

師資介紹



吳晉昌 (WU, JIN-CHANG)

職稱：教授

最高學歷：國立成功大學電機工程系博士

學術專長：數位電路設計、微處理機應用、電能轉換電路設計、綠色能源系統

分機：23370

參考資料目錄:

A. 論文著作

B. 執行研究計畫

.....
A. 論文著作(近五年)

- A1. **J. C. Wu**, H. L. Jou, S. Y. Yan, "A Multi-Level Power Converter Interface for a Battery Energy Storage System," Electric Power Components & Systems, (accepted) (SCIE)
- A2. H. L. Jou, **J. C. Wu**, K. D. Wu, C. Y. Kuo, "Bidirectional DC-DC Wireless Power Transfer Based on LCC-C Resonant Compensation" IEEE Trans. on Power Electronics, Vol. 36, No. 2, 2021, pp. 2310-2319. (SCIE)
- A3. H. L. Jou, K. D. Wu, **J. C. Wu**, S. H. Wei, T. Y. Zhang, "Power Converter for 60Hz-400Hz Bilateral Power Conversion," IEEE Trans. on Aerospace and Electronic Systems, Vol. 56, No. 6, 2020, pp. 4491 – 4503. (SCIE)
- A4. **J. C. Wu**, H. L. Jou, P. H. Huang, "Seven-Level Power Conversion System for Solar Power Generation System," IET Renewable Power Generation. Vol. 14, No. 8, 2020, pp. 1387-1394.
- A5. **J. C. Wu**, H. L. Jou, S. Y. Liou, "Asymmetric Diode-Clamped Multi-Level Inverter Based Renewable Power Generation System," International Journal of Electronics, Vol. 108, No. 1, 2021, pp. 87-104. (SCIE)
- A6. H. L. Jou, **J. C. Wu**, T. Y. Zhang, S. I. Shih, "New Power Conversion Topology for Battery-Less PV Generation System with the Functions of Grid-Connection and Isolated Grid," International Journal Engineering Science and Technology. (accepted)
- A7. **J. C. Wu**, H. L. Jou, X. Z. Wu, "Power Conversion Interface with Harmonic Suppression for a DC Grid and Single-Phase Utility," IET Power Electronics Vol. 13, No. 7, 2020, pp. 1302-1310.
- A8. **J. C. Wu**, H. L. Jou, P. H. Huang, I-H. Chiu, "Current Balancing Control for Interleaved Boost Power Converter," International Journal of Electronics, Vol.106, No. 10, 2019, pp. 1567-1582.
- A9. H. L. Jou, K. D. Wu, **J. C. Wu**, Y. Z. Lin, L. W. Su, "Asymmetric isolated unidirectional multi-level DC-DC power converter," International Journal Engineering Science and Technology, Vol. 22, No. 3, 2019, pp.894-898
- A10. **J. C. Wu**, H. L. Jou, T. Y. Lin, "New DC Hybrid Filter for Attenuating Low-Frequency Ripple of AC-DC Power Converter," Electric Power Components & Systems, Vol. 47, No1-2, 2019, pp. 1-9.
- A11. **J. C. Wu**, H. L. Jou, I. H. Chiu, "A New Interleaved Multi-Level Power Converter for a Battery Energy Storage System," IET Power Electronics, Vol. 12, No. 3, 2019, pp. 498-504.
- A12. H. L. Jou, **J. C. Wu**, K. D. Wu, D. F. Huang, "Novel Three-Port Inverter Outputting Two Sinusoidal AC Voltages," Electric Power Components and Systems, Vol. 46, No. 9, 2018, pp. 1042-1048.
- A13. H. L. Jou, **J. C. Wu**, K. D. Wu, H. R. Shen, "New three-port DC-AC inverter outputting a singlephase and a set of three-phase AC voltages," International Journal of Electronics, Vol. 105, No. 11, 2018, pp. 1962-1975.
- A14. H. L. Jou, **J. C. Wu**, K. D. Wu, T. F. Huang S. H. Wei, "New Single-Phase Power Converter Topology for Frequency Changing of AC Voltage," Journal of Power Electronics, Vol. 18, No. 3, 2018, pp. 694-701.

- A15. **J. C. Wu**, H. L. Jou, Chih-Yi Hung, "Solar Power Generation System for Reducing Leakage Current," *International Journal of Electronics*, Vol. 105, No. 4, 2018, pp. 694-708.
- A16. **J. C. Wu**, H. L. Jou, Y. L. Chen, "A grid-tied power conversion interface with a five-level inverter," *IET Power Electronics*, Vol. 10, No. 13, 2017, pp. 1721-1728.
- A17. **J. C. Wu**, H. L. Jou, J. H. Tsai, "A Flexible Grid Interface for a PV Power System," *Solar Energy*, No. 144, 2017, pp. 540-547.
- A18. H. L. Jou, K. D. Wu, **J. C. Wu**, C. H. Chung, D. F. Huang, "Voltage Equalizing of Solar Modules for Shadowing Compensation" *Journal of Power Electronics*, Vol. 17, No. 2, 2017, pp. 514-521.
- A19. K. D. Wu, H. L. Jou, J. C. Wu, J. Y. Su, "Seven-Level Cascade Inverter with Asymmetrical DC Voltages," *IET Power Electronics*, Vol. 10, No. 1, 2017, pp. 112-119.
- A20. **J. C. Wu**, H. L. Jou, J.-J. Han, "Isolated Battery Charger with Multi-Level Rectifier," *IET Power Electronics*, Vol. 9, No. 14, 2016, pp. 2674-2681.
- A21. **J. C. Wu**, H. L. Jou, C.-Y. Hung, "Three-Port Power Converter for a Solar Charger," *International Journal of Electronics*, Vol. 104, No. 3, 2017, pp. 355-368.
- A22. **J. C. Wu**, H. L. Jou, J. Y. Jhang Jian, "Single-phase multi-level AC-DC power conversion interface," *IET Power Electronics*, Vol. 9, No.3, 2016, pp. 449-456.
- A23. Hurng-Liahng Jou, Jun-Jie Huang, Jinn-Chang Wu, Kuen-Der Wu, "Novel Isolated Multilevel DC-DC Power Converter," *IEEE Transactions on Power Electronics*, Vol. 31, No. 4, 2016, pp. 2690 - 2694.
- A24. Hurng-Liahng Jou, Guan-Ru Chen, Jinn-Chang Wu, Kuen-Der Wu, Jia-Ming Jhang, "Three-port single-phase three-wire power converter interface for micro grid," *Renewable Energy*, Vol. 85, 2016, pp.524e533.
- A25. Jinn-Chang Wu, Yung-Shan Wang, Hurng-Liahng Jou, Wei-Tso Lu, " Single-phase to three-phase power conversion interface," *International Journal of Electronics*, Vol.103, No.7, 2016, pp. 1236-1247.
- A26. H. L. Jou, Y. H. C. **J. C. Wu**, K. D. Wu, "Operation strategy for a lab-scale grid-connected photovoltaic generation system integrated with battery energy storage," *Energy Conversion and Management*, Vol. 89, No. 1, 2015, pp. 197-204.
- A27. **J. C. Wu**, H. L. Jou, J. H. Tsai, "A Buck-Boost Type Charger with Switched Capacitors Circuit," *Journal of Power Electronics*, Vol. 15, No. 1, 2015, pp. 31-38.
- A28. **J. C. Wu**, K. D. Wu, H. L. Jou, S. K. Chang, "A Seven-level Active Power Conditioner for a Renewable Power Generation System," *IET Renewable Power Generation*, Vol. 8, No. 7, pp.807-816, 2014, pp.807-816.
- A29. J. C. Wu, C. W. Chou, "A Solar Power Generation System With a Seven-Level Inverter, *IEEE Trans. Power Electronics*, Vol. 29, No. 7, 2014, pp. 3454 – 3462.
- A30. **J. C. Wu**, H. L. Jou, S. T. Xiao, "A New Hybrid Power Conditioner for Suppressing Harmonics and Neutral-Line Current in Three-Phase Four-Wire Distribution Power Systems," *IEEE Transactions on Power Delivery*, Vol. 29, No. 4, 2014, pp. 1525 - 1532.
- A31. **J. C. Wu**, K. D. Wu, H. L. Jou, S. K. Chang, "A Small-Capacity Grid-Connected Solar Power Generation System," *IET Power Electronics*, Vol. 7, No. 11, 2014, pp. 2717 - 2725.
- A32. **J. C. Wu**, Y. H. Wang, "Power Conversion Interface for Small-Capacity Wind Power Generation System," *IET Generation, Transmission & Distribution*, Vol. 8, No.4, 2014, pp. 689-696.
- A33. J. M. Shen, H. L. Jou, **J. C. Wu**, K. D. Wu, "Single-phase three-wire grid-connected power converter with energy storage for positive grounding photovoltaic generation system," *International Journal of Electrical Power & Energy Systems*, Vol. 54, 2014, pp. 134-143.
- A34. J. M. Shen, H. L. Jou, **J. C. Wu**, K. D. Wu, "Hybrid Photovoltaic Generation System with Novel Islanding Detection Method," *Electrical Power Systems Research*, Vol.106, 2014, pp.101-108.
- A35. J. M. Shen, H. L. Jou, **J. C. Wu**, K. D. Wu, "Five-Level Inverter for Renewable Power Generation System," *IEEE Transactions on Energy Conversion*, Vol. 28, No.2, 2013, pp. 257-266.
- A36. **J. C. Wu**, M. J. He, H. L. Jou, "New Five-Level Inverter-based Grid-Connected Power Conversion Interface," *IET Power Electronics*, Vol. 6, No.7, 2013, pp. 1239-1247.
- A37. **J. C. Wu**, H. L. Jou, P. H. Chuang, "Voltage Equaliser for Li-Fe Battery," *International Journal of Electronics*, 2012, pp. 1398-1413.
- A38. J. M. Shen, H.L. Jou, **J. C. Wu**, "Transformerless single-phase three-wire line-interactive uninterruptible power supply," *IET Power Electronics*, Vol. 5, No.9, 2012, pp. 1847-1855.
- A39. **J. C. Wu**, H. L. Jou, K. D. Wu, S. T. Xiao, "Single-Phase Inverter-based Neutral-Current Suppressor for Attenuating Neutral Current of Three-Phase Four-Wire Distribution Power System," *IET Generation, Transmission & Distribution*, Vol. 6, No. 6, 2012, pp.577-583,2012.
- A40. **J. C. Wu**, H. L. Jou, K. D. Wu, H. H. Hsiao, "Three-Phase Four-Wire Hybrid Power Filter Using a Small Power Converter," *Electric Power Systems Research*, Vol. 87, 2012, pp. 13-21.
- A41. W. J. Chiang, H. L. Jou, **J. C. Wu**, "Active islanding detection method for inverter-based distribution generation power system," *Electrical Power and Energy Systems*, Vol.42, No. 1, 2012, pp.158-166.
- A42. J. M. Shen, H. L. Jou, **J. C. Wu**, "Transformer-Less Three-Port Grid-Connected Power Converter for Distribution Power Generation System with Dual Renewable Energy Sources," *IET Power Electronics*, Vol. 5, No. 4, 2012, pp. 501-509.

A43. J. M. Shen, H. L. Jou, **J. C. Wu**, “Novel Transformerless Grid-connected Power Converter with Negative Grounding for Photovoltaic Generation System,” IEEE Transactions on Power Electronics, Vol. 27, No. 4, 2012, pp.1818-1829.

B. 執行研究計畫 (近五年)

應用於電池充電器之多階交流一直流電力轉換界面 (110-2622-E-992-018-)	主持人	2021/06/01~2022/05/31	科技部	執行中
具輸出功率平滑化之太陽能發電系統(109-2221-E-992-028-)	主持人	2020/08/01~2021/07/31	科技部	執行中
具有寬交流電壓範圍及蓄電池電流濾波功能之電池儲能系統 (109-2622-E-992-016-CC3)	主持人	2020/06/01~2021/05/31	科技部	已結案
市電連結之多階直流-交流電能轉換界面(108-2221-E-992-040-)	主持人	2019/08/01~2020/07/31	科技部	已結案
應用於太陽能發電系統之七階電力轉換界面(108-2622-E-992-007-CC3)	主持人	2019/06/01~ 2020/05/31	科技部	已結案
電池儲能系統之電能轉換界面之研製 107-2637-E-992 -013 -	主持人	2018/08/01 ~ 2019/07/31	科技部	已結案
以五階電力轉換器為基礎之電池儲能系統之研製 107-2622-E-992 -011 -CC3	主持人	2018/06/01 ~ 2019/05/31	科技部	已結案
船艦微電網產學聯盟 (1/3)(106-2622-8-022-001-TE1)	共同主持人	2017/02/01~2018/01/31	科技部	已結案
以三埠直流-直流電力轉換器為基礎之多階電力轉換界面之研究 (104-2221-E-022-005-)	主持人	2015/08/01~2016/07/31	科技部	已結案
多階交流一直流電力轉換界面之研究(103-2221-E-022-007-)	主持人	2014/08/01~2015/07/31	科技部	已結案
潔淨能源發電系統之電力轉換界面之研製(II) (102-2221-E-022-012-)	主持人	2013/08/01~2014/07/31	科技部	已結案
疊接式多階電能轉換技術之研究	主持人	2017/08/01~2018/07/31	盈正豫順 電子	執行中
太陽能發電系統電能轉換技術之研究	主持人	2016/08/01~2017/07/31	盈正豫順 電子	已結案