

姚 立 德 簡 歷

一、基本資料

性 別：男
年 齡：57 歲（年齡計算至 109 年 5 月 29 日）
黨 籍：無
出 生：民國 年 月 日
年 月 日
身 分 證：
統 一 編 號：
電 話：
通 訊 地 址：



二、適用考試院組織法第四條第一項第一款資格：「曾任大學教授十年以上，聲譽卓著，有專門著作者。」

說 明：（年資計算至 109 年 5 月 29 日）
86 年 8 月 1 日審定教授資格，並自 86 年 8 月 1 日起受聘國立臺北科技大學專任教授迄今逾 20 年(106.03.06-108.01.13 留職停薪借調教育部)，有專門著作。

三、現 職

國立臺北科技大學電機工程學系教授(86.08.01—迄今)

四、專 長

科技資訊、文化教育、行政管理

說 明：曾任臺北科技大學校長，領航我國高等技職教育；擔任教育部政務次長，規劃並執行「高教深

耕計畫」，留任及延攬國內外大學師資，累積人才培育相關經驗。具能源科技及人工智慧專長，對我國電機產業發展及專業人才養成，著力甚深。

五、學歷

- 1.國立臺北工業專科學校五年制電機工程科畢業（66.09-71.07）（71年）
- 2.美國密蘇里大學羅拉校區電機工程學系碩士（74.09-76.06）（76年）
- 3.美國威斯康辛大學麥迪遜校區電機電腦工程學系博士（77.09-81.08）（81年）

六、主要經歷

本職

- 1.國立臺北科技大學副教授(81.08.24-86.08.01)
- 2.國立臺北科技大學校長(100.02-106.03)
- 3.教育部政務次長(106.03-108.01)、代理部長(107.04、107.05-107.07、107.12-108.01)

其他

政府機關

- 1.經濟部技術處資訊/通訊/光電領域諮詢委員(97.01-迄今)、電機工程國家標準技術委員會委員(97.01-迄今)、金屬工業研究發展中心董事(100.01-102.12)、全國認證基金會董事(101.01-103.12)、車輛研究測試中心董事、常務董事(101.01-103.12;104.01-107.12)、工業技

術研究院董事(102.01-105.12)、能源局策略規劃小組召集人(105.01-106.12)

2. 國立科技大學校院協會理事長(102.05-105.09)

3. 行政院技職教育審議委員會委員(104.01-105.12)

民間團體

1. 中華臺北亞太工程師監督委員會委員(100.01-迄今)

2. 高等教育國際合作基金會董事、常務董事(100.02-106.03)

3. 中華工程教育學會理事、常務理事(103.01-迄今)

4. 中國工程師學會理事(103.01-106.12)

5. 中國電機工程學會理事(106.01-107.12)

七、具體優異事蹟

(一)89 年，以在臺北科技大學積極提供專業技術及研發經驗，協助產業界解決技術瓶頸，並獲致傑出成果，獲教育部頒「大專校院產學合作獎」。

(二)97 年，以在臺北科技大學於電機工程領域傑出教學及研究表現，獲中國電機工程師學會頒「傑出電機工程教授獎」。

(三)99 年，以在臺北科技大學於電機工程領域持續維持傑出教學及研究表現，獲中國工程師學會頒「傑出工程教授獎」。

(四)100 年，臺北科技大學創校 100 年來第一位校友及校內老師擔任校長，擔任校長六年期間，以「工業推手、企業搖籃」做為教學與研究之目標，教學重視實作能

力之培養，研究著重為產業突破技術瓶頸，帶領臺北科技大學成為技職教育典範，培育之學生獲各界好評，並找回校友對母校信心，6 年期間共募款 16.8 億。教育部多項重要評比均名列科技大學第一名，企業最喜愛大學由谷底翻身，數年來皆獲評為全國第二名，僅次於成功大學。

- (五)102 年，以在電力設備監控及維護之傑出學術表現，並成功協助臺灣電力公司建置我國變電設備維護管理系統、輸電設備維護管理系統等大型設備維護系統，獲頒「國際工程資產管理學會會士」(Fellow, International Society of Engineering Asset Management)，目前臺灣僅一人獲此榮銜。
- (六)104 年，以在專業領域之傑出學術表現，獲俄羅斯國際工程院 (Russian International Academy of Engineering)頒「俄羅斯國際工程院通訊院士」。
- (七)108 年，以在教育部擔任次長及三次代理部長期間，提出多項高等教育創新規劃，並協助教育部穩定發展，度過三次部長請辭危機，獲教育部頒「一等教育專業獎章」。
- (八)108 年，以在臺北科技大學校長及教育部次長任內，大力鼓勵技職體系學生至業界實習，並與中小企業發展各項人才培育計畫，卓然有成，獲全國中小企業總會頒「磐石關懷獎章」。

八、著作及發明目錄

計發表期刊論文 80 篇：

1. L. Yao, W. A. Sethares and D. C. Kammer, “Sensor placement for on-orbit modal

- identification of large space structures via a genetic algorithm,” *AIAA Journal*, vol. 31, No. 10, pp. 1922-1928, Oct. 1993.
2. L. Yao and W. A. Sethares, “Nonlinear parameter estimation via the genetic algorithm,” *IEEE Trans. Signal Processing*, Vol. 42, No. 4, pp. 927-935, April 1994.
 3. D. C. Kammer and L. Yao, “Enhancement of on-orbit modal identification of large space structures through sensor placement,” *Journal of Sound and Vibration*, Vol. 177, pp. 119-139, March, 1994.
 4. L. Yao, “Kernel estimation of a sparse Volterra series,” *Journal of Taipei Institute of Technology*, Vol. 27-1, pp. 87-109, March 1994.
 5. L. Yao, R.-L. Yen and G.-W. Huang, “Design of air-conditioning load shedding system via radio,” *Energy*, vol. 24, no. 2, pp. 92-105, Apr. 1994.
 6. L. Yao, W.-P. Wang, R.-L. Yen, G.-W. Huang and S.-D. Tu, “Management of air-conditioning system by Radio controlled load management system,” *Journal of Taipower’s Engineering*, vol. 551, pp. 44-53, Jul. 1994.
 7. L. Yao, W.-P. Wang, R.-L. Yen and W.-C. Chang, “Improve strategy for direct control of air conditioning facilities by radio controlled load management system,” *Journal of Taipower’s Engineering*, vol. 568, pp. 37-47, Dec. 1995.
 8. L. Yao, “Nonparametric learning of decision regions via the genetic algorithm,” *IEEE Trans. System, Man, and Cybernetics*, Vol. 26, No. 2, pp. 313-321, April 1996.
 9. L. Yao, “Fuzzy control of belt conveyor in the manufacturing system,” *Journal of Taipei Institute of Technology*, Vol. 29-1, pp. 49-67, March 1996.
 10. L. Yao, R.-L. Yen and W.-C. Chang, “Strategy of selecting customers for direct load control,” *Energy*, vol. 26, no. 4, pp. 87-104, Oct. 1996.
 11. L. Yao, J.-H. Lin, R.-L. Yen and W.-C. Chang, “Design of expanding coverage of direct load control,” *Journal of Taipower’s Engineering*, vol. 583, pp. 95-105, Mar. 1997.
 12. L. Yao, “Existence of time optimal control of a DC motor,” *Journal of Taipei Institute of Technology*, Vol. 30-1, pp. 83-96, 1997.
 13. L. Yao, R.-L. Yen and W.-C. Chang, “Design of improving monitoring system for radio-controlled direct load control system,” *Journal of Technology*, vol. 12, no. 4, pp. 689-695, Dec. 1997.
 14. L. Yao, W.-P. Wang, J.-H. Lin, R.-L. Yen and W.-C. Chang, “Direct control of air-conditioning load in Chung-Ho and Yung-Ho districts by radio-controlled load management system,” *Journal of Taipower’s Engineering*, vol. 589, pp. 84-93, Sep. 1997.
 15. L. Yao, “Edge detection by encoded edge patterns,” *Journal of Taipei Institute of Technology*, Vol. 30-2, pp. 47-59, 1997.
 16. L. Yao, K.-C. Hsieh, W.-P. Wang, R.-L. Yen and W.-C. Chang, “Studies of periodic direct control of air conditioning load,” *Journal of Refrigeration and Air Conditioning*, vol. 6, no. 3, pp. 50-62, 1997.

17. L. Yao, "Genetic algorithm based identification of nonlinear systems by sparse Volterra filters," *IEEE Trans. Signal Processing*, Vol. 47, No. 12, pp. 3433-3435, Dec. 1999.
18. S.-D. Cheng, L. Yao, R.-L. Yen, W.-C. Chang, T.-G. Lu and J.-H. Lin, "Cost and schedule analysis for building radio-controlled load management system in Taipei metropolitan area," *Journal of Taipower's Engineering*, vol. 589, pp. 36-50, Jun. 1998.
19. S.-D. Cheng, L. Yao, R.-L. Yen, W.-C. Chang, "Application of modulated side-band to direct control of air-conditioning load," *Energy*, vol. 7, no. 2, pp. 26-40, 1998.
20. L. Yao, J.-C. Feng, W.-P. Wang, W.-H. Chao, L.-C. Wang and G.-C. Lee, "Economic analysis and promotion strategies for absorption chillers," *Journal of Taipower's Engineering*, vol. 600, pp. 51-64, Aug. 1998.
21. L. Yao, C.-C. Tu, M.-H. Huang, C.-H. Yang, "Application of trunking radio and multi-address radio systems to feeder automation," *Journal of Taipower's Engineering*, vol. 600, pp. 51-64, Aug. 1998.
22. L. Yao, C.-C. Lin, C.-C. Tu, M.-H. Huang and Y.-C. Yang, "Application of radio broadband network to feeder automation," *Journal of Taipower's Engineering*, vol. 618, pp. 27-36, Feb. 2000.
23. J.-H. Lin, L. Yao and R.-L. Yen, "Direct control of air-conditioning load," *Journal of Electrical Engineering*, pp. 18-23, Mar. 1999.
24. L. Yao and J.-H. Lin, "Customer solicitation strategy and customer response analysis for remote control of central chillers," *Journal of Taipower's Engineering*, vol. 628, pp. 85-97, Dec. 2000.
25. L. Yao and W.-C. Chang, "Coordination of building automation and Taipower's remote load shedding," *Refrigeration and Air-conditioning*, vol. 5, pp. 141-150, Oct. 2000.
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29. T.-B. Huang and L. Yao, "Software system design for two-way load control via broadband networks," *Journal of Taipower's Engineering*, vol. 648, pp. 44-56, Aug. 2002.
30. L. Yao and W.-C. Chang, "Analysis of load shedding strategy for central chillers," *Journal of Taipower's Engineering*, vol. 649, pp. 24-33, Sep. 2002.
31. L. Yao, "Linear load shedding control for centrifugal chillers," *Engineering Technology*, vol. 64, pp. 31-34, Oct. 2002.
32. W.-C. Chang and L. Yao, "Direct control of air-conditioning load for convenient stores via radio paging system," *Journal of Taipower's Engineering*, vol. 654, pp. 68-76, Feb.

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33. H.-Y. Pan and L. Yao, "Design of data distributor for broadband network based wide-area monitoring and control system," *Journal of Taipower's Engineering*, vol. 655, pp. 122-133, Mar. 2003.
 34. Y.-C. Chen and L. Yao, "Design of outage detection system in broadband network based multi-services system," *Journal of Taipower's Engineering*, vol. 656, pp. 31-40, Apr. 2003.
 35. L. Yao, "Direct control of split-type air conditioners for convenient stores," *Engineering Technology*, vol. 71, pp. 42-47, Dec. 2003.
 36. Y.-W. Huang and L. Yao, "Design of fault detection system for broadband network based multi-services system," *Journal of Taipower's Engineering*, vol. 665, pp. 31-45, Jan. 2004.
 37. L. Yao and Y.-C. Chen, "Design of electricity tariff calculation mechanism in demand exchange system," *Energy*, vol. 34, no. 1, pp. 41-55, Jan. 2004.
 38. T.-R. Lin and L. Yao, "Design of customer information system for broadband network based multi-services system," *Journal of Taipower's Engineering*, vol. 666, pp. 96-105, Feb. 2004.
 39. L. Yao and W.-C. Chan, "Design of both exchange message broadcasting mechanism and demand bidding mechanism in demand exchange system," *Energy*, vol. 34, no. 2, pp. 25-40, Apr. 2004.
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 44. L. Yao and Chih-Heng Fang, "A hardness measuring method based on Hough fuzzy vertices detection algorithm," *IEEE Trans. Industrial Electronics*, vol. 53, no. 3, pp. 950-962, June 2006.
 45. G.-Y. Chen and L. Yao, "Distribution transformer monitoring and assessment system," *Journal of Taipower's Engineering*, vol. 702, pp. 1-17, Feb. 2007.
 46. G.-Y. Chen and L. Yao, "Design and implementation of sensing recorder for distribution transformer," *Journal of Taipower's Engineering*, vol. 703, pp. 44-58, Mar. 2007.
 47. S.-J. Lin and L. Yao, "Design and implementation of surveillance recorder for secondary substation," *Journal of Taipower's Engineering*, vol. 715, pp. 32-47, Mar.

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48. S.-J. Lin and L. Yao, "Facility inspection and surveillance system for secondary substations," *Journal of Taipower's Engineering*, vol. 716, pp. 30-43, Apr. 2008.
 49. L. Yao and P.-Z. Huang, "Learning of hybrid fuzzy controller for optical data storage device," *IEEE/ASME Trans. Mechatronics*, vol. 13, no.1, pp. 3-13, Feb. 2008.
 50. L. Yao and Hao-Ren Lu, "A two-way direct control of central air-conditioning load via Internet," *IEEE Trans. Power Delivery*, vol. 24, no. 1, pp. 240-248, Jan. 2009.
 51. L. Yao and Chin-chin Lin, "Identification of nonlinear systems by the genetic programming based Volterra filter," *IET Signal Processing*, vol. 3, no. 2, pp. 93-105, 2009.
 52. L. Yao, J.-K. Huang and Y.-H. Chen, "Write strategy learning for optical dye recording," *IEEE/ASME Trans. Mechatronics*, vol. 24, no. 5, pp. 555-563, Oct. 2009.
 53. R.-W. Chang and L. Yao, "Clustering of incomplete data based on ellipsoids with adaptive volumes," *ICIC Express Letters*, vol. 3, no. 4(A), pp. 1037-1042, Dec. 2009.
 54. K.-S. Weng and L. Yao, "Fuzzy modeling based on self learning of adaptive ellipsoids," *ICIC Express Letters*, vol. 3, no. 4(A), pp. 1043-1048, Dec. 2009.
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 56. L. Yao and Yuan-Shiu Chen, "A Type-2 fuzzy controller for automatic guided vehicle wall-Following control," *ICIC Express Letters Part-B: Applications*, vol. 1, no. 1, pp. 77-83, Sep. 2010.
 57. L. Yao and Y.-S. Chen, "Type-2 fuzzy control of an automatic guided vehicle for wall following," Book Chapter in *Fuzzy Controllers, Theory and Applications*, edited by Lucian Grigorie, Chap. 13, pp. 243-252, InTech, Feb. 2011.
 58. L. Yao, Yin-Chieh Chou, and Chin-chin Lin, "Scheduling of direct load control using genetic programming," *Int. Journal of Innovative Computing, Information and Control*, vol. 7, no. 5, pp. 2515-2528, May 2011.
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 60. L. Yao and H.-K. Wen, "Design of observer based adaptive PID controller for nonlinear system," *Int. Journal of Innovative Computing, Information and Control*, vol. 9, no. 2, pp. 667-677, Feb. 2013.
 61. L. Yao and K.-S. Weng, "Learning decision regions based on adaptive ellipsoids," *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, vol. 22, no. 1, pp. 41-73, Feb. 2014.
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63. L. Yao, T.-S. Tsai, and R.-C. Chang, "Precipitation estimation at the site of transmission tower using geographic information system," *Advanced Materials Research*, vol. 955-959, pp. 3869-3874, 2014.
 64. B. Thirumalraj, S. Palanisamy, S.-M. Chen, P.-S. Wu, L. Yao and B.-S. Lou, "Electrochemical sensing of SF₆ decomposition products based on a screen printed carbon electrode," *Int. J. Electrochem. Sci.*, vol. 10, pp. 3098-3105, Feb. 2015.
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