

# 第14任校長候選人申請書


Presented by **賴炎生 (Yen-Shin Lai)**

*Fellow, IEEE*

*Chair Professor, Taipei Tech.*

## 國立臺北科技大學第14任校長候選人資料表

### 一、個人基本資料

姓名	(中) 賴炎生			
	(英) Yen-Shin Lai			
性別	<input checked="" type="checkbox"/> 男 <input type="checkbox"/> 女			
出生年月日	民國 51 年			
身分證字號				
國籍	中華民國			
教授年資起計年月	17 年 11 月	教育部教授證書字號	010426	
通訊處				
E-Mail				
電話	公： 宅：( ) 行動電話：	傳真	公： 宅：( )	
現職	服務機關名稱	專、兼任	職稱 (職級)	到職年月日
	國立臺北科技大學電機系	專任	講座教授 終身特聘教授	August 1, 1986
兼任職務	機關名稱	職稱		起迄期間
1.	科技部工程司電力學門	召集人		2016/01迄今
2.	中華民國電力電子協會	理事長		2016/12迄今
大學以上學歷	學校名稱	院系所	學位名稱	領受學位年月
	英國 Bristol 大學	電機電子工程	博士	Feb. 1, 1996
	國立臺灣工業技術學院	電子工程	碩士	June 1, 1987

	國立臺北工專五年制	電機工程	(高/普考及格)	Dec. 1982/ 1981
經歷	服務機關名稱	專、兼任	職稱 (職級)	任職起迄年月
	國立臺北科技大學電機工程系	專任	講座教授	2012/02~迄今
		專任	終身特聘教授	2016/08~迄今
		專任	特聘教授	2006/08至2016/02
		專任	教授兼系主任	2003/08至2006/07
		專任	教授	1999/08~迄今
	經歷：國立臺北科技大學電機工程系	專任	副教授	1996/03至1999/07
	國立臺北工專電機工程系	專任	講師	1987/08至1996/02

有關大學校長任用資格應同時具備教育人員任用條例第10條第1項第1款各目資格之一及第2款資格，或第10條之1資格，敬請校長候選人親自於勾選符合之款次，檢附相關證明文件，並親自簽名確認：

**第10條第1項**

第1款 具下列資格之一：

- 中央研究院院士
- 教授
- 曾任相當教授之教學、學術研究工作

第2款 曾任學校、政府機關（構）或其他公民營事業機構之主管職務合計三年以上。

第10條之1 教育人員任用條例民國100年11月15日修正之條文施行前曾任或現任同級學校校長，或符合修正前高級中等以上學校校長聘任資格者。

- 曾任或現任同級學校校長。
- 具有博士學位，曾任教授或相當於教授之學術研究工作，並擔任教育行政職務合計4年以上，成績優良者。
- 具有碩士學位，曾任教授或相當於教授之學術研究工作，並曾任教育行政職務合計7年以上，成績優良者。
- 大學或獨立學院畢業，曾任大學或獨立學院教授5年以上，或相當於教授之學術研究工作10年以上，並均曾任教育行政職務3年以上，成績優良者。
- 大學或獨立學院畢業，曾任分類職位第14職等或與其相當之簡任教育行政職務5年以上，或曾任政務官2年以上，並具有教授資格，成績優良者。



## 二、著作、作品或發明目錄

個人之學理創新或應用技術突破，主要研究領域為電力電子及馬達驅動器控制，深獲國際學術界及國內產業界的肯定，為國內相關領域首位本土的 *IEEE Fellow* 並擔任 IEEE 馬達驅動器控制首要委員會 IEEE IAS Industrial Drives Committee Secretary, Vice Chair and Chair 共計八年、IEEE Industrial Electronics Society Administration Committee Member 三屆九年(現任第八年任期)。

相關著作逾三百篇，專利逾三十項，技術移轉東元電機、士林電機及大銀微等公司，台美日新加坡產學合作案逾八十件(詳見 [http://www.ee.ntut.edu.tw/teacher/show\\_proj.php?tsn=7](http://www.ee.ntut.edu.tw/teacher/show_proj.php?tsn=7))，對我國電源、變頻器及產業自動化產業發展，具有提升跨級的顯著貢獻。

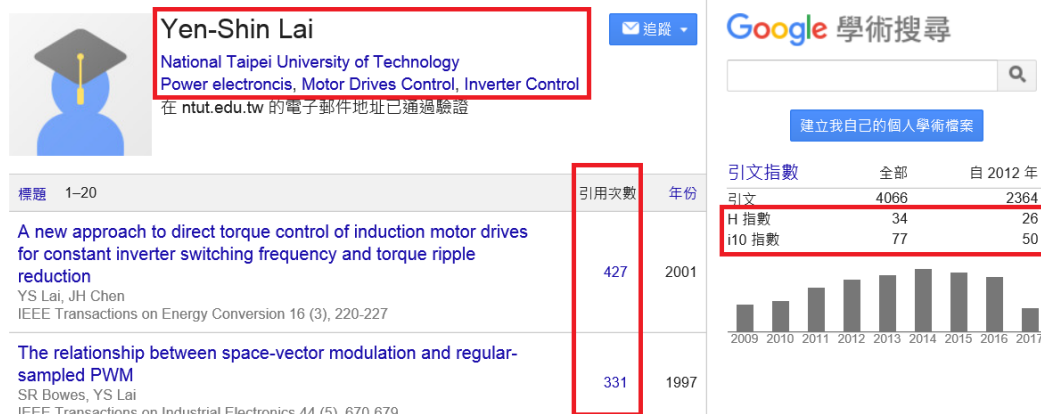
論文與專利詳見附錄及下列網站：

[http://www.ee.ntut.edu.tw/teacher/show\\_pub.php?tsn=7](http://www.ee.ntut.edu.tw/teacher/show_pub.php?tsn=7)

及

<http://scholar.google.com.tw/citations?user=t6-LYdcAAAAJ&hl=zh-TW>

另外，依據 Google Scholar 顯示，論文被引用數逾四千次，i10 指數達77及 H 指數(論文被引用次數逾40次)是達34，相關數據摘要如下：



<p><b>Topology for hybrid multilevel inverter</b>                  YS Lai, FS Shyu                  IEEE Proceedings-Electric Power Applications 149 (6), 449-458</p>	214	2002
<p><b>Switching control technique of phase-shift-controlled full-bridge converter to improve efficiency under light-load and standby conditions without additional auxiliary components</b>                  BY Chen, YS Lai                  IEEE transactions on power electronics 25 (4), 1001-1012</p>	158	2010
<p><b>Optimal common-mode voltage reduction PWM technique for inverter control with consideration of the dead-time effects-part I: basic development</b>                  YS Lai, FS Shyu                  IEEE Transactions on Industry Applications 40 (6), 1605-1612</p>	157	2004
<p><b>New hybrid fuzzy controller for direct torque control induction motor drives</b>                  YS Lai, JC Lin                  IEEE Transactions on power electronics 18 (5), 1211-1219</p>	120	2003
<p><b>A biological swarm chasing algorithm for tracking the PV maximum power point</b>                  LR Chen, CH Tsai, YL Lin, YS Lai                  IEEE Transactions on Energy Conversion 25 (2), 484-493</p>	115	2010
<p><b>New digital-controlled technique for battery charger with constant current and voltage control without current feedback</b>                  BY Chen, YS Lai</p>	107	2012

備註：

- 1、請依期刊及會議論文、圖書著作、專刊及發明等順序分類填寫。
- 2、各類著作請依發表時間先後順序填寫，各項著作請依作者（按原出版之次序）、出版年、月份、題目、期刊名稱（專書出版社）及起迄頁數之順序填寫。
- 3、請以標楷體14號字體繕打，並使用A4格式紙張，如不敷使用時請自行延伸接續。本表資料除紙本19份外，並請繳交 **WORD 電子檔**。
- 4、本表應與候選人資料表、學術獎勵及榮譽事蹟表、治校理念及其摘要暨相關承諾書同時繳交。

### 三、學術獎勵及榮譽事蹟

自 1987 年返校任教，極力投入教學、研究及行政服務工作，深獲國內外學術界及產業界肯定，學術獎勵及榮譽事蹟包含本校百年首位(目前唯一)科技部傑出研究獎獲獎者及 *IEEE FELLOW*，詳見：

<http://www.ee.ntut.edu.tw/teacher/teacher2.php?tsn=7>

摘要列舉如下：

1. 國立臺北科技大學建校 105 週年卓越校友，Nov.，2016
2. *FELLOW, IEEE*, Jan. 2014
3. 國立臺北科技大學傑出校友與菁英會 (Elite Union) 會員
4. 國科會一零一年傑出研究獎學術類，2012
5. Best Paper Award, IEEE Power Electronics and Drive Systems, Japan, April, 2013
6. Outstanding Paper Award, Intl. Conf. on Renewable Energy Research and Applications, Japan Nov. 2012
7. 國科會 96 年技術移轉獎勵，Dec., 2007
8. 指導學生獲得國科會九十三年度研究創作獎，August, 2005
9. 指導學生獲得國科會九十二年碩士論文獎，Dec. 2004
10. 教育部-東元電機產學合作績優計畫獎，Oct. 2004
11. *Prize Paper Award, IEEE IAS Industrial Drives Committee, 2003*
12. *The Best Journal Paper Award, John Hopkinson Premium, IEE, UK, 1998*

依照年份詳細列表如下：

2018 Vice-Co Chairs, **Steering Committee**, IEEE IPEC 2018, ECCE Asia, Niigata, Japan

2017	International Steering Committee (ISC), 2nd Asian Conference on Energy, Power and Transportation Electrification (ACEPT)
2017	<b><i>General Co-Chairs, IEEE IFEEC - ECCE Asia, 2017</i></b>
2017	Track Co-Chairs, IEEE IECON 2017
2016	Technical Program Co-Chair, IEEE ICIT 2016
2016	Associate Editor, Electrical Power Engineering, IET
2016	Track co-Chairs, IEEE IECON2016
2016	Track co-Chairs, IEEE International Conference on Electrical Machines (ICEM)
2016	Best Paper Award, Symposium of Electrical Power Engineering, 2016
2016	Best Paper Award, Taiwan Power Electronics Conference, 2016
2014	<b><i>Fellow, IEEE</i></b>
2014	Best Paper Award, Taiwan Power Electronics Conference, 2014
2013	Best Paper Award, Symposium of Electrical Power Engineering, 2013
2013	<b><u>Best Paper Award, IEEE, PEDS, Japan, 2013</u></b>
2012	<b><u>Outstanding Research Award, National Science Council, Taiwan, 2012</u></b>
2012	Outstanding Paper Award, International Conf. on Renewable Energy and Applications, Nagasaki, Japan, 2012
2012	Best Paper Award, Taiwan Power Electronics Conference, 2012
2011	Best Paper Award, Symposium of Electrical Power Engineering, 2011



2010	Best Paper Award, Taiwan Power Electronics Conference, 2010
2009 – 2012	Distinguished Professor, National Taipei University of Technology, Taiwan
2009	Best Paper Award, Taiwan Power Electronics Conference, 2009
2008	Eminent Supervisor Award, Taiwan Power Electronics Association
2007	<b><u>Reward for Technology (Patent) Transfer, National Science Council, Taiwan</u></b>
2007	Eminent Research Award, College of EECS, National Taipei U. of Technology
2007	<b><u>First Class Principal Investigator, National Science Council, Taiwan</u></b>
2006	<b><u>First Class Principal Investigator, National Science Council, Taiwan</u></b>
2006 – 2009	Distinguished Professor, National Taipei University of Technology, Taiwan
2005	<b><u>First Class Principal Investigator, National Science Council, Taiwan</u></b>
2004	The Best Presentation Award, IECON 2004, IEEE
2004	<b><u>Excellent Project Award, TECO Electric &amp; Machinery Co. Ltd.</u></b>
2003	Eminent Research Award, College of Mechanical and Electrical Engineering, National Taipei U. of Technology
2002	Technical Committee Prize Paper Award, IAS Industrial Drives Committee, IEEE

2002	Eminent Research Award, College of Mechanical and Electrical Engineering, National Taipei U. of Technology
2001	Excellent Award for DSP Competition, Texas Instrument Inc.
2001	Eminent Research Award, College of Mechanical and Electrical Engineering, National Taipei U. of Technology
2000	Research Award, National Science Council, Taiwan
1999	Research Award, National Science Council, Taiwan
1997	<b><u>The Best Journal Paper Award, John Hopkinson Premium, IEE, UK</u></b>
1996	Research Award, National Science Council, Taiwan
1995	The Overseas Research Scholarship Award, Higher Education Funding Bodies, UK
1994	The Overseas Research Scholarship Award, Higher Education Funding Bodies, UK

備註：

- 1、請依期刊及會議論文、圖書著作、專刊及發明等順序分類填寫。
- 2、各類著作請依發表時間先後順序填寫，各項著作請依作者（按原出版之次序）、出版年、月份、題目、期刊名稱（專書出版社）及起迄頁數之順序填寫。
- 3、請以標楷體14號字體繕打，並使用A4格式紙張，如不敷使用時請自行延伸接續。本表資料除紙本19份外，並請繳交 **WORD 電子檔**。
- 4、本表應與候選人資料表、著作、作品或發明目錄、治校理念及其摘要暨相關承諾書同時繳交。

#### 四、治校理念

##### 過去的經驗

個人1982年畢業於本校五年制電機科，畢業前一年與畢業當年分別通過高普考試，逕讀碩士後，1987年返校任教五年，1992年教育部公費留學考試及格資助赴英國，於1995年取得博士學位。返校任教，極力投入教學、研究及行政服務工作，深獲國內外學術界及產業界肯定，詳見：

<http://www.ee.ntut.edu.tw/teacher/teacher2.php?tsn=7>

列舉如下：

1. 擔任五專、二專、三專、二技及研究所課程，**醉心投入專題實作等逾二十門課程**
2. 辦理電力電子產碩專班逾十年，獲得台達電子、東元、士林電機、亞力電機、億光電子及群光電子等產業界支持，長期培養業界研發人才
3. 擔任國際重要學會 *IEEE IES AdCom Member*、*IEEE IAS IDC Chair* 及 *IEEE Trans. IE, Trans. on II, and IEEE JSTPE (IEEE PELS) Associate Editors*
4. 國內電力電子領域第一位土生土長與本校迄今唯一土生土長之 *IEEE Fellow*
5. 長期擔任多家上市公司技術顧問及工研院特約研究，致力國內電力電子產業發展
6. 擔任本校電機系主任三年，致力行政E化及實作教學，在全體同仁同心協力下，獲得評鑑最優成果
7. 擔任科技部電力學門召集人(本校迄今唯一)，致力國內電力與電子產業發展資源整合

8. 擔任經濟部 A<sup>+</sup>/科專/產創平台/SBIR 等計畫主審及審查委員，協助產業界爭取政府經費
9. 擔任教育部教學創新先導/USR 等計畫審查委員，協助篩選優良計畫
10. 擔任中華民國電力電子協會副理事長三年與現任理事長，戮力促成國內外電力電子產業與學界合作

### 未來服務理念

本校定位為企業家的搖籃及實務研究型大學，共計有包含機電學院、電資學院、工程學院、管理學院、設計學院、人文社會學院6大學院及通識中心與體育室。個人未來在教學、研究及行政工作的服務理念包含：

#### **1. 專注教學、注重實作、恢復工專精神、崇本務實：**

教學、研究及行政服務相輔相成，除了基礎課程，包含物理、化學、數學及語文等之外，更應該聚焦實習課程與動手實作能力的養成，藉由培養基本實作的能力，進而使學生可以衍生或自學解決問題導向的能力。

#### **其具體措施包含**

(1).充實實習設備、提高實習材料經費、增加實習助理人員及鼓勵新進老師投入實習課程；

(2).專注更新使用率高且符合產業發展需求的重點實驗室；改善教學教室及老師休息室設施，提供學生與教師良好的教學環境；

(3).實習可區分基礎及專業，專業部分可與企業合作，引進專業實習課程與設備，協助學生與企業實際需求接軌。

## 2. 以人為本，以和為貴，視學生如兒孫，將心比心與同仁共事：

### 具體措施包含

(1). 秉持愛才、惜才與育才的胸襟氣度，定期舉辦座談會，並且藉由 E 化方式隨時反映問題，包含制度規章的修正與公共設施的修繕等；

(2). 強化學生對行政與總務改善的溝通管道，快速解決上課、生活環境與設施清潔等問題；

(3). 改善及提供更多的住宿空間，期能讓學生在安全、舒適及合理支出之環境學習；

(4). 同時營造不同領域的學生從住宿起有更多的接觸機會，以擴大學生視野；

(5). 改善室內運動環境並協助學生建立健康樂活之習慣，讓學生身心得以均衡發展；

(6). 辦理暑期托育、體育、藝文與資訊教育等活動，使年輕同仁樂於生養下一代並且安心上班；

(7). 強化教職員工社團活動經費與獎勵措施，使同仁樂在上班及參與活動。

## 3. 加強跨院系研發能量，突顯本校實務研究型大學特色：

### 具體措施包含

(1). 整合各院系特色，爭取政府與業界大型計畫，突顯本校研發特色，針對有亮點研發產品與技術定期舉辦交流會，辦理業界媒合與技轉；

(2). 加強補助論文編修與發表，兼顧論文發表與技轉，落實本校實務研究型大學之目標。

## 4. 規劃東西校園進出軸線，以維學生行的安全：

### **具體措施包含**

(1).改善建國橋下號誌，使學生行進不受轉彎行車威脅；

(2).另闢由東進入西校區進出口，使學生不受本校地下停車場進出車輛影響。

## **5. 多元招生，減緩少子化衝擊：**

### **具體措施包含**

(1).發揮學校多元特色，在符合業界需求的條件下，辦理不同領域的產業(碩士)專班，強化穩定學生來源；

(2).選擇特定優秀的東南亞學生，包含印尼、越南、泰國等；

(3).爭取各部會及產業界相關經費與獎學金的資助。

## **6. 強化產學鏈結，聚焦核心技術發展，活化本校智慧財產：**

### **具體措施包含**

(1).成立智慧財產共享平台，利用會員付費制度並對校友企業予以特別優待；

(2).藉此平台推廣專利智財及教師研發成果等，達到強化產學鏈結，共創師生、業界與學校多贏的局面；

(3).輔導老師積極參與政府，包含綠能科技、智慧機械、生技醫療、國防科技等重點創新產業；

(4).積極媒合國內企業與本校外籍學生(含東南亞)，讓所培養之外籍學生能成為國內企業於國際擴展之助力。

## **7. 強化校友鏈結，老幹新枝同心協力：**

### **具體措施包含**

(1).強化現有的校友及新近畢業校友的聯繫，結合本校現有與未來的翅膀；

(2).建立及宣導校友或社會賢達捐款專款專用，定時公告捐款，

除財務透明外，更讓捐款運作更有效率。

## 8. 強化國際化與在地產業關懷：

### 具體措施包含

- (1).鼓勵及輔導教師同仁與學生，申請科技部及教育部的補助，包含短期赴國外進修、千里馬與 LEAP 等計畫；
  - (2).提供短期宿舍，強化姐妹學校實質合作交流；舉辦工程體驗夏令營與在地關懷營，使未來學生走進校園及現有學生走進社區與在地產業；
  - (3).盤點本校核心技術與國內及國際需求之關聯性，作為建立專精研發團隊之參考，讓學校務實且更有效集中資源協助企業發展，期能縮短師生研究與企業需求之落差及擴大研究成果之效益。
9. 校園 E 化、綠美化與清潔化：具體措施包含深度 E 化，簡化行政流程，提升行政服務效率，減少不必要的會議；改善校園綠美化及教室與廁所等清潔度，提升生活環境品質。
10. 強化生活機能：具體措施包含六教與宿舍餐廳須以滿足師生食的安全與品質為前提，非以高租金收入為目標，要求於假日及寒暑假等期間，仍需服務教職員工與學生，特別是學校的許多研究生與外籍生的用餐。
11. 興建多功能校友體育館：具體措施包含以校友集資和自有校務基金，在任內興建完成，平日提供師生良好的體能訓練與健身環境，假日租借校友與市民使用，除可維持場館營運，又可增加停車場與校內餐廳和便利商店營收。
12. 活化現有校產、充實校務基金：具體措施包含持續開拓產學收入；活化萬里校區成低碳林地，藉由碳權交易等收入，充實校務基金。

我將秉持「誠、樸、精、勤」所孕育的內涵與以校為家的使命感，以過往累積的經驗才智，深耕生根貢獻母校與提升校譽，結合同校友、政府、法人與產業界資源，讓母校再度茁壯發展。

備註：

- 1、本表以5000字以內為原則，並請另附1000字以內之摘要乙份；請以標楷體14號字體繕打，並使用A4格式紙張，如不敷使用時請自行延伸接續。  
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- 2、本表應與候選人資料表、著作、作品或發明目錄、學術獎勵及榮譽事蹟表及相關承諾書同時繳交。



## 五、承諾書

- 一、本人已充分瞭解 貴校校長遴選相關規定並同意擔任校長候選人。
- 二、本人聲明所提供之學經歷資格證明文件均正確無誤，如有不實，責任自負。
- 三、本人承諾若獲聘為國立臺北科技大學第14任校長，於擔任校長期間將處事公正且能超越政治、宗教、黨派等利益，如有兼任上述相關職務者，於應聘前辭去兼職。
- 四、本人承諾若獲聘為國立臺北科技大學第14任校長，於擔任校長期間將全力為教育貢獻、為社會服務，個人有關之利益，如待遇、福利、任期等，除法令明文規定者外，絕不尋求利己性之變更。
- 五、本人聲明所提供之學術研究著作及相關資料，從未經教育部或科技部判定違反學術倫理情事，如有違失，法律責任自負。

具承諾人簽名：

2017年 7月 19日

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## 附錄：論文著作與專利列表（賴炎生 Y. S. Lai）

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## 服務理念 Presented by 賴炎生

### 摘要

我將秉持「誠、樸、精、勤」所孕育的內涵與以校為家的使命感，以過往累積的經驗才智，深耕生根貢獻母校與提升校譽，結合校友、政府、法人與產業界資源，讓母校再度茁壯發展。

### 過去的經驗

1987 年返校任教，極力投入教學、研究及行政服務工作，深獲國內外學術界及產業界肯定，列舉如下：

1. 辦理電力電子產碩專班逾十年，獲得台達電子、東元、士林電機、亞力電機、億光電子及群光電子等產業界支持，長期培養業界研發人才
2. 擔任國際重要學會 *IEEE IES AdCom Member*、*IEEE IAS IDC Chair* 及 *IEEE Trans. IE, Trans. on II, and IEEE JSTPE (IEEE PELS) Associate Editors*
3. 本校迄今唯一土生土長之 *IEEE Fellow*
4. 擔任科技部電力學門召集人(本校迄今唯一)，致力國內電力與電子產業發展資源整合
5. 擔任經濟部 A+/科專/產創平台/SBIR 等計畫主審及審查委員，協助產業界爭取政府經費
6. 擔任教育部教學創新先導/USR 等計畫審查委員，協助篩選優良計畫

詳見：<http://www.ee.ntut.edu.tw/teacher/teacher2.php?tsn=7>

## 未來服務理念

各項理念相關具體措施，限於字數限制，僅列出第一項，詳細請參考個人資料表。

1. 以人為本，以和為貴，視學生如兒孫，將心比心與同仁共事：  
具體措施包含
  - (1).秉持愛才、惜才與育才的胸襟氣度，定期舉辦座談會，並且藉由 E 化方式隨時反映問題，包含制度規章的修正與公共設施的修繕等；
  - (2).強化學生對行政與總務改善的溝通管道，快速解決上課、生活環境與設施清潔等問題；
  - (3).改善及提供更多的住宿空間，期能讓學生在安全、舒適及合理支出之環境學習；
  - (4).同時營造不同領域的學生從住宿起有更多的接觸機會，以擴大學生視野；
  - (5).改善室內運動環境並協助學生建立健康樂活之習慣，讓學生身心得以均衡發展；
  - (6).辦理暑期托育、體育、藝文與資訊教育等活動，使年輕同仁樂於生養下一代並且安心上班；
  - (7).強化教職員工社團活動經費與獎勵措施，使同仁樂在上班及參與活動。
2. 專注教學、注重實作、恢復工專精神、崇本務實
3. 加強跨院系研發能量，突顯本校實務研究型大學特色
4. 規劃東西校園進出軸線，以維學生行的安全
5. 多元招生，減緩少子化衝擊
6. 強化產學鏈結，聚焦核心技術發展，活化本校智慧財產



7. 強化校友鏈結，老幹新枝同心協力
8. 強化國際化與在地產業關懷
9. 校園 E 化、綠美化與清潔化
10. 強化生活機能：六教與宿舍餐廳須以滿足師生食的安全與品質為前提
11. 興建多功能校友體育館：以校友集資和自有校務基金，在任內興建完成
12. 活化現有校產、充實校務基金：持續開拓產學收入、萬里校區可活化成低碳林地，藉由碳權交易等收入，充實校務基金