## Kit Fai PUN



# Professor of Industrial Engineering

MSc, MSc, MEd, MPhil, PhD, FIEAust, FIET, FHKIE, FHKSQ, FAPE Eur Ing, CEng, CPEng, RPE, REng; Chartered Marketer

**Lecturer in:** IENG 2006\*; IENG 3001\*; MENG 6402\*; MENG 6403\*; MENG 6500\*; PRMG 6005; PRMG6012

(\* - Share teaching with other colleagues or serve as Course Coordinator)

**Research Areas:** Industrial Engineering, Engineering Management, Quality and Technology

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Starting in 2001, I worked my way from senior lecturer to full professor at The University of the West Indies (UWI), St Augustine, Trinidad and Tobago. I obtained my tenure in 2004 and am presently the Professor of Industrial Engineering (IE) and the Campus Coordinator of Graduate Studies and Research at UWI. I also serve as the coordinator of IE Research Group. Besides, I was the Deputy Dean in Research and Postgraduate Student Affairs (2006-2007 and 2009-2012) at the Faculty of Engineering. Before joining The UWI, I held several academic positions at City University of Hong Kong, and worked in industry as operations executive, researcher, engineer and consultant in Hong Kong and the United Kingdom (UK) for 15 years.

I am a Chartered Engineer and a Chartered Marketer in the UK, as well as a Registered Professional Engineer in Australia, Europe, Hong Kong, and The Republic of Trinidad and Tobago. I am a member of Caribbean Academy of Science and a Fellow/member of several professional bodies and learned societies (such as IEEE, IIE, ASME, ASQ, IET, BCS, CIM, IEAust, HKIE, HKSQ, and APE). I am also the Chairperson of the Technology and Engineering Management Society Chapter (formerly the Technology Management Council) of the IEEE Trinidad and Tobago Section (2003-2015), and Past Chair of the Mechanical & Industrial Division of the Association of Professional Engineers of Trinidad and Tobago (2004-2009).

My research activities include industrial engineering, engineering management, quality management, performance measurement, innovation, and information technology/systems. I published more than 250 journal articles, technical papers, reports and teaching aids, and had completed 17 research projects funded by UWI and other overseas universities and governments. I am presently supervising five (5) MPhil/PhD students at The UWI.

My research work has been cited widely by researchers and scholars. As at February 2015, there were some 2,774 citations of my publications, and the 'h-index' was 32 and the 'i10-index' was 54 (source: https://scholar.google.com/). I have received several recognitions of my research accomplishments, including the 2008 Vice-Chancellor's Award for Excellence (Teaching and Research) and the 2012 'Most Outstanding Researcher Award' (Engineering) recognised by the University. My biography has been selected for *The Marquis Who's Who in the World* (since 2005) and *The Marquis Who's Who in Science and Engineering* (since 2006).

#### **EDUCATION**

MSc Technological Economics University of Stirling, UK
MSc Applied Computing Technology Middlesex University, UK
MEd Educational Management Victoria University of Manchester, UK

MPhil Information Systems City University of Hong Kong, Hong Kong

PhD Engineering Systems Middlesex University, UK

### **PROFESSIONAL QUALIFICATIONS**

Chartered Engineer, CEng (1998)

The Engineering Council, UK (No.457657)

Chartered Marketer (1998)

Chartered Institute of Marketing, UK (No.325139)

Chartered Professional Engineer, CPEng National Professional Engineers Register, Australia (1998) (No.2115696)

Registered European Engineer, Eur Ing European Federation of National Engineering

(1999) Associations, Brussels (No.24372)

Registered Professional Engineer, RPE Engineers Registration Board, Hong Kong

(2000) (No.0320919)

Registered Engineer, REng (2003) Board of Engineering of T&T (No. 11-868)

### **EXPERIENCES**

Professor of Industrial Engineering, University of the West Indies (UWI), Trinidad & Tobago (since 2004)

Campus Coordinator, Graduate Studies and Research, UWI (since 2012)

Chairman, Campus Committee on Graduate Studies and Research, UWI (since 2012)

Chairman, Campus Research and Publication Fund Committee, UWI (since 2012)

Head, Industrial Engineering Division/Office, UWI (since 2001)

Programme Leader, BSc (Eng) in Industrial Engineering, UWI (since 2001)

Former Deputy Dean, Research and Postgraduate Student Affairs, Faculty of Engineering, UWI (2006-2007; 2009-2012)

Former Programme Coordinator, Programme Management Team, The UWI's MSc/PgD Programmes in Guyana (2006-2008)

Coordinator, Industrial Engineering Research Group, UWI (since 2003)

Former Coordinator, The Centre for Enterprise Research Integration, UWI (2004-2011)

Chairman, The Technology and Engineering Management Society, The IEEE Trinidad and Tobago Section (since January 2015)

Past Chairman, The Mechanical & Industrial Division, The Association of Professional Engineers of Trinidad and Tobago (2004-2009)

Past Vice Chairman, The IEEE Trinidad and Tobago (T&T) Section (2005-2007)

Past Chairman, The Engineering Management Society Chapter, IEEE T&T Section (2003-2007) Past Chairman, The Technology Management Council, The IEEE Trinidad and Tobago Section (2008-1014)

Visiting Professor, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hong Kong (2009)

UWI Representative to the Evaluation and Approval Committee, Enhancement of the Research and Development Facility (RDF), Ministry of Trade and Industry (since 2010)

Consultancy, training and industrial/student projects for WASA, NGC, BHP Billiton, Petrotrin, Schlumberger, PCS Nitrogen Trinidad, PowerGen, bpTT, Unilever, Holiday Snacks Limited, Industrial Plant Services, Caribbean Packaging Industries, Hornbeck Offshore Trinidad & Tobago Ltd, Caribbean Airlines, the Ministry of Tourism, Port Authority of T&T, Hosein's Printing Services, Better Health Limited, and the Steelpan Research Laboratory, etc. (since 2001)

Serving as member of Organising/technical Committees for some 25 Regional and International Conferences in engineering, engineering management and associated disciplines (since 2001)

#### **AWARDS AND HONOURS**

Fellow, Institution of Engineers, Australia (2008)

Fellow, Institution of Engineering and Technology, United Kingdom (2009)

Fellow, Hong Kong Institution of Engineers, Hong Kong (2009)

Fellow, Hong Kong Society for Quality, Hong Kong (2009)

Fellow, The Association of Professional Engineers of Trinidad and Tobago (2013)

Best Paper Award (Theoretical), Annual Journal of the Institute of Industrial Engineers (Hong Kong), 1998

Literati Club Awards for Excellence 2003 (Most Outstanding Paper in the 2002 volume of Journal of Quality in Maintenance Engineering) Emerald, UK

Emerald Literati Network 2006 Highly Commended Award (Paper in the Volume 16, Issue 3, 2005 of Journal of Manufacturing Technology Management) Emerald, UK

The UWI/Guardian Life 'Premium' Teaching Awards 2006, Office of the Campus Principal, UWI, Trinidad and Tobago

'60 Under 60' Researcher, The University of the West Indies (UWI), Trinidad and Tobago, 2008 The Vice-Chancellor's Award for Excellence (Category V: All-round Performance in Teaching and Research), UWI, Trinidad and Tobago, 2008

The Most Outstanding Researcher Award (Engineering), UWI, Trinidad and Tobago (2012)

Who's Who in the World (since 2005), The Marquis Who's Who Publication Board

Who's Who in Science and Engineering (since 2006), The Marquis Who's Who Publication Board

### RESEARCH PROJECTS AND RESEARCH STUDENTS SUPERVISED

Supervised more than 150 Capstone Projects (Undergraduates and Masters) and 6 MPhil/PhD; and 3 Doctorate graduates became Faculty member at the university.

Currently supervising 4 MPhil/PhD and some 20 MSc students in areas of Engineering Systems; Integrated Management (Knowledge, Quality and Safety Systems), Technology and Project Management.

Completed 17 research projects, and secured funding for on-going research from UWI and other overseas universities and governments, such as:

Ref.CRP.3BV: "Develop an Integrated Planning Framework of Green Manufacturing and Environmental Management Practices for Trinidad and Tobago enterprises", (Completed in July 2003)

Ref. CRP.3DT: "Employee Empowered Quality Improvement in Manufacturing Enterprises in Trinidad and Tobago", (Completed in November 2004)

Ref. CRP/DA 9BL: "Investigation of Decision Support System Capabilities for Improving Poultry Farm Performance in Trinidad and Tobago", (Completed in December 2004)

Ref. CRP.3.MAR08.19 2007/08: "A Study of Consumption and Recycling of Plastic (Polyethylene Terephthalate) Bottles in Trinidad and Tobago", (Completed in December 2008)

Collaborative Research Project: "Strategy Formulation and Performance Measurement in Manufacturing Enterprises", (with City University of Hong Kong, *The Hong Kong Polytechnic University, and Middlesex University, UK; Completed in December* 2009)

Ref. CRP.3.NOV07.2 2007/08): "Development of an Evaluation Model for Commercialisation of Acquired Radical Innovation in Small- and Medium-Sized Enterprises in the Caribbean", (Awarded: TT\$68,595; Completed December 2012)

Ref. CRP.3.MAR14.35 2014): "A Comparative Study of the Oral Examination and Associated Procedures of MPhil and Doctorate Theses at the UWI St Augustine Campus", (Awarded: TT\$71,744.00; *On-going*)

Ref. CRP.3.MAR13.35 2012/13): "Development of a BPM Approach for Mapping Process Improvement at The Office of Graduate Studies and Research", (Awarded: TT\$75,000.00; *Ongoing*)

Collaborative Research Project: "Writing an Industrial Engineering Text/Case Book", (with City University of Hong Kong; *On-going*)

### **PUBLICATIONS AND EDITORIAL**

Published more than 120 journal papers and 100 refereed conference papers, authored 5 books/book chapters, and edited more than 25 issues of journals and conference proceedings, as well as delivered many talks and presentations

Editor, *The Journal of The Associations of Professional Engineers of Trinidad and Tobago*, (ISSN 1000-7924)

Editor, The West Indian Journal of Engineering (ISSN 0511-5728)

Editorial Board Member, The Asian Journal on Quality (ISSN 1598-2688)

Editorial Board Member, International Journal of Quality and Standards (ISSN 1753-9439)

Editorial Board Member, *International Journal of Advanced Operations Management* (ISSN 1758-938X)

Editorial Board Member, *The Learning Organisation - An International Journal* (ISSN 0969-6474) *Ad hoc* reviewers for some 20 international journals

### **SELECTED RECENT PUBLICATIONS**

- 1. Pun, K.F., Chin, K.S. and Lau, H., "A QFD/hoshin approach for strategy deployment: a case study", *Managing Service Quality. An International Journal*, Vol.10, No.3, 2000, pp.156-169 (ISSN 0960-4529; 2012 Impact Factor: 0.778; Citations: 60)
- 2. <u>Pun, K.F.</u> and Lee, M.K.O., "A proposed management model for the development of strategic information systems", *International Journal of Technology Management*, Vol.20, No.3/4, 2000, pp.304-325 (ISSN 0267-5730; 2012 Impact Factor: 0.56; Citations: 14).
- 3. Lau, H.C.W., Chin, K.S., <u>Pun, K.F.</u> and Ning, A., "Decision supporting functionality in a virtual enterprise network", *Expert Systems with Applications*, Vol.19, No.4, November 2000, pp.261-270 (ISSN 09574174; 2012 Impact Factor: 1.854; Citations: 37)
- 4. Pun, K.F., Chin, K.S. and Lau, H., "A review of Chinese cultural influences on Chinese enterprise management", *International Journal of Management Reviews*, Vol.2, No.4, December 2000, pp.325-338 (ISSN 1468-2370; 2012 Impact Factor: 3.33; Citations: 104)
- 5. <u>Pun, K.F.</u>, Chin, K.S. and Gill, R., "Determinants of employee involvement practices in manufacturing enterprises", *Total Quality Management*, Vol.12, No.1, January 2001, pp.95-109 (ISSN 1478-3363; 2012 Impact Factor: 0.894; Citations: 59).
- 6. <u>Pun, K.F.</u>, "Cultural influences of TQM adoption in Chinese enterprises: an empirical study", *Total Quality Management*, Vol.12, No.3, May 2001, pp.323-342 (ISSN 1478-3363; 2012 Impact Factor: 0.894; Citations: 111).
- 7. Hui, I.K., Chan, A.H.S. and <u>Pun, K.F.</u>, "A study of the environmental management system implementation practices", *Journal of Cleaner Production*, Vol.9, No.3, June 2001, pp.269-276 (ISSN 0959-6526; 2012 Impact Factor: 3.398; Citations: 99)
- 8. <u>Pun, K.F.</u> and Ho, K.Y., "Identification of service quality attributes for restaurant operations: a Hong Kong case", *Managing Service Quality. An International Journal*, Vol.11, No.4, August 2001, pp.233-240 (ISSN 0960-4529; 2012 Impact Factor: 0.778; Citations: 18)
- Lau, H.C.W., Ning, A., <u>Pun, K.F.</u> and Chin, K.S., "Neural networks for the dimensional control of molded parts based on reverse process model", *Journal of Material Processing Technology*, Vol.117, No.1/2, November 2001, pp.89-96 (ISSN 0924-0136; 2012 Impact Factor: 1.953; Citations: 32)
- 10. Chin, K.S. and <u>Pun, K.F.</u>, "A proposed framework for implementing TQM in Chinese organisations", *International Journal of Quality and Reliability Management*, Vol.19, No.3, 2002, pp.272-294 (ISSN 0265-671X; Citations: 99)
- 11. <u>Pun, K.F.</u> and Hui, I.K., "Integrating safety dimension in quality management systems: a process model", *Total Quality Management*, Vol.13, No.3, May 2002, pp.373-391 (ISSN 1478-3363, 2012 Impact Factor: 0.894; Citations: 48)
- 12. <u>Pun, K.F.</u>, Hui, I.K., Lau, H.C.W., Law, H.W. and Lewis, W.G., "Development of an EMS planning framework for environmental management practice", *International Journal of Quality and Reliability Management*, Vol.19, No.6, 2002, pp.688-709 (ISSN 0265-671X; Citations: 55)
- 13. Pun, K.F., "Development of an integrated TQM and performance measurement system for self-

- assessment: a method", *Total Quality Management*, Vol.13, No.6, September 2002, pp.759-777 (ISSN 1478-3363; 2012 Impact Factor: 0.894; Citations: 42).
- 14. Chin, K.S., <u>Pun, K.F.</u>, Xu, Y. and Chan, J.S.F., "An AHP based study of critical factors for TQM implementation in Shanghai manufacturing industries", *Technovation*, Vol.22, No.11, November 2002, pp.707-715 (ISSN 0166-4972; 2012 Impact Factor: 3.177; Citations: 111)
- 15. <u>Pun, K.F.,</u> Chin, K.S., Chow, M.F. and Lau, H.C.W., "An effectiveness-centered approach to maintenance management: a case study", *Journal of Quality in Maintenance Engineering*, Vol.8, No.4, 2002, pp.346-368 (ISSN 1355-2511; Citations: 51)
- 16. <u>Pun, K.F.</u>, Hui, I.K., Lewis, W.G. and Lau, H.C.W., "A multiple-criteria environmental impact assessment for plastic injection molding process: a methodology", *Journal of Cleaner Production*, Vol.11, No.1, February 2003, pp.41-49 (ISSN 0959-6526; 2012 Impact Factor: 3.398; Citations: 28)
- 17. Lau, H.C.W., Wong, C.W.Y., Hui, I.K. and <u>Pun, K.F.</u>, "Design and implementation of an integrated knowledge system", *Knowledge-based Systems*, Vol.16, No.2, March 2003, pp.69-76 (ISSN 0950-7051; 2012 Impact Factor: 4.104; Citations: 57)
- 18. Chin, K.S., <u>Pun, K.F.</u> and Lau, H.C.W., "Development of a knowledge-based self-assessment system for organisational performance", *Expert Systems with Applications*, Vol.24, No.4, March 2003, pp.443-455 (ISSN 0957-4174; 2012 Impact Factor: 1.854; Citations: 51)
- 19. <u>Pun, K.F.</u> Yam, R.C.M. and Lewis, W.G., "Safety management system registration in the shipping industry", *International Journal of Quality and Reliability Management*, Vol.20, No.6, 2003, pp.704-721. (ISSN 0265-671X; Citations: 18)
- 20. Lau, H.C.W., Wong, C.W.Y., <u>Pun, K.F.</u> and Chin, K.S., "Virtual agent modeling of an agile supply chain infrastructure", *Management Decision*, Vol.41, No.7, 2003, pp.625-634 (ISSN 0025-1747; 2012 Impact Factor: 3.787; Citations: 30)
- 21. Lau, H.C.W., Jiang, B., Lau, P.K.H., <u>Pun, K.F.</u>, Chin, K.S. and Wong, C.W.Y., "A fuzzy multicriteria decision support procedure for enhancing information delivery in extended enterprise networks", *Engineering Applications of Artificial Intelligence*, Vol.16, No.1, 2003, pp.1-9 (ISSN 0952-1976; 2012 Impact Factor: 1.625; Citations: 27)
- 22. <u>Pun, K.F.</u>, Chin, K.S., White, A.S. and Gill, R., "Determinants of manufacturing strategy formulation: a longitudinal study in Hong Kong", *Technovation*, Vol.24, No.2, 2004, pp.121-137. (ISSN 01664972; 2012 Impact Factor: 3.177; Citations: 25)
- 23. <u>Pun, K.F.</u>, "A conceptual synergy model of strategy formulation for manufacturing", *International Journal of Operations and Production Management*, Vol.24, No.9, 2004, pp.903-928 (ISSN 0144-3577; 2012 Impact Factor: 1.252; Citations: 32)
- 24. Yam, R.C.M., Guan, J.C., <u>Pun, K.F.</u>, and Tang, E.P.Y., "An audit of technological innovation capability of Chinese firms: some empirical findings in Bejing, China", *Research Policy*, Vol.33, No.8, October 2004, pp.1123-1140 (ISSN 1541-1338; 2012 Impact Factor: 2.850; Citations: 282)
- 25. <u>Pun, K.F.</u> and Chin, K.S., "On-line assessment of new product development performance: An approach", *Total Quality Management and Business Excellence*, Vol.16, No.2, 2005, pp.157-169 (ISSN 1478-3363/ EISSN 1478-3371; 2012 Impact Factor: 0.894; Citations: 10)
- 26. <u>Pun, K.F.</u> and White, A.S., "A performance measurement paradigm for integrating strategy formulation: a review of systems and frameworks", *International Journal of Management Reviews*, Vol.7, No.1, 2005, pp.25-46 (ISSN 1468-2370; 2012 Impact Factor: 3.333; Citations: 152)
- 27. Lau, H.C.W., Ning, A., Pun, K.F., Chin, K.S. and Ip, W.H., "A knowledge-based system to support procurement decision", *Journal of Knowledge Management*, Vol.9, No.1, January 2005, pp.87-100 (ISSN 1367-3270; 2012 Impact Factor: 1.474; Citations: 33)
- 28. Lau, H.C.W., Lee, C.K.M., Jiang, B., Hui. I.K. and <u>Pun, K.F.</u>, "Development of CIS to support CAD and CAPP", *International Journal of Advanced Manufacturing Technology*, Vol.26, No.9/10, October 2005, pp.1032-1042 (ISSN 0268-3768/ EISSN 1433-3015; 2012 Impact Factor: 1.205; Citations: 23)
- 29. Lewis, W.G., <u>Pun, K.F.</u> and Lalla, T.R.M., "An AHP-based Study of TQM Benefits in ISO 9000 Certified SMEs in Trinidad and Tobago", *The TQM Magazine*, Vol.17, No.6, December 2005, pp. 558-572 (ISSN 0954-478X / 1754-2731; Citation: 41)

- 30. <u>Pun, K.F.,</u> "Determinants of environmentally responsible operations: a review", *International Journal of Quality and Reliability Management*, Vol.23, No.3, 2006, pp.279-297 (ISSN 0265-671X; Citations: 48).
- 31. Ho, G.T.S., Lau, H.C.W., Lee, C.K.M., Ip, A.W.H. and <u>Pun, K.F.</u>, "An intelligent production workflow mining system for continual quality enhancement", *International Journal of Advanced Manufacturing Technology*, Vol.28, No.7/8, 2006, pp.792-809 (ISSN 0268-3768/ EISSN 1433-3015; 2012 Impact Factor: 1.205; Citations: 24)
- 32. Guan, J., Mok, C.K., Yam, R.C.M., Chin, K.S. and <u>Pun, K.F.</u>, "Technology transfer and innovation performance: evidence from Chinese firms", *Technological Forecasting and Social Change*, Vol.73, No.6, 2006, pp.666-678 (ISSN 0040-1625/ OCLC 39284265; 2012 Impact Factor: 2.106; Citations: 102)
- 33. Law, W.K., Chan, A.H.S. and <u>Pun, K.F.</u>, "Prioritising the safety management elements: a hierarchical analysis for manufacturing enterprises", *Industrial Management and Data Systems*, Vol.106, No.6, June 2006, pp.778-792(ISSN 0263-5577; 2012 Impact Factor: 1.674; Citations: 41)
- 34. Lewis, W.G., <u>Pun, K.F.</u> and Lalla, T.R.M., "Exploring soft versus hard factors for TQM implementation in small and medium-sized enterprises", *International Journal of Productivity and Performance Management*, Vol.55, No.7, 2006, pp.539-554 (ISSN 1741-0401; 2012 Impact Factor: 2.106; Citations: 92)
- 35. Pun, K.F., Chin, K.S. and Yiu, M.Y.R. "An AHP approach to assess new product development performance: an exploratory study", *International Journal of Management Science and Engineering Management*, Vol.5, No.3, 2010, pp.210-218 (ISSN 1750-9653/ EISSN 1750-9661; Citations: 6)
- 36. Pun, K.F., Yiu, M.Y.R. and Chin, K.S., "Developing a self-assessment model for measuring new product development performance: an AHP approach", *International Journal of Advanced Operations Management*, Vol.2, Nos.1/2, 2010, p.57-79 (ISSN 1758-938X/ EISSN 1758-9398; Citations: 10)
- 37. <u>Pun, K.F.</u> and Nathai-Balkissoon, M., "Integrating knowledge management into organisational learning: a review of concepts and models", *The Learning Organisation*, Vol.18, No.3, 2011, pp.203-223 (ISSN 0969-6474; Citations: 15)
- 38. <u>Pun, K.F.</u> and Jaggernath-Furlonge, S., "Impacts of company size and culture on quality management practices in manufacturing organisations: an empirical study", *The TQM Journal*, Vol.24, No.1, 2012, pp.83-101 (ISSN 1754-2731; Citations: 8)
- 39. Yiu, M.Y.R. and <u>Pun, K.F.</u>, "Measuring knowledge management performance in industrial enterprises: an exploratory study based on an integrated model", *The Learning Organisation*, Vol.21. Nos.5/6, August 2014, pp.310-332 (ISSN 0969-6474)
- 40. Pun, K.F. and Yiu, M.Y.R., "Assessing organisational KM performance based on the criteria of total quality management", *International Journal of Knowledge and Systems Science*, Vol.6, No.1, 2015 (ISSN 1947-8208/ EISSN 1947-8216) (in press)