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NUS Business School
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EDUCATION

Ph.D., Industrial & Management Systems Engineering
 Arizona State University, Tempe, Arizona, USA
M.S., Industrial Engineering
 University of Missouri, Columbia, Missouri, USA
B.S., Industrial Engineering
 Tunghai University, Taichung, Taiwan

PROFESSIONAL EXPERIENCE

Program Director, General Management Program (Mandarin) (11/03 -)
Academic Director, Asia MBA (with Fudan and Korea Universities) (1/15 - 12/20)
Academic Director, NUS-PKU (Peking University) Double Degree MBA (9/08 – 12/20)
Program Director, Temasek Foundation-CNMESC MBA Schools Dean and Faculty Capacity Building
 Programme (10/11-10/14)
Associate Dean, Executive Education, NUS Business School (8/09- 6/13)
Co-Academic Director, Lee Kuan Yew School of Public Policy|NUS Business School Master in Public
 Administration and Management (8/09 - 6/11)
Academic Director, Asia-Pacific Executive MBA (Chinese), NUS Business School (5/04 – 9/05)
Associate Professor, Analytics & Operations (formerly Decision Sciences), NUS Business School (since
 1/02)
Commonwealth Visiting Research Fellow, Leeds University Business School, UK (12/99 – 11/00)
Assistant Professor, Decision Sciences, NUS Business School (8/98 – 12/01)
Senior Lecturer, Decision Sciences, NUS Business School (7/97 – 7/98)
Lecturer, Decision Sciences, NUS Business School (7/92 – 6/97)

- **Business Dynamics: MIT's Approach to Diagnosing and Solving Complex Business Problems**,
 MIT Sloan School of Management (7-11 June/10, Boston, USA)
- **Program on Case Method and Participant-Centered Learning – Case Writing and Course
 Development (PCMPCL-CWCD),** Harvard Business School (4-6/12/06, Beijing, China)
- **Program on Case Method and Participant-Centered Learning (PCMPCL),** Harvard Business
 School (30/7-11/8/06, Boston, USA)
- **Managing the Supply Chain: The General Manager's Perspective Program,** Harvard Business
 School (6-11/6/04)
- Consulting & Executive Development
  NUS Asia-Pacific Executive (APEX) MBA (English and Mandarin)
  NUS Business School Executive Development: General Management Program, Program Director (Mandarin)
  NUS Business School Executive Development: Operations Management Program
  NUS-SPRING SME Leadership Program
  Baxter-NUS Business School Advanced Hospital Management Programs
  Beijing National Accounting Institute Senior Leadership Program (Heilongjiang)
  CEI Lean Manufacturing Program
  China Construction Bank
  Chongqing Banking Program
  Chongqing University EMBA Real Estate Program at NUS
  Dalian Public Administration Program
  DHL-NUS Advanced Supply Chain Management, Program Co-Director
  Foshan (Guangdong) Education Bureau Public Administration Program

Foshan Nanhai Federation of Industry and Commerce-NUS Senior Leadership Programme
Guangzhou State/City Tax Bureau Public Administration Programs
Guangdong Merid – NUS Senior Leadership Programme
Hans-Seidel Foundation (German), National Economic University (Hanoi), University of Economic (Ho Chi Minh City) Executive Management Development Program: Operations and Quality Management
Jiansu Banking Program
Jiangsu Baoying Entrepreneurs program
Jiangsu Wujiang General Management Programs (Mandarin)
Kerry Oils & Grains, Shenzhen, China
Liuzhou Public Administration Program
Lushang Group, Shangdong
Meizhou Public Administration Program, Economy Restructuring and Industry Upgrading Program
MediaTek Singapore Pte Ltd
Midea-NUS General Management Program for Midea Microwave Oven Distributors
Midea Microwave and Electrical Appliances Supplier Conference
Nanjing University EMBA International Health Management
National Neuroscience Institute, Singapore
PDS International Pte Ltd, Singapore
Port of Singapore Authority-NUS Advanced Port Management and Operations Program
Shunde (Guangdong) Public Administration Programs
Shunfeng Express
Yangtze Power
Zimmer Biomet

- Courses Taught:
    Value Chains, Logistics & Operations (EMBA – English and Chinese)
    Managerial Operations and Analytics (MBA)
    Logistics and Operations Management (APEX MBA)
    Systems and Operations Management (APEX MBA in Mandarin)
    Managing Operations (MBA, MSc in Management of Technology)
    Quality Control and Management (MBA)
    Simulation Modeling for Informed Decision-Making (3rd & 4th year course)
    Simulation Modeling and Analysis (PhD)
    Operations and Production Management (course coordinator, 3rd year course)
    Operations Management and Information Systems (2nd year course)
    Computing (course coordinator, 1st year course)

- Faculty Service:
    Department Teaching Committee (Aug 2015 – Jun 2017)
    Member, China Strategy Team (July 2011)
    Advisor to Deanery, NUS Business School China Initiatives (July 2010 – June 2011)
    Editor, *Window to Management* – NUS Business School Mandarin Alumni Association magazine (May 2003 – July 2010)
    Faculty Advisor and Management Committee Member, NUS Business School Mandarin Alumni (June 2004 – July 2012)
    Business School BBA Level 2000 Coordinator (July 2007 –June 2009)
    Department PhD/MSc Committee (Jan 2002 – June 2009)
    Department Evaluation Committee (2006) – contract renewals, promotion and tenure
    Business School MSc/PhD Committee (July 2003 – July 2004)
    Department MSc/PhD Program Coordinator (July 2003 – July 2004)
    Consulting Practicum Task Force (March – July 2003)
    Business School's Finance & Administration Committee (July 2002 – June 2003)
    Business School's Information Technology Committee (1994 –1999, Feb - July 2002)

- Founding Chair, Organizing committee, The 1st to 9th NUS Business School Mandarin Management Forum series (11/4/08, 25/9/08, 20/3/09, 18/9/09, 4/4/10, 18/9/10, 19/3/11, 3/9/11, 9/3/12)
- Moderator and Chair, Organizing Committee, The PPP Symposium: Forging Public-Private Partnerships for Global Competitiveness (NUS HSSML Auditorium, 23 July 2011)
- Technical committee, Third International Workshop on Nonlinear Dynamics and Synchronization (INDS'11) (University of Klagenfurt, Klagenfurt, Austria, 25-27 July, 2011)

- Track Chair, System Dynamics, ACME (Association for Chinese Management Educators) 21st Conference 2011 (Tainan, Taiwan, 9-11 July 2011)
- Invited reviewer and session chair (Supply Chain Management), The 40th Annual Meeting of the Decision Sciences Institute, (New Orleans, LA, USA, 14-17 November 2009)
- Co-Chair, Organizing committee, Towards an Asian Renaissance: The Rise of China, NUS-PKU Symposium – Celebrating 10 years of Partnership, Peking University, Beijing, China(26 Sept 09)
- Technical committee, Second International Workshop on Nonlinear Dynamics and Synchronization (INDS'09) (University of Klagenfurt, Klagenfurt, Austria, July 20-21, 2009)
- Chair, Organizing committee, NUS Business School Public Forum: Celebrating 80 Intakes of General Management Program (Chinese) - Impact of US Financial Crisis on Asia (3 Nov 2008)
- Invited speaker, session chair, and technical committee, First International Workshop on Nonlinear Dynamics and Synchronization (INDS'08) (University of Klagenfurt, Klagenfurt, Austria, July 18-19, 2008)
- Invited reviewer (Statistics and Decision Analysis), The 38th Annual Meeting of the Decision Sciences Institute, (Phoenix, AZ, USA, 17-20 November 2007)
- Invited session chair (Innovation and Improvement), The 37th Annual Meeting of the Decision Sciences Institute, (San Antonio, TX, USA, 18-21 November 2006)
- Organizing committee, paper reviewer, and session chair (Quantitative Methods), 2001 Asia-Pacific Decision Sciences Institute (APDSI) conference
- External Advisor/Examiner/Assessor:
  Temasek Polytechnic, Business School, Republic of Singapore (April 2006 – 2010)
  Singapore University of Social Sciences, Business, Republic of Singapore (1 -30 November, 2017)
- Journal and Grant Proposal Reviewer
  Asia-Pacific Journal of Operational Research
  Computers and Industrial Engineering
  Computers and Operations Research
  Decision Sciences Journal
  IIE Transactions
  IEEE Transactions on Neural Networks
  INFORMS Journal on Computing
  International Journal of Production Economics
  International Journal of Production Research
  International Journal of Computer-Integrated Manufacturing
  International Journal of Quality and Reliability Management
  Journal of Quality Technology
  Journal of Quality in Maintenance Engineering
  National Security Agency Mathematical Sciences Program, USA
  Omega – The International Journal of Management Science
  Proceedings of the Institution of Mechanical Engineers, Part B, Journal of Engineering Manufacture
  Production Planning and Control
  Quality and Reliability Engineering International
  Singapore Management Review
- Area Editor (Statistics, Quality and Reliability), *Computers & Industrial Engineering* (Dec 2011- Dec 2014)

Board Director, **Institute of Industrial Engineers, Singapore** (IIE, Singapore) (5/96 – 5/98)
Materiel System Analyst, Allied-Signal Aerospace Co, Phoenix, Arizona, USA (9/88 - 5/92)
Industrial Engineer, Delta Electronics Co Ltd, Taiwan (8/83 - 4/84)
Public Relations Coordinator, Hsin-Ho Arsenal, Taiwan (8/81 - 5/83)

RESEARCH PROJECTS

Funded Projects

- *Guangzhou KingMed: Post-IPO Transformation* (case research and development)
  Principal Investigator (7/18 – 6/19, NUS Business School)
- *Jiuzhai Valley National Park: Sustainability* (case research and development)
  Principal Investigator (12/13 – 12/16, NUS Business School)
- *Din Tai Fung – The Xiao Long Bao Specialist* (case research and development)
  Principal Investigator (11/13 – 10/14, NUS Business School)
- *Shanghai Baolong Automotive Corporation* (case research and development)
  Principal Investigator (04/11 – 09/11, NUS Business School)
- *Caries Risk Assessment for Children in Singapore*
  Collaborator (03/05 – 02/08, NUS)
- *A Hybrid Approach to Modeling Complex Supply Chain Dynamics*
  Principal Investigator (01/05 – 12/07, NUS)
- *Identification Problems in Multivariate Quality Control*
  Principal Investigator (01/02 – 12/04, NUS)
- *Batch Route Innovative Technology Evaluation and Selection Techniques (Britest)* Visiting
  Research Fellow (12/99 – 11/2000, UK)
- *Striving for Excellence in Higher Education by Adopting TQM and QFD*
  Principal Investigator (07/96 – 12/99, NUS)
- *Time Series Data Analysis in Business and Production Environment Using Neural Networks*
  Principal Investigator (01/94 – 02/98, NUS)
- *Best Practices of Managing Manufacturing Processes in Singapore*
  This was a joint project between our *Productivity & Quality Research Center* and *Singapore Productivity & Standards Board* (07/96 – 04/97).
- *Quality Improvement through Neural Network Based Statistical Process Control*
  Principal Investigator (01/93 - 10/95, NUS)
- *Welding Automation Needs Analysis*
  This project was conducted with Dr. David D. Bedworth (01/89-06/89, ASU).

Other Projects

- *Glaxo Wellcome Global Supply Chain Modeling (collaborators: Drs. Tom F. Burgess and Nicky E. Shaw of Leeds University Business School, Andy Stoker of GW, UK)* (2000).
- *CAD-Based Feature Recognition for machining Parts Using ROMULUS and PROLOG* (1988).
- *Bayesian Inference vs. Classical Statistical Inference:* A Comparison of Bayes, MVU, ML Estimators of the Reliability for Series and Parallel Systems for Independent Exponential Components (1988).
- *Computational Procedures for Transient Behavior of Waiting Time Processes* (1987).
- *An SQL Relational Database for Department Store Applications* (1986).
- *Randomization Analysis of the Completely Randomized Design Extended to Growth/Response Curves* (1986).
- *An Application of Microprocessors in CAM: A Microprocessor-Controlled Vertical Milling Machine* (1985).

PUBLICATIONS

Case Studies

1. Hwarng, H. B., Ran, J. (2018), Jiuzhai Valley National Park: Data-Driven Economic Growth and Ecological Preservation (9B18D002), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2018-01-26).
2. Hwarng, H. B. (2018), Teaching Note - Jiuzhai Valley National Park: Data-Driven Economic Growth and Ecological Preservation (8B18D002), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2018-01-26).
3. Hwarng, H. B., Ran, J. (2018), 九寨沟国家公园：数据驱动的经济增长与生态保护 (9B18DC002, Simplified Chinese), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2018-01-26).
4. Hwarng, H. B., Yuan, X. (2016), 鼎泰豐: 小籠包的藝術 (Din Tai Fung: The Art of the Dumpling, 9B16DT007, Traditional Chinese), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2016-04-08).
5. Hwarng, H. B., Yuan, X. (2016), 鼎泰豐: 小笼包的艺术 (Din Tai Fung: The Art of the Dumpling, 9B16DC007, Simplified Chinese), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2016-04-08).
6. Hwarng, H. B., Yuan, X. (2016), Din Tai Fung: The Art of the Dumpling (9B16D007), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2016-04-08).
7. Hwarng, H. B., Yuan, X. (2016), Teaching Note - Din Tai Fung: The Art of the Dumpling (8B16D007), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2016-04-08)
8. Hwarng, H. B., Mori, M. (2014), 雅玛多运输有限公司：宅急便 (TA-Q-BIN) (9B13DC021, Simplified Chinese), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2014-02-28).
9. Hwarng, H. B., Mori, M. (2014), Yamato Transport Co., Ltd.: TA-Q-BIN (9B13D021), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2014-02-28).
10. Hwarng, H. B., Mori, M. (2014), Teaching Note - Yamato Transport Co., Ltd.: TA-Q-BIN (8B13D021), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2014-02-28).
11. Hwarng, H. B., Yuan, X. (2013), 上海保隆汽车科技股份有限公司 (9B12DC021, Simplified Chinese), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2012-10-23).
12. Hwarng, H. B., Yuan, X. (2012), Shanghai Baolong Automotive Corporation (9B12D021), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2012-10-23).
13. Hwarng, H. B., Yuan, X. (2012), Teaching Note - Shanghai Baolong Automotive Corporation ((8B12D021), Ivey Publishing, National University of Singapore and Richard Ivey School of Business Foundation (Version: 2012-10-23)

International Refereed Journals

1. Yuan, X. and Hwarng, H.B. (2016), Stability and Chaos in Demand-based Pricing under Social Interactions, *European Journal of Operational Research*, **253**(**2**), 472-488.
2. Gao, X. L., Hsu, C. Y., Loh, T., Hwarng, H. B., Koh, D. (2014), Role of Microbiological Factors in Predicting Early Childhood Caries, *Pediatric Dentistry*, **36**(4), 348-354.
3. Hwarng, H.B. and Yuan, X. (2014), Interpreting Supply Chain Dynamics: A Quasi-Chaos Perspective, *European Journal of Operational Research*, **233**(3), 566-579.
4. Yuan, X. C., Hwarng, H. B. (2012), Managing a Service System with Social Interaction: Stability and Chaos, *Computers & Industrial Engineering*, **63**, 1178–1188.
5. Gao, X. L., Hsu, C. Y., Xu, Y. J., Loh, T., Koh, D. Hwarng, H. B. (2012), Promoting Positive Health Behaviors –'Tooth Worm' Phenomenon and its Implications, *Community Dental Health*, **29**, 55-61.
6. Gao, X. L., Hsu, C. Y., Xu, Y. J., Loh, T., Koh, D. Hwarng, H. B. (2010), Behavioral Pathways Explaining Oral Health Disparity in Children, *Journal of Dental Research*, **89**(9): 985-990.

7. Gao, X. L., Hsu, C. Y., Xu, Y. J., <u>Hwarng, H. B.</u>, Loh, T., Koh, D. (2010), Building Caries Risk Assessment Models for Children, *Journal of Dental Research*, **89**(6):637-643 (won 2011 William J. Gies Award for Clinical Research).

8. <u>Hwarng, H. B.</u> and Wang, Yu. (2010), Shift Detection and Source Identification in Multivariate Autocorrelated Processes, *International Journal of Production Research*, 48(3), 835 - 859.

9. Gao, X.L., Hsu, C.Y., Loh, T., Koh, D, <u>Hwarng, H.B.</u>, Xu Y.J. (2009), Dental Caries Prevalence and Distribution among Preschoolers in Singapore, *Community Dental Health*, **26**(1), 12-19.

10. <u>Hwarng, H. B.</u> (2008), Toward Identifying the Source of Mean Shifts in Multivariate SPC: A Neural Network Approach, *International Journal of Production Research*, **46**(20), 5531-5559.

11. <u>Hwarng, H. B.</u> and Xie, N. (2008), Understanding Supply Chain Dynamics: A Chaos Perspective, *European Journal of Operational Research*, **184**(3), 1163-1178.

12. <u>Hwarng, H. B.</u>, Chong, C. S. P., Xie, N. and Burgess, T. F. (2005), Modeling a Complex Supply Chain: Understanding the Effect of Simplified Assumptions, *International Journal of Production Research*, **43**(13), 2829-2872.

13. <u>Hwarng, H. B.</u> (2005), Simultaneous Identification of Mean Shift and Correlation Change in AR(1) Processes, *International Journal of Production Research*, **43**(9), 1761-1783.

14. <u>Hwarng, H. B.</u> (2004), Detecting Process Mean Shift in the Presence of Autocorrelation: A Neural Network Based Monitoring Scheme, *International Journal of Production Research*, **42**(3), 573-595.

15. Burgess, T. F., <u>Hwarng, H. B.</u>, Shaw, N. E., and de Mattos, C. (2002), Enhancing Value Stream Agility: The UK Speciality Chemical Industry, *European Management Journal*, **20**(2), 199-212.

16. Shaw, N. E., Burgess, T. F., <u>Hwarng, H. B.</u> and de Mattos, C. (2001), Revitalizing New Process Development in the UK Fine Chemicals Industry, *International Journal of Operations and Production Management*, **21**(8), 1133-1151.

17. <u>Hwarng, H. B.</u> and Ang, H. T. (2001), A Simple Neural Network for ARMA(p, q) Time Series, *Omega*, **29**(4), 319-333.

18. <u>Hwarng, H. B.</u> (2001), Insights into Neural-Network Forecasting of Time Series Corresponding to ARMA(p, q) Structures, *Omega, 29(3), 273-289*.

19. <u>Hwarng, H. B.</u> (2001), A Modern Simulation Course for Business Students, *Interfaces*, **31**(3), Part 1 of 2, May-June, 66-75.

20. <u>Hwarng, H. B.</u> and Teo, Cynthia (2001), Translating Customers' Voices into Operations Requirements: A QFD Application in Higher Education, *International Journal of Quality & Reliability Management*, **18**(2), 195-225.

21. <u>Hwarng, H. B.</u> (1997), A Neural Network Approach to Identifying Cyclic Behavior on Control Charts: A Comparative Study, *International Journal of Systems Science*, **28**(1), 99-112.

22. <u>Hwarng, H. B.</u> (1995), Proper and Effective Training of a Pattern Recognizer for Cyclic Data, *IIE Transactions*, **27**, 746-756.

23. <u>Hwarng, H. B.</u> (1995), Multilayer Perceptrons for Detecting Cyclic Data on Control Charts, *International Journal of Production Research*, **33**(11), 3101-3117.

24. <u>Hwarng, H. B.</u> and Chong, C. W. (1995), Detecting Process Non-randomness through a Fast and Cumulative Learning ART-based Pattern Recognizer, *International Journal of Production Research*, **33**(7), 1817-1833.

25. <u>Hwarng, H. B.</u> and Hubele, N. F. (1993), Back-propagation Pattern Recognizers for $\overline{X}$ Control Charts: Methodology and Performance, *Computers and Industrial Engineering*, **24**(2) 219-235.

26. <u>Hwarng, H. B.</u> and Hubele, N. F. (1993), $\overline{X}$ Control Chart Pattern Identification through Efficient Off-line Neural Network Training, *IIE Transactions*, **25**(3) 27-40.

27. <u>Hwarng, H. B.</u> and Hubele, N. F. (1992), Boltzmann Machines That Learn to Recognize Patterns on Control Charts, *Statistics and Computing*, **2**(4) 191-202.

Refereed Conference Papers & Presentations

1. <u>Hwarng, H.B.</u>, Allan, K., Sparkjoy, K. and Timmons, T. (2019), Invited Panel Discussion: Why Deming? Why Now?, *The 50th Annual Meeting of the Decision Sciences Institute*, New Orleans, LA, USA, Nov 23 2019.

2. Yuan, X., <u>Hwarng, H.B.</u> and Qian, Alex Q. (2018), Managing Service Operations with Quality-Conscious Consumers , *Proceedings of the 49th Annual Meeting of the Decision Sciences Institute*, Chicago, IL, USA, 17-19 November, 3641-3646.

3. <u>Hwarng, H. B.</u>, (2016), The Expanded Funnel Experiment: A Powerful Approach to Understanding Deming Management, *2016 DSI Instructional Innovation Award Competition Finalist*, 19 Nov 2016, Austin, Texas, USA.

4. <u>Hwarng, H.B.</u> and Yuan, X. (2012), Shanghai Baolong Automotive Corporation, T*he 43rd Annual Meeting of the Decision Sciences Institute*, San Francisco, CA, USA, 17-20 November (Best Teaching Case Studies Award Competition, Honorable Mention, one of the 3 finalists).

5. Yuan, X. and <u>Hwarng, H.B.</u> (2011), Managing a Service System under the Influence of Social Interaction, *Proceedings of the 42nd Annual Meeting of the Decision Sciences Institute* (CD-ROM), Boston, MA, USA, 19-22 November, 3641-3646.

6. Yuan, X., <u>Hwarng, H.B.</u> (2011), Demand Dynamics and Adaptively Forward-Looking Customers: Stability and Chaos. *Proceedings of the 21st International Conference on the Pacific Rim Management*, Tainan, Taiwan, 9-11 July.

7. Yuan, X., <u>Hwarng, H.B.</u> (2011), Tradeoffs in Decision Making: A Shipping Choice Example. *Proceedings of the 11th International DSI and the 16th APDSI Joint Meeting*, 12-16 July, Taipei, Taiwan.

8. Yuan, X.C. and <u>Hwarng, H.B.</u> (2010), Managing a Service System with Social Interactions: Stability and Chaos, *Proceedings of the 41st Annual Meeting of the Decision Sciences Institute* (CD-ROM), San Diego, CA, USA, 20-23 November, 3661-3666.

9. <u>Hwarng, H.B.</u>, Yuan, X.C. and Xie, N. (2009), Supply Chain Dynamics: Random, Chaotic, or Chaos-like? *Proceedings of the 40th Annual Meeting of the Decision Sciences Institute* (CD-ROM), New Orleans, LA, USA, 14-17 November, 4171-4176.

10. <u>Hwarng, H.B.</u> and Wang, Y. (2007), Detecting Mean Shifts in Multivariate Autocorrelated Processes, *Proceedings of the 38th Annual Meeting of the Decision Sciences Institute* (CD-ROM), Phoenix, AZ, USA, 17-20 November, 3361-3366.

11. <u>Hwarng, H.B.</u> and Wang, Y. (2006), Shift Detection and Source Identification in Bivariate Autocorrelated Processes, *Proceedings of the 37th Annual Meeting of the Decision Sciences Institute* (CD-ROM), San Antonio, TX, USA, 18-21 November, 28061-28066.

12. Xie, N. and <u>Hwarng, H.B.</u> (2005), Investigation into the Impact of Demand Patterns on Chaotic Behavior in a Supply Chain, *Proceedings of the 36th Annual Meeting of the Decision Sciences Institute* (CD-ROM), San Francisco, USA, 19-22 November, 14041-14046.

13. <u>Hwarng, H.B.</u>, Lim, P.H., Hsu, C. S. and Xie, N. and (2005), Caries Risk Assessment Using Neural Networks, *Proceedings of the 36th Annual Meeting of the Decision Sciences Institute* (CD-ROM), San Francisco, USA, 19-22 November, 14071-14076.

14. <u>Hwarng, H. B.</u>, (2005), Signaling the Shift and Identifying its Source in Bivariate SPC, *Proceedings of the 35th International Conference on Computers & Industrial Engineering*, Istanbul, Turkey, 19–22 June, 953-958.

15. <u>Hwarng, H. B.</u> (2003), Detecting Concurrent Presence of Mean Shift and Correlation Using Neural Networks, The 7th Decision Sciences Institute International Conference, 04-08 July, Shanghai, China.

16. <u>Hwarng, H. B.</u> (2002), Detecting Mean Shift in AR(1) Processes, *Proceedings of the 33rd DSI Annual Meeting*, San Diego, USA, 23-26 November, 2395-2400.

17. Shaw, N. E., Burgess, T. F., de Mattos, C. and <u>Hwarng, H. B.</u> (2000) Improving New Product and Process Development in the UK Fine Chemicals Industry, *Proceedings of the First World Conference on Production and Operations Management* (CD-ROM), University of Sevilla-Spain, 27 August - 1 September.

18. <u>Hwarng, H. B.</u> and Teo, C. (2000), Applying QFD in Higher Education, *Proceedings of the 54th Annual Quality Congress*, Indianapolis, IN, 8-10 May, 255-263.

19. <u>Hwarng, H. B.</u> and Ang, H. T. (1999), Modeling Non-stationary Seasonal ARIMA Processes Using Neural Networks, *Proceedings of the Eighth Industrial Engineering Research Conference* (CD-ROM), Phoenix, AZ, 23-24 May.

20. <u>Hwarng, H. B.</u> (1998), Teaching an Intermediate Simulation Course to Business Undergraduates: Making Impossible Possible, *1998 Winter Simulation Conference*, Washington, D.C., Dec 13-16, (accepted).

21. Hwarng, H. B. (1997), Modeling ARMA Time Series: the Effect of Noise, *Progress in Connectionist-Based Information Systems*, Nikola Kasabov et al. (eds), Vol 1, 580-583, (Singapore: Springer).

22. Hwarng, H. B. and Lu, Q. (1997), How Well Does A Neural Network Model ARMA Models, *Progress in Connectionist-Based Information Systems*, Nikola Kasabov et al. (eds), Vol 1, 628-631, (Singapore: Springer).

23. Hwarng, H. B. (1995), A Special-Purpose ART-Based Identification System for Statistical Process Control, In *Intelligent Engineering System through Artificial Neural Networks*, Cihan H. Dagli et al. (eds), Vol 5, 949-954 (New York: ASME Press).

24. Hwarng, H. B. (1995), A Study of ART's Learning in Detecting Cyclic Fluctuations on Control Charts, *Proceedings of International Symposium on Artificial Neural Networks*, Hsinchu, Taiwan, Dec 18-20, B1-08-B1-13.

25. Hwarng, H. B. and Chong, C. W. (1994), A Fast-learning Identification System for SPC: An Adaptive Resonance Theory Approach, In *Intelligent Engineering System through Artificial Neural Networks*, Cihan H. Dagli el al. (eds), Vol 4, 1097-1102, (New York: ASME Press).

26. Hubele, N. F. and Hwarng, H. B. (1994), A Neural Network Model and Multiple Linear Regression: Another Point of View, In *Intelligent Engineering System through Artificial Neural Networks*, Cihan H. Dagli el al. (eds), Vol 4, 199-203, (New York: ASME Press).

27. Hwarng, H. B. and Chong, C. W. (1994), ART-based Control Chart Pattern Recognizers, *1994 International Neural Network Society Annual Meeting: World Congress on Neural Networks*, San Diego, California, June 4-9, Vol 1, 496-500.

28. Hwarng, H. B. (1993), Some Potential Neural Network Applications in TQM, *Proceedings of 2nd Industrial Engineering Research Conference*, Los Angeles, California, May 26-27, 227-231.

29. Hubele, N. F., Hwarng, H. B., and Zimmer, L. (1992), Capability Indices: Linking Concurrent Engineering with TQM, *Proceedings of International Industrial Engineering Conference*, Chicago, Illinois, May 17-20, 175-179.

30. Hwarng, H. B. (1991), A Study of the Learning of Three-layer Back-propagation Pattern Recognizers for Statistical Control Charts, *International Joint Conference on Neural Networks*, Seattle, Washington, July 8-12, II, A-905.

31. Hwarng, H. B. and Hubele, N. F. (1991), X-bar Chart Pattern Recognition Using Neural Nets, *ASQC Quality Congress Transactions*, Milwaukee, WI, 884-889.

32. Chang, C. A., Leonard, M. S., Hwarng, H. B. and Shiau, T. (1987), A Pegging Method for Decomposing Relations in Databases, *Proceedings of ACM Computer Science Conference*, St. Louis, Missouri, Feb 17-19, 162-165.

Non-refereed Conference Papers & Presentations

1. Hwarng, H. B., (2004), Training Neural Networks for Identifying Shifts in Correlated Bivariate Processes, *Proceedings of the 33rd International Conference on Computers & Industrial Engineering* (CD-ROM), Jeju, Korea, 25–27 March.

2. Hwarng, H. B., Hsu, C. S., Lim, P. H., and Xie, N. (2003), A Comparative Study of Neural Networks and Multivariate Logistic Regression for Caries Risk Assessment, Poster Presentation, *The 7th NUS-NUH Annual Scientific Meeting*, Clinical Research Centre, National University of Singapore, Singapore, 2-3 October.

3. Hwarng, H. B., Chong, C. and Burgess, T. F. (2002), Simulation Modeling of a Multi-Level, Multi-Retailer Supply Chain, *Proceedings of the 30th International Conference on Computers & Industrial Engineering*, Tinos Island, Greece, 28 June – 2 July, 359-364.

4. Hwarng, H. B. (2001), Modeling ARMA Time Series: Another Perspective Based on Neural-Network Modeling, *Proceedings of the Sixth Asia-Pacific Decision Sciences Institute Conference* (CD-ROM), Orchard Hotel, Singapore, 18-21 July.

5. Burgess, T. F., Hwarng, H. B., de Mattos, C. and Shaw, N. E. (2000), Responding to Supply Chain Challenges in the Speciality Chemical Industry, *Proceedings of the Logistics Research Network 5th Annual Conference*, Cardiff University, U.K., 7-8 September, pp113-118 (Cardiff: Lean Enterprise Research Centre).

6. Hwarng, H. B. and Ang, H. T. (1998), Modeling ARMA Time Series: Perceptrons or Multilayered Perceptrons, *Proceedings of the Third Asia Pacific Decision Sciences Institute Conference* (CD-ROM), Taipei, Taiwan, 7-11 June.

Books/Chapters/Commentaries/Monographs/Reports

1. Hwarng, H. B. (2016), The art of the dumpling: Learning from Din Tai Fung, (TODAY, print and online, 2 July.
2. Hwarng, H. B. (2009), Our Decisions Can Create Chaos, *Asia One* (Singapore), 24 December.
3. Hwarng, H. B. (2009), Our Decisions Can Create Chaos, *The Business Times* (Singapore), 22 December.
4. Hwarng, H. B. (2007), Neural Networks in Statistical Process Control, *Encyclopedia of Statistics in Quality and Reliability*, Ruggeri, F., Kenett, R. and Faltin, F. W. (eds). John Wiley & Sons, Chichester, UK, 1229-1234.
5. Chong, C. L., Brah, S. A., Hwarng, H. B. and Ng, K. K (1997), *Best Practice Cases: Manufacturing Process Management*, Singapore: Singapore Productivity and Standards Board).
6. Hwarng, H. B. (1986), Pegging Methods for the Design of Relational Database Schemata, Master Project, Department of Industrial Engineering, University of Missouri-Columbia.
7. Hwarng, H. B. (2011), 《转型面临的挑战: 服务和管理精益化》, *管理视窗* (*Window to Management*), Vol. 41, July.
8. Hwarng, H. B. (2010), 《标竿企业的卓越理念框架》, *管理视窗* (*Window to Management*), Vol. 39, Jan.
9. Hwarng, H. B. (2009), 《应对经济低迷的困境：企业精益化》, *管理视窗* (*Window to Management*), Vol. 38, July.
10. Hwarng, H. B. (2008), 《企业竞争法则：为顾客创造价值》, *管理视窗* (*Window to Management*), Vol. 36, July.
11. Hwarng, H. B. (2006), 《重读戴明管理哲学》, *21 世纪经济报道 (21st Century Business Herald)*, 16 January (in Chinese).
12. Hwarng, H. B. (2006), 《稳定还是混沌？》, *21 世纪经济报道 (21st Century Business Herald)*, 23 January (in Chinese).
13. Hwarng, H. B. (2006), 《打造黄金人脉》, *21 世纪经济报道 (21st Century Business Herald)*, 13 February (in Chinese).

PUBLIC TALKS, SEMINARS & WORKSHOPS

1. Invited Panel: Why Deming? Why Now? *2019 DSI Annual Meeting*, New Orleans, LA, USA (Nov 23 2019).
2. Workshop: Why Do You Think Agile, BPR, Design Thinking, Lean, Six Sigma Can't Last Long?, *2017 DSI Annual Meeting*, Washington D. C., USA (Nov 20 2017).
3. Invited Plenary Speaker, Insights and Innovations via the Expanded Funnel Experiment, *The 21st International Demining Research Seminar* (24 Mar 2015), Georgetown University, Washington DC, USA.
4. Seminar Speaker, The Deadly Diseases of Modern Corporations, Southern China Alumni Chapter (15 Sep 2012), Guangzhou, China.
5. Keynote speaker, One Part impacts the Whole: System Dynamics, *The 8th NUS Business School Mandarin Management Forum* (3 Sept 2011), NUS Guild House, Singapore.
6. Keynote speaker, Challenges in Restructuring: the "Software", *Asia Business Management Forum*, Suzhou Industry Park, Suzhou (20 Jan 2011), China.
7. Keynote speaker, On the Verge of Chaos, *NUS MBA Management Forum*, Shanghai (13 March 2010), Beijing (14 March 2010), China.
8. Keynote speaker, Transforming Your Organization in a Changing Environment: Learning from Leading Companies - Best Practices from Leading Companies: Some Perspectives, *The 4th NUS Business School Mandarin Management Forum* (18 Sept 2009), Singapore.
9. Keynote speaker, Financial Crisis Aftermath: What is Really Lean in Service and Management, *NUS Asia-Pacific Executive MBA Management Forum*, Zhengzhou (15 Feb 2009) Beijing (1 March 2009), China.

10. Keynote speaker, Financial Crisis Aftermath: What is Really Lean in Production and Supply Chains, *NUS Executive Education Management Forum*, Suzhou, China (5 Dec, 2008).
11. Invited speaker, Decisions and Chaos in a Complex Supply Chain, *The First International Workshop on Nonlinear Dynamics and Synchronization (INDS'08)*, University of Klagenfurt, Klagenfurt, Austria, 18-19 July, 2008.
12. Invited speaker, The Law of Competition – Creating Value for Customers, *NUS Business School Global Alumni Networks Business Forum*, Surabaya, Indonesia, 1 March 2008.
13. Invited speaker, From Quality to Value Creation, *NUS Business School Global Alumni Networks Business Forum*, Jakarta, Indonesia, 22 September 2007.
14. Invited speaker, Deming Philosophy: Leaders' and Managers' Responsibilities, *NUS Business School Mandarin Association Management Forum*, Guild House, Suntec City, Singapore, 4 June 2005.
15. Invited speaker, Six Sigma: Customer and Performance Focused Management, *SIM Alumni Management Forum*, Singapore Institute of Management, 24 April 2005.
16. Keynote speaker, From Deming Philosophy to Chaos Theory: Lessons for Modern Management, *2005 NUS Asia-Pacific Executive MBA Management Forum*, Hangzhou, China (4 March 2005), Shanghai, China (5 March 2005) and Suzhou, China (6 March 2005).
17. Keynote speaker, Six Sigma: What Leaders Need to Know, *2004 NUS Asia-Pacific Executive MBA Management Forum*, Shanghai, China (28 March 2004) and Hangzhou, China (30 March 2004).
18. Invited speaker and panelist, Computer Simulation: A Powerful Tool for Port Design and Operations, *Seminar on Port Design and Operation Technology*, Amara Hotel, Singapore, 4-5 November 1998, (14 pages).
19. Invited chair, speaker, and panelist (Logistics and Supply Chain Management), Competing through Partnership, *In Search of Best Practices for SMEs…business strategies for growth revival*, Mandarin Hotel, Singapore, 22 May 2001.

STUDENTS SUPERVISED

1. Wang Yu, Master Thesis: *Detect and Identify Mean Shifts in Multivariate Autocorrelated Processes: A Comparative Study*, 2006 (employed by American Express, Singapore).
2. Yuan Xuchuan, PhD Dissertation: *Capability, Competition and Social interactions in Service Operations*, 2013 (employed as Associate Professor, Harbin Institute of Technology, Harbin, China)
3. Guo Zhanbing, Research Topic: *Employees, Customers, and Profits: How to Balance* (Visiting PhD Candidate from Tianjin University, Oct 16 – Sept 17).
4. Li Chengzhang, Research Topic: *Exploring the influence of social interactions on service capacity decision based on Chaos theory*, Harbin Institute of Technology, Nov17-Oct18).

HONORS AND PROFESSIONAL SOCIETIES

- Ivey Publishing Best-Seller Case: Din Tai Fung: The Art of the Dumpling (9B16D007), December 2016.
- 2016 DSI Instructional Innovation Award Finalist (The Expanded Funnel Experiment: A Powerful Approach to Understanding Deming Management), the 47th Decision Sciences Institute Annual Meeting, Austin, Texas, 21 Nov 2016.
- 2015 DSI Best Teaching Case Studies Award Winner (Din Tai Fung: Xiao Long Bao), the 46th Decision Sciences Institute Annual Meeting, Seattle, Washington, 23 Nov 2015 (developed with assistance of Xuchuan Yuan)
- 2012 DSI Best Teaching Case Studies Award, Honorable Mention (Shanghai Baolong Automotive Corporation), the 43rd Decision Sciences Institute Annual Meeting, San Francisco, 20 Nov 2012 (developed with assistance of Xuchuan Yuan)
- 2011 DSI Best Track Paper Award (Service and Manufacturing Operations Management), the 42nd Decision Sciences Institute Annual Meeting (jointly with Yuan Xuchuan, 2011)
- The William J. Gies Award for Clinical Research (jointly with NUS Dentistry faculty, 2011)
- IADR Lion Dental Research Award for Junior Investigator (jointly with NUS Dentistry faculty, 2007)

- Commonwealth Fellowship Award, UK (12/1999 – 11/2000)
- Membership
  - o Decision Sciences Institute (DSI, USA) (Sept 2002 – Oct 2020)
  - o American Society for Quality (ASQ, USA) (October 1991 – Jun 2020)
  - o *Senior Member since 09/2002*
  - o Alpha Pi Mu (Industrial Engineering Honor Society, USA) (Fall 1987 - present)
  - o ASQ Six Sigma Forum (Oct 2002 – Jun 2020)
  - o Institute of Industrial Engineers (IIE, USA) (Fall 1984 - 1999)
  - o International Neural Network Society (INNS, USA) (January 1990 - 1999)