

## 五、論文著述：

- (一) 請詳列個人最近五年內發表之學術性著作，包括：期刊論文、專書及專書論文、研討會論文、技術報告及其他等，並請依各類著作之重要性自行排列先後順序。
- (二) 各類著作請按發表時間先後順序填寫。各項著作請依作者姓名（按原出版之次序）、出版年、月份、題目、期刊名稱（專書出版社）、起迄頁數之順序填寫，被接受刊登尚未正式出版者請附被接受函。
- (三) 若期刊屬於 SCI、EI、SSCI 或 A&HCI 等時，請註明；若著作係經由國科會補助之研究計畫所產生，請於最後填入相關之國科會計畫編號。
- (四) 論文著述(表 C302)，請採 MS Word 97(含)以上版本輸入資料，並將輸入的檔案以 E-Mail 方式傳遞本會。E-Mail 位址：nscapply@nsc.gov.tw，Mail 之主旨請註明 C302,身分證號碼。

### 期刊論文

- 1 S. L. Lin, P. C. Tung and N. E. Huang, 2012, "Application of ICA-EEMD to secure communications in chaotic systems," *international journal of modern physics C*, Vol. 23 No1250028, (SCI).
- 2 W. H. Yao, P. C. Tung, C.C. Fuh, F. C. Chou, 2012, "Suppression of hunting in an ILPMSM driver system using hunting compensator," *IEEE Transactions on Industrial Electronics*, (accepted) (SCI).
- 3 T.Y. Laia, P.C. Tung and Y.C. Hsiaob, 2012, "Coalescence of the Two Secondary Responses in Coupled Duffing Equations," *International Journal of Bifurcation and Chaos*, Vol. 22 No. 6.
- 4 J. C. Chen, P. C. Tung, S. F. Huang, S. W. Wu, S. L. Lin, K. L. Tu, 2012, "Extraction and Screening of Knee Joint Vibroarthrographic Signals Using the Empirical Mode Decomposition Method," *International Journal of Innovative Computing, Information and Control*, (accepted) (SCI).
- 5 W. H. Yao, P. C. Tung, C.C. Fuh, F. C. Chou, 2012, "Gravity compensation for an ILPMSM driver based on a robust uncertainty," *International Journal of Innovative Computing, Information and Control*, Vol. 9, pp. 287-303 (SCI).
- 6 K. Y. Lu, W. T. Hsu, P. C. Tung, C. J. Tseng, N. E. Huang, S. L. Lin, 2012, "Application of Steganography and Empirical Mode Decomposition in Communication Security," *Information-An International Interdisciplinary Journal*,

(accepted) (SCI).

- 7 J. C. Chen, P. C. Tung, S. F. Huang, S. W. Wu, S. L. Lin, 2012, "Extraction and Screening of Knee Joint Vibroarthrographic Signals Using the Independent Component Analysis Method," *International Journal of Innovative Computing, Information and Control*, Vol. 8 pp. 7501-7518 (SCI)
- 8 M. H. Tsai, P. C. Tung, 2012, "A Robust Disturbance Reduction Scheme for Linear Small Delay Systems with Disturbances of Unknown Frequencies," *ISA Transactions*, Vol. 51, pp.362-372 . (SCI).
- 9 M. H. Tsai, P. C. Tung, 2012, "Modified Smith predictor with a robust disturbance reduction scheme for linear systems with time delays," *Expert systems*, Vol. 29, pp. 394-410 (SCI).
- 10 K. Y. Chen, P. C. Tung, S. L. Lin, M. T. Tsai, 2011, "Chaos synchronization in the presence of noise," *International Journal of Modern Physics C*, Vol. 22 ,pp1409-1418(SCI)
- 11 M. T. Tsai, P. C. Tung, K. Y. Chen, 2011, "Experimental Evaluations of PID-Type Fuzzy Controllers with Parameter Adaptive Methods for an Active Magnetic Bearing System," *Expert Systems*, Vol. 28, pp. 5-18,(SCI)
- 12 P. C. Tung, M. T. Tsai, K. Y. Chen, Y. H. Fan, F. C. Chou, 2011, "Design of model-based unbalance compensator with fuzzy gain tuning mechanism for an active magnetic bearing system," *Expert Systems With Applications*, Vol. 38, pp. 12861-12868. (SCI).
- 13 W. H. Yao, P. C. Tung, C.C. Fuh, F. C. Chou, 2011, "A robust uncertainty controller with system delay compensation for an ILPMSM system with unknown system parameters," *IEEE Transactions on Industrial Electronics*, Vol. 58, pp. 4727-4735. (SCI).
- 14 P. C. Hsieh, P. C. Tung, 2010, "Shadow compensation based on facial symmetry and image average for robust face recognition," *Neurocomputing*, Vol 73, pp.2708-2717. (SCI).
- 15 M.H. Tsai, P. C. Tung, 2010, "A disturbance reduction scheme for linear small delay systems with modeling uncertainties," *Journal of Process Control*, Vol 20, pp.777-786. (SCI).

- 16 C. H. Liang, P. C. Tung, 2010, "Application of genetic algorithms to active vibration control of a centrifugal pendulum vibration absorber," *Proceedings Of the Institution Of Mechanical Engineers PART I-Journal Of Systems and Control Engineering*, pp.329-338. (SCI).
- 17 C.Y. Wu, P. C. Tung, C.C. Fuh, 2010, "Development of an automatic arc welding system using an adaptive sliding mode control," *Journal of Intelligent Manufacturing*, Vol.21, pp.355-362. (SCI).
- 18 C. H. Liang, P. C. Tung, 2009, "A fuzzy neural network for the active vibration control of a centrifugal pendulum vibration absorber," *International Journal of Modern Physics C*, Vol.20, pp.1963-1979. (SCI).
- 19 Y. W. Huang and P. C. Tung, 2009, "Design of a Fuzzy Gain Scheduling Controller Having Input Saturation: A Comparative Study," *Journal of Marine Science and Technology-Taiwan*, Vol.17, pp.249-256. (SCI).
- 20 S. L. Lin, P. C. Tung, 2009, "A New Method for Chaos Control in Communication Systems," *Chaos Solitons & Fractals*, Vol.42, pp.3234-3241. (SCI).
- 21 S. L. Lin, P. C. Tung and N. E. Huang, 2009, "Data analysis using a combination of independent component analysis and empirical mode decomposition," *Physical Review E*, Vol. 79 Number 066705. (SCI).
- 22 K. Y. Chen, P. C. Tung, M. T. Tsai, Y. H. Fan, 2009, "A self-tuning fuzzy PID-type controller design for unbalance compensation in an active magnetic bearing," *Expert Systems with Applications*, pp.8560-8570. (SCI).
- 23 P. C. Hsieh, P. C. Tung, 2009, "A novel hybrid approach based on sub-pattern technique and whitened PCA for face recognition," *Pattern Recognition*, Vol. 42, pp.978-984. (SCI).
- 24 Y. D. Chen, P. C. Tung, and C. C. Fuh, 2009, "Robust disturbance rejection method for uncertain system with disturbances of unknown frequencies," *Nonlinear Dynamics*, Vol.55, pp.329-336. (SCI).

- 25 C. H. Liao, F. C. Chou, P. C. Tung, Y. D. Chen, 2008, "Suppression of Limit Cycles in Servo Systems Using Gain Limit Compensator," *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, pp.2393-2396. (SCI).
- 26 K. Y. Chen, P. C. Tung, S. L. Lin, and M. T. Tsai, 2008, "Controlling Chaos Via State Feedback Cancellation Anosy Chaotic System," *International Journal of Modern Physics C*, Vol.19, pp.1597-1605. (SCI).
- 27 Y. D. Chen, P. C. Tung, C. C. Fuh, C. H. Liao, 2008, "The Use of Modified Sliding Mode Control with Time Delay Control for Unknown Systems with Uncertain Disturbances," *Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering*, Vol.222, pp.31-37. (SCI).
- 28 C. H. Liao, F. C. Chou, P. C. Tung, Y. D. Chen, 2008, "A Novel Robust Disturbance Compensation Scheme for DC Servo Motors," *Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering.*, Vol.222, pp.185-196. (SCI).
- 29 C.Y. Wu, P. C. Tung, 2008, "Application of genetic algorithm to external noise cancellation and compensation in automatic arc welding system," *Journal of Intelligent Manufacturing*, Vol.19, pp.249-256. (SCI).
- 30 C. Y. Lee, P.C. Tung, and K. K. Shyu, C. Y. Wu, 2008, "Development of an Automatic Arc Welding System Using a Variable Structure Model Reference Scheme," *The International Journal of Advanced Manufacturing Technology*, Vol.35, pp.978-986. (SCI).
- 31 S. L. Lin, P. C. Tung, 2007, "Application of modified ICA to Secure Communications in Chaotic Systems," *Lecture Notes in Computer Science*, Vol.47, pp.431-444. (EI)
- 32 S. L. Lin, P. C. Tung, 2007, "Blind source separation with modified ICA," *WSEAS Transactions on Communications*, pp.364-371. (EI)
- 33 Y. D. Chen, P. C. Tung, C. C. Fuh, 2007, "Modified Smith Predictor Scheme for Periodic Disturbance Reduction in Linear Delay Systems," *Journal of Process Control*, pp.779-804. (SCI).
- 34 Y. W. Huang, P. C. Tung, and C. Y. Wu, 2007, "Tuning PID control of an automatic arc welding system using a SMAW process" *The International Journal of Advanced*

Manufacturing Technology, pp.56-61. (SCI).

- 35 Y. W. Huang, and P. C. Tung, 2007, “ Fuzzy PD system in adaptive control systems having input saturation” Control and Intelligent Systems, Vol.35, pp.217-222.(EI)
- 36 S. L. Lin, P. C. Tung, J. C. Chen, 2006, “A new Method for Secure Communication in Chaotic Systems” WSEAS Transactions on Signal Processing Issue 1, Vol.2, pp.8-15.
- 37 S.C. Chang, P. C. Tung, 2006, Comments on “Identification of a nonlinear electromagnetic system: An experimental study” Journal of Sound and Vibration 290 (3-5):pp.1335-1336. (SCI).
- 38 C. Y. Lee, P. C. Tung, and W.H. Chu, 2006, “Adaptive fuzzy sliding mode control for an automatic arc welding system,” International Journal of Advanced Manufacturing Technology, 29 (5): 481-489 JUN.(SCI).
- 39 S. L. Lin, P. C. Tung, P. H. Wang, J. C. Chen, 2005, “Application of Independent Component Analysis in the fetus ECG signal” WSEAS Transactions on Signal Processing, Issue 1, Vol.1, pp.33-38, October.
- 40 W. H. Chu, and P.C. Tung, “A design for an adaptive fuzzy singed distance sliding mode control” Transactions of the aeronautical and astronautical socitty of the republic of china, Vol.37, No.1, pp. 21-30. 2005 (EI)
- 41 W. H. Chu, P. C. Tung, 2005, “Development of an automatic arc welding system using SMAW process, International Journal of Advanced Manufacturing Technology 27 (3-4): 281-287. (SCI)
- 42 C.C. Wang, Y.D. Yao, Y.H. Chang, P.C. Tung, and R.B. Xiao, 2005, “Magnetic force-induced damping effect for magnetic bearing motor,” Journal of applied physics, 97 (10): Art. No. 10Q502 Part 3. (SCI)
- 43 W. H. Chu, and P.C. Tung, 2005, “Development of an Automatic Arc Welding System Using a Sliding Mode Control,” International Journal of Machine Tools & Manufacture, Vol.45, Issues 7-8, pp. 933-939. (SCI)
- 44 C.C. Fuh, H.H. Tsai, and P.C. Tung, 2005, “Stabilizing unstable periodic orbits via universal input-output delayed-feedback control,” Nonlinear dynamics, 40 (2) pp.107-117. (SCI)
- 45 Y.D. Chen, C.C. Fuh and P.C. Tung, 2005, “Application of voice coil motors in active

- dynamic vibration absorbers” IEEE Transactions on magnetics, 41 (3) pp. 1149-1154.  
(SCI)
- 46 P.C. Tung, M.C. Wu, and Y.R. Hwang, 2004, “An Image-guided mobile robot welding system for repairing SMAW processes,” International Journal of Machine Tools & Manufacture, 44 (11) pp.1223-1233.(SCI)
  - 47 R. H. Wu, and P. C. Tung, 2004, “Fast Pointing Control for Systems with Stick-Slip Friction,” ASME J. of Dynamic Systems, Measurement and Control, Vol. 124 pp.614-628.(SCI).
  - 48 R. H. Wu, and P. C. Tung, 2003, “An Analytic Algorithm for Simulation of Stick-Slip Friction,” JSME the International Journal Series C, Vol.46, No.3, pp.1112-1120.(SCI).
  - 49 R. H. Wu, and P.C. Tung, 2002, “Studies of Stick-Slip Friction, Presliding Displacement and Hunting,” ASME Journal of Dynamic System, Measurement, and Control, Vol.124, pp.111-117.
  - 50 P. C. Tung, Y. R. Hwang, and M. C. Wu, 2002, “The Development of a Mobile Manipulator Imaging System for Bridge Crack Inspection,” Automation in Construction, Vol.11, pp.717-729. (SCI).
  - 51 N. C. Shieh, C. L. Lin, and P. C. Tung, 2002, “Robust Wavelet Neuro Control for Linear Brushless Motors,” IEEE Transactions on Aerospace and Electronic Systems, Vol.38, pp.918-932.
  - 52 C. F. Chung, P. C. Tung, and C. N. Chang, 2002, "The Dynamical Analysis of an Asymmetric Nonlinear Vibration Absorber", Japanese Journal of Applied Physics, Vol.41, pp.6276-6282.
  - 53 N. C. Shieh, and P. C. Tung, 2002, “Robust Position Regulation Control of a Transportation Carriage Directly Driven by Linear brushless DC Motor,” Electric Power Components and Systems, Vol.30, No.6, pp.661-677.
  - 54 N. C. Shieh, P. C. Tung, and C. L. Lin, 2002, “Robust Output Tracking Control of a Linear Brushless DC Motor with Time-varying Disturbance,” IEE Proceedings of Electric Power Applications, Vol.149, pp.39-45.
  - 55 Y. C. Hsiao, and P. C. Tung, 2002, “Controlling Chaos for Nonautonomous Systems by Detecting Unstable Periodic Orbits,” Chaos, Solitons and Fractals, Vol.13, pp.1043-1051.

- 56 Y. C. Hsiao, and P. C. Tung, 2002, "Global Chaos Control of Nonautonomous System," *Journal of Sound and Vibration*, Vol.254, pp.163-174.
- 57 M. C. Wu, P. C. Tung, and T.Y. Hsieh, 2002, "Improvement of the horizontal directional drilling method by using an autonomous land vehicle with a radio finding system," *Automation in Construction*, Vol.11, pp.75-88.(SCI)
- 58 Y. C. Hsiao, and P. C. Tung, 2002, "Mechanism of Producing a Saddle-node Bifurcation with the Coalescence of Two Unstable Periodic Orbits," *Chaos, Solitons and Fractals*, Vol.13, pp.1429-1438.
- 59 H. H. Tsai, C. C. Fuh, and P.C. Tung, 2002, "Fast Convergence control approach for High Dimensional Chaotic System," *Journal of Marine Science and Technology*, Vol.10, pp.77-82. (EI).
- 60 S. R. Wang, Z. Z. Qiao, and P. C. Tung, 2002, "Application of the Force Control on the Working Path Tracking," *Journal of Marine Science and Technology*, accepted. (EI).
- 61 Y. C. Hsiao, and P. C. Tung, 2001, "Detecting the Unstable Periodic Orbits of Chaotic Nonautonomous Systems with an Approximate Global Poincare Map," *Physics Letters A*, Vol.290, pp.59-64.
- 62 Y. C. Hsiao, and P. C. Tung, 2001, "Coalescence of the Primary Response and the Secondary Response in a Nonautonomous System," *Physics Letters A*, Vol.291, pp.237-248.
- 63 N. C. Shieh, and P. C. Tung, 2001, "Robust Position Control of a Transportation Carriage Directly Driven by Linear Brushless DC Motor," *IME proceeding Part I- Journal of Systems and Control Engineering*, Vol.215, pp.611-624.
- 64 N. C. Shieh, and P. C. Tung, 2001, "Robust Output Tracking Control of a Linear DC brushless Motor for Transportation in Manufacturing System," *IEE Proceedings of Electric Power Applications*, Vol.148, pp.119-124.
- 65 P. C. Tung, S. R. Wang, and F. Y. Hong, 2000, "Application of MRAC Theory for Adaptive Control of a Constrained Robot Manipulator," *International Journal of Machine Tools & Manufacture*. Vol.40, pp.2083-2097.
- 66 C. Y. Tseng, and P. C. Tung, 2000, "The Vibro-Impact Response of a Non-Harmonically Excited System," *JSME International Journal*, Vol.43, pp.342-349.

- 67 P. C. Tung, S. R. Wang, and K. Lo, 2000, "Application of Self-tuning Fuzzy Controller for a Cartesian Manipulator on Unknown Contours," International Journal of Machine Tools & Manufacture. Vol.40, pp.943-955.
- 68 S. C. Chen, and P. C. Tung, 2000, "Trajectory Planing for Automate Robotic Deburring on an Unknown Contour," International Journal of Machine Tools & Manufacture, Vol.40, pp.957-978.
- 69 S. C. Chen, and P. C. Tung, 2000, "Application of a Rule-regulating Fuzzy Controller for Robotic Deburring on Unknown Contours," Fuzzy Sets and Systems, Vol.110, pp.341-350.
- 70 S. C. Chang, and P. C. Tung, 1999, "Nonlinear Identification of a Magnetic Bearing System with Closed Loop Control," JSME International Journal, Vol.42, pp.982-990.
- 71 S. C. Chang, and P. C. Tung, 1999, "Dynamics of a Nonlinear Electromagnetic System," Japanese Journal of Applied Physics, Vol.38, pp.2175-2181.
- 72 C. C. Fuh, and P. C. Tung, 1999, "Robust Stability Bounds for Lur'e Systems with Parametric Uncertainty," Journal of Marine Science and Technology, Vol.7, No.2, pp.73-78. (EI).
- 73 S.C. Chang, and P.C. Tung, 1998, "Identification of a Non-Linear Electromagnetic System: an Experimental Study", Journal of Sound and Vibration, Vol.214, pp.853-871.
- 74 C.Y. Tseng, and P.C. Tung, 1998, "Dynamics of a Flexible Beam with Active Nonlinear Magnetic Force", ASME Journal of Vibration and Acoustics, Vol.120, No.1, pp.39-46.
- 75 Y.M. Liaw, and P.C. Tung, 1998, "Application of the Differential Geometric Method to a Noisy Chaotic System via Dither Smoothing", Physics Letters A, Vol.239, pp.51-58.
- 76 Y.M. Liaw, and P.C. Tung, 1997, "Analysis and Observer Design in Synchronization



via the state feedback control method,” *Physical Review E*, Vol.56, pp.5265-5271.

- 77 C.C. Fuh, and P.C. Tung, 1997, “Experimental and Analytical Studies of Dither Signals in a Class of Chaotic System,” *Physics Letter A*, Vol.229, pp.228-234.
- 78 C.C. Fuh, and P.C. Tung, 1997, “Robust Stability of Fuzzy Control Systems,” *International Journal for Fuzzy Sets and Systems*, Vol.88, No.3, pp.289-298.
- 79 C.C. Fuh, and P.C. Tung, 1996, “Analysis and Design of a Nonlinear Robust Controller,” *ASME Journal of Dynamic Systems, Measurement and Control*, Vol.118, pp.339-341.
- 80 C.C. Fuh, and P.C. Tung, 1996, “Robust Control for a Class of Nonlinear Oscillators with Chaotic Attractors,” *Physics Letters A*, Vol.218, pp.240-248.
- 81 Y.M. Liaw, and P.C. Tung, 1996, “Extend Geometric Method to Control a Noisy Chaotic System,” *Physics Letters A*, Vol.222, pp.163-170.
- 82 Y.M. Liaw, and P.C. Tung, 1996, “Controlling Chaos via Feedback Cancellation under a Noisy Environment,” *Physics Letters A*, Vol.211, pp.350-356.
- 83 P.C. Tung, and S.N. Fan, 1996, “Application of Fuzzy On-line Self-adaptive Controller for a Contour Tracking Robot on Unknown Contours,” *International Journal for Fuzzy Sets and Systems*, Vol.82, pp.17-25.
- 84 C.C. Fuh, and P.C. Tung, 1995, “Controlling Chaos Using Geometric Method,” *Physical Review Letters*, Vol.75, No.16, pp.2952-2955.
- 85 C.Y. Tseng, and P.C. Tung, 1995, “Dynamics of Nonlinear Structure with Magnetic Actuator,” *Japanese Journal of Applied Physics*, Vol.34, No.1, pp.374-382.

- 86 C.Y. Tseng, and P.C. Tung, 1995, "Stability, Bifurcation, and Chaos of a Structure with a Nonlinear Actuator," Japanese Journal of Applied Physics, Vol.34, No.7A, pp.3766-3774.
- 87 P.C. Tung, and Y.F. Hsu, 1994, "Application of Fuzzy Control to An Inserting Operation," International Journal for Fuzzy Sets and Systems, Vol.66, pp.267-281.
- 88 P.C. Tung, and S.C. Chen, 1993, "Experimental and Analytical Studies of the Sinusoidal Dither Signal in a DC Motor system," Dynamics and Control, An International Journal Vol.3, No.1, pp.3-69. ( EI )
- 89 P.C. Tung, and S.C. Chang, 1993. "Dynamics of a Pendulum Whose Support in Circular Orbit with Feedback Control," Journal of the Chinese Society of Mechanical Engineering, Vol.14, No.3, pp.219-228 (EI).
- 90 P.C. Tung, 1992, "The Dynamics of a Nonharmonically Excited System Having Rigid Amplitude Constraints," ASME Journal of Applied Mechanics, Vol.59, No.3, pp.693-695.
- 91 P.C. Tung, 1992, "Bifurcations and Chaos in a Forced Linear Oscillator with Impacts," Journal of the Chinese Society of Mechanical Engineering, Vol. 13, No.4, pp.327-333. (EI).
- 92 P.C. Tung, and S.C. Chang, 1992, "The Dynamics of Whirling Pendulum," Journal of the Chinese Society of Mechanical Engineering, Vol.13, No.4, pp.334-340. (EI).
- 93 P.C. Tung, 1992, "The Dynamics of a Nonharmonically Forced Impact Oscillator," The Japan Society of Mechanical Engineers International Journal, Vol.35, No.3, pp.378-386. (SCI).
- 94 P.C. Tung, 1990, "Chaotic Dynamics of an Impact Printer Model," Journal of the

Chinese Society of Mechanical Engineers, Vol.11, No.2, pp. 159-164. (EI).

- 95 P.C. Tung, and S.W. Shaw, 1988, "A Method for the Improvement of Impact Printer Performance," ASME Journal of Vibration, Acoustics, Stress, and Reliability in Design, Vol.110, No.4, pp.528-532. (SCI).
- 96 P.C. Tung, and S.W. Shaw, 1988, "The Dynamics of Impact Print Hammer," ASME Journal of Vibration, Acoustics, Stress, and Reliability in Design, Vol.110, pp.193-200. (SCI).
- 97 S.W. Shaw, and P.C. Tung, 1988, "The Dynamic Response of a System with Pre-loaded Compliance," ASME Journal of Dynamic Systems, Measurement, and Control, Vol.110, pp.278-283. (SCI).

#### 研討會論文

1. 尤彥斌,董必正, 2010, "高聚光型太陽能系統", 中國機械工程學會第 27 屆全國學術研討會,台北市,EE12-003.
2. 吳景弘、董必正, 2010, "模糊類神經基於肌電訊號控制肢體同動機械手臂之研究", 中國機械工程學會第 27 屆全國學術研討會,台北市,EE09-004
3. 莊宗達、董必正, 2010, "肌電複雜度應用於人工輔具之分析", 中國機械工程學會第 27 屆全國學術研討會,台北市,EE09-003.
4. 李東洲、董必正, 2010, "射出成型機加熱料管溫度控制之干擾補償", 中國機械工程學會第 27 屆全國學術研討會,台北市,BB16-001
5. 丁崇武、姚維翰、吳景弘、莊宗達、李東洲 2010, "智慧型肢體同動機械人系統之研發—子計畫四：智慧型肢體同動機械人系統之機構設計", 國科會控制學門 98 年度成果發表會,國立高雄應用科技大學燕巢校區

6. M.H. Tsai , P. C. Tung, 2010, “A Disturbance Reduction Scheme for Linear Systems with Time Delays and Modeling Uncertainties,” The 2nd International Conference on Mechanical and Electronics Engineering, Kyoto, Japan, August 1-3.
7. 蔡銘浩、董必正, 2009, “干擾降低方法用於線性延遲及具有不確定性的控制系統之研究”, 中國機械工程學會第 26 屆學術研討會, 台南市, B01-034.
8. 姚維翰、董必正、周復初, 2009, “無鐵芯線性永磁同步馬達電流控制干擾消除法則”, 中國機械工程學會第 26 屆學術研討會, 台南市, B01-036.
9. 涂國良、董必正、黃士峰, 2009, “表面肌電訊號改善之研究”, 中國機械工程學會第 26 屆學術研討會, 台南市, E08-023.
10. 謝秉澂、董必正、, 2009, “An Efficient Illumination Compensation Method For Face Recognition under Variable Lighting ”, 中國機械工程學會第 26 屆學術研討會, 台南市, B22-003.
11. P.C. Hsieh, P.C. Tung, 2009, “Illumination-robust Face Recognition Using an Efficient Mirror Technique”, *Proceedings of the 2<sup>nd</sup> International Conference on Image and Signal Processing*, Tianjin, China.
12. P.C. Hsieh, P.C. Tung, 2008, “Face Recognition by a Novel Hybrid Approach Based on Sub-pattern Technique and Whitened PCA”, *Proceedings of the 21<sup>st</sup> IPPR Conference on Computer Vision Graphics and Image Processing*, Yilan, Taiwan.
13. K.Y. Chen, M.T. Tsai, P.C. Tung, 2007, “An Experimental Analysis of an Active Magnetic Bearing System Using PID-Type Fuzzy Controllers with Parameter Adaptive Methods”, *6th WSEAS International Conference on Circuits, Systems, Electronics, Control and Signal Processing*, Cairo, Egypt, Dec.29-31.
14. J.C. Chen, P.C. Tung, S.F. Huang, S.L. Lin, 2007, “Extraction and Screening of Knee Vibroarthrographic Signals Using Independent Component Analysis Method”, *The 24<sup>th</sup>*

*National conference on Mechanical Engineering of the Chinese Society of Mechanical Engineers.*

15. S.L. Lin, P.C. Tung, 2007, "Application of modified ICA to Secure Communications in Chaotic Systems", *International Conference on Computational Science and Its Applications*, Kuala Lumpur, Malaysia, Aug 26-29, Accepted.
16. S.L. Lin, P.C. Tung, 2006, "A Modified Method for Blind Source Separation", *WSEAS International Conference on APPLIED COMPUTER SCIENCE (ACS'06) Tenerife*, Canary Islands, Spain, December 16-18.
17. S. L. Lin, P.C. Tung, J. C. Chen, K. Y. Lu, 2006, "Control of Chaos in a Communications System", *Tenth IEEE International Conference on Communications Systems(ICCIS 2006)*, Singapore, 30 Oct-1 Nov.
18. S. L. Lin, P.C. Tung, J. C. Chen, 2005, "Application of ICA to Secure Communications in Chaotic Systems", *4<sup>th</sup> WSEAS International Conference on System Science and Simulation in Engineering*, pp192-199.
19. S. L. Lin, P. C. Tung, J. C. Chen, 2005, "Improvement of the Fetal Electrocardiogram Signals", *WSEAS MMACTEE*.
20. C.Y. Wu, P.C. Tung, 2005, "Optimal Parameters Searching Using Genetic Algorithm and System Identification for Automatic Arc Welding System", *The 22<sup>nd</sup> National conference on Mechanical Engineering of the Chinese Society of Mechanical Engineers*.
21. S.L. Lin, P.C. Tung, P.H. Wang, J.C. Chen, 2005, "Improvement of the Fetal Electrocardiogram Signals", *The 22<sup>nd</sup> National conference on Mechanical Engineering of the Chinese Society of Mechanical Engineers*.
22. R. H. Wu, P. C. Tung, and S. T. Yang, 2004, "Ultra-Precise Fast Pointing Systems with Asymmetric Friction and Sensing Noise", *IEEE International Conference on Networking, Sensing and Control*.

23. C. C. Fuh, Y. D. Chen, and P. C. Tung, 2003, "The Application of Voice Coil Motors for the Active Platform", *Proceedings of the 20<sup>th</sup> National Conference of the Chinese Society of Mechanical Engineers*, C3-26, pp. 623-630.
24. 董必正、褚文和、王文志, 2003, "簡易型焊接用機械臂之研發", 第三屆海峽兩岸製造科技研討會, 台北市.
25. W. H. Chu, C. C. Fuh, and P. C. Tung, 2002, "Robust Analysis of Fuzzy Logic Control Systems with Uncertainties", *IEEE International Conference on Plasma Science*, Vol.1, pp.250-255.
26. 林士傑、潘敏俊、董必正, 2001, "電動機車動態特性分析研究", 中國機械工程學會第十八屆學術研討會, 台北市, pp.1135-1142.
27. C. Y. Tseng, P. C. Tung and J.J Yang, 2000, "Study of Controlling a Multi-magnet Maglev Vehicle System", *Proceedings of the Seventeenth National Conference of the Chinese Society of Mechanical Engineers*, pp. 493-500.
28. C.Y. Tseng, C. F. Lin and P. C. Tung, 2000, "Study of the Battery State-of-charge Estimator with Feedback Trimming Ability for Electric Scooters", *Proceedings of the Seventeenth National Conference of the Chinese Society of Mechanical Engineers*, pp. 651-658.
29. Y.C Hsiao and P.C. Tung, 1999, "Nonlinear Dynamic of the Asymmetric Vibration Absorber", *Proceedings of the Sixteenth National Conference of the Chinese Society of Mechanical Engineers*, pp. 911-919.
30. S. C. Chang, and P. C. Tung, 1998, "Dynamics of a Nonlinear of a Electromagnetic System", *Proceedings of the Fifteenth National Conference of the Chinese Society of Mechanical Engineers*, pp. 551-558.
31. Y. M. Liaw, P.C. Tung, 1997, "The estimator Design in Feedback linearizable System", *Proceedings of the Fourteenth National Conference of the Chinese Society of Mechanical*

*Engineers*, pp. 508-515.

32. S.C. Chang, and P.C. Tung, 1996, "Identification of a Nonlinear Magnetic Bearing System: An Experimental Study", *Proceedings of the Thirteen National Conference of the Chinese Society of Mechanical Engineers*, pp. 508-515.
33. C.F. Chung, C.Y. Huang, P.C. Tung, C.N. Chang, 1996, "Experimental Identification of Nonlinear Vibration Structures for Oil Film Bearing", *Proceedings of the Thirteen National Conference of the Chinese Society of Mechanical Engineers*, pp.254-262.
34. C. C. Fuh, P. C. Tung, 1995, "Development and Implementation of a Nonlinear Robust Controller", *Proceedings of the 20<sup>th</sup> National Conference of the Chinese Society of Mechanical Engineers*, Nov., pp.19-26.
35. C. C. Fuh, and P. C. Tung, 1995, "Theoretical Analysis and Experimental Verification of A New Sliding Mode Controller", *Proceedings of the 20<sup>th</sup> National Conference of the Chinese Society of Mechanical Engineers*, Nov., pp. 127-132.
36. Y. M. Liaw, and P. C. Tung, 1995, "Control of A Nonlinear Chaotic System Via State Feedback Cancellation Method", *Proceedings of the 20<sup>th</sup> National Conference of the Chinese Society of Mechanical Engineers*, Nov., pp. 175-179.
37. C.Y. Tseng, and P. C. Tung, 1994, "Dynamics of a Flexible Beam with Active Magnetic Control", *The Third International Conference on Automation Technology*, July, pp.41-48, 1994.
38. 董必正、張江南、鍾秋峰,12月1993, "轉子油滲振動之非線性結構",中國機械工程學會第十屆學術研討會,新竹市, pp.595-600.
39. Y.S. Chen, and C.T. Liao, P. C. Tung, July 1992, "Theoretical and Experimental Studies of Compliant Motion Control for Robot Manipulator", *The Second International Conference on Automation Technology*, PP.29-36.
40. 黃正訓、董必正, 7月1991, "無刷馬達驅動直角系機械臂之路徑追隨的研究與

控制”,第四屆全國自動化科技研討會,台北市,pp.525-534.

41. P.C. Tung, and S.C. Chang, 12 月 1991, “The Dynamics of Whirling Pendulum”, 第十五屆全國力學會議, 台南市, pp. 1721-1726.
42. Y. P. Hsu, and C. C. Fu, and P.C. Tung, 7 月 1992, “Application on Fuzzy Control for Inserting Operation”, *The Second International Conference on Automation Technology*, pp.155-164. (NSC-81-0422-E-008 -531).
43. 陳盛基、董必正,12 月 1990, “不同波形抖動訊號加入非線性系中之功能”,第十四屆自動控制研討會,新竹市, pp.39-46., 計畫編號: NSC-79-0422-E-008 -531.
44. 盧彥豪、董必正,12 月 1990, “Synthesis Control of Direct Drive DC Motor Arm”, 第十四屆全國自動控制研討會,新竹市, pp.496-499.
45. 陳盛基、董必正, 11 月 1990, “正弦抖動訊號加入直流伺服馬達系統的理論分析與實驗探討”, 第七屆全國機械工程學術研討會, 新竹市, pp.1385-1392., 計畫編號: NSC-79-0401-E-008-10.
46. 黃瑞志、董必正, 11 月 1990, “非均勻分佈致動器應用於懸臂板之適應性振動控制”, 第七屆全國機械工程學術研討會, 新竹市, pp.1121-1128., 計畫編號: NSC-79-0401-E-008-06.
47. P.C. Tung, 1990, “A Nonharmonically Forced Oscillator”, *The 14<sup>th</sup> National Conference on Theoretical and Applied Mechanics, Taiwan, ROC*, pp.478-491.
48. P.C. Tung, 12 月 1989, “Chaotic Dynamics of an Impact Printer Model”, 中國機械工程學會第六屆學術研討會, 台南市, pp.1551-1560.
49. 歐石鏡、董必正、曾全佑, 1989.07, “非線性凸輪系統之最佳控制”, 第三屆全國自動化科技研討會, 高雄市, pp.723-733.



## 專利

1. 周復初;董必正;鄧震棠;張皓翔, " 製作彩色塗料陣列式噴頭之方法及結構"台灣,專利號碼 I263804. 2006/05
2. Chine-Chang Wang, Pi-Cheng Tung, Ren-bin Xiao, Wei-cheng Chen, Chien-sheng Liu, Yu-hsiu Chang, Der-r, "MAGNETIC SUSPENSION BEARING WITH DAMPING SYSTEM,美國,專利號碼 US7,038,341 B1. 2006/10
3. 周復初;董必正;呂昆餘;林傑仁, " 利用 RGB 連續噴墨陣列製造彩色濾光片之方法"台灣,專利號碼 I287145.2005/10
4. 吳俊謀;林志光;董必正;姚維翰, "SUN TRACKING METHOD AND SUN TRACKING SYSTEM", 美國,申請案號: 13/353, 311
5. 吳俊謀;林志光;董必正;姚維翰, "SUN TRACKING METHOD AND SUN TRACKING SYSTEM", 日本,申請案號: 2012-014569
6. 吳俊謀;林志光;董必正;姚維翰, "太陽追蹤方法及太陽追蹤系統裝置", 中華民國,申請案號: 100103086
7. 吳俊謀;林志光;董必正;姚維翰, "太陽追蹤方法及太陽追蹤系統裝置", 中國大陸,申請案號: 201110035072. 6
8. 吳俊謀;林志光;董必正;姚維翰, "SUN TRACKING METHOD AND SUN TRACKING SYSTEM", 歐洲,申請案號: 12151390. 7
9. 王永成;徐力弘;張中平;董必正, "可用於大範圍量測之多光束干涉儀位移量測系統", 台灣,公開號: 201122420. 2011/07/01
10. 吳俊謀;董必正;尤彥斌, "太陽能感測系統及其追蹤方法", 台灣,公開號: 201219730. 2012/05/16
11. 吳俊謀;董必正;尤彥斌, "光感測系統及其控制方法", 台灣,公開號: 201139955. 2012/11/16