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Journal of Internet Technology
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The First IEEE International Conference on Wireless and
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THE IEEE INTERNATIONAL WORKSHOP ON AD HOC,
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INTERNATIONAL CONFERENCE ON ALGORITHMS, SYSTEMS, AND
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Technical Program Committee member.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING
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THE 2007 IFIP INTERNATIONAL CONFERENCE ON EMBEDDED AND
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Technical Program Committee member.

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IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE
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THE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY AND ITS
APPLICATIONS 2010 (ISITA 2011)   Taichung, Taiwan
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General Secretary.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE
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獎勵及榮譽
- 2007, 國立台北大學電機與資訊學院研究傑出獎
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- 2000, 八十九年度國科會甲種獎勵
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[1]被 IEEE International Symposium on Information Theory 選爲 long presentation 的論文皆是 Information Theory 和 Coding Theory 領域的國際著名學者們認爲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篇爲 long presentation.

- 1994, 八十三年度國科會甲種獎助
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- 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

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  4. **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。
  5. **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。
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  7. **8月 2002– 7月 2003。** Fano Metric 之推廣及循序解碼程式，計畫主持人。
  8. **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。
  9. **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。
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  11. **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。
  12. **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。
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- **工業界**
  1. **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）**
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  4. **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）**
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6. **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.

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1. 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*, to appear. **(Full paper)**

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7. 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)**

8. 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.

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10. 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.

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12. J. Deng, <u>Y. S. Han</u>, P.-N. Chen, and P. K. Varshney, "Optimal Transmission Range for Wireless Ad Hoc Networks Based on Energy Efficiency," *IEEE Trans. on Communications*, pp. 1772-1782, September, 2007. **(full paper)**

13. S.-L. Shieh, P.-N. Chen, and <u>Y. S. Han</u>, "Flip CRC Modification for Message Length Detection," *IEEE Trans. on Communications*, pp. 1747-1756, September, 2007. **(full paper)**

14. H.-T. Pai, J.-T. Sung, and <u>Y. S. Han</u>, "Adaptive Retransmission with Balanced Load for Fault-Tolerant Distributed Detection in Wireless Sensor Networks," *Journal of Information Science and Engineering: special issue on Wireless Ad Hoc and Sensor Networks*, pp. 1141-1154, July, 2007. **(full paper)**

15. C. Yao, P.-N. Chen, T.-Y. Wang, <u>Y. S. Han</u>, and P. K. Varshney, "Performance Analysis and Code Design for Minimum Hamming Distance Fusion in Wireless Sensor Networks," *IEEE Trans. on Information Theory*, pp. 1706-1715, May, 2007. **(full paper)**

16. Y.-J. Chen, D.-R. Duh, and <u>Y. S. Han</u>, "An Improved Modulo $(2^n + 1)$ Multiplier for IDEA," *Journal of Information Science and Engineering*, pp. 911-923, March 2007.

17. C.-W. Chang, P.-N. Chen, and <u>Y. S. Han</u>, "A Systematic Bit-wise Decomposition of M-ary Symbol Metric," *IEEE Trans. on Wireless Communications*, pp. 2742-2751, October, 2006. **(full paper)**

18. <u>Y. S. Han</u>, J. Deng, and Z. J. Haas, "Analyzing Multi-Channel Medium Access Control Schemes with ALOHA Reservation," *IEEE Trans. on Wireless Communications*, pp. 2143-2152, August, 2006. **(full paper)**

19. T.-Y. Wang, <u>Y. S. Han</u>, B. Chen, and P. K. Varshney, "A Combined Decision Fusion and Channel Coding Scheme for Distributed Fault-Tolerant Classification in Wireless Sensor Networks," *IEEE Trans. on Wireless Communications*, pp. 1695-1705, July, 2006. **(full paper)**

20. J. Deng, <u>Y. S. Han</u>, and Z. J. Haas, "Analyzing Split Channel Medium Access Control Schemes," *IEEE Trans. on Wireless Communications*, pp. 967-971, May, 2006.

21. W. Du, J. Deng, <u>Y. S. Han</u>, and P. K. Varshney "A Key Pre-distribution Scheme for Sensor Networks Using Deployment Knowledge," *IEEE Trans. on Dependable and Secure Computing*, pp. 62-77, January, 2006. **(full paper)** (根據 **Google Scholar** 已被引用超過 **500** 次)

22. J. Deng, <u>Y. S. Han</u>, W. B. Heinzelman, and P. K. Varshney, "Scheduling Sleeping Nodes in High Density Cluster-based Sensor Networks," *ACM/Kluwer MONET Special Issue on "Energy Constraints and Lifetime Performance in Wireless Sensor Networks,"* pp. 825-835, December, 2005. **(full paper)**

23. T.-Y. Wang, <u>Y. S. Han</u>, and P. K. Varshney, "Fault-Tolerant Distributed Classification Based on Non-binary Codes in Wireless Sensor Networks," *IEEE Communications Letters*, pp. 808-810, September, 2005.

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27. C.-C. Lee, P.-C. Chung, D.-R. Duh, <u>Y. S. Han</u>, and C.-W. Lin, "A Practice of a Collaborative Multipoint Medical Teleconsultation System on Broadband Network," *Journal of High Speed Networks*, pp. 207-222, September 2004. **(full paper)**

28. <u>Y. S. Han</u>, P.-N. Chen and H.-B. Wu, "A Maximum-Likelihood Soft-Decision Sequential Decoding Algorithm for Binary Convolutional Codes," *IEEE Trans. on Communications*, pp. 173-178, February, 2002.

29. P.-N. Chen and <u>Y. S. Han</u>, "Asymptotic Minimum Covering Radius of Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 549-564, November, 2001. **(full paper)**

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31. <u>Y. S. Han</u>, "A New Decoding Algorithm for Complete Decoding of Linear Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 664-671, November, 1998. **(full paper)**

32. <u>Y. S. Han</u>, "A New Treatment of Priority-First Search Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes," *IEEE Trans. on Information Theory*, pp. 3091-3096, November, 1998.

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36. <u>Y. S. Han</u>, C. R. P. Hartmann, and C-C. Chen, "Efficient Priority-First Search Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes," *IEEE Trans. on Information Theory*, pp. 1514-1523, September, 1993. **(full paper) (根據 Google Scholar 已被引用 100 次)**

- 審核會議論文

1. <u>Y. S. Han</u>, S. Omiwade, and R. Zheng, "Survivable Distributed Storage with Progressive Decoding," *the IEEE INFOCOM 2010 (mini-conference)*, San Diego, March, 2010.

2. J. Deng, <u>Y. S. Han</u>, and B. Liang, "Fairness Index Based on Variational Distance," *IEEE 2009 Global Communications Conference (Globecom'2009)*, Hawaii, November, 2009.

3. C.-L. Wu, M. Skoglund, P.-N. Chen, and <u>Y. S. Han</u>, "A Systematic Space-Time Code Design and Its Maximum-Likelihood Decoding for Combined Channel Estimation and Error Correction," *2009 International Symposium on Information (ISIT2009)*, Seoul, South Korea, June, 2009.

4. C.-L. Wu, P.-N. Chen, and <u>Y. S. Han</u>, "A Self-Orthogonal Code and Its Maximum-Likelihood Decoder for Combined Channel Estimation and Error Protection," *2008 International Symposium on Information Theory and its Applications (ISITA2008)*, Auckland, New Zealand, December, 2008.

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6. Y.-M. Huang, C.-F. Lo, and <u>Y. S. Han</u>, "Bit- and Trellis- Based Soft-Decision Sequential Decoding for Variable-Length Error-Correcting Codes," *The 14th Asia-Pacific Conference on Communications (APCC 2008)*, Tokyo, Japan, October, 2008.

7. Y.-M. Huang and <u>Y. S. Han</u>, "Trellis-Based Joint Huffman and Convolutional Soft-Decision Priority-First Decoding," *2008 IEEE Data Compression Conference (DCC 2008)*, Utah, March, 2008, p. 521.

8. J. Deng and <u>Y. S. Han</u>, "Babel: Using a Common Bridge Node to Deliver Multiple Keys in Wireless Sensor Networks," *Proceedings of IEEE 2007 Global Communications Conference (Globecom'2007)*, Washington D.C., November, 2007, pp. 161-165.

9. S.-L. Shieh, P.-N Chen and <u>Y. S. Han</u>, "Reduction of Computational Complexity and Sufficient Stack Size of the MLSDA by Early Elimination," *the IEEE International Symposium on Information Theory (ISIT2007)*, Nice, France, June, 2007, pp. 1671-1675.

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- **Patents**

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