted Synchronous Reluctance Motor Using Recurrent Legendre Fuzzy Neural Network," IEEE Access, vol. 11, pp. 54017-54028, 2023. (SCIE, IF 3.745, 35/156) MOST 110-2221-E-008-054-MY3
[21] S. G. Chen, F. J. Lin*, M. S. Huang, S. P. Yeh and T. S. Sun, "Proximate Maximum Efficiency Control for Synchronous Reluctance Motor via MRCT

and MTPA Control," IEEE/ASME Trans. Mechatronics, vol. 28, no. 3, pp. 1404 -1414, 2023. (* Corresponding Author, SCIE, IF 5.673, 7/130) MOST 110-2221-E-008-054-MY3

[22] F. J. Lin, C. W. Liu, and P. L. Wang, "Voltage Control of IPMSM Servo Drive in Constant Power Region with Intelligent Parameter Estimation," IEEE Access, vol. 10, pp. 99243-99256, 2022. (SCIE, IF 3.745, 35/156) MOST 109-2221-E-008-024-MY3

[23] F. J. Lin, K. H. Tan, T. Y. Tseng, and M. Y. Lee, "Intelligent Controlled Microgrid for Power Sharing and Load Shedding Improvements," IEEE Trans. Power Electronics, vol. 37, no. 7, pp. 7928 - 7940, 2022. (SCIE, IF 6.373, 22/266, Times Cited: 2) MOST 110-3116-F-008-001

[24] F. J. Lin, J. C. Liao, C. I. Chen and P. R. Chen, "Voltage Restoration Control for Microgrid with Recurrent Wavelet Petri Fuzzy Neural Network," IEEE Access, vol. 10, pp. 12510-12529, 2022. (SCIE, IF 3.745, 35/156, Times Cited: 5) MOST 110-3116-F-008-001

[25] K. H. Tan, F. J. Lin, T. Y. Tseng, M. Y. Lee, and Y. D. Lee, "Virtual Synchronous Generator Using Intelligent Controller for Virtual Inertia Estimation," Electronics, 2022, 11, 86, pp. 1-23. (SCIE, IF 2.397, 145/273, Times Cited: 2) MOST 110-3116-F-008-001

[26] F. J. Lin, S. Y. Chen, W. T. Lin, and C. W. Liu, "An Online Parameter Estimation Using d-axis Current Injection with Enhanced Current-loop Control for IPMSM drives," Energies, 2021, 14, 8138, pp. 1-23. (SCIE, IF 2.702, 63/112, Times Cited: 7) MOST 109-2221-E-008-024-MY3

[27] F. J. Lin, C. I. Chen, G. D. Xiao, and P. R. Chen, "Voltage Stabilization Control for Microgrid with Asymmetric Membership Function Based Wavelet Petri Fuzzy Neural Network," IEEE Trans. Smart Grid, vol. 12, no. 5, pp. 3731-3741, 2021. (SCIE, IF 8.267, 14/266, Times Cited: 10) MOST 109-3116-F-008-005

[28] F. J. Lin, J. C. Liao, and E. W. Chang, "A Supercapacitor Based Interior Permanent Magnet Synchronous Motor Drive Using Intelligent Control for Light Rail Vehicle," International Journal of Fuzzy Systems, vol. 23, no. 6, pp. 1539-1555, May 2021. (SCIE, IF 4.406, 29/137, Times Cited: 1) MOST 109-2221-E-008-024-MY3

[29] S. G. Chen, F. J. Lin*, C. H. Liang, and C. H. Liao, "Development of Flux-Weakening and MTPV Control for SynRM via Feedforward Voltage Angle Control," IEEE/ASME Trans. Mechatronics, vol. 26, no. 6, pp. 3254-3264, 2021. (* Corresponding Author, SCIE, IF 5.673, 7/130, Times Cited: 1) MOST 107-2221-E-008-078-MY3

[30] F. J. Lin, Y. H. Liao, J. R. Lin, and W. T. Lin, "Interior Permanent Magnet Synchronous Motor Drive System with Machine Learning-Based Maximum Torque per Ampere and Flux-Weakening Control," Energies, 2021, 14, 346, pp. 1-24. (SCIE, IF 2.702, 63/112, Times Cited: 10) MOST 109-2221-E-008-024-MY3

[31] F. J. Lin, S. G. Chen, M. S. Huang, C. H. Liang, and C. H. Liao, "Adaptive

Complementary Sliding Mode Control for Synchronous Reluctance Motor Based on Direct-Axis Current Control," IEEE Trans. Industrial Electronics, vol. 69, no. 1, pp. 141-150, 2022. (SCIE, IF 7.515, 16/266, Times Cited: 8) MOST 107-2221-E-008-078-MY3

[32] S. G. Chen, F. J. Lin*, C. H. Liang, and C. H. Liao, "Intelligent Maximum Power Factor Searching Control Using Recurrent Chebyshev Fuzzy Neural Network Current Angle Controller for SynRM Drive System," IEEE Trans. Power Electronics, vol. 36, no. 3, pp. 3496-3511, 2021. (* Corresponding Author, SCIE, IF 6.373, 22/266, Times Cited: 17) MOST 107-2221-E-008-078-MY3

[33] F. J. Lin, C. I. Chen, and J. R. Lin, "Detection of Mechanical Resonance Frequencies for Interior Permanent Magnet Synchronous Motor Servo Drives Based on Wavelet Multiresolution Filter," IET Journal of Engineering, Published, Nov. 6, 2020. (SCIE, IF 0.7, 117/178, Times Cited: 3)

[34] C. C. Liao, M. S. Huang, Z. F. Li, F. J. Lin, and W. T. Wu, "Simulation-Assisted of A Bidirectional Wireless Power Transfer with Circular Sandwich Coils for E-Bike Sharing System" IEEE Access, vol. 8, pp. 110003-110017, 2020. (SCIE, IF 3.745, 35/156, Times Cited: 5)

[35] F. J. Lin, K. H. Tan, W. C. Luo, and G. D. Xiao, "Improved LVRT Performance of PV Power Plant Using Recurrent Wavelet Fuzzy Neural Network Control for Weak Grid Condition," IEEE Access, vol. 8, pp. 69346-69358, 2020. (SCIE, IF 3.745, 35/156, Times Cited: 15) MOST 109-3116-F-008-005.

[36] F. J. Lin, Y. H. Chen, S. Y. Lu, and C. Tso, "Layout Strategy of Innovative Smart Grid System Integration Technology Development in Taiwan," International Journal of Energy Economics and Policy, vol. 7, no. 3, pp. 420-425, 2019. (SJR, 0.371, 22/63)

[37] F. J. Lin, S. G. Chen, S. Li, H. T. Chou, and J. R. Lin, "Online Auto-Tuning Technique for IPMSM Servo Drive by Intelligent Identification of Moment of Inertia," IEEE Trans. Industrial Informatics, vol. 16, no. 12, pp. 7579-7590, 2020. (SCIE, IF 9.112, 2/48, Times Cited: 17)

[38] F. J. Lin, M. S. Huang, S. G. Chen, C. W. Hsu, and C. H. Liang "Adaptive Backstepping Control for Synchronous Reluctance Motor Based on Intelligent Current Angle Control," IEEE Trans. Power Electronics, vol. 35, no. 7, pp. 7465–7479, 2020. (SCIE, IF 6.373, 22/266, Times Cited: 22) MOST 107-2221-E-008-078-MY3

[39] K. H. Tan, F. J. Lin, C. M. Shih, and C. N. Kuo, "Intelligent Control of Microgrid with Virtual Inertia Using Recurrent Probabilistic Wavelet Fuzzy Neural Network," IEEE Trans. Power Electronics, vol. 35, no. 7, pp. 7451-7464, 2020. (SCIE, IF 6.373, 22/266, Times Cited: 36) MOST 108-3116-F-008-001

[40] D. Chen, Shuai Li, F. J. Lin, and Q. Wu, "New Super-Twisting Zeroing Neural-Dynamics Model for Tracking Control of Parallel Robots: A Finite-Time and Robust Solution," IEEE Trans. Cybernetics, vol. 50, no. 6, pp.

2651-2660, 2020. (SCIE, IF 11.079, 1/63, Times Cited: 51)

[41] F. J. Lin, M. S. Huang, S. G. Chen, and C. W. Hsu, "Intelligent Maximum Torque per Ampere Tracking Control of Synchronous Reluctance Motor Using Recurrent Legendre Fuzzy Neural Network," IEEE Trans. Power Electronics, vol. 34, no. 12, pp. 12080-12093, 2019. (SCIE, IF 6.373, 22/266, Times Cited: 25) MOST 107-2221-E-008-078-MY3

[42] F. J. Lin, K. H. Tan, Yu-Kai Lai, and Wen-Chou Luo, "Intelligent PV system with unbalanced current compensation using CFNN with AMF," IEEE Trans. Power Electronics, vol. 34, no. 9, pp. 8588-8598, 2019. (SCIE, IF 6.373, 22/266, Times Cited: 36) MOST 106-2221-E-008-049-MY3

[43] Lin Xiao, Shuai Li, F. J. Lin, Z. Tan, and A. M. Khan, " Zeroing Neural Dynamics for Control Design: Comprehensive Analysis on Stability, Robustness, and Convergence Speed," IEEE Trans. Industrial Informatics, vol. 15, no. 5, pp. 2605-2615, 2019. (SCIE, IF 9.112, 2/48, Times Cited: 61)

[44] K. H. Tan, F. J. Lin, C. Y. Tsai, and Y. R. Chang, "A Distribution Static Compensator Using a CFNN-AMF Controller for Power Quality Improvement and DC-Link Voltage Regulation," Energies, 11, 1996, pp. 1-17, 2018. (SCIE, IF 2.702, 63/112, Times Cited: 10) MOST 106-2221-E-008-049-MY3

[45] F. J. Lin, S. G. Chen, and C. W. Hsu, "Intelligent Backstepping Control Using Recurrent Feature Selection Fuzzy Neural Network for Synchronous Reluctance Motor Position Servo Drive System," IEEE Trans. Fuzzy Systems, vol. 27, no. 3, pp. 413-427, 2019. (SCIE, IF 9.518, 10/266, Times Cited: 39) MOST 104-2221-E-008-040-MY3

[46] K. H. Tan, F. J. Lin, and J. H. Chen, "DC-Link Voltage Regulation Using RPFNN-AMF for Three-Phase Active Power Filter," IEEE Access, vol. 6, pp. 37454-37463, 2018. (SCIE, IF 3.745, 35/156, Times Cited: 18)

[47] F. J. Lin, S. G. Chen, Y. T. Liu, and W. A. Yu, "Online Autotuning of a Servo Drive Using Wavelet Fuzzy Neural Network to Search for the Optimal Bandwidth," IEEE SMC Magazine, Oct., pp. 28-37, 2018. (SCIE, Times Cited: 4) MOST 104-2221-E-008-040-MY3

[48] K. H. Tan, F. J. Lin, and J. H. Chen, "Three-Phase Four-Leg Inverter-Based Active Power Filter for Unbalanced Currents Compensation Using Petri Probabilistic Fuzzy Neural Network," Energies, 10, 2005, pp. 1-17, 2017. (SCIE, IF 2.702, 63/112, Times Cited: 19)

[49] K. H. Tan, F. J. Lin, J. H. Chen, and Y. R. Chang, "A Shunt Active Power Filter for Voltage and Current Harmonic Compensation in Microgrid System," Journal of Chinese Institute of Engineers, vol. 41, no. 4, pp. 269-285, 2018. (SCIE, IF 0.667, 81/91, Times Cited: 5)

[50] F. J. Lin, Y. T. Liu, and W. A. Yu, "Power Perturbation Based MTPA with Intelligent Speed Controller for IPMSM Drive System," IEEE Trans. Industrial Electronics, vol. 65, no. 5, pp. 3677-3687, 2018. (SCIE, IF 7.515, 16/266, Times Cited: 35) MOST 104-2221-E-008-040-MY3

[51] S. J. Chiang, F. J. Lin, and J. K. Chang, "Novel Control method for Multi-module PV Micro Inverter with Multiple Functions," IEEE Trans. Power

Electronics, vol. 33, no. 7, pp. 5869-5879, 2018. (SCIE, IF 6.373, 22/266, Times Cited: 9)

[52] F. J. Lin, S. Y. Lu, J. Y. Chao, and J. K. Chang, "Intelligent PV power smoothing control using probabilistic fuzzy neural network with energy storage system," International Journal of Photoenergy, vol. 2017, article ID 8387909, 15 pages, 2017. (SCIE, IF 1.88, 21/37 Times Cited: 2) MOST 104-2221-E-008-041- MY3

[53] F. J. Lin, S. G. Chen, and I. F. Sun, "Intelligent Sliding-Mode Position Control using Recurrent Wavelet Fuzzy Neural Network for Electrical Power Steering System," International Journal of Fuzzy Systems, vol. 19, no. 5, pp. 1344-1361, 2017. (SCIE, IF 4.406, 29/137, Times Cited: 29) MOST 104-2221-E-008-040-MY3

[54] F. J. Lin, S. G. Chen, Y. T. Liu, and S. Y. Chen, "A Power Perturbation Based MTPA Control with Disturbance Torque Observer for IPMSM Drive System," Transactions of the Institute of Measurement and Control, vol. 40, no. 10, pp. 3179-3188, 2018. (SCIE, IF 1.649, 35/64, Times Cited: 3) MOST 104-2221-E-008-040-MY3

[55] K. C. Lu, F. J. Lin, and B. H. Yang, "Profit Optimization Based Power Compensation Control Strategy for Grid-Connected PV System," IEEE Systems Journal, vol. 12, no. 3, pp. 2878-2881, 2018. (SCIE, IF 3.987, 31/156, Times Cited: 3) MOST 104-2221-E-008- 041-MY3

[56] F. J. Lin, S. G. Chen, and I. F. Sun, "Adaptive Backstepping Control of Six-phase PMSM Using Functional Link Radial Basis Function Network Uncertainty Observer," Asian Journal of Control, vol. 19, no. 6, pp. 2255–2269, 2017. (SCIE, IF 2.779, 29/63, Times Cited: 32) MOST 104-2221-E-008-040-MY3

[57] F. J. Lin, S. J. Chiang, J. K. Chang, and Yung-Ruei Chang, "Intelligent wind power smoothing control with battery energy storage system," IET Renewable Power Generation, vol. 11, no. 2, pp. 398-407, 2017. (SCIE, IF 3.894, 57/266, Times Cited: 30) MOST 104-2221-E-008-041-MY3

[58] F. J. Lin, S. J. Chiang, and J. K. Chang, "Modeling and Controller Design of PV Micro Inverter without E-cap and Input Current Sensor," Energies, 9, 993, pp. 1-17, 2016. (SCIE, IF 2.702, 63/112, Times Cited: 7) MOST 104-2221-E-008-041-MY3

[59] F. J. Lin, K. C. Lu, and B. H. Yang, "Recurrent Fuzzy Cerebellar Model Articulation Neural Network Based Power Control of Single-Stage Three-Phase Grid-Connected Photovoltaic System during Grid Faults," IEEE Trans. Industrial Electronics, vol. 64, no. 2, pp. 1258-1268, 2017. (SCIE, IF 7.515, 16/266, Times Cited: 59) MOST 104-2221-E-008-041-MY3

[60] F. J. Lin, Y. H. Chen, S. Y. Lu, and Y. Hsu, "The Smart Grid Technology Development Strategy of Taiwan," Smart Grid and Renewable Energy, vol. 7, pp. 155-163, 2016. (Times Cited: 5)

[61] S. J. Chiang, F. J. Lin, J. K. Chang, K. F. Chen, Y. L. Chen, and K. C. Liu, "Control Method for Improving the Response of Single-phase CCM Boost PFC

Converter," IET Power Electronics, vol. 9, no. 9, pp. 1792-1800, 2016. (SCIE, IF 2.672, 113/266, Times Cited: 20)

[62] F. J. Lin, K. C. Lu, T. H. Ke, and Y. R. Chang, "Probabilistic Wavelet Fuzzy Neural Network Based Reactive Power Control for Grid-Connected Three-Phase PV System during Grid Faults Renewable Energy," Renewable Energy, vol. 92, pp. 437-449, 2016. (SCIE, IF 6.274, 19/112, Times Cited: 44) MOST 104-2221-E-008-041-MY3

[63] F. J. Lin, K. H. Tan, and C. H. Tsai, " Improved differential evolution-based Elman neural network controller for squirrel-cage induction generator system" IET Renewable Power Generation, vol. 10, no. 7, pp. 988-1001, 2016. (SCIE, IF 3.894, 57/266, Times Cited: 16) MOST 104-2221-E-606-003

[64] Y. Y. Hong, F. J. Lin, and T. H. Yu, "Taguchi Method-based Probabilistic Load Flow Studies Considering Uncertain Renewables and Loads," IET Renewable Power Generation, vol. 10, no. 2, pp. 221-227, 2016. (SCIE, IF 3.894, 57/266, Times Cited: 59)

[65] F. J. Lin, I. F. Sun, K. J. Yang, and J. K. Chang, "Recurrent Fuzzy Neural Cerebellar Model Articulation Network Fault-Tolerant Control of Six-Phase PMSM Position Servo Drive," IEEE Trans. Fuzzy Systems, vol. 24, no. 1, pp. 153-167, 2016. (SCIE, IF 9.518, 10/266, Times Cited: 94) NSC 101-2221-E-008-104-MY3

[66] F. J. Lin, K. C. Lu, T. H. Ke, and H. Y. Li, "Reactive Power Control of Three-Phase PV System during Grids Faults Using Takagi-Sugeno-Kang Probabilistic Fuzzy Neural Network Control," IEEE Trans. Industrial Electronics, vol. 62, no. 9, pp. 5516-5528, 2015. (SCIE, IF 7.515, 16/266, Times Cited: 133) MOST 103-3113-P-008-001

[67] F. J. Lin, Y. S. Huang, K. H. Tan, and Y. R. Chang, "Active islanding detection method via current injection disturbance using Elman neural network," Journal of the Chinese Institute of Engineers, vol. 38, no. 4, pp. 517-535, 2015. (SCIE, IF 0.667, 81/91, Times Cited: 7)

[68] F. J. Lin, K. H. Tan, D. Y. Fang, and Y. D. Lee, "Squirrel-Cage Induction Generator System Using Hybrid Wavelet Fuzzy Neural Network Control for Wind Power Applications," Neural Computing and Applications, vol. 26, pp. 911-928, 2015. (SCIE, IF 4.774, 23/137, Times Cited: 12)

[69] F. J. Lin, K. J. Yang, I. F. Sun, and J. K. Chang, "Intelligent position control of six-phase PMSM using RFNCMAN," IET Electrical Power Applications, vol. 9, no. 3, pp. 248-264, 2015. (SCIE, IF 2.834, 104/266, Times Cited: 51) NSC 101-2221-E-008-104-MY3

[70] F. J. Lin, K. C. Lu, T. H. Ke, and Y. R. Chang, "Reactive Power Control of Single-Stage Three-phase Photovoltaic System during Grid Faults Using Recurrent Fuzzy Cerebellar Model Articulation Neural Network," International Journal of Photoenergy, vol. 2014, Article ID 760743, 13 pages, 2014. (SCIE, IF 1.88, 21/37, Times Cited: 3) NSC 103-3113-P-008-001

[71] F. J. Lin, S. Y. Lee, and P. H. Chou, "Intelligent Integral Backstepping Sliding Mode Control Using Recurrent Neural Network for Piezo-Flexural

Nanopositioning Stage," Asian Journal of Control, vol. 17, no. 6, pp. 1-17, 2015. (SCIE, IF 2.779, 29/63, Times Cited: 28) NSC 101-2221-E-008-105-MY3

[72] Y. C. Hung, F. J. Lin, J. C. Hwang, J. K. Chang, and K. C. Ruan, "Wavelet Fuzzy Neural Network with Asymmetric Membership Function Controller for Electric Power Steering System via Improved Differential Evolution," IEEE Trans. Power Electronics, vol. 30, no. 4, pp. 2350-2362, 2015. (SCIE, IF 6.373, 22/266, Times Cited: 82) NSC 101-2221-E-008-104-MY3

[73] Y. Y. Hong, F. J. Lin, and F. Y. Hsu, "Enhanced Particle Swam Optimization-based Feeder Reconfiguration Considering Uncertain Large Photovoltaic Powers and Demands," International Journal of Photoenergy, vol. 2014, ID 704839. (SCIE, IF 1.88, 21/37, Times Cited: 11) NSC 103-3113-P-008-001

[74] Y. Y. Hong, F. J. Lin, S. Y. Chen, Y. C. Lin, and F. Y. Hsu, "A Novel Adaptive Elite-based Particle Swarm Optimization Applied to VAR Optimization in Electric Power Systems," Mathematical Problems in Engineering, vol. 2014, ID 761403. (SCIE, IF 1.009, 77/106, Times Cited: 8) NSC 102-3113-P-008-001

[75] F. J. Lin, Y. C. Hung, C. M. Yeh, and J. M. Chen, "Sensorless inverter-fed compressor drive system using saliency back-EMF based intelligent torque observer with MTPA control," IEEE Trans. Industrial Informatics, vol. 10, no. 2, pp. 1226-1241, 2014. (SCIE, IF 9.112, 2/48, Times Cited: 66) NSC 99-2218-E-008-002

[76] F. J. Lin, Y. C. Hung, and K. C. Ruan, "Intelligent Second Order Sliding Mode Control for Electric Power Steering System Using Wavelet Fuzzy Neural Network," IEEE Trans. Fuzzy Systems, vol. 22, no. 6, pp. 1598-1611, 2014. (SCIE, IF 9.518, 10/266, Times Cited: 114) NSC 101-2221-E-008-104-MY3

[77] Y. Y. Hong, F. J. Lin, Y. C. Lin, and F. Y. Hsu, "Chaotic PSO-based VAR Control Considering Renewables Using Fast Probabilistic Power Flow," IEEE Trans. Power Delivery, vol. 29, no. 4, pp. 1666-1674, 2014. (SCIE, IF 3.681, 63/266, Times Cited: 36) NSC 102-3113-P-008-001

[78] F. J. Lin, S. Y. Lee, and P. H. Chou, "Computed Force Control System Using Functional Link Radial Basis Function Network with Asymmetric Membership Function for Piezo-Flexural Nanopositioning Stage" IET Control Theory Applications, vol. 7, no. 18, pp. 2128-2142, 2013. (SCIE, IF 3.343, 14/64, Times Cited: 8) NSC 101-2221-E-008-105-MY3

[79] F. J. Lin, Y. C. Hung, Z. Y. Kao, and C. M. Yeh, "Sensorless inverter-fed compressor drive system using back EMF estimator with PIDNN torque observer," Asian Journal of Control, vol. 16, no. 4, pp. 1042-1056, 2014. (SCIE, IF 2.779, 29/63, Times Cited: 8)

[80] P. H. Chou, F. J. Lin, C. S. Chen and F. C. Lee, "Three-Degree-of-Freedom Dynamic Model Based IT2RFNN Control for Gantry Position Stage," Applied Mechanics and Materials, vols. 416-417, pp. 554-558, 2013. (Times Cited: 1)

[81] F. J. Lin, K. H. Tan, D. Y. Fang, and Y. D. Lee, "Intelligent controlled

three-phase squirrel-cage induction generator system using wavelet fuzzy neural network," IET Renewable Power Generation, vol. 7, no. 5, pp. 552-564, 2013. (SCIE, IF 3.894, 57/266, Times Cited: 36)

[82] C. H. Hsu, C. Y. Lee, Y. H. Chang, F. J. Lin, C. M. Fu, and J. G. Lin, "Effect of Magnetostriction on the Core Loss, Noise, and Vibration of Fluxgate Sensor Composed of Amorphous Materials," IEEE Trans. Magnetics, vol. 49, no. 7, pp. 3862-3865, 2013. (SCIE, IF 1.626, 169/266, Times Cited: 27)

[83] F. J. Lin, Y. S. Huang, K. H. Tan, J. H. Chiu, and Y. R. Chang, "Active islanding detection method using D-axis disturbance signal injection with intelligent control," IET Generation, Transmission & Distribution, vol. 7, no. 5, pp. 537-550, 2013. (SCIE, IF 2.862, 103/266, Times Cited: 41) NSC 100-3113-E-009-003-CC2

[84] F. J. Lin, Y. C. Hung, and M. T. Tsai, "Fault-Tolerant Control for Six-Phase PMSM Drive System via Intelligent Complementary Sliding Mode Control Using TSKFNN-AMF," IEEE Trans. Industrial Electronics, vol. 60, no. 12, pp. 5747-5762, 2013. (SCIE, IF 7.515, 16/266, Times Cited: 135) NSC 101-2221-E-008-104-MY3

[85] S. Y. Chen and F. J. Lin, "Decentralized PID Neural Network Control for Five Degree-of-Freedom Active Magnetic Bearing," Engineering Applications of AI, vol. 26, pp. 962-973, 2013. (SCIE, IF 4.201, 13/91, Times Cited: 50) NSC 98-2221-E-008-115-MY3

[86] F. J. Lin, Y. C. Hung, J. C. Hwang, and M. T. Tasi, "Fault Tolerant Control of Six-Phase Motor Drive System Using Takagi-Sugeno-Kang Type Fuzzy Neural Network with Asymmetric Membership Function," IEEE Trans. Power Electronics, vol. 28, no. 7, pp. 3557-3572, 2013. (SCIE, IF 6.373, 22/266, Times Cited: 88) NSC 101-2221-E-008-104-MY3

[87] F. J. Lin, M. S. Huang, Y. C. Hung, C. H. Kuan, S. L. Wang, and Y. D. Lee, "Takagi-Sugeno-Kang type probabilistic fuzzy neural network control for grid-connected LiFePO4 battery storage system," IET Power Electronics, vol. 6, no. 6, pp. 1029-1040, 2013. (SCIE, IF 2.672, 113/266, Times Cited: 15)

[88] F. J. Lin, S. Y. Lee, and P. H. Chou, "Intelligent Nonsingular Terminal Sliding-Mode Control Using MIMO Elman Neural Network for Piezo-Flexural Nanopositioning Stage," IEEE Trans. Ultra. Ferro. Freq. Ctrl., vol. 59, no. 12, pp. 2716-2730, 2012. (SCIE, IF 2.812, 7/32, Times Cited: 26) NSC 101-2221-E-008-105-MY3

[89] F. J. Lin, I. S. Hwang, K. S. Tan, Z. H. Lu, and Y. R. Chang, "Intelligent-controlled of doubly-fed induction generator system using PFNN," Neural Computing and Applications, vol. 22, pp. 1695–1712, 2013. (SCIE, IF 4.774, 23/137, Times Cited: 10)

[90] F. J. Lin, P. H. Chou, C. S. Chen, and Y. S. Lin, "Three-degree-of-freedom dynamic model based intelligent non-singular terminal sliding mode control for gantry position stage," IEEE Trans. Fuzzy Systems, vol. 20, no. 5, pp. 971-985, 2012. (SCIE, IF 9.518, 10/266, Times Cited: 44) NSC

97-2221-E-008-098-MY3
[91] F. J. Lin, M. S. Huang, P. Y. Yeh, H. C. Tsai and C. H. Kuan, "DSP-based Probabilistic Fuzzy Neural Network Control for Li-ion Battery Charger," IEEE Trans. Power Electronics, vol. 27, no. 8, pp. 3782-3794, 2012. (SCIE, IF 6.373, 22/266, Times Cited: 102) NSC 99-2218-E-008-003
[92] P. H. Chou, C. S. Chen, and F. J. Lin, "DSP-based synchronous control of dual linear motors via Sugeno type fuzzy neural network compensator," Journal of Franklin Institute, vol. 349, pp. 792-812, 2012. (SCIE, IF 4.036, 8/106, Times Cited: 29) NSC 97-2221-E-008-098-MY3
[93] F. J. Lin, Y. C. Hung, J. C. Hwang, I. P. Chang, and M. T. Tsai, "Digital signal processor-based probabilistic fuzzy neural network control of in-wheel motor drive for light electric vehicle," IET Electric Power Applications, vol. 6, no. 2, pp. 47-61, 2012. (SCIE, IF 2.834, 104/266, Times Cited: 51) NSC 98-2218-E-008-010
[94] F. J. Lin, P. H. Chou, C. S. Chen, and Y. S. Lin, "DSP-based Cross-Coupled Synchronous Control for Dual Linear Motors via Intelligent Complementary Sliding Mode Control," IEEE Trans. Industrial Electronics, vol. 59, no. 2, pp. 1061-1073, 2012. (SCIE, IF 7.515, 16/266, Times Cited: 167) NSC 97-2221-E-008-098-MY3
[95] F. J. Lin, S. H. Lee, H. C. Chang, and Z. Y. Kao, "Design and implementation of sensorless DC inverter-fed compressor drive system," Journal of the Chinese Institute of Engineers, vol. 35, no. 6, pp. 655-673, 2012. (SCIE, IF 0.667, 81/91, Times Cited: 1)
[96] F. J. Lin, J. C. Hwang, K. S. Tan, Z. H. Lu, and Y. R. Chang, "Intelligent Control of doubly-fed induction generator system using PIDNNs," Asian Journal of Control, vol. 14, no. 3, pp. 768-783, 2012. (SCIE, IF 2.779, 29/63, Times Cited: 9) NSC 98-3114-E-008-001-CC2
[97] C. C. Chu, F. J. Lin, and P. T. Cheng, "Smart grid development in Taiwan," IEE Japan Journal of Industry Applications, vol. 1, no. 1, pp. 41-45, 2012. (SCIE, IF 1.3, 230/352, Times Cited: 3)
[98] F. J. Lin, S. Y. Chen, and M. S. Huang, "Adaptive complementary sliding-mode control for thrust active magnetic bearing system," Control Engineering Practice, vol. 19, no. 7, pp. 711-722, 2011. (SCIE, IF 3.193, 80/266, Times Cited: 35) NSC 98-2221-E-008-115-MY3
[99] F. J. Lin, S. Y. Chen, and M. S. Huang, "Intelligent double integral sliding-mode control for five-degree-of-freedom active magnetic bearing," IET Control Theory Applications, vol. 5, no. 11, pp. 1287-1303, 2011. (SCIE, IF 3.343, 14/64, Times Cited: 73) NSC 98-2221-E-008-115-MY3
[100] F. J. Lin, H. J. Hsieh, P. H. Chou, and Y. S. Lin, "Digital signal processor-based cross-coupled synchronous control of dual linear motors via functional link radial basis function network," IET Control Theory Applications, vol. 5, no. 4, pp. 552-564, 2011. (SCIE, IF 3.343, 14/64, Times Cited: 37) NSC 97-2221-E-008-098-MY3
[101] S. Y. Chen and F. J. Lin, "Robust Nonsingular Terminal Sliding-Mode Control

for Nonlinear Magnetic Bearing System," IEEE Trans. Control Systems Technology, vol. 19, no. 3, pp. 636-643, 2011. (SCIE, IF 5.312, 35/266, Times Cited: 277) NSC 98-2221-E-008-115-MY3

[102] F. J. Lin, S. Y. Chen, and M. S. Huang, "Tracking Control of Thrust Active Magnetic Bearing System via Hermite Polynomial-Based Recurrent Neural Network," IET Electric Power Applications, vol. 4, no. 9, pp. 701~714, 2010. (SCIE, IF 2.834, 104/266, Times Cited: 36) NSC 98-2221-E-008-115-MY3

[103] F. J. Lin, J. C. Hwang, P. H. Chou, and Y. C. Hung, "FPGA-based Intelligent-Complementary Sliding-Mode Control for PMLSM Servo Drive System," IEEE Trans. Power Electronics, vol. 25, no. 10, pp. 2573~2587, 2010. (SCIE, IF 6.373, 22/266, Times Cited: 128) NSC 95-2221-E-008-177-MY3

[104] F. J. Lin, S. Y. Chen, K. K. Shyu, and Y. H. Liu, "Intelligent Complementary Sliding-Mode Control for LUSMs-Based X-Y-Θ Motion Control Stage," IEEE Trans. Ultra. Ferro. Freq. Ctrl., vol. 57, no. 7, pp. 1626-1640, 2010. (SCIE, IF 2.812, 7/32, Times Cited: 16) NSC 95-2221-E-008-177-MY3

[105] F. J. Lin, Y. C. Hung, and S. Y. Chen, "Field-programmable gate array-based intelligent dynamic sliding-mode control using recurrent wavelet neural network for linear ultrasonic motor," IET Control Theory Applications, vol. 4, no. 9, pp. 1511-1532, 2010. (SCIE, IF 3.343, 14/64, Times Cited: 21) NSC 95-2221-E-008-177-MY3

[106] Y. C. Hsieh, H. L. Cheng, J. Y. Hong, and F. J. Lin, "Single-stage high power factor half-bridge resonant technique for linear ultrasonic motor driving circuit," IET Power Electronics, vol. 3, no. 3, pp. 315-322, 2010. (SCIE, IF 2.672, 113/266, Times Cited: 7)

[107] F. J. Lin, Y. S. Kung, S. Y. Chen, and Y. H. Liu, "Recurrent wavelet-based Elman neural network control for multi-axis motion control stage using linear ultrasonic motors," IET Electric Power Applications, vol. 4, no. 5, pp. 314-332, 2010. (SCIE, IF 2.834, 104/266, Times Cited: 37) NSC 95-2221-E-008-177-MY3

[108] F. J. Lin, P. H. Chou, Y. C. Hung, and W. M. Wang, "Field-programmable gate array-based functional link radial basis function network control for permanent magnet linear synchronous motor servo drive system" IET Electric Power Applications, vol. 4, no. 5, pp. 357-372, 2010. (SCIE, IF 2.834, 104/266, Times Cited: 20) NSC 95-2221-E-008-177-MY3

[109] F. J. Lin, H. J. Hsieh and P. H. Chou, "Tracking control of a two-axis motion system via a filtering-type sliding-mode control with radial basis function network," IET Control Theory Applications, vol. 4, no. 4, pp. 655-671, 2010. (SCIE, IF 3.343, 14/64, Times Cited: 25) NSC 96-2221-E-008-125

[110] F. J. Lin, S. Y. Chen, L. T. Teng, and H. Chu, "Recurrent Functional-Link-Based Fuzzy Neural Network Controller With Improved Particle Swarm Optimization for a Linear Synchronous Motor Drive," IEEE Trans. Magnetics, vol. 45, no. 8, pp. 3151-3165, 2009. (SCIE, IF 1.626, 169/266, Times Cited: 66) NSC 95-2221-E-008-177-MY3

[111] S. Y. Chen, F. J. Lin, and K. K. Shyu, "Direct Decentralized Neural Control for

Nonlinear MIMO Magnetic Levitation System," Neurocomputing, vol. 72, pp. 3220-3230, 2009. (SCIE, IF 4.438, 28/137, Times Cited: 34) NSC 95-2221-E-008-177-MY3

[112] F. J. Lin, S. Y. Chen, and K. K. Shyu, "Robust Dynamic Sliding-Mode Control Using Adaptive RENN for Magnetic Levitation System," IEEE Trans. Neural Networks, vol. 20, no. 6, pp. 938-951, 2009. (SCIE, IF 2.633, 1/50, Times Cited: 111) NSC 95-2221-E-008-177-MY3

[113] F. J. Lin, L. T. Teng, J. W. Lin, and S. Y. Chen, "Recurrent Functional-Link-Based Fuzzy Neural Network Controlled Induction Generator System Using Improved Particle Swarm Optimization," IEEE Trans. Industrial Electronics, vol. 56, no. 5, pp. 1557-1577, 2009. (SCIE, IF 7.515, 16/266, Times Cited: 101) NSC 96-2221-E-008-125

[114] F. J. Lin, S. Y. Chen, and Y. C. Hung, "Field-programmable gate array-based recurrent wavelet neural network control system for linear ultrasonic motor," IET Electric Power Applications, vol. 3, no. 4, pp. 298-312, 2009. (SCIE, IF 2.834, 104/266, Times Cited: 13) NSC 95-2221-E-008-177-MY3

[115] F. J. Lin and Y. C. Hung, "FPGA-Based Elman neural network control system for linear ultrasonic motor," IEEE Trans. Ultra. Ferro. Freq. Ctrl., vol. 56, no. 1, pp. 101-113, 2009. (SCIE, IF 2.812, 7/32, Times Cited: 48) NSC 95-2221-E-008-177-MY3

[116] F. J. Lin, Y. C. Hung and S. Y. Chen, "FPGA-based computed force control using Elman neural network for linear ultrasonic motor," IEEE Trans. Industrial Electronics, vol. 56, no. 4, 2009, pp. 1238-1253. (SCIE, IF 7.515, 16/266, Times Cited: 69) NSC 95-2221-E-008 -177-MY3

[117] L. T. Teng, F. J. Lin, H. C. Chiang and J. W. Lin, "Recurrent wavelet neural network controller with improved particle swarm optimisation for induction generator system," IET Electric Power Applications, vol. 3, no. 2, pp. 147-159, 2009. (SCIE, IF 2.834, 104/266, Times Cited: 14) NSC 96-2221-E-008-125

[118] F. J. Lin and P. H. Chou, "Adaptive control of two-axis motion control system using interval type-2 fuzzy neural network," IEEE Trans. Industrial Electronics, vol. 56, no. 1, pp. 178-193, 2009. (SCIE, IF 7.515, 16/266, Times Cited: 180) NSC 95-2221-E-008-177-MY3

[119] F. J. Lin, L. T. Teng, and H. Chu, "A robust recurrent wavelet neural network controller with improved particle swarm optimization for linear synchronous motor drive," IEEE Trans. Power Electronics, vol. 25, no. 6, pp. 3067-3078, 2008. (SCIE, IF 6.373, 22/266, Times Cited: 42) NSC 95-2221-E-008-177-MY3

[120] F. J. Lin, L. T. Teng, and M. H., Yu, "Radial basis function network control with improved particle swarm optimization for induction generator system," IEEE Trans. Power Electronics, vol. 23, no. 4, pp. 2157-2169, 2008. (SCIE, IF 6.373, 22/266, Times Cited: 24) NSC 96-2221-E-008-125

[121] F. J. Lin, P. H. Chou, P. H. Shieh, and S. Y. Chen "Robust control of an LUSM based X-Y-Theta motion control stage using adaptive interval type-2 fuzzy neural network," IEEE Trans. Fuzzy Sys., vol. 17, no. 1, pp. 24-38, 2009.

(SCIE, IF 9.518, 10/266, Times Cited: 59) NSC 95-2221-E-008-177-MY3
[122] F. J. Lin, S. Y. Chen, P. H. Chou, and P. H. Shieh, "Interval Type-2 Fuzzy Neural Network Control for X-Y-Theta Motion Control Stage Using Linear Ultrasonic Motors," Neurocomputing, vol. 72, pp. 1138-1151, 2008. (SCIE, IF 4.438, 28/137, Times Cited: 51) NSC 95-2221-E-259-042-MY3
[123] F. J. Lin, L. T. Teng, and H. Chu, "Modified Elman neural network controller with improved particle swarm optimisation for linear synchronous motor drive," IET Electric Power Applications, vol. 2, no. 3, pp. 201-214, 2008. (SCIE, IF 2.834, 104/266, Times Cited: 43) NSC 95-2221-E-008-177-MY3
[124] F. J. Lin, L. T. Teng, C. Y. Chen, and Y. C. Hung, "FPGA-based adaptive backstepping control system using RBFN for linear induction motor drive," IET Electric Power Applications, vol. 2, no. 6, pp. 325-340, 2008. (SCIE, IF 2.834, 104/266, Times Cited: 40) NSC 95-2221-E-259-042-MY3
[125] F. J. Lin, H. J. Shieh, P. K. Huang, and P. H. Shieh, "An adaptive recurrent radial basis function network tracking controller for a two-dimensional piezo-positioning stage," IEEE Trans. Ultra. Ferro. Freq. Ctrl., vol. 55, no. 1, pp. 183-198, 2008. (SCIE, IF 2.812, 7/32, Times Cited: 19)
[126] F. J. Lin, L. T. Teng, C. Y. Chen, and C. K. Chang, "Robust RBFN control for linear induction motor drive using FPGA," IEEE Tran. Power Electronics, vol. 23, no. 4, pp. 2170-2180, 2008. (SCIE, IF 6.373, 22/266, Times Cited: 19) NSC 95-2221-E-259-042-MY3
[127] F. J. Lin, P. H. Chou, and Y. S. Kung, "Robust Fuzzy Neural Network Controller with Nonlinear Disturbance Observer for Two-Axis Motion Control System," IET Control Theory Applications, vol. 2, no. 2, pp. 151-167, 2008. (SCIE, IF 3.343, 14/64, Times Cited: 47) NSC 95-2221-E-259-042-MY3
[128] F. J. Lin, and P. H. Chou, "Self-Constructing Sugeno Type Adaptive Fuzzy Neural Network for Two-Axis Motion Control System," Journal of the Chinese Institute of Engineers, vol. 30, no. 7, pp. 1153-1166, 2007. (SCIE, IF 0.667, 81/91) NSC 95-2221-E-259-042-MY3
[129] F. J. Lin, P. H. Shieh and Y. C. Hung, "An intelligent control for linear ultrasonic motor using interval type-2 fuzzy neural network," IET Electric Power Applications, vol. 2, no. 1, pp. 32-41, 2008. (SCIE, IF 2.834, 104/266, Times Cited: 48) NSC 95-2221-E-259-042-MY3
[130] F. J. Lin, P. H. Shieh, and P. H. Chou, "Robust adaptive backstepping motion control of linear ultrasonic motors using fuzzy neural network," IEEE Trans. Fuzzy Sys., vol. 16, no. 3, pp. 676-692, 2008. (SCIE, IF 9.518, 10/266, Times Cited: 85) NSC 94-2213-E-259-025
[131] F. J. Lin, L. T. Teng and P. H. Shieh "Intelligent adaptive backstepping control system for magnetic levitation apparatus," IEEE Tran. Magnetics, vol. 43, no. 5, pp. 2009-2018, 2007. (SCIE, IF 1.626, 169/266, Times Cited: 88) NSC 95-2221-E-259-040
[132] F. J. Lin, P. K. Huang, and W. D. Chou, "Recurrent fuzzy neural network controlled linear induction motor servo drive using genetic algorithms," IEEE Trans. Ind. Electro., vol. 54, no. 3, pp. 1449-1461, 2007. (SCIE, IF 7.515,

16/266, Times Cited: 92) NSC 90-2213-E-259-017
[133] F. J. Lin, L. T. Teng and P. H. Shieh, "Intelligent sliding-mode control using RBFN for magnetic levitation system," IEEE Trans. Industrial Electronics, vol. 54, no. 3, pp. 1752-1762, 2007. (SCIE, IF 7.515, 16/266, Times Cited: 95) NSC 94-2213-E-259-025
[134] P. K. Huang, P. H. Shieh, F. J. Lin, and H. J. Shieh, "Sliding-mode control for a two-dimensional piezo-positioning stage," IET Control Theory Appl., vol. 1, no .4, pp. 1104-1113, 2007. (SCIE, IF 3.343, 14/64, Times Cited: 24) NSC 94-2213-E-259-025
[135] F. J. Lin, C. K. Chang, and P. K. Huang, "FPGA-based adaptive backstepping sliding-mode control for linear induction motor drive," IEEE Tran. Power Electronics, vol. 22, no. 4, pp. 1222-1231, 2007. (SCIE, IF 6.373, 22/266, Times Cited: 148) NSC 94-2213-E-259-025
[136] F. J. Lin, P. K. Huang, and W. D. Chou, "A genetic algorithm based recurrent fuzzy neural network for linear induction motor servo drive," Journal of the Chinese Institute of Engineers, vol. 30, no. 5, pp. 801-817, 2007. (SCIE, IF 0.667, 81/91, Times Cited: 12)
[137] F. J. Lin, P. K. Huang, C. C. Wang, and L. T. Teng, "An induction generator system using fuzzy modeling and recurrent fuzzy neural network," IEEE Tran. Power Electronics, vol. 22, no. 1, pp. 260-271, 2007. (SCIE, IF 6.373, 22/266, Times Cited: 41) NSC 92-2213-E-259-021
[138] F. J. Lin and P. H. Shieh, "Recurrent RBFN-Based Fuzzy Neural Network Control for X-Y-Theta Motion Control Stage Using Linear Ultrasonic Motors," IEEE Trans. Ultrason. Ferroelectr. Freq. Control, vol. 53. no. 12, pp. 2450-2464, 2006. (SCIE, IF 2.812, 7/32, Times Cited: 27) NSC 94-2213-E-259-025
[139] F. J. Lin, P. H. Shen, S. L. Yang, and P. H. Chou, "Recurrent radial basis function network-based fuzzy neural network control for permanent-magnet linear synchronous motor Servo drive," IEEE Trans. Magnetics, vol. 42, no. 11, pp. 3694-3705, 2006. (SCIE, IF 1.626, 169/266, Times Cited: 57) NSC94-2213-E-259-025
[140] F. J. Lin, P. H. Shen, P. H. Chou, and S. L. Yang, "TSK-type Recurrent Fuzzy Network for DSP-based Permanent Magnet Linear Synchronous Motor Servo Drive," IEE Proc.-Electr. Power Appl., vol. 153, no. 6, pp. 921-931, 2006. (SCIE, IF 2.834, 97/229, Times Cited: 22) NSC 94-2213-E-259-025
[141] F. J. Lin, H. J. Shieh, P. K. Huang, and L. T. Teng, "Adaptive control with hysteresis estimation and compensation using RFNN for piezo-actuator," IEEE Tran. Ultrason. Ferroelectr. Freq. Control, vol. 53, no. 9, pp. 1649-1661, 2006. (SCIE, IF 2.812, 7/32, Times Cited: 83)
[142] F. J. Lin, L. T. Teng, P. H. Shieh and Y. F. Li, "Intelligent controlled wind turbine emulator and induction generator system using RBFN," IEE Proc.-Electr. Power Appl., vol. 153, no. 4, pp. 608-618, 2006. (SCIE, IF 2.834, 97/229, Times Cited: 41) NSC 92-2213-E-259-021
[143] F. J. Lin, L. T. Teng and C. K. Chang, "Adaptive backstepping control for

linear induction motor drive using FPGA," IEE Proc.-Electr. Power Appl., vol. 153, no. 4, pp. 483-492, 2006. (SCIE, IF 2.834, 97/229, Times Cited: 21) NSC 94-2213-E-259-025

[144] H. J. Shieh, F. J. Lin, P. K. Huang, and L. T. Teng, "Adaptive displacement control with hysteresis modeling for piezoactuated positioning mechanism," IEEE Tran. Ind. Electro., vol. 53, no. 3, pp. 905-914, 2006. (SCIE, IF 7.515, 16/266, Times Cited: 54)

[145] F. J. Lin, H. J. Shieh, and P. K. Huang, "Adaptive wavelet neural network control with hysteresis estimation for piezo-positioning mechanism," IEEE Tran. Neural Networks, vol. 17, no. 2, pp. 432-444, 2006. (SCIE, IF 8.793, 1/50, Times Cited: 136) NSC 92-2213-E-259-021

[146] F. J. Lin and P. H. Shen, "Adaptive fuzzy-neural-network control for a DSP-based permanent magnet linear synchronous motor servo drive," IEEE Tran. Fuzzy Systems, vol. 14, no. 4, pp. 481-495, 2006. (SCIE, IF 9.518, 10/266, Times Cited: 77) NSC 91-2213-E-259-021

[147] F. J. Lin and P. H. Shen, "Robust Fuzzy-neural-network sliding-mode control for two-axis motion control system," IEEE Tran. Ind. Electro., vol. 53, no. 4, pp. 1209-1225, 2006. (SCIE, IF 7.515, 16/266, Times Cited: 192) NSC 91-2213-E-259-021

[148] F. J. Lin, H. J. Shieh, P. H. Shieh, and P. H. Shen, "An Adaptive recurrent-neural-network motion controller for X-Y table in CNC machine," IEEE Trans. Sys. Man and Cybernetics Pt. B, vol. 36, no. 2, pp. 286-299, 2006. (SCIE, IF 6.22, 3/123, Times Cited: 89) NSC 92-2213-E-259-004

[149] F. J. Lin, S. L. Yang and P. H. Shen "Self-constructing recurrent fuzzy neural network for DSP-based permanent magnet linear synchronous motor servo drive," IEE Proc.-Electr. Power Appl., vol. 153, no. 2, pp. 236-246, 2006. (SCIE, IF 2.834, 97/229, Times Cited: 23) NSC 93-2213-E-259-002

[150] F. J. Lin, P. H. Shieh, and P. H. Shen, "Robust recurrent-neural-network sliding-mode control for X-Y table in CNC machine," IEE Proc.-Control Theory Appl., vol. 153, no. 1, pp. 111-123, 2006. (SCIE, IF 3.343, 8/56, Times Cited: 34)

[151] F. J. Lin, P. H. Shen and Y. S. Kung, "Adaptive wavelet neural network control for linear synchronous motor servo drive," IEEE Tran. Magnetics, vol. 41, no. 12, pp. 4401-4412, 2005. (SCIE, IF 1.626, 169/266, Times Cited: 53) NSC 93-2213-E-259-002

[152] P. H. Shen and F. J. Lin, "Intelligent backstepping sliding-mode control using RBFN for two-axis motion control system," IEE Proc.-Electr. Power Appl., vol. 152, no. 5, pp. 1321-1342, 2005. (SCIE, IF 2.834, 97/229, Times Cited: 37) NSC 93-2213-E-259-002

[153] F. J. Lin, D. H. Wang and P. K. Huang, "FPGA-based fuzzy sliding-mode control for a linear induction motor drive," IEE Proc.-Electr. Power Appl., vol. 152, no. 5, pp. 1137-1148, 2005. (SCIE, IF 2.834, 97/229, Times Cited: 93) NSC 93-2213-E-259-025

[154] F. J. Lin, H. J. Shieh, L. T. Teng and P. H. Shieh "Hybrid controller with

recurrent neural network for magnetic levitation system," IEEE Tran. Magnetics, vol. 41, no. 7, pp. 2260-2269, 2005. (SCIE, IF 1.626, 169/266, Times Cited: 51) NSC 92-2213-E-259-021

[155] F. J. Lin, P. H. Shen, and R. F. Fung, "RFNN control for PMLSM drive via backstepping technique," IEEE Tran. Aerosp. Electron. Syst., vol. 41, no. 2, pp. 620-644, 2005. (SCIE, IF 3.672, 3/31, Times Cited: 34) NSC 91-2213-E-259-021

[156] T. S. Lee, C. H. Lin, and F. J. Lin, "An adaptive H∞ controller design for permanent motor synchronous motor drive," Control Engineering Practice, vol. 13, pp. 425-439, 2005. (SCIE, IF 3.193, 80/266, Times Cited: 69)

[157] H. J. Shieh, F. J. Lin, P. K. Huang, and L. T. Teng, "Adaptive tracking control solely using displacement feedback for a piezo-positioning mechanism," IEE Proc.-Control Theory Appl., vol. 151, no. 5, pp. 653-660, 2004. (SCIE, IF 3.343, 8/56, Times Cited: 56)

[158] F. J. Lin, R. J. Wai, and P. K. Huang, "Two-axis motion control system using wavelet neural network for ultrasonic motor drives," IEE Proc.-Electr. Power Appl., vol. 151, no. 5, pp. 613-621, 2004. (SCIE, IF 2.834, 97/229, Times Cited: 32) NSC 91-2213-E-259-022

[159] F. J. Lin, C. H. Lin, and P. K. Huang, "Recurrent fuzzy neural network controller design using sliding mode for linear synchronous motor drive," IEE Proc.-Control Theory Appl., vol. 151, no. 4, pp. 407-416, 2004. (SCIE, IF 3.343, 8/56, Times Cited: 54) NSC 92-2213-E-259-004

[160] F. J. Lin, C. H. Lin, and P. H. Shen, "Variable-structure control for linear synchronous motor using a recurrent fuzzy neural network," IEE Proc.-Control Theory Appl., vol. 151, no. 4, pp. 395-406, 2004. (SCIE, IF 3.343, 8/56, Times Cited: 19) NSC 90-2213-E-259-016

[161] F. J. Lin, H. J. Shieh, K. K. Shyu, and P. K. Huang, "On-line gain-tuning IP controller using real-coded genetic algorithm," Electric Power Systems Research, vol. 72, pp. 157-169, 2004. (SCIE, IF 3.211, 78/266, Times Cited: 63) NSC 89-2213-E-033-048

[162] F. J. Lin and C. H. Lin, "A permanent-magnet synchronous motor servo drive using self-constructing fuzzy neural network controller," IEEE Trans. Energy Convers., vol. 19, no. 1, pp. 66-72, 2004. (SCIE, IF 4.501, 43/266, Times Cited: 163) NSC 89-2213-E-033-048

[163] F. J. Lin, Dong-Hai Wang, and P. K. Huang, "RFNN controlled sensorless induction spindle motor drive," Electric Power Systems Research, vol. 70, pp. 211-222, 2004. (SCIE, IF 3.211, 78/266, Times Cited: 11)

[164] W. D. Chou, F. J. Lin, and P. K. Huang, "Fuzzy sliding-mode controlled induction servo drive based on real-time genetic algorithm," Journal of the Chinese Institute of Engineers, vol. 27, no. 1, pp. 35-47, 2004. (SCIE, IF 0.667, 81/91, Times Cited: 6) NSC 90-2213-E-259-017

[165] F. J. Lin, R. J. Wai, and M. P. Chen, "Wavelet neural network control for linear ultrasonic motor drive via adaptive sliding-mode technique," IEEE Trans. Ultrason. Ferroelectr. Freq. Control, vol. 50, no. 6, pp. 686-698, 2003. (SCIE,

IF 2.812, 7/32, Times Cited: 71)
[166] F. J. Lin, T. S. Lee, and C. H. Lin, "Robust H∞ controller design with recurrent neural network for linear synchronous motor drive," IEEE Trans. Ind. Electron., vol. 50, no. 3, pp. 456-470, 2003. (SCIE, IF 7.515, 16/266, Times Cited: 101) NSC 90-2213-E-259-017
[167] W. D. Chou, F. J. Lin, and K. K. Shyu, "Incremental motion control of induction motor servo drive via a genetic algorithm based sliding-mode controller," IEE Proc.-Control Theory Appl., vol. 150, no. 3, pp. 209-220, 2003. (SCIE, IF 3.343, 8/56, Times Cited: 31) NSC 90-2213-E-259-017
[168] F. J. Lin and R. J. Wai, "Adaptive and fuzzy neural network sliding-mode controllers for motor-quick-return servomechanism," Mechatronics, vol. 13, pp. 477-506, 2003. (SCIE, IF 2.992, 34/130, Times Cited: 31) NSC 89-2213-E-033-048
[169] F. J. Lin, W. D. Chou, and P. K. Huang, "Adaptive sliding-mode controller based on real-time genetic algorithm for induction motor servo drive," IEE Proc.-Electr. Power Appl., vol. 150, no. 1, pp. 1-13, 2003. (SCIE, IF 2.834, 97/229, Times Cited: 53) NSC 90-2213-E-259-017
[170] F. J. Lin and R. J. Wai, "Robust recurrent fuzzy neural network control for linear synchronous motor drive system," Neurocomputing, vol. 50, pp. 365-390, 2003. (SCIE, IF 4.438, 28/137, Times Cited: 65) NSC 89-2213-E-155-052
[171] F. J. Lin and R. J. Wai, "Adaptive fuzzy-neural-network control for induction spindle motor drive," IEEE Trans. Energy Convers., vol. 17, no. 4, pp. 507-513, 2002. (SCIE, IF 4.501, 43/266, Times Cited: 74) NSC 89-2213-E-033-094
[172] S. J. Chiang, W. J. Ai, and F. J. Lin, "Parallel operation of capacity-limited three-phase four-wire active power filters," IEE Proc.-Electr. Power Appl., vol. 149, no. 5, pp. 329-336, 2002. (SCIE, IF 2.834, 97/229, Times Cited: 48)
[173] F. J. Lin, K. K. Shyu, and C. H. Lin, "Incremental motion control of linear synchronous motor," IEEE Trans. Aerosp. Electron. Syst., vol. 38, no. 3, pp. 1011-1022, 2002. (SCIE, IF 3.672, 3/31, Times Cited: 56) NSC 90-2213-E-259-016
[174] F. J. Lin, P. H. Shen, and S. P. Hsu, "Adaptive backstepping sliding mode control for linear induction motor drive," IEE Proc.-Electr. Power Appl., vol. 149, no. 3, pp. 184-194, 2002. (SCIE, IF 2.834, 97/229, Times Cited: 256) NSC 90-2213-E-259-017
[175] R. J. Wai, F. J. Lin, R. Y. Duan, K. Y. Hsieh, and J. D. Lee, "Robust fuzzy neural network control for linear ceramic motor drive via backstepping design technique," IEEE Trans. Fuzzy Syst., vol. 10, no. 1, pp. 102-112, 2002. (SCIE, IF 9.518, 10/266, Times Cited: 48) NSC 90-2213-E-155-014
[176] C. H. Lin and F. J. Lin, "Recurrent neural network controlled linear synchronous motor system to track periodic inputs," Journal of the Chinese Institute of Engineers, vol. 25, no. 1, pp. 27-42, 2002. (SCIE, IF 0.667, 81/91, Times Cited: 8) NSC 90-2213-E-259-016
[177] F. J. Lin, R. J. Wai, W. D. Chou, and S. P. Hsu, "Adaptive backstepping control using recurrent neural network for linear induction motor drive," IEEE

Trans. Ind. Electron., vol. 49, no. 1, pp. 134-146, 2002. (SCIE, IF 7.515, 16/266, Times Cited: 147) NSC 89-2213-E-033-094

[178] F. J. Lin and R. J. Wai, "Robust control using neural network uncertainty observer for linear induction motor servo drive," IEEE Trans. Power Electron., vol. 17, no. 2, pp. 241-254, 2002. (SCIE, IF 6.373, 22/266, Times Cited: 52) NSC 89-2213-E-033-094

[179] F. J. Lin, and R. J. Wai, "Hybrid computed torque controlled motor-toggle servomechanism using fuzzy neural network uncertainty observer," Neurocomputing, vol. 48, pp. 403-422, 2002. (SCIE, IF 4.438, 28/137, Times Cited: 16) NSC 89-2213-E-033-048

[180] F. J. Lin, C. H. Lin, and P. H. Shen, "Self-constructing fuzzy neural network speed controller for permanent-magnet synchronous motor drive," IEEE Trans. Fuzzy Syst., vol. 9, no. 5, pp. 751-759, 2001. (SCIE, IF 9.518, 10/266, Times Cited: 296) NSC 89-2213-E-033-081

[181] F. J. Lin, K. K. Shyu, and R. J. Wai, "Recurrent fuzzy neural network sliding mode controlled motor-toggle servomechanism," IEEE-ASME Trans. Mechatron., vol. 6, no. 4, pp. 453-466, 2001. (SCIE, IF 5.673, 7/130, Times Cited: 40) NSC 89-2213-E-033-048

[182] R. J. Wai, F. J. Lin, and S. P. Hsu, "Intelligent backstepping control for linear induction motor drive," IEE Proc.-Control Theory Appl., vol. 148, no. 3, pp. 193-202, 2001. (SCIE, IF 3.343, 8/56, Times Cited: 55) NSC 88-2213-E-155-052

[183] F. J. Lin, J. C. Yu, and M. S. Tzeng, "Sensorless induction spindle motor drive using fuzzy neural network speed controller," Electric Power Systems Research, vol. 58, no. 3, pp. 187-196, 2001. (SCIE, IF 3.211, 78/266, Times Cited: 21)

[184] R. J. Wai and F. J. Lin, "Adaptive recurrent-neural-network control for linear induction motor," IEEE Trans. Aerosp. Electron. Syst., vol. 37, no. 4, pp. 1176-1192, 2001. (SCIE, IF 3.672, 3/31, Times Cited: 42) NSC 89-2213-E-033-048

[185] R. F. Fung, F. J. Lin, and R. J. Wai, "Quick-return servomechanism with adaptive fuzzy neural network control," Journal of Dynamic Systems Measurement and Control-Transactions of the ASME, vol. 123, June, pp. 253-264, 2001. (SCIE, IF 1.304, 45/63 , Times Cited: 3)

[186] F. J. Lin, R. J. Wai, and C. M. Hong, "Identification and control of rotary traveling-wave type ultrasonic motor using neural networks," IEEE Trans. Control Syst. Technol., vol. 9, no. 4, pp. 672-680, 2001. (SCIE, IF 5.312, 35/266, Times Cited: 51) NSC 88-2213-E-033-025

[187] C. H. Lin, W. D. Chou, and F. J. Lin, "Adaptive hybrid control using a recurrent-neural-network for a linear synchronous motor servo drive system," IEE Proc.-Control Theory Appl., vol. 148, no. 2, pp. 156-168, 2001. (SCIE, IF 3.343, 8/56, Times Cited: 67) NSC 89-2213-E-033-081

[188] F. J. Lin, R. J. Wai, K. K. Shyu, and T. M. Liu, "Recurrent fuzzy neural network control for piezoelectric ceramic linear ultrasonic motor drive," IEEE

Trans. Ultrason. Ferroelectr. Freq. Control, vol. 48, no. 4, pp. 900-913, 2001. (SCIE, IF 2.812, 7/32, Times Cited: 105) NSC 89-2213-E-033-081
[189] F. J. Lin and C. H. Lin, "On-line gain-tuning IP controller using RFNN," IEEE Trans. Aerosp. Electron. Syst., vol. 37, no. 2, pp. 655-667, 2001. (SCIE, IF 3.672, 3/31, Times Cited: 50) NSC 89-2213-E-033-048
[190] F. J. Lin and R. J. Wai, "A hybrid computed torque controller using fuzzy neural network for motor-quick-return servo mechanism," IEEE-ASME Trans. Mechatron., vol. 6, no. 1, pp. 75-89, 2001. (SCIE, IF 5.673, 7/130, Times Cited: 31) NSC 89-2213-E-033-047
[191] F. J. Lin and R. J. Wai, "Hybrid control using recurrent-fuzzy-neural- network for linear induction motor servo drive," IEEE Trans. Fuzzy Syst., vol. 9, no. 1, pp. 102-115, 2001. (SCIE, IF 9.518, 10/266, Times Cited: 144) NSC 89-2213-E-033-047
[192] W. J. Hwang, F. J. Lin, S. C. Liao, and J. H. Huang, "A novel fuzzy entropy-constrained competitive learning algorithm for image coding," Neurocomputing, vol. 37, pp. 197-208, 2001. (SCIE, IF 4.438, 28/137, Times Cited: 4)
[193] F. J. Lin and R. J. Wai, "Sliding-mode controlled slider-crank mechanism with fuzzy neural network," IEEE Trans. Ind. Electron., vol. 48, no. 1, pp. 60-70, 2001. (SCIE, IF 7.515, 16/266, Times Cited: 82) NSC 87-2213-E-033-015
[194] F. J. Lin, R. F. Fung, H. H. Lin, and C. M. Hong, "A supervisory fuzzy neural network controller for slider-crank mechanism," Mechatronics, vol. 11, no. 2, pp. 227-250, 2001. (SCIE, IF 2.992, 34/130, Times Cited: 31)
[195] R. J. Wai, C. H. Lin, and F. J. Lin, "Adaptive fuzzy neural network control for motor-toggle servomechanism," Mechatronics, vol. 11, no. 1, pp. 95-117, 2001. (SCIE, IF 2.992, 34/130, Times Cited: 10)
[196] F. J. Lin, R. J. Wai, and C. M. Hong, "Hybrid supervisory control using recurrent fuzzy neural network for tracking periodic inputs," IEEE Trans. Neural Networks., vol. 12, no. 1, pp. 68-90, 2001. (SCIE, IF 2.633, 1/50, Times Cited: 91) NSC 89-2213-E-033-048
[197] W. J. Hwang, F. J. Lin, and C. T. Lin, "Fuzzy channel-optimized vector quantization," IEEE Communications Letters, vol. 4, no. 12, pp. 408-410, 2000. (SCIE, IF 3.419, 32/90, Times Cited: 17)
[198] R. J. Wai, H. H. Lin, and F. J. Lin, "Hybrid controller using fuzzy neural networks for identification and control of induction motor drive," Neurocomputing, vol. 35, pp. 91-112, 2000. (SCIE, IF 4.438, 28/137, Times Cited: 34) NSC 89-2213-E-033-015
[199] F. J. Lin and C. C. Lee, "Adaptive backstepping control for linear induction motor drive to track periodic references," IEE Proc.-Electr. Power Appl., vol. 147, no. 6, pp. 449-458, 2000. (SCIE, IF 2.834, 97/229, Times Cited: 117) NSC 89-2213-E-033-048
[200] F. J. Lin, C. H. Lin, and C. M. Hong, "Robust control of linear synchronous motor servodrive using disturbance observer and recurrent neural network compensator," IEE Proc.-Electr. Power Appl., vol. 147, no. 4, pp. 263-272,

2000. (SCIE, IF 2.834, 97/229, Times Cited: 88) NSC 89-2213-E-033-048
[201] F. J. Lin, R. J. Wai, and C. M. Hong, "Recurrent neural network control for LCC-resonant ultrasonic motor drive," IEEE Trans. Ultrason. Ferroelectr. Freq. Control, vol. 46, no. 3, pp. 737-749, 2000. (SCIE, IF 2.812, 7/32, Times Cited: 37) NSC 87-2213-E-033-014
[202] F. J. Lin, R. J. Wai, C. H. Lin, and D. C. Liu, "Decoupled stator-flux-oriented induction motor drive with fuzzy neural network uncertainty observer," IEEE Trans. Ind. Electron., vol. 47, no. 2, pp. 356-367, 2000. (SCIE, IF 7.515, 16/266, Times Cited: 72) NSC 87-2213-E-033-015
[203] R. F. Fung, F. J. Lin, R. J. Wai, and P. Y. Lu, "Fuzzy neural network control of a motor-quick-return servomechanism," Mechatronics, vol. 10, no. 1, pp. 145-167, 2000. (SCIE, IF 2.992, 34/130, Times Cited: 25)
[204] F. J. Lin, R. Y. Duan, R. J. Wai, and C. M. Hong, "LLCC resonant inverter for piezoelectric ultrasonic motor drive," IEE Proc.-Electr. Power Appl., vol. 146, no. 5, pp. 479-487, 1999. (SCIE, IF 2.834, 97/229, Times Cited: 55) NSC 87-2213-E-033-014
[205] F. J. Lin, K. K. Shyu, and R. J. Wai, "DSP-based minmax speed sensorless induction meter drive with sliding mode model-following speed controller," IEE Proc.-Electr. Power Appl., vol. 146, no. 5, pp. 471-478, 1999. (SCIE, IF 2.834, 97/229, Times Cited: 12) NSC 86-2213-E-033-013
[206] R. J. Wai, D. C. Liu, and F. J. Lin, "Rotor-time constant estimation approaches based on energy function and sliding mode for induction motor drive," Electric Power Systems Research, vol. 52, pp. 229-239, 1999. (SCIE, IF 3.211, 78/266, Times Cited: 28) NSC 87-2213-E-033-015
[207] R. J. Wai, F. J. Lin, and K. K. Shyu, "A toggle mechanism servo system with variable-structure model-following control," International Journal of Systems Science, vol. 30, no. 11, pp. 1213-1225, 1999. (SCIE, IF 2.149, 36/108, Times Cited: 8)
[208] F. J. Lin, R. J. Wai, and R. Y. Duan, "Fuzzy neural networks for identification and control of ultrasonic motor drive with LLCC resonant technique," IEEE Trans. Ind. Electron., vol. 46, no. 5, pp. 999-1011, 1999. (SCIE, IF 7.515, 16/266, Times Cited: 41) NSC 87-2213-E-033-014
[209] F. J. Lin and Y. S. Lin, "A robust PM synchronous motor drive with adaptive uncertainty observer," IEEE Trans. Energy Convers., vol. 14, no. 4, pp. 989-995, 1999. (SCIE, IF 4.501, 43/266, Times Cited: 53)
[210] F. J. Lin, R. J. Wai, and R. Y. Duan, "Neural-network controller for parallel-resonant ultrasonic motor drive," IEEE Trans. Control Syst. Technol., vol. 7, no. 4, pp. 494-501, 1999. (SCIE, IF 5.312, 35/266, Times Cited: 18) NSC 87-2213-E-033-014
[211] R. J. Wai and F. J. Lin, "Fuzzy neural network sliding mode position controller for induction servo motor drive," IEE Proc.-Electr. Power Appl., vol. 146, no. 3, pp. 297-308, 1999. (SCIE, IF 2.834, 97/229, Times Cited: 123) NSC 87-2213-E-033-014
[212] F. J. Lin, R. J. Wai, and H. H. Lin, "An adaptive fuzzy-neural-network

controller for ultrasonic motor drive using LLCC resonant technique," IEEE Trans. Ultrason. Ferroelectr. Freq. Control, vol. 46, no. 3, pp. 715-727, 1999. (SCIE, IF 2.812, 7/32, Times Cited: 38) NSC 87-2213-E-033-014

[213] F. J. Lin, K. K. Shyu, and Y. S. Lin, "Variable structure adaptive control for PM synchronous servo motor drive," IEE Proc.-Electr. Power Appl., vol. 146, no. 2, pp. 173-185, 1999. (SCIE, IF 2.834, 97/229, Times Cited: 103)

[214] F. J. Lin, R. J. Wai, and P. C. Lin, "Robust speed sensorless induction motor drive," IEEE Trans. Aerosp. Electron. Syst., vol. 35, no. 2, pp. 566-578, 1999. (SCIE, IF 3.672, 3/31, Times Cited: 69) NSC 87-2213-E-033-015

[215] F. J. Lin, R. J. Wai, and C. C. Lee, "Fuzzy neural network position controller for ultrasonic motor drive using push-pull DC-DC converter," IEE Proc.-Control Theory Appl., vol. 146, no. 1, pp. 99-107, 1999. (SCIE, IF 3.343, 8/56, Times Cited: 138) NSC 87-2213-E-033-014

[216] F. J. Lin, W. J. Huang, and R. J. Wai, "A supervisory fuzzy neural network control system for tracking periodic inputs," IEEE Trans. Fuzzy Syst., vol. 7, no. 1, pp. 41-52, 1999. (SCIE, IF 9.518, 10/266, Times Cited: 225)

[217] K. K. Shyu, F. J. Lin, H. J. Shieh, and B. S. Juang, "Robust variable structure speed control for induction motor drive," IEEE Trans. Aerosp. Electron. Syst., vol. 35, no. 1, pp. 215-224, 1999. (SCIE, IF 3.672, 3/31, Times Cited: 24)

[218] F. J. Lin, R. Y. Duan, and J. C. Yu, "An ultrasonic motor drive using a current-source parallel-resonant inverter with energy feedback," IEEE Trans. Power Electron., vol. 14, no. 1, pp. 31-42, 1999. (SCIE, IF 6.373, 22/266, Times Cited: 53) NSC 87-2213-E-033-014

[219] F. J. Lin, R. J. Wai, and S. L. Wang, "A Fuzzy Neural network controller for parallel-resonant ultrasonic motor drive," IEEE Trans. Ind. Electron., vol. 45, no. 6, pp. 928-937, 1998. (SCIE, IF 7.515, 16/266, Times Cited: 22) NSC 87-2213-E-033-014

[220] F. J. Lin, R. J. Wai, and H. P. Chen, "A PM synchronous servo motor drive with an on-line trained fuzzy neural network controller," IEEE Trans. Energy Convers., vol. 13, no. 4, pp. 319-325, 1998. (SCIE, IF 4.501, 43/266, Times Cited: 132) NSC 85-2213-E-033-036

[221] F. J. Lin, R. F. Fung, and R. J. Wai, "Comparison of sliding mode and fuzzy neural network control for motor-toggle servomechanism," IEEE-ASME Trans. Mechatron., vol. 3, no. 4, pp. 302-318, 1998. (SCIE, IF 5.673, 7/130, Times Cited: 110)

[222] F. J. Lin, S. L. Chiu, and Y. S. Lin, "Slider-crank mechanism control using adaptive computed torque technique," IEE Proc.-Control Theory Appl., vol. 145, no. 3, pp. 364-376, 1998. (SCIE, IF 3.343, 8/56, Times Cited: 53)

[223] F. J. Lin and R. J. Wai, "Hybrid controller using a neural network for a PM synchronous servo motor drive," IEE Proc.-Electr. Power Appl., vol. 145, no. 3, pp. 223-230, 1998. (SCIE, IF 2.834, 97/229, Times Cited: 44)

[224] R. J. Wai and F. J. Lin, "A fuzzy neural network controller with adaptive learning rates for nonlinear slider-crank mechanism," 921, vol. 20, no. 1-3, pp. 295-320, 1998. (SCIE, IF 4.438, 28/137, Times Cited: 38)

[225] F. J. Lin, R. J. Wai, and H. J. Shieh, "Robust control of induction motor drive with rotor time-constant adaptation," Electric Power Systems Research, vol. 47, pp. 1-9, 1998. (SCIE, IF 3.211, 78/266, Times Cited: 18)
[226] F. J. Lin, W. J. Hwang, and R. J. Wai, "Ultrasonic motor servo drive with online trained neural network model-following controller," IEE Proc.-Electr. Power Appl., vol. 145, no. 2, pp. 105-110, 1998. (SCIE, IF 2.834, 97/229, Times Cited: 41) NSC 86-2213-E-033-044
[227] H. J. Shieh, K. K. Shyu, and F. J. Lin, "Adaptive estimation of rotor time-constant for indirect field-oriented induction motor drive," IEE Proc.-Electr. Power Appl., vol. 145, no. 2, pp. 111-118, 1998. (SCIE, IF 2.834, 97/229, Times Cited: 31)
[228] F. J. Lin, S. L. Chiu, and K. K. Shyu, "Novel sliding mode controller for synchronous motor drive," IEEE Trans. Aerosp. Electron. Syst., vol. 34, no. 2, pp. 532-542, 1998. (SCIE, IF 3.672, 3/31, Times Cited: 126) NSC 85-2213-E-033-036
[229] F. J. Lin, H. M. Su, and H. P. Chen, "Induction motor servo drive with adaptive rotor time-constant estimation," IEEE Trans. Aerosp. Electron. Syst., vol. 34, no. 1, pp. 224-234, 1998. (SCIE, IF 3.672, 3/31, Times Cited: 49) NSC 85-2213-E-033-036
[230] F. J. Lin, R. J. Wai, R. H. Kuo, and D. C. Liu, "A comparative study of sliding mode and model reference adaptive speed observers for induction motor drive," Electric Power Systems Research, vol. 44, pp.163-174, 1998. (SCIE, IF 3.211, 78/266, Times Cited: 52) NSC 86-2213-E-033-013
[231] F. J. Lin and S. L. Chiu, "Adaptive fuzzy sliding mode control for PM synchronous servo motor drive," IEE Proc.-Control Theory Appl., vol. 145, no. 1, pp. 63-72, 1998. (SCIE, IF 3.343, 8/56, Times Cited: 236)
[232] F. J. Lin, R. F. Fung, and Y. S. Lin, "Adaptive control of slider-crank mechanism motion: simulations and experiments," International Journal of Systems Science, vol. 28, no. 12, pp. 1227-1238, 1997. (SCIE, IF 2.149, 36/108, Times Cited: 28)
[233] F. J. Lin, R. F. Fung, and Y. C. Wang, "Sliding mode and fuzzy control of toggle mechanism using PM synchronous servomotor drive," IEE Proc.-Control Theory Appl., vol. 144, no. 5, pp. 393-402, 1997. (SCIE, IF 3.343, 8/56, Times Cited: 49)
[234] F. J. Lin and S. L. Chiu, "Robust PM synchronous motor servo drive with variable structure model-output-following control," IEE Proc.-Electr. Power Appl., vol. 144, no. 5, pp. 317-324, 1997. (SCIE, IF 2.834, 97/229, Times Cited: 35)
[235] R. F. Fung, F. J. Lin, J. S. Huang, and Y. C. Wang, "Application of sliding mode control with a low pass filter to the constantly rotating slider-crank mechanism," JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, vol. 40, no. 4, pp. 717-722, 1997. (SCIE, IF 0.386, 83/105, Times Cited: 11)
[236] W. J. Hwang, F. J. Lin, and Y. C. Zeng, "Fast design algorithm for competitive

learning," Electronics Letters, vol. 33, no. 17, pp. 1469-1471, 1997. (SCIE, IF 1.316, 199/266, Times Cited: 10)

[237] F. J. Lin and H. M. Su, "A high-performance induction motor drive with on-line rotor time-constant estimation," IEEE Trans. Energy Convers., vol. 12, no. 4, pp. 297-303, 1997. (SCIE, IF 4.501, 43/266, Times Cited: 53) NSC 85-2213-E-033-036

[238] F. J. Lin and L. C. Kuo, "Driving circuit for ultrasonic motor servo drive with variable structure adaptive model-following control," IEE Proc.-Electr. Power Appl., vol. 144, no. 3, pp. 199-206, 1997. (SCIE, IF 2.834, 97/229, Times Cited: 55) NSC 86-2213-E-033-044

[239] F. J. Lin, "Real-time IP position controller design with torque feedforward control for PM synchronous motor," IEEE Trans. Ind. Electron., vol. 44, no. 3, pp. 398-407, 1997. (SCIE, IF 7.515, 16/266, Times Cited: 181) NSC 84-2213-E-033-020

[240] F. J. Lin, "Fuzzy adaptive model-following position control for ultrasonic motor," IEEE Trans. Power Electron., vol. 12, no. 2, pp. 261-268, 1997. (SCIE, IF 6.373, 22/266, Times Cited: 125) NSC 84-2213-E-033-020

[241] R. F. Fung, F. J. Lin, and K. W. Chen, "Application of two-phase VSC with integral compensation in speed control of a PM synchronous servomotor," International Journal of Systems Science, vol. 27, no. 12, pp. 1265-1273, 1996. (SCI, IF 2.149, 36/108, Times Cited: 10)

[242] F. J. Lin, "A digital signal processor based robust integral-proportional controller for an induction motor servo drive," Electric Power Systems Research, vol. 37, pp. 129-136, 1996. (SCIE, IF 3.211, 78/266, Times Cited: 9) NSC 83-0404-E-033-011

[243] F. J. Lin, "Robust speed-controlled induction-motor drive using EKF and RLS estimators," IEE Proc.-Electr. Power Appl., vol. 143, no. 3, pp. 186-192, 1996. (SCIE, IF 2.834, 97/229, Times Cited: 91) NSC 83-0404-E-033-011

[244] C. M. Liaw and F. J. Lin, "Position control with fuzzy adaptation for induction servomotor drive," IEE Proc.-Electr. Power Appl., vol. 142, no. 6, pp. 397-404, 1995. (SCIE, IF 2.834, 97/229, Times Cited: 55)

[245] F. J. Lin, C. M. Liaw, Y. S. Shieh, R. J. Guey, and M. S. Hwang., "Robust two-degrees-of-freedom control for induction motor servodrive," IEE Proc.-Electr. Power Appl., vol. 142, no. 2, pp. 79-86, 1995. (SCIE, IF 2.834, 97/229, Times Cited: 26)

[246] C. M. Liaw and F. J. Lin, "A robust speed controller for induction motor drives," IEEE Trans. Ind. Electron., vol. 41, no. 3, pp. 308-315, 1994. (SCIE, IF 7.515, 16/266, Times Cited: 100)

[247] F. J. Lin and C. M. Liaw, "Reference model selection and adaptive control for induction motor drives," IEEE Trans. Autom. Control, vol. 38, no. 10, pp. 1594-1600, 1993. (SCIE, IF 5.625, 30/266, Times Cited: 45)

[248] F. J. Lin and C. M. Liaw, "Control of indirect field-oriented induction motor drives considering the effects of dead-time and parameter variations," IEEE Trans. Ind. Electron., vol. 40, no. 5, pp. 486-495, 1993. (SCIE, IF 7.515,

16/266, Times Cited: 76)

[249] C. M. Liaw, F. J. Lin, and K. S. Kung, "Design and implementation of a high performance induction motor servo drive," IEE Proc.-Electr. Power Appl., vol. 140, no. 4, pp. 241-248, 1993. (SCIE, IF 2.834, 97/229, Times Cited: 38)

[250] F. J. Lin and C. M. Liaw, "An adaptive controller for induction position servo motor drive," Journal of the Chinese Institute of Engineers, vol. 16, no. 4, pp. 511-522, 1993. (SCIE, IF 0.667, 81/91, Times Cited: 2)

[251] C. M. Liaw and F. J. Lin, "A discrete adaptive induction position servo drive," IEEE Trans. Energy Convers., vol. 8, no. 3, pp. 350-356, 1993. (SCIE, IF 4.501, 43/266, Times Cited: 21)

[252] C. M. Liaw, K. H. Chao, and F. J. Lin, "A discrete adaptive field-oriented induction motor drive", IEEE Trans. Power Electron., vol. 7, no. 2, pp. 411-419, 1992. (SCIE, IF 6.373, 22/266, Times Cited: 35)

[253] H. Y. Chu, F. J. Lin, M. T. Chen, C. L. Hung and S. L. Chen, "Implementing Fourier algorithm by linear modulation method for distance relaying application", Journal of the Chinese Institute of Engineers, vol. 12, no.1, pp. 131-137, 1989. (SCIE, IF 0.667, 81/91)

B. Books and Book Chapters:

[1] F. J. Lin, *Type-2 Fuzzy Logic Control*, Book Review, IEEE Systems, Man, & Cybernetics Magazine, pp. 47-48, Jan. 2015.

[2] F. J. Lin and R. J. Wai, *Electric Motor Drives and Controls*. Tsang-Hai Press, Taiwan, 2002. (in Chinese)

[3] F. J. Lin, R. J. Wai and R. Y. Duan, *Drive and Intelligent Control of Ultrasonic Motor*. Tsang-Hai Press, Taiwan, 1999. (in Chinese)

[4] F. J. Lin and R. J. Wai "Intelligent Control for Ultrasonic Motor Drive" in *Intelligent Adaptive Control: Industrial Applications*. Edited by Drs. Jain and De Silva, CRC Press LLC, USA, Dec. 1998.

C. Conference Papers:

[1] S. G. Chen, F. J. Lin, S. R. Lee, and X. D. Wang, "Development of Low-Complexity Online Enhanced Efficiency Control for Synchronous Reluctance Motor Drive System," 46th R. O. C. Symp. Electrical Power Eng., Nov. 14, 2025.

[2] S. G. Chen, F. J. Lin, B. Y. Huang, S. R. Lee, and X. D. Wang, "Online Enhanced Efficiency Control for SynRM With Low Computational Burden,", IEEE Industrial Applications Society 2025 (IAS2025) Annual Meeting, June 2025, New Taipei City, Taiwan.

[3] K. H. Tan, F. J. Lin, and Y. R. Li "Intelligent Dynamic Voltage Restorer for Improving Load Voltage Quality," 46th R. O. C. Symp. Electrical Power Eng., Nov. 14, 2025.

[4] S. G. Chen, F. J. Lin, and S. R. Lee, "Effective Flux-weakening Technique for

SynRM by Voltage Angle Control," 2024 International Automatic Control Conference (CACS), Oct. 31, 2024, Taoyuan, Taiwan

[5] K. H. Tan and F. J. Lin, "Intelligent Variable Droop Coefficient Estimation for Droop Controlled Microgrid," 45th R. O. C. Symp. Electrical Power Eng., Nov. 22, 2024.

[6] F. J. Lin and K. H. Tan, "Variable Coefficient Droop Controlled Microgrid Using Intelligent Estimation," 44th R. O. C. Symp. Electrical Power Eng., Dec. 1-2, 2023.

[7] F. J. Lin and K. H. Tan, "Microgrid Using Petri Probabilistic Wavelet Fuzzy Neural Network Controller for Power Sharing," 43th R. O. C. Symp. Electrical Power Eng., Dec. 1-2, 2022.

[8] K. H. Tan, F. J. Lin, and Y. D. Lee, "Intelligent Controlled Virtual Synchronous Generator for Virtual Inertia Estimation," Proceedings of 2022 IET International Conference on Engineering Technologies and Applications (IET ICETA), Oct. 14-16, 2022, Changhua, Taiwan, pp. 1-2.

[9] K. H. Tan, F. J. Lin, and C. C. Hu, "Distribution Static Compensator Using Intelligent Controller for Power Quality Improvements," Proceedings of 2022 IET International Conference on Engineering Technologies and Applications (IET ICETA), Oct. 14-16, 2022, Changhua, Taiwan, pp. 1-2.

[10] F. J. Lin, S. G. Chen, C. H. Liao, S. P. Yeh, and C. Y. Hung, "Maximum Power Factor Control Based on Intelligent Controller for SynRM Drive System," 42th R. O. C. Symp. Electrical Power Eng., PE21-2060-011, 2021.

[11] K. H. Tan and F. J. Lin, "PV System Using Intelligent Controller for Unbalanced Current Compensation," Proceedings of the 22nd IEEE/ACIS International Fall Virtual Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD2021-Fall), Nov. 24-26, 2021, Taitung, Taiwan, pp. 1-6.

[12] K. H. Tan and F. J. Lin, "Islanded Microgrid Using Intelligent Controller for Grid Reconnection," Proceedings of the 5th IEEE International Future Energy Electronics Conference (IFEEC 2021), Nov. 16-19, 2021, Taipei, Taiwan, pp. 1-6.

[13] F. J. Lin, J. R. Lin, W. T. Lin, and C. W. Liu, "Machine Learing-Based Maximum Torque per Ampere and Flux-Weakening Control for IPMSM," Proceedings of the 5th IEEE International Future Energy Electronics Conference (IFEEC 2021), Nov. 16-19, 2021, Taipei, Taiwan, pp. 1-6.

[14] F. J. Lin, S. G. Chen, and C. H. Liang, "Online Maximum Power Factor Searching Control for Synchronous Reluctance Motor Based on Current Angle Control," 15th IEEE Conference on Industrial Electronics and Applications (ICIEA), Nov. 2020, pp. 278-283, Norway

[15] W. L. Peng, Y. W. Lan, S. G. Chen, F. J. Lin, R. I. Chang, and J. M. Ho, "Reinforcement Learning Control for Six-Phase Permanent Magnet Synchronous Motor Position Servo Drive," 3rd IEEE International Conference on Knowledge Innovation and Invention (IEEE ICKII), 2020.

[16] K. H. Tan and F. J. Lin, "Microgrid Using APF and ENN for Voltage Harmonic

Compensation," 41th R. O. C. Symp. on Electrical Power Eng., PE20-2016-001, 2020.
[17] K. H. Tan, F. J. Lin, W. C. Luo and G. D. Xiao, "PV Power Plant Using WFNN for Improving LVRT Performance Under Grid Fault and Weak Grid Conditions," 41th R. O. C. Symp. on Electrical Power Eng., PE20-2012-003, 2020. (Best paper award)
[18] F. J. Lin, M. S. Huang, S. G. Chen, C. H. Liang, and C. H. Liao, "Adaptive Backstepping Control Using Intelligent Speed Transient Control for Synchronous Reluctance Motor," Proc. 17th Taiwan Power Electronics Conference, PE20-2014-022, 2020. (Best paper award)
[19] F. J. Lin, K. H. Tan, and C. M. Shih, "Distributed Generator with Virtual Inertia Using Intelligent Controller for Grid-Connected," IEEE International Conference on Fuzzy Systems, #22063, 2020.
[20] F. J. Lin, S. G. Chen, H. T. Chou, and J. R. Lin, "Intelligent Online Auto-Tuning Technique for IPMSM Servo Drive," IEEE International Future Energy Electronics (IFEEC), #1153, 2019.
[21] F. J. Lin, M. S. Huang, S. G. Chen, and C. W. Hsu, "Intelligent Maximum Torque per Ampere Tracking Control for Synchronous Reluctance Motor Drive System," Proc. 15th Taiwan Power Electronics Conference, 2019.
[22] F. J. Lin, K. H. Tan, W. C. Lu, and G. D. Xiao, "Improved LVRT Performance of PV Power Plant Using Intelligent Control Under Grid Fault and Weak Grid Conditions," IEEE International Conference on Fuzzy Systems, #16, 2019.
[23] F. J. Lin, S. G. Chen, and J. K. Chang, "Intelligent Wind Power Smoothing Control using Fuzzy Neural Network," Green Energy and Smart Grids 2018, Irkutsk, Russia, E3S Web of Conferences 69, 01006 (2018).
[24] F. J. Lin, S. G. Chen, and C. W. Hsu, "Intelligent Backstepping Control of Synchronous Reluctance Motor Drive System," The 2018 International Automatic Control Conference (CACS 2018), Taiwan, #1097, 2018.
[25] F. J. Lin, K. H. Tan, and J. H. Chen, "Intelligent Controlled Three-Phase Four-Leg APF for Unbalanced Current Improvement and DC-Link Voltage Regulation," Proc. 15th Taiwan Power Electronics Conference, PCC004, 2018.
[26] F. J. Lin, Y. H. Chen, and S. Y. Lu, "The strategy of the development of smart grid system integrating innovative technology in Taiwan," Grand Renewable Energy 2018 - International Conference and Exhibition, O-Pi-1-4, 2018.
[27] F. J. Lin and K. C. Lu, "Low-Voltage Ride-Through Operation of Single Stage PV System Via Using Recurrent Fuzzy CMAC," IEEE International Conference on Fuzzy Systems, AN10-2 #44, 2017.
[28] F. J. Lin and K. C. Lu, "Power Control of Single-Stage Three-Phase Grid-Tied Photovoltaic System During Grid Faults Using Recurrent Fuzzy Cerebellar Model Articulation Controller," IEEE International Future Energy Electronics (IFEEC) – ECCE Asia, #1018, 2017.
[29] Y. Y. Hong, F. J. Lin, T. H. Yu, and K. H. Chen, "Taguchi method based probabilistic load flow analysis", R. O. C. Symp. on Electrical Power Eng., No. 253, 2016.

[30] F. J. Lin and K. C. Lu, "Design of Fuzzy Probabilistic Wavelet Neural Network Controller and Its Application in Power Control of Grid-Connected PV System During Grid Faults," IEEE International Conference on Fuzzy Systems, F16071, 2016.
[31] M. S. Huang, P. H. Chen, F. J. Lin, and C. C. Liao, "A novel small signal modeling of series resonant converter based on peak value of resonant current," 2016 IEEE International Conference on Industrial Technology (ICIT), DOI: 10.1109/ICIT.2016.7474758.
[32] F. J. Lin, Y. H. Chen, S. Y. Lu, and Y. Hsu, "Policy and development of smart grid in Taiwan," IEEE 3rd International Smart Grid Workshop and Certificate Program (ISGWCP), 2016, DOI: 10.1109/ISGWCP.2016.7548267.
[33] T. H. Yu, F. J. Lin, and Y. Y. Hong, "Adaptive De-noising in Power Line Communication Using Wavelet Multi-resolution Analysis", R. O. C. Symp. on Electrical Power Eng., No. 358, 2015.
[34] F. J. Lin and S. Y. Lee, "Intelligent Integral Backstepping Sliding-Mode Control for Piezo-Flexural Nanopositioning Stage," IEEE International Future Energy Electronics Conference (IFEEC), 290108, 2015.
[35] F. J. Lin and K. H. Tan, "Squirrel-Cage Induction Generator System Using Probabilistic Fuzzy Neural Network for Wind Power Applications," IEEE International Conference on Fuzzy Systems, F15067, 2015.
[36] F. J. Lin, K. C. Lu and B. H. Yang, "Reactive Power Control of Single-Stage Three-Phase Photovoltaic System During Grid Faults Using 2D-RFCMANN," 2015 International Conference on Advanced Robotics and Intelligent Systems (ARIS 2015), Paper ID 1089.
[37] F. J. Lin, Y. C. Hung and J. K. Chang, "Sensorless IPMSM Drive System Using Saliency Back-EMF-Based Observer with MTPA Control," 2014 International Conference on Electrical Machines and Systems, LS6B1.
[38] Y. F. Yu, J. K. Chang, B. K Yang, F. J. Lin and S. J. Chiang, "Design and Implementation of a Multi-functional Micro Inverter," Proc. 13th Taiwan Power Electronics Conference, pp. 796-801, 2014.
[39] J. K. Chang, Y. F. Yu, J. Y. Wang, F. J. Lin and S. J. Chiang, "Design and implementation parallel operation of PV micro inverter system with grid-connected and stand-alone functions and without energy storage and communication interconnection requirements," Proc. 13th Taiwan Power Electronics Conference, pp. 808-814, 2014.
[40] F. J. Lin , M. S. Huang, C. C. Liang, Y. K. Liao and Z. F. Li, "Design of a Contactless Li-Mn Battery Charger," Proc. 13th Taiwan Power Electronics Conference, pp. 957-962, 2014.
[41] C. R. Chen, Y. C. Chang, C. C. Huang, Y. Y. Hong, and F. J. Lin, "Short-Term Scheduling of Reactive Power Controllers Using a Hybrid Taguchi- Genetic Algorithm," 2013 IEEE International Conference on Systems, Man, and Cybernetics, Oct. 2013, Manchester, England, pp. 168-173.
[42] F. J. Lin and J. K. Chang, "Intelligent Controlled Three-Phase Squirrel-Cage Induction Generator System Using Hybrid Wavelet Fuzzy Neural Network",

IEEE International Conference on Fuzzy Systems, pp. 314-321, 2014.
[43] Y. C. Hung and F. J. Lin, "Intelligent complementary sliding mode fault tolerant control of six-phase motor drive system using TSK type FNN," International Conference on Fuzzy Theory and Its Applications (iFUZZY), 2013.
[44] Y. C. Hung and F. J. Lin, "Intelligent fault tolerant control of six-phase motor drive system," IEEE International Future Energy Electronics Conference (IFEEC), pp. 635-640, 2013.
[45] F. J. Lin, K. H. Tan, and D. Y. Fang, "Squirrel-Cage Induction Generator System Using Intelligent Control for Wind Power Applications", IEEE International Conference on Fuzzy Systems, paper no. 1024, 2013.
[46] P. H. Chou, F. J. Lin, C. S. Chen, F. C. Lee, and Y. M. Chen, "Three-degree-of-freedom dynamic model based IT2RFNN control for gantry position stage", Ninth International Symposium on Linear Drives for Industry Applications (LDIA 2013), ID127, 2013.
[47] C. H. Kuan, S. L. Wang, H. C. Tsai, and F. J. Lin, "DSP-Based Probabilistic Fuzzy Neural Network Control for Li-Ion Battery Charger", R. O. C. Symp. on Electrical Power Eng., pp. 26-31, 2012.
[48] F. J. Lin, Z. Y. Kao, C. M. Yeh and J. M. Chen, "Development of Sensorless Inverter-fed Compressor Drive System Using Back EMF Estimator with PIDNN," Proc. 11th Taiwan Power Electronics Conference, PID056, 2012.
[49] F. J. Lin, K. H. Tan, and J. H. Chiu, "Active islanding detection method using wavelet fuzzy neural network", IEEE International Conference on Fuzzy Systems, ThF 3-3, 2012.
[50] F. J. Lin, Z. Y. Kao, C. M. Yeh and J. M. Chen, "Development of Sensorless Inverter-fed Compressor Drive System Using Square Wave Type High Frequency Voltage Injection Method", R. O. C. Symp. on Electrical Power Eng., I032, 2011.
[51] F. J. Lin and P. H. Chou, "Cross-Coupled Synchronous Control for Dual Linear Motors via Intelligent Complementary Sliding Mode Control," Proc. 10th Taiwan Power Electronics Conference, pp. 909-914, 2011.
[52] F. J. Lin, P. H. Chou and C. S. Chen, "DSP-Based Synchronous Control of Dual Linear Motors via Sugeno Type Fuzzy Neutral Network Compensator," 2011 International Conference on Electrical Machines and Systems, CM-14.
[53] F. J. Lin, K. H. Tan, Z. H. Lu and Y. R. Chang, "Control of Doubly-Fed Induction Generator System Using PFNN," 2011 IEEE International Conference on Fuzzy Systems, F-0046.
[54] C. S. Chen, C. F. Lee, P. H. Chou, F. J. Lin, and S. H. Tsai, "TS fuzzy tracking and synchronous control in a gantry stage", IEEE International Conference on Fuzzy Systems, pp. 1844-1851, 2011.
[55] C. S. Chen, P. H. Chou, and F. J. Lin, "DSP-based cross-coupled synchronous control for dual linear motors via functional link radial basis function network", IEEE International Conference on Fuzzy Systems , pp. 872-878, 2011.
[56] F. J. Lin, J. C. Hwang, K. H. Tan, Z. H. Lu and Y. R. Chang, "Control of

Doubly-Fed Induction Generator System Using PIDNNs", Ninth International Conference on Machine Learning and Applications (ICMLA), pp. 675-680, 2010.

[57] F. J. Lin, K. H. Tan, Z. H. Lu, J. H. Chiu and D. Y. Fang, "An intelligent controlled doubly-fed induction generator system using probabilistic fuzzy neural network," 2010 Taiwan Wind Energy Conference, G2-02, 2010.

[58] Y. C. Hung, F. J. Lin, I. P. Chang and Y. C. Ji, "Modularized light electric vehicle technology," Proc. EVS25, 25th World Battery, Hybrid and Fuel Cell Electric Vehicle Symposium and Exposition, pp. 189, Shenzhen China, 2010.

[59] F. J. Lin, S. Y. Chen, K. K. Shyu and P. H. Chou, "Intelligent Complementary Sliding-Mode Control for LUSMs-Based X-Y-Theta Motion Control Stage," R. O. C. Symp. on Electrical Power Eng., I0013, pp. 646-651, 2010.

[60] F. J. Lin and S. Y. Chen, "Robust Nonsingular Terminal Sliding-Mode Control for Nonlinear Magnetic Bearing System," Proc. 9th Taiwan Power Electronics Conference, pp. 1578-1583, 2010.

[61] F. J. Lin and S. Y. Chen, "Intelligent Integral Backstepping Sliding Mode Control Using Recurrent Neural Network for Magnetic Levitation System," Proc. IEEE 2010 World Congress on Computational Intelligence (WCCI 2010), N-0032.

[62] F. J. Lin and P. H. Chou, "FPGA Based Functional Link Radial Basis Function Network Control for PMLSM Servo Drive System," Proc. IEEE International Power Electronics Conference, 23P3-29, 2010.

[63] Y. C. Hung and F. J. Lin, "FPGA-Based Recurrent Wavelet Neural Network Control System for Linear Ultrasonic Motor," Proc. IEEE ISDA'2009 9th International Conference on Intelligent Systems Design and Applications, pp. 1290-1295, 2009.

[64] J. W. Lin, J. H. Chiu, F. J. Lin, and H. C. Chiang, "Power Converters for Wind Turbine System Using 3-Phase Permanent Magnet Synchronous Generator," R. O. C. Symp. on Electrical Power Eng., A001, 2009.

[65] P. H. Chou, Y. C. Hung, W. M. Wang, and F. J. Lin, "Complementary Sliding Mode Control with Radial Basis Function Network Estimator for PMLSM Servo Drive System using FPGA," Proc. 2009 CACS International Automatic Control Conference, pp. 331-336, 2009.

[66] Y. C. Hung, P. H. Chou, W. M. Wang, and F. J. Lin, "FPGA-Based Functional Link Radial Basis Function Network Control for Permanent Magnet Linear Synchronous Motor Servo Drive System," Proc. 8th Taiwan Power Electronics Conference, 149, 2009.

[67] F. J. Lin, H. J. Shieh, and P. H. Chou, "Tracking control of a two-axis motion system via a filtering-type sliding-mode control with radial basis function network," Proc. 8th IEEE International Conference on Power Electronics and Drive Systems, 287, 2009.

[68] S. Y. Chen, and F. J. Lin, "Nonlinear control for MIMO Magnetic Levitation System Using Direct Decentralized Neural Networks," Proc. 2009 IEEE/ASME AIM, pp. 1763-1768, 2009.

[69] F. J. Lin and P. H. Chou, "An Interval Type-2 Fuzzy Neural Network Control for Two-Axis Motion Control System," 16th National Conference on Fuzzy Theory and Its Applications, pp. 366-371, 2008.
[70] F. J. Lin and Y. C. Hung, "An Elman Neural Network Control System for Linear Piezoelectric Ceramic Motor Using FPGA," AUPEC'08, P-270, Sydney, 2008.
[71] F. J. Lin, Y. C. Hung, and W. M. Wang, "FPGA-based Elman Neural Network Control System for Linear Ultrasonic Motor," R. O. C. Symp. on Electrical Power Eng., pp. 584-588, 2008.
[72] F. J. Lin, L. T. Teng, and H. Chu, "A Recurrent Wavelet Neural Network Controller with Improved Particle Swarm Optimization for Linear Synchronous Motor Drive," Proc. 11th International Conference on Electrical Machines and Systems, PEO-01, 2008.
[73] F. J. Lin, Y. C. Hung, H. Chu, and L. T. Teng, "A TSK recurrent wavelet neural network controller with improved particle swarm optimization for linear synchronous motor drive," Proc. 7th Taiwan Power Electronics Conference, C0016, 2008.
[74] F. J. Lin, P. H. Chou amd P. H. Shen, "Robust Sugeno Type Adaptive Fuzzy Neural Network Backstepping Control for Two-Axis Motion Control System", Proc. 4th IET International Conference on Power Electronics, Machines and Drives, pp. 411-415, 2008.
[75] P. H. Chou and F. J. Lin, "Robust Fuzzy Neural Network Controller with Nonlinear Disturbance Observer for Two-Axis Motion Control System," Proc. 2007 CACS International Automatic Control Conference, pp. 1085-1090, 2007.
[76] F. J. Lin, L. T. Teng, and P. H. Shieh, "Adaptive Backstepping Control System for Magnetic Levitation Apparatus Using Recurrent Neural Network," IEEE 33nd IECON, TD-001996, 2007.
[77] F. J. Lin, H. Chu, and P. H. Shieh, "A TSK-type RFNN position control system for PMLSM servo drive," Proc. 6th Taiwan Power Electronics Conference, pp. 915-920, 2007
[78] L. T. Teng, P. H. Shieh, Y. F. Li, and F. J. Lin, "Intelligent controlled wind turbine emulator and induction generator system using RBFN," R. O. C. Symp. on Electrical Power Eng., pp. OD1.5, 2006.
[79] F. J. Lin, L. T. Teng, and C. K. Change, "Adaptive Backstepping Control for Linear Induction Motor Drive Using FPGA," IEEE 32nd IECON, PF-000325, 2006.
[80] C. H. Chang, C. Y. Chen, P. K. Huang, and F. J. Lin, "FPGA-based adaptive backstepping sliding-mode control for linear induction motor drive," Proc. 5th Taiwan Power Electronics Conference, pp. 127-132, 2006.
[81] F. J. Lin, P. H. Shen, S. L. Yang, and P. H. Chou, "Recurrent RBFN-based fuzzy neural network control for PMLSM servo drive," Proc. 5th Taiwan Power Electronics Conference, pp. 1145-1150, 2006.
[82] F. J. Lin and P. K. Hung, "Recurrent fuzzy neural network using genetic

algorithm for linear induction motor servo drive," 1st IEEE Conf. Indus. Electro. Appl. (ICIEA), pp. 152-157, 2006.
[83] F. J. Lin and P. H. Shen, "Robust fuzzy-neural-network control for two-axis motion control system based on TMS320C32 control computer," Proceedings of the 2005 IEEE Conference on Hands-on Intelligent Mechatronics and Automation, IH004, 2005.
[84] F. J. Lin, S. L. Yang, and P. H. Shen, "Self-constructing fuzzy neural network controller for permanent-magnet linear synchronous motor drive," R. O. C. Symp. on Electrical Power Eng., pp. 619-624, 2005.
[85] J. H. Lin, F. J. Lin and Y. S. Kung, "Implementation of permanent magnet synchronous motor drive and total sliding-mode position control using CPLD and DSP," Proc. 4th Taiwan Power Electronics Conference, pp. 1-7, 2005.
[86] F. J. Lin, D. H. Wang and P. K. Huang, "FPGA-based fuzzy slifding-mode control for linear induction motor drive," Proc. 4th Taiwan Power Electronics Conference, pp. 24-30, 2005.
[87] H. J. Shieh, F. J. Lin and P. K. Huang, "Adaptive positioning control with RFNN for piezo-actuated positioning mechanism," Proc. National Symposium on Automatic Control, N00007d, 2005.
[88] F. J. Lin and P. H. Shen, "Adaptive backstepping sliding-mode control using RBF network for two-axis motion control system," The 5th International Symposium on Linear Drives for Industry Applications (LDIA2005), L27P2-1, 2005.
[89] F. J. Lin and P. H. Shen, "Intelligent backstepping sliding-mode control using RNF network for two-axis motion control system" 13th National Conference on Fuzzy Theory and Its Applications, 026, 2005.
[90] F. J. Lin and P. H. Shen, "Linear synchronous motor servo drive based on adaptive wavelet neural network," IEEE International Symposium on Computational Intelligence in Robotics and Automation, Th-B1-3, 2005.
[91] F. J. Lin H. J. Shieh, P. H. Shieh and P. H. Shen, "Intelligent motion control of X-Y table using adaptive recurrent-neural-network," IEEE Conf. on IPEC, S19-2, 2005.
[92] F. J. Lin and P. H. Shen, "A DSP-based permanent magnet linear synchronous motor servo drive using adaptive fuzzy-neural-network control," IEEE Conf. on CIS and RAM, TM2.7, 2004.
[93] F. J. Lin, C. H. Lin, and P. K. Huang, "Implementation of permanent magnet synchronous motor drive and speed control using CPLD," R. O. C. Symp. on Electrical Power Eng., pp. 1893-1898, 2004.
[94] F. J. Lin, H. J. Shieh, K. K. Shyu and P. K. Huang, "On-line gain-tuning IP controller using real-coded genetic algorithm," R. O. C. Symp. on Electrical Power Eng., pp. 1311-1316, 2004.
[95] F. J. Lin, P. K. Huang, and W. D. Chou, "A genetic algorithm based recurrent fuzzy neural network for linear induction motor servo drive," 20th National Conference on Fuzzy Theory and Its Applications, c1221, 2004.
[96] F. J. Lin and P. H. Shen, "Adaptive wavelet neural network control for linear

synchronous motor servo drive," Proc. 3rd Taiwan Power Electronics Conference, pp. 653-658, 2004.
[97] F. J. Lin, D. H. Wang, and P. K. Huang, "FPGA based linear induction motor drive and fuzzy control," Proc. 3rd Taiwan Power Electronics Conference, pp. 653-658, 2004.
[98] F. J. Lin and P. H. Shen, "A Linear Synchronous Motor Drive Using Robust Fuzzy Neural Network Control," 2004 World Congress on Intelligent Control and Automation vol. 5, pp. 4386-4390, 2004
[99] F. J. Lin and P. H. Shen, "A linear synchronous motor drive using robust fuzzy neural network control," R. O. C. Symp. on Electrical Power Eng., pp. 124-128, 2003.
[100] F. J. Lin, W. D. Chou and P. K. Huang, "An induction motor servo drive uaing genetic algorithm based fuzzy sliding-mode controller," R. O. C. Symp. on Electrical Power Eng., pp. 466-470, 2003.
[101] F. J. Lin and P. K. Huang, "Recurrent fuzzy neural network controlled linear induction motor servo drive using genetic algorithm," The 4th International Symposium on Linear Drives for Industry Applications (LDIA2003), CO-20, 2003.
[102] F. J. Lin, Y. C. Sun, and P. H. Hsieh, "Real-time remote controlled induction motor drive system based on Internet," Proc. Taiwan Power Electronics Conference 2003, pp. 178-182, 2003.
[103] W. D. Chou, F. J. Lin and P. K. Huang, "GA-based fuzzy sliding-mode controlled induction motor drive," Proc. National Symposium on Automatic Control, pp. 561-566, 2003.
[104] C. H. Lin and F. J. Lin, "Recurrent fuzzy neural network controller design using sliding-mode for linear synchronous motor drive," Proc. National Symposium on Automatic Control, pp. 769-774, 2003.
[105] W. D. Chou, K. K. Shyu and F. J. Lin, "Incremental motion control of induction motor servo drive via genetic algorithm based sliding-mode controller," Proc. Taiwan Power Electronics Conference 2002, pp. 97-101, 2002.
[106] F. J. Lin, R. J. Wai and P. K. Huang, "Wavelet neural network control for linear ultrasonic motor drive," International Computer Symposium, Taiwan, G2-3, 2002.
[107] W. D. Chou and F. J. Lin, "An induction servo motor drive using sliding-mode controller with genetic algorithm," R. O. C. Symp. on Electrical Power Eng., pp. 87-91, 2002.
[108] F. J. Lin, T. H. Chen and P. H. Shen, "An intelligent controlled PMSM drive system using floating point DSP," R. O. C. Symp. on Electrical Power Eng., pp. 97-102, 2002.
[109] F. J. Lin, C. H. Lin and P. H. Shen, "Variable-structure control for linear synchronous motor using recurrent fuzzy neural network," IEEE IECON, SF-000112, 2002.
[110] F. J. Lin and C. H. Lin, "Variable-structure control for linear synchronous

motor using recurrent fuzzy neural network," Proc. National Symposium on Automatic Control, pp. 161-166, 2002.
[111] F. J. Lin and C. H. Lin, "Recurrent neural network control for motor-toggle servomechanism," R. O. C. Symp. on Electrical Power Eng., pp. 369-373, 2001.
[112] F. J. Lin, Y. C. Sun and S. P. Hsu, "Adaptive backstepping sliding mode control for linear induction motor drive," R. O. C. Symp. on Electrical Power Eng., pp. 80-84, 2001.
[113] F. J. Lin and C. H. Lin, "On-line gain-tuning IP controller using RFNN for linear synchronous motor," IEEE PESC, P2.53, 2001.
[114] F. J. Lin, W. D. Chou and C. H. Lin, "Adaptive hybrid control using recurrent-neural-network for linear synchronous motor servo drives," IEEE Canada Conf., TM4.1, 2001.
[115] C. H. Lin and F. J. Lin, "On-line gain tuning using RFNN for linear synchronous motor," Proc. National Symposium on Automatic Control, pp. 967-972, 2001.
[116] F. J. Lin, C. H. Lin and R. F. Fung, "Adaptive and fuzzy neural network sliding mode controllers for motor-quick-return servomechanism," Proc. National Symposium on Automatic Control, pp. 234-239, 2001.
[117] F. J. Lin and H. H. Lin, "Sensorless non-salient permanent magnet synchronous motor drive using sliding-mode observer," R. O. C. Symp. on Electrical Power Eng., pp. 533-537, 2000.
[118] F. J. Lin and C. C. Lee, "Adaptive backstepping control for linear induction motor drive to track period references," R. O. C. Symp. on Electrical Power Eng., pp. 527-532, 2000.
[119] F. J. Lin, C. H. Lin and C. M. Hong, "Robust control of linear synchronous servo drive using recurrent neural network compensator, " R. O. C. Symp. on Electrical Power Eng., pp. 501-506, 2000.
[120] R. J. Wai, F. J. Lin and C. M. Hong, "Adaptive recurrent-neural-network control for linear induction motor, "in Proc. IEEE CCA/CACSD'2000, pp. 184-189, 2000.
[121] F. J. Lin, R. J. Wai and C. C. Lee, "Robust control of linear induction motor servo drive using neural network uncertainty observer," IEEE CDC'2000, pp. 931-936, 2000.
[122] F. J. Lin and R. J. Wai, "Hybrid torque controller using fuzzy neural network for motor-toggle servomechanism," in Proc. IEEE IECON'2000, pp. 900-905, 2000.
[123] F. J. Lin, R. J. Wai, and M. S. Tzeng, "Adaptive fuzzy-neural-network control for induction spindle motor drive," International Power Electronics and Motion Control Conference (IPEMC' 2000), vol. 2, pp. 990-995, 2000.
[124] R. J. Wai, C. H. Lin, and F. J. Lin, "Adaptive sliding-mode control for motor-toggle servomechanism," in Proc. IEEE PESC'2000, 1093-1098, 2000.
[125] F. J. Lin and J. C. Yu, "Sensorless induction spindle motor drive," R. O. C. Symp. on Electrical Power Eng., pp. 498-502, 1999.

[126] F. J. Lin, R. J. Wai, and C. H. Lin, “Adaptive fuzzy neural network control for motor-toggle servomechanism,” in Proc. International fuzzy systems association world congress (IFSA’99), pp. 194-198, 1999.
[127] F. J. Lin, R. F. Fung, H. H. Lin, and C. M. Hong, “A supervisory fuzzy neural network controller for slider-crank mechanism,” in Proc. IEEE Int. Conf. on Control Appl., pp. 1710-1715, pp. 1710-1715, 1999.
[128] F. J. Lin, R. Y. Duan and H. H. Lin, “An ultrasonic motor drive using LLCC resonant technique,” in IEEE PESC’99 Rec., vol. 2, pp. 947-952, 1999.
[129] H. H. Lin, J. W. Cheich and F. J. Lin, “Hybrid controller using fuzzy neural networks for identification and control of induction motor drive,” R. O. C. Symp. on Electrical Power Eng., pp. 158-163, 1998.
[130] R. J. Wai, C. M. Hong and F. J. Lin, “Decoupled stator-flux-oriented induction motor drive with fuzzy neural network uncertainty observer,” R. O. C. Symp. on Electrical Power Eng., pp. 153-157, 1998.
[131] R. Y. Duan, J. C. Yu and F. J. Lin, “LCC resonant inverter for ultrasonic motor drive,” R. O. C. Symp. on Electrical Power Eng., pp. 147-152, 1998.
[132] F. J. Lin and R. F. Wai, “A fuzzy neural network controller for piezoelectric ultrasonic motor drive,” in Proc. International Conference on Mechatronic Technology (ICMT’98), pp. 119-124, 1998.
[133] F. J. Lin and R. J. Wai, “Two-axis motion control system with ultrasonic servo drives,” in Proc. International Conference on Advenced Mechatronics (ICAM’98), pp. 584-589, 1998.
[134] F. J. Lin, R. Y. Duan and J. C. Yu, “A current-source parallel-resonant inverter for ultrasonic motor,” in IEEE PESC’98 Rec., vol. 1, pp. 450-456, 1998.
[135] F. J. Lin, et al., "A robust rotor speed observer for direct field-oriented induction motor drive," R. O. C. Symp. on Electrical Power Eng., pp. 151-155, 1997.
[136] F. J. Lin and R. J. Wai, "On-line trained neural network controller for ultrasonic motor servo drive," Inter. Conf. Power Electronics and drive systems (PEDS'97), pp. 383-388, 1997.
[137] F. J. Lin and R. J. Wai, "Fuzzy neural network model-following controller for ultrasonic motor servo drive," Proc. National Symposium on Automatic Control, pp. 677-682, 1997.
[138] F. J. Lin, and R. J. Wai, "Adaptive control of PM synchronous servo motor drive using on-line trained neural network," Fourth International Conference on Control, Automation, Robotics and Vision (ICARCV'96), pp. 474-478, 1996.
[139] F. J. Lin, H. P. Chen, and R. J. Wai, "A novel ultrasonic motor servo drive with on-line trained neural network adaptive controller," R. O. C. Symp. on Electrical Power Eng., pp. 86-90, 1996.
[140] F. J. Lin and S. L. Chiu, "A novel sliding mode position controller for PM synchronous servo motor drives," R. O. C. Symp. on Electrical Power Eng., pp. 81-85, 1996.
[141] F. J. Lin, and S. L. Chiu, and K. K. Shyu, "Adaptive control of PM

synchronous motor drive using VSS approach," IEEE IECON'96, pp. 1740-1745, 1996.
[142] F. J. Lin, "Application of EKF and RLS estimators in induction motor drive," IEEE Power Electronics Specialists Conference (PESC'96), pp. 713-718, 1996.
[143] F. J. Lin et al., "Fuzzy adaptive model following position control for ultrasonic motor," R. O. C. Symp. on Electrical Power Eng., pp. 100-105, 1995.
[144] F. J. Lin et al., "Performance analysis and simulation of electric motor cycle," R. O. C. Symp. on Electrical Power Eng., pp. 393-398, 1994.
[145] C. M. Liaw, F. J. Lin, and S. Y. Cheng, "Fuzzy adapted two-degree-of-freedom position controller for servomotor drives", Proc. National Symposium on Automatic Control, pp. 151-156, 1994.
[146] C. M. Liaw and F. J. Lin, "A robust induction motor servo drives", IEEE International Symposium on Indus. Electro. (ISIE'93), pp. 740-746, 1993.
[147] C. M. Liaw, F. J. Lin and K. S. Kung, "An induction position servo motor drive", Proc. National Symposium on Automatic Control, pp. 271-277, 1993.
[148] C. M. Liaw and F. J. Lin, "A robust speed controller for induction motor drives", R.O.C. Symposium on Electrical Power Engineering, pp. 318-325, 1992.
[149] F. J. Lin and C. M. Liaw, "Control of indirect field-oriented induction motor drives considering the effects of dead-time and parameter variations", IEEE International Symposium on Indus. Electro., pp. 658-662, 1992.
[150] F. J. Lin and C. M. Liaw, "A robust two-degree-of-freedom speed controller for motor drives", R.O.C. Symposium on Electrical Power Engineering, pp. 681- 689, 1991.
[151] C. M. Liaw, K. H. Chao and F. J. Lin, "A discrete adaptive speed controller for motor drives", IASTED Conf., High Tech. in the Power Indus., pp. 250-255, 1991.
[152] C. M. Liaw and F. J. Lin, "On the model simplification of discrete MIMO system", Proc. National Symposium on Automatic Control, pp. 237-244, 1990.

D. Patents:

[1] F. J. Lin, K. H. Tan, M. Y. Lee, and T. Y. Tseng, *Virtual Inertia Estimating Method and System for Virtual Synchronous Generator*, Patent No. I807813, R. O. C., July 2023
[2] K. H. Tan and F. J. Lin, *Micro Grid System and Pre-synchronization Estimation Method*, Patent No. I773372, R. O. C., Aug. 2022
[3] F. J. Lin, S. G. Chen, and C. H. Liang, *Motor Control System and Method*, USA Patent, US 11,038,452 B2, June 2021
[4] F. J. Lin, S. G. Chen, and C. H. Liang, *Maximum Power Factor Control Method for Motor Control System*, Patent No. I723605, R. O. C., Apr. 2021
[5] F. J. Lin, K. C. Lu, and H. Y. Lee, *Photovoltaic Power Generation System*, USA Patent, US 9,276,498 B2, March 2016
[6] F. J. Lin, K. C. Lu, and H. Y. Lee, *Photovoltaic Energy Power Generation*

System, Patent No. I522767, R. O. C., Feb. 2016

[7] J. C. Hwang, J. Y. Hsiao and F. J. Lin, *Permanent Magnet Synchronous Motor*. Patent No. I478467, R. O. C., March 2015

[8] F. J. Lin, Z. Y. Kao, C. M. Yeh, and J. M. Chen, *Speed Estimation Method of Motor*. Patent No. I476409, R. O. C., March 2015.

[9] J. C. Hwang, G. T. Liu, J. Y. Hsiao, B. S. Chien, and F. J. Lin, *26 Poles and 24 Slots In-Wheel Permanent Magnet Synchronous Motor*. Patent No. I I436556, R. O. C., May 2014.

[10] J. C. Hwang, G. T. Liu, J. Y. Hsiao, B. S. Chien, and F. J. Lin, *14 Poles and 12 Slots In-Wheel Permanent Magnet Synchronous Motor*. Patent No. I I436555, R. O. C., May 2014.

[11] L. C. Shieh, F. J. Lin, T. S. Chen, S. T. Tan, *Gear Module of in-wheel motor for Electrical Vehicle*. Patent No. I433436, R. O. C., Feb. 2014.

[12] F. J. Lin, S. Y. Lee, H. C. Chang, and Z. Y. Kao, *Combination of high-frequency signal injection method and model-reference-adaptive-system (MRAS) speed estimation method*. Patent No. I426698, R. O. C., Feb. 2014.

[13] F. J. Lin, S. Y. Lee, H. C. Chang, and Z. Y. Kao, *Sensorless control of synchronous motor drive*. Patent No. I426697, R. O. C., Feb. 2014.

[14] J. C. Hwang, J. Y. Hsiao, and F. J. Lin, *Integrated Permanent Magnet Generation System*. Patent No. I416847, R. O. C., Nov. 2013.

[15] F. J. Lin, Y. C. Shieh, H. L. Cheng, and J. Y. Hong, *Linear Ultrasonic Motor Driving Circuit*. Patent No. I399028, R. O. C., June 2013.

[16] K. F. Peng, M. L. Hsieh, H. M. Lee, and F. J. Lin, *Power transformation device used between power generation and power supply*. Patent No. 385865, R. O. C., Aug. 2010.

[17] F. J. Lin and R. Y. Duan, *A piezoceramic motor drive using current-source parallel-resonant inverter with energy feedback*. Patent No. 106195, R. O. C., Aug. 1999.

[18] F. J. Lin, R. Y. Duan and R. F. Fung, *An ultrasonic motor drive using push-pull DC/DC converter*. Patent No. 141772, R. O. C., Nov. 1998.

[19] F. J. Lin and L. C. Kuo, *Driving circuit for ultrasonic motor drive*. Patent No. 083618, R. O. C., Jan. 1997.