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學歷	雪城大學 (SYRACUSE UNIVERSITY)	Syracuse, NY

- 計算機科學博士   (8 月 1993)
  - 論文題目: Efficient Soft-Decision Decoding Algorithms for Linear Block Codes Using Algorithm A*
  - **1994** 雪城大學博士論文獎

國立清華大學	新竹，台灣

- 電機工程碩士   (6 月 1986)

- 電機工程學士   (6 月 1984)

經歷	東莞理工學院電子工程與智能化學院 3 月 2016 – 迄今 傑出人才特聘教授	廣東
	國立台灣科技大學電機工程系 6 月 2011 – 1 月 2017 講座教授	台灣
	國立台北大學電機資訊學院 2 月 2015 – 迄今 科技講座教授	台灣
	INSTITUTE OF NETWORK CODING 香港中文大學 6 月 2014 – 9 月 2014 1 月 2015– 2 月 2015 訪問學者	香港
	DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE SYRACUSE UNIVERSITY 7 月 2012 – 6 月 2013 傅爾布萊特訪問學者	Syracuse NY , USA
	DEPARTMENT OF COMPUTER SCIENCE UNIVERSITY OF HOUSTON 6 月 2011 – 7 月 2011 訪問學者	Houston TX , USA
	國立台灣科技大學電機工程系 8 月 2010 –5 月 2011 教授	台灣
	國立台北大學通訊工程研究所 8 月 2009 – 7 月 2010	台灣

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The Center for Systems Assurance (CSA)
Department of Electrical Engineering and Computer Science
Syracuse University Syracuse NY, USA
9 月 2002 – 1 月 2004
SUPRIA (Syracuse University Prototypical Research in Information Assurance)
訪問研究學者

Department of Electrical Engineering
University of Hawaii at Manoa Honolulu, HI, USA
6 月 2001 – 10 月 2001
訪問學者

國立暨南國際大學資訊工程學系 台灣
8 月 1998 – 7 月 2001
計算機與網路中心主任

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8 月 1997 – 7 月 1998
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雪城大學資訊科學系 Syracuse, NY
8 月 1992 – 8 月 1993
Graduate Research Associate

雪城大學資訊科學系 Syracuse, NY
8 月 1989 – 7 月 1992

Graduate Teaching Assistant

學術服務 IEEE Taipei Section Taiwan, R. O. C.
January 2007– December 2008
Chair of Educational Activities.

IEEE Information Theory Society Taipei Chapter Taiwan, R. O. C.
August 2005– July 2007
Chapter Chair.

Journal of Internet Technology
2001-present
Editor.

International Journal of Ad Hoc and Ubiquitous Computing
2005-present
Editor.

International Journal of Distributed Sensor Networks
2010-May 2013
Editor.

The First IEEE International Conference on Wireless and
Mobile Computing, Networking and Communications Montreal, Canada
2005
Technical Program Committee member.

The Second IEEE International Conference on Wireless and
Mobile Computing, Networking and Communications Montreal, Canada
2006
Technical Program Committee member.

The IEEE International Conference on Sensor
Networks, Ubiquitous, and Trustworthy Computing Taichung, Taiwan, R. O. C.
2006
Technical Program Committee member.

The IEEE International Workshop on Ad Hoc,
Ubiquitous Computing Taichung, Taiwan, R. O. C.
2006
Co-Chair.

International Conference on Algorithms, Systems, and
Applications of Wireless Network Xian, China
2006
Technical Program Committee member.

The IEEE Consumer Communications and Networking
Conference 2007 (IEEE CCNC 2007): Wireless Networking
Track Las Vegas, USA
2007
Technical Program Committee member.

The 2007 IFIP International Conference on Embedded and
Ubiquitous Computing Taipei, Taiwan, R. O. C.

2007

Technical Program Committee member.

The Third IEEE International Conference on Wireless and
Mobile Computing, Networking and Communications   New York City, USA
2007

Technical Program Committee member.

IEEE Global Telecommunications Conference
(IEEE GLOBECOM 2007): Multimedia Communications
Software and Services Symposium   Washington, D.C., USA
2007

Technical Program Committee member.

The First IEEE Conference on Wireless Rural and Emergency
Communications (WRECOM 2007)   Rome, Italy
2007

Technical Program Committee member.

The IEEE Consumer Communications and Networking
Conference 2008 (IEEE CCNC 2008): Network Access and
Communications track   Las Vegas, USA
2008

Technical Program Committee member.

The 2008 IEEE International Conference on
Communications (IEEE ICC 2008): Information and Network
Security Symposium   Beijing, China
2008

Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference
2009 (IEEE CCNC 2009): Wireless Networking for Consumer
Electronics track   Las Vegas, USA
2009

Technical Program Committee member.

The 2009 IEEE International Conference on
Communications (IEEE ICC 2009): Communication and Information
Systems Security Symposium   Dresden, Germany
2009

Technical Program Committee member.

The IEEE Consumer Communications and Networking Conference
2010 (IEEE CCNC 2010): Smart Spaces and Personal Area
Networks for CE track   Las Vegas, USA
2010

Technical Program Committee member.

The International Symposium on Information theory and Its
Applications 2010 (ISITA 2011)   Taichung, Taiwan
2010

General Secretary.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE
2011 (IEEE CCNC 2011): SMART SPACES AND PERSONAL AREA
NETWORKS FOR CE TRACK   Las Vegas, USA
2011
Technical Program Committee member.

THE 2011 IEEE INTERNATIONAL CONFERENCE ON
COMMUNICATIONS (IEEE ICC 2011): COMMUNICATION AND INFORMATION
SYSTEMS SECURITY SYMPOSIUM   Kyoto, Japan
2011
Technical Program Committee member.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE
(IEEE GLOBECOM 2012): COMMUNICATION AND INFORMATION
SYSTEMS SECURITY SYMPOSIUM   Anaheim, CA, USA
2012
Technical Program Committee member.

THE 3RD IEEE INTERNATIONAL CONFERENCE ON SMART GRID
COMMUNICATIONS (IEEE SMARTGRIDCOMM 2012)   Taitan, Taiwan, ROC
2012
Keynote/Panel Chair

THE 3RD IEEE INTERNATIONAL CONFERENCE ON SMART GRID
COMMUNICATIONS (IEEE SMARTGRIDCOMM 2012): SMART GRID
COMMUNICATION NETWORKS SYMPOSIUM   Taitan, Taiwan, ROC
2012
Co-Chair.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE
(IEEE GLOBECOM 2013): COMMUNICATION AND INFORMATION
SYSTEMS SECURITY SYMPOSIUM   Atlanta, USA
2013
Co-Chair.

THE 4TH IEEE INTERNATIONAL CONFERENCE ON SMART GRID
COMMUNICATIONS (IEEE SMARTGRIDCOMM 2013): SMART GRID
COMMUNICATION NETWORKS SYMPOSIUM   Vancouver, BC, Canada
2013
Program Committee member.

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY
SPECIAL SECTION ON VEHICULAR SOCIAL NETWORKS
2013
Guest Editor.

獎勵及榮譽
- **2013, 2013 ACM CCS Test-of-Time 獎**[1]
- 2012, 2012-2013 傅爾布萊特資深學者赴美研究獎助金
- 2011, 國立台灣科技大學講座教授
- 2011, 電機電子工程師學會會士 (IEEE Fellow)

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[1]此獎項主要表揚 10 年前發表於 ACM SIGSAC 的旗艦會議 the ACM Conference on Computer and Communications Security (CCS) 對資訊安全領域有極大影響力的論文。

- 2010, 國立台灣科技大學研究優良獎
- 2007, 國立台北大學電機與資訊學院研究傑出獎
- 2002-2004, SUPRIA 訪問研究獎勵
- 2000, 八十九年度國科會甲種獎勵
- 2000, 國立暨南國際大學學術績優獎
- 1999, 八十八年度國科會甲種獎勵
- 1998, 八十七年度國科會甲種獎勵
- 1997, 八十六年度國科會甲種獎勵
- **1997**, 一篇論文是 1997 IEEE International Symposium on Information Theory 所選出的 long presentation[2]
- **1994**, 1994 雪城大學博士論文獎
- 1994, 八十三年度國科會甲種獎助
- 1993, 八十二年度國科會新進人員獎助
- **1993**, 一篇論文是 1993 IEEE International Symposium on Information Theory 所選出的 long presentation

學術會員
- **IEEE Fellow 2011– Elevated by Communication Society for contributions to Decoding Techniques**

研究主題
- 無線網路 – 特別在感測器網路 (sensor network) 及 ad hoc 網路的保密、資料融合 (data fusion) 及能量控制應用
- 資訊安全 – 特別在感測器網路及隱私保存相關的問題
- 編碼理論 – 特別在解碼理論的發展及有效率的解碼程式之設計
- 無線通訊 – 特別在錯誤更正碼的應用及 VLSI 設計

執行計畫
- 國科會
  1. **8 月 2013– 7 月 2016**。 利用錯誤更正碼在無線感測網路位置偵測之研究，計畫主持人。
  2. **8 月 2012– 7 月 2015**。 再生碼在分散式儲存系統應用的研究，計畫主持人。
  3. **8 月 2010– 7 月 2013**。 編碼理論在雲端計算容錯及個人隱私應用的研究，計畫主持人。
  4. **8 月 2010– 7 月 2011**。 基於錯誤控制碼的有效分散式網路儲存的研究，計畫主持人。
  5. **8 月 2007– 7 月 2010**。 去尾迴旋碼之軟性決定解碼之研究，計畫主持人。
  6. **8 月 2007– 7 月 2010**。 利用 MDS 碼在無線感測器網路上有效率建立保密通道，計畫主持人。
  7. **8 月 2006– 7 月 2007**。 無線感測器網路上密鑰交換之研究，計畫主持人。
  8. **8 月 2005– 7 月 2007**。 針對訊息長度偵測之循環冗餘檢查碼的研究，計畫主持人。
  9. **8 月 2004– 7 月 2005**。 編碼理論在無線感測器網路的資料融合應用研究，計畫主持人。
  10. **8 月 2003– 7 月 2004**。 第四代無線通訊之 WOFDM 下行傳輸技術研究 (3/3)–子計畫一：行動無線通道上 WOFDM 傳輸系統之編碼技術研究，計畫主持人。

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[2]被 IEEE International Symposium on Information Theory 選為 long presentation 的論文皆是 Information Theory 和 Coding Theory 領域的國際著名學者們認為將對此領域造成重大影響的文章. 每年被此會議接受的論文約 586 篇，其中僅約有 17 篇為 long presentation.

11. **8 月 2002– 7 月 2003**。 Fano Metric 之推廣及循序解碼程式，計畫主持人。
12. **8 月 2001– 7 月 2002**。 第四代無線通訊之 WOFDM 下行傳輸技術研究 (1/3)–子計畫一：行動無線通道上 WOFDM 傳輸系統之編碼技術研究，計畫主持人。
13. **8 月 1999– 7 月 2002**。 國家寬頻實驗網路上整體醫療服務系統之研究 –子計畫五: 多媒體醫療資訊儲存及傳輸的安全性研究，計畫主持人。
14. **8 月 1999– 7 月 2001**。 台灣學術網路/研究網路連線計畫 –暨南大學，計畫主持人。
15. **8 月 1999– 7 月 2001**。 線性塊狀碼幾何搜尋解碼演算法的研究，計畫主持人。
16. **8 月 1998– 7 月 1999**。 迴旋碼的最大可靠度軟性決定循序解碼的研究，計畫主持人。
17. **8 月 1997– 7 月 1998**。 線性塊狀碼硬性解碼的研究，計畫主持人。
18. **8 月 1995– 7 月 1996**。 啟發性資訊在線性格狀碼之軟性決定解碼上的影響，計畫主持人。
19. **8 月 1994– 7 月 1995**。 線性格狀碼之軟性決定解碼的研究，計畫主持人。

- 工業界
  1. **12 月 2010– 9 月 2011**。 多階層快閃記憶體之 BCH 解碼器及 CRC 檢查電路整合設計，計畫主持人。（鑫創科技）
  2. **8 月 2010– 6 月 2011**。 低閘數多階層快閃記憶體之 LDPC 碼的設計，計畫主持人。（鑫創科技）
  3. **11 月 2009– 9 月 2010**。 基於 Welch-Berlekamp 演算法的多階層快閃記憶體之 VLSI 設計，計畫主持人。（鑫創科技）
  4. **7 月 2009– 5 月 2010**。 多階層快閃記憶體之 LDPC 碼的設計，計畫主持人。（鑫創科技）
  5. **11 月 2007– 7 月 2008**。 AES 的 VLSI 設計，計畫主持人。（鑫創科技）
  6. **8 月 2007– 6 月 2008**。 低閘數多階層快閃記憶體之錯誤控制碼的設計，計畫主持人。（鑫創科技）
  7. **8 月 2006– 4 月 2007**。 高效率多階層快閃記憶體之錯誤控制碼的設計，計畫主持人。（鑫創科技）
  8. **1 月 2006– 1 月 2007**。 第三點五代行動通訊系統錯誤更正演算法研究發展，計畫主持人。（凌陽科技）

著作

- 專書論文
  1. <u>Y. S. Han</u> and P.-N. Chen, "Sequential Decoding of Convolutional Codes," *Encyclopedia of Telecommunications* (Editor: John Proakis), New York, Wiley, 2002, pp. 2140-2146.

- 期刊論文
  1. S.-J. Lin, T. Y. Al-Naffouri, <u>Y. S. Han</u>, and W.-H. Chung, "Novel Polynomial Basis with Fast Fourier Transform and Its Application to Reed-Solomon Erasure Codes," *IEEE Trans. on Information Theory*, to appear. **(Full paper)**
  2. J.-T. Tsai and <u>Y. S. Han</u>, "Geographic routing with enhanced local information for wireless networks," *Journal of Information Science and Engineering*, to appear. **(Full paper)**
  3. M. A. Mulatu, L.-C. Chang, <u>Y. S. Han</u>, F. G. Mengistu, and D.-F. Tseng, "Threshold-Based Cooperative Communication of Energy Harvesting Active Networked Tags," *Int. J. Ad Hoc and Ubiquitous Computing*, to appear. **(Full paper)**
  4. S.-J. Lin, T. Y. Al-Naffouri, and <u>Y. S. Han</u>, "FFT Algorithm for Binary Extension Finite Fields and its Application to Reed-Solomon Codes," *IEEE Trans. on Information Theory*, pp. 5343-5358, October, 2016. **(Full paper)**
  5. R. El-Bardan, E. Masazade, O. Ozdemir, <u>Y. S. Han</u>, and P. K. Varshney, "Permutation Trellis Coded Multi-level FSK Signaling to Mitigate Primary User Interference in Cognitive Radio Networks," *IEEE Trans. on Communications*, pp. 104-116, January, 2016. **(Full paper)**

6. B. Kailkhura, <u>Y. S. Han</u>, S. Brahma, and P. K. Varshney, "Distributed Bayesian Detection in the Presence of Byzantine Data," *IEEE Trans. on Signal Processing*, pp. 5250 - 5263, October, 2015. **(Full paper)**

7. B. Kailkhura, S. Brahma, B. Dulek, <u>Y. S. Han</u>, and P. K. Varshney, "Distributed Detection in Tree Networks: Byzantines and Mitigation Techniques," *IEEE Trans. on Information Forensics and Security*, pp. 1499-1512, July, 2015. **(Full paper)**

8. <u>Y. S. Han</u>, H.-T. Pai, R. Zheng, and P. K. Varshney, "Update-Efficient Error-Correcting Product-Matrix Codes," *IEEE Trans. on Communications*, pp. 1925-1938, June, 2015. **(Full paper)**

9. B. Kailkhura, <u>Y. S. Han</u>, S. Brahma, and P. K. Varshney, "Asymptotic Analysis of Distributed Bayesian Detection with Byzantine Data," *IEEE Signal Processing Letters*, pp. 608-611, May, 2015.

10. S.-J. Lin, W.-H. Chung, <u>Y. S. Han</u>, and T. Y. Al-Naffouri, "A Unified Form of Exact-MSR Codes via Product-Matrix Frameworks," *IEEE Trans. on Information Theory*, pp. 873-886, February, 2015. **(Full paper)**

11. D.-F. Tseng, F. G. Mengistu, <u>Y. S. Han</u>, M. A. Mulatu, L.-C. Chang, and T.-R. Tsai, "Robust Turbo Decoding in a Markov Gaussian Channel," *IEEE Wireless Communications Letters*, pp. 633-636, December, 2014.

12. F. G. Mengistu, D.-F. Tseng, <u>Y. S. Han</u>, M. A. Mulatu, and L.-C. Chang, "A Robust Decoding Scheme for Convolutionally Coded Transmission Through a Markov Gaussian Channel," *IEEE Trans. on Vehicular Technology*, pp. 4344-4356, November, 2014. **(Full paper)**

13. B. Kailkhura, S. Brahma, <u>Y. S. Han</u>, and P. K. Varshney, "Distributed Detection in Tree Topologies with Byzantines," *IEEE Trans. on Signal Processing*, pp. 3208-3219, June, 2014. **(Full paper)**

14. V. S. S. Nadendla, <u>Y. S. Han</u>, and P. K. Varshney, "Distributed Inference with *M*-ary Quantized Data in the Presence of Byzantine Attacks," *IEEE Trans. on Signal Processing*, pp. 2681-2695, May, 2014. **(Full paper)**

15. <u>Y. S. Han</u>, H.-T. Pai, R. Zheng, and W. H. Mow, "Efficient Exact Regenerating Codes for Byzantine Fault Tolerance in Distributed Networked Storage," *IEEE Trans. on Communications*, pp. 385-397, February, 2014. **(Full paper)**

16. A. Vempaty, <u>Y. S. Han</u>, and P. K. Varshney, "Target Localization in Wireless Sensor Networks using Error Correcting Codes," *IEEE Trans. on Information Theory*, pp. 697-712, January, 2014. **(Full paper)**

17. D.-F. Tseng, <u>Y. S. Han</u>, W. H. Mow, P.-N. Chen, J. Deng, and A. J. Han Vinck, "Robust Decoding for Convolutionally Coded Systems Impaired by Memoryless Impulsive Noise," *IEEE Trans. on Communications*, pp. 4640 - 4652, November, 2013. **(Full paper)**

18. T.-Y. Wu, P.-N. Chen, F. Alajaji, and <u>Y. S. Han</u>, "On the Design of Variable-Length Error-Correcting Codes," *IEEE Trans. on Communications*, pp. 3553-3565, September, 2013. **(Full paper)**

19. J. Deng and <u>Y. S. Han</u>, "Cooperative Secret Delivery in Wireless Sensor Networks," *Int. J. Ad Hoc and Ubiquitous Computing*, Vol. 14, No. 4, pp. 226-237, 2013. **(Full paper)**

20. <u>Y. S. Han</u>, S. Omiwade, and R. Zheng, "Progressive Data Retrieval for Distributed Networked Storage," *IEEE Trans. on Parallel and Distributed Systems*, pp. 2303-2314, December, 2012. **(Full paper)**

21. J. Deng, S. C.-H. Huang, and <u>Y. S. Han</u>, "An On-line Relay Selection Scheme in Power Controllable Wireless Sensor Networks," *International Journal of Distributed Sensor Networks*, Vol. 2012, Article ID 213598, 13 pages. **(Full paper)**

22. D.-F. Tseng, <u>Y. S. Han</u>, W. H. Mow, L.-C. Chang, and A. J. Han Vinck, "Robust Clipping for OFDM Transmissions over Memoryless Impulsive Noise Channels," *IEEE Communications Letters*, pp. 1110-1113, July, 2012.

23. <u>Y. S. Han</u>, T.-Y. Wu, H.-T. Pai and P.-N. Chen, "The Modified Wrap-Around Viterbi Algorithm for Convolutional Tail-Biting Codes," *Journal of the Chinese Institute of Engineers*, pp. 431-437, June, 2012. **(Full paper)**

24. T.-R. Tsai, D.-F. Tseng, <u>Y. S. Han</u>, and H.-T. Pai, "Improved EXIT Analysis for Turbo Decoding," *IEEE Communications Letters*, pp. 995-997, September. 2011.

25. H.-T. Pai, <u>Y. S. Han</u>, and Y.-J. Chu, "New HARQ Scheme Based on Decoding of Tail-biting Convolutional Codes in IEEE 802.16e," *IEEE Trans. on Vehicular Technology*, pp. 912-918, March, 2011. **(Full paper)**

26. S.-L. Shieh, P.-N. Chen, <u>Y. S. Han</u>, and T.-Y. Wu, "Early-Elimination Modification for Priority-First Search Decoding," *IEEE Trans. on Communications*, pp. 3459-3469, December, 2010. **(Full paper)**

27. Y.-M. Huang, T.-Y. Wu, and <u>Y. S. Han</u>, "An A^*-based Algorithm for Constructing Reversible Variable Length Codes with Minimum Average Codeword Length," *IEEE Trans. on Communications*, pp. 3175-3185, November, 2010. **(Full paper)**

28. H.-T. Pai, J. Deng, and <u>Y. S. Han</u>, "Time-Slotted Voting Mechanism for Fusion Data Assurance in Wireless Sensor Networks Under Stealthy Attacks," *Computer Communications*, pp. 1524-1530, August, 2010. **(Full paper)**

29. C.-L. Wu, P.-N. Chen, <u>Y. S. Han</u>, and M.-H. Kuo, "Maximum-Likelihood Priority-First Search Decodable Codes for Combined Channel Estimation and Error Correction," *IEEE Trans. on Information Theory*, pp. 4191-4203, September 2009. **(Full paper)**

30. J. Deng, <u>Y. S. Han</u>, and S. R. Kulkarni, "Can Multiple Subchannels Improve the Delay Performance of RTS/CTS-based MAC Schemes?" *IEEE Trans. on Wireless Communications*, pp. 1591-1596, April, 2009.

31. H.-T. Pai, <u>Y. S. Han</u>, T.-Y. Wu, P.-N. Chen, and S.-L. Shieh, "Low-Complexity ML Decoding for Convolutional Tail-Biting Codes," *IEEE Communications Letters*, pp. 883-885, December, 2008.

32. S. C.-H. Huang, P.-J. Wan, J. Deng, and <u>Y. S. Han</u>, "Broadcast Scheduling in Interference Environment," *IEEE Trans. on Mobile Computing*, pp. 1338-1348. November, 2008. **(Full paper)**

33. C.-Y. Wang, P.-N. Chen, W.-T. Chen, S.-L. Shieh, and <u>Y. S. Han</u>, "An Efficient SNR Estimate Scheme for Turbo Decoder over Quasi-Static Channels," *International Journal of Electrical Engineering (IJEE)*, pp. 261-268, 2008. **(Full paper)**

34. Y.-M. Huang, <u>Y. S. Han</u>, and T.-Y. Wu, "Soft-Decision Priority-First Decoding Algorithms for Variable-Length Error-Correcting Codes," *IEEE Communications Letters*, pp. 572-574, August, 2008.

35. J. Deng and <u>Y. S. Han</u>, "Multi-path Key Establishment for Wireless Sensor Networks Using Just Enough Redundancy Transmission," *IEEE Trans. on Dependable and Secure Computing*, pp. 177-190, July-September, 2008. **(Full paper)**

36. H.-T. Pai, <u>Y. S. Han</u>, and J.-T. Sung, "Two-Dimensional Coded Classification Schemes in Wireless Sensor Networks," *IEEE Trans. on Wireless Communications*, pp. 1450-1455, May, 2008.

37. H.-T. Pai and <u>Y. S. Han</u>, "Power-Efficient Direct-Voting Assurance for Data Fusion in Wireless Sensor Networks," *IEEE Trans. on Computers*, pp. 261-273, February, 2008. **(Full paper)**

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