

**Yunghsiang S. Han**  
School of Electrical Engineering & Intelligentization  
Dongguan University of Technology  
No.1, University Road, Songshan Lake Sci. &Tech. Industry Park, Dongguan, Guangdong, 523808  
P.R. China  
yunghsiangh@gmail.com

---

<b>Education</b>	<p>SYRACUSE UNIVERSITY <span style="float: right;">Syracuse, NY</span></p> <ul style="list-style-type: none"><li>• Ph.D. in Computer and Information Science <span style="float: right;">(August 1993)</span><ul style="list-style-type: none"><li>– <i>Dissertation Topic: Efficient Soft-Decision Decoding Algorithms for Linear Block Codes Using Algorithm A*</i>.</li><li>– <b>Winner of Syracuse University Doctoral Prize of the Year 1994.</b></li></ul></li></ul> <p>NATIONAL TSING HUA UNIVERSITY <span style="float: right;">Hsinchu, Taiwan, R. O. C.</span></p> <ul style="list-style-type: none"><li>• MS in Electrical Engineering <span style="float: right;">(June 1986)</span></li><li>• BS in Electrical Engineering <span style="float: right;">(June 1984)</span></li></ul>
<b>Professional Experience</b>	<p>SCHOOL OF ELECTRICAL ENGINEERING &amp; INTELLIGENTIZATION DONGGUAN UNIVERSITY OF TECHNOLOGY <span style="float: right;">Dongguan, China</span> February 2017 – Present <b>Distinguished Professor</b></p> <p>DEPARTMENT OF ELECTRICAL ENGINEERING NATIONAL TAIWAN UNIVERSITY OF SCIENCE AND TECHNOLOGY <span style="float: right;">Taiwan, R. O. C.</span> June 2011 – January 2017 <b>Chair Professor.</b></p> <p>COLLEGE OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE NATIONAL TAIPEI UNIVERSITY <span style="float: right;">Taiwan, R. O. C.</span> February 2015 – present <b>Chair Professor in Science and Technology.</b></p> <p>INSTITUTE OF NETWORK CODING THE CHINESE UNIVERSITY OF HONG KONG <span style="float: right;">Hong Kong</span> June 2014 – September 2014 January 2015 – February 2015 Visiting Scholar.</p> <p>DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE SYRACUSE UNIVERSITY <span style="float: right;">Syracuse NY , USA</span> July 2012 – June 2013 Fulbright Visiting Scholar.</p> <p>DEPARTMENT OF COMPUTER SCIENCE UNIVERSITY OF HOUSTON <span style="float: right;">Houston TX , USA</span> June 2011 – July 2011 Visiting Scholar.</p>

DEPARTMENT OF ELECTRICAL ENGINEERING  
NATIONAL TAIWAN UNIVERSITY OF SCIENCE AND TECHNOLOGY Taiwan, R. O. C.  
August 2010 – May 2011  
Professor.

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING  
NATIONAL TAIPEI UNIVERSITY Taiwan, R. O. C.  
August 2009 – July 2010  
Professor and Chairperson.

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING  
NATIONAL TAIPEI UNIVERSITY Taiwan, R. O. C.  
August 2008 – July 2009  
Professor.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
UNIVERSITY OF TEXAS AT AUSTIN Austin TX , USA  
August 2008 – June 2009  
Visiting Scholar.

GRADUATE INSTITUTE OF COMMUNICATION ENGINEERING  
NATIONAL TAIPEI UNIVERSITY Taiwan, R. O. C.  
August 2004 – July 2008  
Professor and Chairperson.

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING  
NATIONAL CHI NAN UNIVERSITY Taiwan, R. O. C.  
August 1998 – July 2004  
Professor.

THE NEW YORK STATE CENTER FOR ADVANCED TECHNOLOGY IN  
COMPUTER APPLICATIONS AND SOFTWARE ENGINEERING (CASE)  
THE CENTER FOR SYSTEMS ASSURANCE (CSA)  
DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE Syracuse NY, USA  
SYRACUSE UNIVERSITY  
September 2002 – January 2004  
SUPRIA (Syracuse University Prototypical Research in Information Assurance)  
Visiting Research Scholar.

DEPARTMENT OF ELECTRICAL ENGINEERING  
UNIVERSITY OF HAWAII AT MANOA Honolulu HI , USA  
June 2001 – October 2001  
Visiting Scholar.

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING  
NATIONAL CHI NAN UNIVERSITY Taiwan, R. O. C.  
August 1998 – July 2001  
The Head of Computer and Network Center.

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING  
NATIONAL CHI NAN UNIVERSITY Taiwan, R. O. C.  
August 1997 – July 1998  
Associate Professor.

	DEPARTMENT OF ELECTRONIC ENGINEERING HUA FAN COLLEGE OF HUMANITIES AND TECHNOLOGY September 1994 – July 1996 The Head of Computer Center.	Taiwan, R. O. C.
	DEPARTMENT OF ELECTRONIC ENGINEERING HUA FAN COLLEGE OF HUMANITIES AND TECHNOLOGY August 1993 – July 1997 Associate Professor.	Taiwan, R. O. C.
	DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE SYRACUSE UNIVERSITY August 1992 – August 1993 Graduate Research Associate.	Syracuse, NY
	DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE SYRACUSE UNIVERSITY August 1989 – July 1992 Graduate Teaching Assistant.	Syracuse, NY
<b>Professional Services</b>	IEEE TAIPEI SECTION January 2007– December 2008 Chair of Educational Activities.	Taiwan, R. O. C.
	IEEE INFORMATION THEORY SOCIETY TAIPEI CHAPTER August 2005– July 2007 Chapter Chair.	Taiwan, R. O. C.
	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 2005 Technical Program Committee member.	Montreal, Canada
	THE SECOND IEEE INTERNATIONAL CONFERENCE ON WIRELESS AND MOBILE COMPUTING, NETWORKING AND COMMUNICATIONS 2006 Technical Program Committee member.	Montreal, Canada
	THE IEEE INTERNATIONAL CONFERENCE ON SENSOR NETWORKS, UBIQUITOUS, AND TRUSTWORTHY COMPUTING 2006 Technical Program Committee member.	Taichung, Taiwan, R. O. C.

THE IEEE INTERNATIONAL WORKSHOP ON AD HOC,  
UBIQUITOUS COMPUTING  
2006  
Co-Chair. Taichung, Taiwan, R. O. C.

INTERNATIONAL CONFERENCE ON ALGORITHMS, SYSTEMS, AND  
APPLICATIONS OF WIRELESS NETWORK  
2006 Xian, China  
Technical Program Committee member.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING  
CONFERENCE 2007 (IEEE CCNC 2007): WIRELESS NETWORKING  
TRACK  
2007 Las Vegas, USA  
Technical Program Committee member.

THE 2007 IFIP INTERNATIONAL CONFERENCE ON EMBEDDED AND  
UBIQUITOUS COMPUTING  
2007 Taipei, Taiwan, R. O. C.  
Technical Program Committee member.

THE THIRD IEEE INTERNATIONAL CONFERENCE ON WIRELESS AND  
MOBILE COMPUTING, NETWORKING AND COMMUNICATIONS  
2007 New York City, USA  
Technical Program Committee member.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE  
(IEEE GLOBECOM 2007): MULTIMEDIA COMMUNICATIONS  
SOFTWARE AND SERVICES SYMPOSIUM  
2007 Washington, D.C., USA  
Technical Program Committee member.

THE FIRST IEEE CONFERENCE ON WIRELESS RURAL AND EMERGENCY  
COMMUNICATIONS (WRECOM 2007)  
2007 Rome, Italy  
Technical Program Committee member.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING  
CONFERENCE 2008 (IEEE CCNC 2008): NETWORK ACCESS AND  
COMMUNICATIONS TRACK  
2008 Las Vegas, USA  
Technical Program Committee member.

THE 2008 IEEE INTERNATIONAL CONFERENCE ON  
COMMUNICATIONS (IEEE ICC 2008): INFORMATION AND NETWORK  
SECURITY SYMPOSIUM  
2008 Beijing, China  
Technical Program Committee member.

THE IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE  
2009 (IEEE CCNC 2009): WIRELESS NETWORKING FOR CONSUMER  
ELECTRONICS TRACK  
2009 Las Vegas, USA  
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

Program Committee member.

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY  
SPECIAL SECTION ON VEHICULAR SOCIAL NETWORKS  
2013

Guest Editor.

**Awards &  
Honors**

- **2013, 2013 ACM CCS Test-of-Time Award**– Awarded by the ACM Special Interest Group on Security, Audit and Control (SIGSAC).<sup>1</sup>
- 2012, *2012-2013 Senior Fulbright Research Grants*–Awarded by The Foundation for Scholarly Exchange (Fulbright Taiwan).
- 2011, *Chair Professor*–honored by National Taiwan University of Science and Technology, Taiwan, ROC.
- **2011, IEEE Fellow**–Elevated by Communication Society for contributions to Decoding Techniques.
- 2010, *Excellent Research Award*– Awarded by National Taiwan University of Science and Technology, Taiwan, ROC.
- 2007, *Outstanding Research Award*– Awarded by College of Electrical Engineering and Computer Science, National Taipei University, Taiwan, ROC.
- 2002-2004, *SUPRIA Visiting Research Scholarship* – Awarded by CASE center at Syracuse University, New York.
- 2000, *89-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 2000, *Research Award* – Awarded by National Chi Nan University, Taiwan, ROC.
- 1999, *88-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1998, *87-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1997, *86-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- **1997, A paper was honored as long presentation at the 1997 IEEE International Symposium on Information theory.** <sup>2</sup>
- **1994, Syracuse University Doctoral Prize of the Year 1994** – Awarded by Syracuse University.
- 1994, *83-fiscal-year Research Award* – Awarded by National Science Council, Taiwan, ROC.
- 1993, *82-fiscal-year Research Award for Young Researcher* – Awarded by National Science Council, Taiwan, ROC.
- **1993, A paper was honored as long presentation at the 1993 IEEE International Symposium on Information theory.**

**Professional  
Memberships**

- **IEEE Fellow 2011**– Elevated by Communication Society for contributions to Decoding Techniques.

---

<sup>1</sup>Each year, the ACM SIGSAC selects two papers published ten years ago in its flagship conference, the ACM Conference on Computer and Communications Security (CCS), to recognize their significant impacts on the security area. The ACM CCS is one of the best conferences in the security area.

<sup>2</sup>Only papers with the potential to have an impact on the state of the art of their respective research areas are accepted as long presentations. Usually there are only 17 of 580 accepted papers to be honored as long presentations.

## Research Interests

- Wireless Networks– especially on the security, energy control, and analysis of sensor networks and ad hoc networks.
- Security– especially on the topics related to sensor networks and privacy-preserving.
- Coding Theory– especially on the development of the theory of decoding and the design of practical decoding algorithms for error-correcting codes.
- Wireless Communication– especially on the application and VLSI design of error-correcting codes.

## Projects

- **National Nature Science Foundation of China**

1. **January 2017– December 2020** Two-Phase Maximum-likelihood Soft-decision Decoding for Linear Block codes, Principle Investigator.

- **National Science Council**

1. **August 2013– July 2016.** Research on Target Localization in Wireless Sensor Networks using Error Correcting Codes, Principle Investigator. (NSC)
2. **August 2012– July 2015.** The Study of Regenerating Codes for Distributed Storage Applications, Principle Investigator. (NSC)
3. **August 2010– July 2013.** Coding Theory Application on Fault-Tolerance and Privacy-Preserving for Cloud Computing, Principle Investigator. (NSC)
4. **August 2010– July 2011.** Study on Efficient Distributed Network Storage Based on Error Control Coding, Principle Investigator. (NSC)
5. **August 2007– July 2010.** Study on Soft-Decision Decoding for Tail-Biting Convolutional Codes, Principle Investigator. (NSC)
6. **August 2007– July 2010.** Using MDS Codes to Efficiently Establish Secure Channels for Wireless Sensor Networks, Principle Investigator. (NSC)
7. **August 2006– July 2007.** The Study of Key Exchange for Wireless Sensor Networks, Principle Investigator. (NSC)
8. **August 2005– July 2007.** The Study of Cyclic Redundancy Check Codes for Message Length Detection, Principle Investigator. (NSC)
9. **August 2004– July 2005.** The Study of Data Fusion in the Wireless Sensor Networks Using Coding Theory, Principle Investigator. (NSC)
10. **August 2003– July 2004.** WOFDM Down-Link Transmission Technology for 4G Wireless Communication System-Subproject 1: Coding Technology for WOFDM Transmission on Mobile Wireless Channel (3), Principle Investigator. (NSC)
11. **August 2002– July 2003.** Sequential Decoding and Generalized Fano Metric, Principle Investigator. (NSC)
12. **August 2001– July 2002.** WOFDM Down-Link Transmission Technology for 4G Wireless Communication System-Subproject 1: Coding Technology for WOFDM Transmission on Mobile Wireless Channel (1), Principle Investigator. (NSC)
13. **August 1999– July 2002.** Study of Medical Service system on Broadband Experimental Internet- Subproject 5: On the Study of the Secure Storage and Transmission of Multimedia Medical Information, Principle Investigator. (NSC)
14. **July 1999– June 2001.** Connection Project on Taiwan Academic Research Network-National Chi Nan University, Principle Investigator. (NSC)
15. **August 1999– July 2001.** A Geometric Searching Decoding Algorithm for Linear Block Codes, Principle Investigator. (NSC)
16. **August 1998– July 1999.** The Study of Maximum-Likelihood Soft-Decision Sequential Decoding for Convolutional Codes, Principle Investigator. (NSC)
17. **August 1997– July 1998.** The Study of Hard-Decision Decoding for Linear Block Codes, Principle Investigator. (NSC)

18. **August 1995– July 1996.** The Effect of Heuristic Information on the Soft-Decision Decoding for Linear Block Codes, Principle Investigator. (NSC)
19. **August 1994– July 1995.** The Study of Soft-Decision Decoding for Linear block Codes, Principle Investigator. (NSC)

- **Industry**

1. **December 2010– September 2011.** The Design of Combining BCH Decoder and CRC Checker for Multilevel Flash Memories, Principle Investigator. (Solid State system)
2. **August 2010– June 2011.** Design of Low Gate-Count LDPC Decoders for Multilevel Flash Memories, Principle Investigator. (Solid State system)
3. **November 2009– September 2010.** VLSI Design of Welch-Berlekamp Algorithm for Multilevel Flash Memories, Principle Investigator. (Solid State system)
4. **July 2009– May 2010.** Design of LDPC Codes for Multilevel Flash Memories, Principle Investigator. (Solid State system)
5. **November 2007– July 2008.** VLSI Design of AES, Principle Investigator. (Solid State system)
6. **August 2007– June 2008.** Design of Low Gate Count Error Control Codes for Multilevel Flash Memories, Principle Investigator. (Solid State system)
7. **August 2006– April 2007.** Design of Efficient Error Control Codes for Multilevel Flash Memories, Principle Investigator. (Solid State system)
8. **January 2006– January 2007.** Development of Error Correcting Algorithms for 3.5G HSDPA System, Principle Investigator. (Sunplus)

## Publications

- **Book Chapters**

1. Y. S. Han and P.-N. Chen, “Sequential Decoding of Convolutional Codes,” *Encyclopedia of Telecommunications* (Editor: John Proakis), New York, Wiley, 2002, pp. 2140-2146.

- **Refereed papers**

1. L. Deng, W. S. Wong, P.-N. Chen, Y. S. Han, and H. Hou, “Delay-Constrained Input-Queued Switch,” *IEEE Journal on Selected Areas in Communications (JSAC): special issue on Emerging Technologies in Tactile Internet and Backhaul/Fronthaul networks*, to appear. (Full paper)
2. C. Chen, S.-J. Lin, and Y. S. Han, “Extended Versions of Polynomial Remainder Codes and Chinese Remainder Codes,” *IEEE Communications Letters*, to appear.
3. H. Hou, Y. S. Han, K. W. Shum, and H. Li, “A Unified Form of EVENODD and RDP Codes and Their Efficient Decoding,” *IEEE Trans. on Communications*, to appear. (Full paper)
4. H. Hou and Y. S. Han, “A Class of Binary MDS Array Codes with Asymptotically Weak-Optimal Repair,” *SCIENCE CHINA Information Sciences*, to appear. (Full paper)
5. C.-Y. Wei, H.-Y. Lin, P.-N. Chen, Y. S. Han, and P. K. Varshney, “Target Localization Using Sensor Location Knowledge in Wireless Sensor Networks,” *IEEE Wireless Communications Letters*, pp. 456-459, July, 2018.
6. Y. S. Han, T.-Y. Wu, P.-N. Chen, and P. K. Varshney, “A Low-Complexity Maximum-Likelihood Decoder for Tail-Biting Convolutional Codes,” *IEEE Trans. on Communications*, pp. 1859-1870, May, 2018. (Full paper)
7. C. Huang, T.-Y. Wu, P.-N. Chen, F. Alajaji, and Y. S. Han, “An Efficient Tree Search Algorithm for the Free Distance of Variable-Length Error-Correcting Codes,” *IEEE Communications Letters*, pp. 474-477, March, 2018.



8. H. Hou and Y. S. Han, "A New Construction and an Efficient Decoding Method for Rabin-Like Codes," *IEEE Trans. on Communications*, pp. 521-533, February, 2018. **(Full paper)**
9. C.-Y. Wei, P.-N. Chen, Y. S. Han, and P. K. Varshney, "Local Threshold Design for Target Localization Using Error Correcting Codes in Wireless Sensor Networks in the Presence of Byzantine Attacks," *IEEE Trans. on Information Forensics and Security*, pp. 1517-1584, July 2017. **(Full paper)**
10. M. A. Mulatu, L.-C. Chang, Y. S. Han, F. G. Mengistu, and D.-F. Tseng, "Threshold-Based Cooperative Communication of Energy Harvesting Active Networked Tags," *Int. J. Ad Hoc and Ubiquitous Computing*, pp. 225-236, 24(4), 2017. **(Full paper)**
11. S.-J. Lin, T. Y. Al-Naffouri, Y. S. Han, and W.-H. Chung, "Novel Polynomial Basis with Fast Fourier Transform and Its Application to Reed-Solomon Erasure Codes," *IEEE Trans. on Information Theory*, pp. 6284-6299, November, 2016. **(Full paper)**
12. S.-J. Lin, T. Y. Al-Naffouri, and Y. S. Han, "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)**
13. J.-T. Tsai and Y. S. Han, "Geographic routing with enhanced local information for wireless networks," *Journal of Information Science and Engineering*, pp. 1261-1288, September, 2016. **(Full paper)**
14. R. El-Bardan, E. Masazade, O. Ozdemir, Y. S. Han, 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)**
15. B. Kailkhura, Y. S. Han, 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)**
16. B. Kailkhura, S. Brahma, B. Dulek, Y. S. Han, 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)**
17. Y. S. Han, 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)**
18. B. Kailkhura, Y. S. Han, S. Brahma, and P. K. Varshney, "Asymptotic Analysis of Distributed Bayesian Detection with Byzantine Data," *IEEE Signal Processing Letters*, pp. 608-611, May, 2015.
19. S.-J. Lin, W.-H. Chung, Y. S. Han, 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)**
20. D.-F. Tseng, F. G. Mengistu, Y. S. Han, 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.
21. F. G. Mengistu, D.-F. Tseng, Y. S. Han, 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)**
22. B. Kailkhura, S. Brahma, Y. S. Han, and P. K. Varshney, "Distributed Detection in Tree Topologies with Byzantines," *IEEE Trans. on Signal Processing*, pp. 3208-3219, June, 2014. **(Full paper)**
23. V. S. S. Nadendla, Y. S. Han, 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)**

24. Y. S. Han, 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)**
25. A. Vempaty, Y. S. Han, 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)**
26. D.-F. Tseng, Y. S. Han, 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)**
27. T.-Y. Wu, P.-N. Chen, F. Alajaji, and Y. S. Han, "On the Design of Variable-Length Error-Correcting Codes," *IEEE Trans. on Communications*, pp. 3553-3565, September, 2013. **(Full paper)**
28. J. Deng and Y. S. Han, "Cooperative Secret Delivery in Wireless Sensor Networks," *Int. J. Ad Hoc and Ubiquitous Computing*, Vol. 14, No. 4, pp. 226-237, 2013. **(Full paper)**
29. Y. S. Han, 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)**
30. J. Deng, S. C.-H. Huang, and Y. S. Han, "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)**
31. D.-F. Tseng, Y. S. Han, 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.
32. Y. S. Han, 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)**
33. T.-R. Tsai, D.-F. Tseng, Y. S. Han, and H.-T. Pai, "Improved EXIT Analysis for Turbo Decoding," *IEEE Communications Letters*, pp. 995-997, September. 2011.
34. H.-T. Pai, Y. S. Han, 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)**
35. S.-L. Shieh, P.-N. Chen, Y. S. Han, and T.-Y. Wu, "Early-Elimination Modification for Priority-First Search Decoding," *IEEE Trans. on Communications*, pp. 3459-3469, December, 2010. **(Full paper)**
36. Y.-M. Huang, T.-Y. Wu, and Y. S. Han, "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)**
37. H.-T. Pai, J. Deng, and Y. S. Han, "Time-Slotted Voting Mechanism for Fusion Data Assurance in Wireless Sensor Networks Under Stealthy Attacks," *Computer Communications*, pp. 1524-1530, August, 2010. **(Full paper)**
38. C.-L. Wu, P.-N. Chen, Y. S. Han, 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)**
39. J. Deng, Y. S. Han, 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.
40. H.-T. Pai, Y. S. Han, 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.

41. S. C.-H. Huang, P.-J. Wan, J. Deng, and Y. S. Han, "Broadcast Scheduling in Interference Environment," *IEEE Trans. on Mobile Computing*, pp. 1338-1348. November, 2008. **(Full paper)**
42. C.-Y. Wang, P.-N. Chen, W.-T. Chen, S.-L. Shieh, and Y. S. Han, "An Efficient SNR Estimate Scheme for Turbo Decoder over Quasi-Static Channels," *International Journal of Electrical Engineering (IJEE)*, pp. 261-268, 2008. **(Full paper)**
43. Y.-M. Huang, Y. S. Han, and T.-Y. Wu, "Soft-Decision Priority-First Decoding Algorithms for Variable-Length Error-Correcting Codes," *IEEE Communications Letters*, pp. 572-574, August, 2008.
44. J. Deng and Y. S. Han, "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)**
45. H.-T. Pai, Y. S. Han, and J.-T. Sung, "Two-Dimensional Coded Classification Schemes in Wireless Sensor Networks," *IEEE Trans. on Wireless Communications*, pp. 1450-1455, May, 2008.
46. H.-T. Pai and Y. S. Han, "Power-Efficient Direct-Voting Assurance for Data Fusion in Wireless Sensor Networks," *IEEE Trans. on Computers*, pp. 261-273, February, 2008. **(Full paper)**
47. J. Deng, Y. S. Han, 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)**
48. S.-L. Shieh, P.-N. Chen, and Y. S. Han, "Flip CRC Modification for Message Length Detection," *IEEE Trans. on Communications*, pp. 1747-1756, September, 2007. **(Full paper)**
49. H.-T. Pai, J.-T. Sung, and Y. S. Han, "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)**
50. C. Yao, P.-N. Chen, T.-Y. Wang, Y. S. Han, 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)**
51. Y.-J. Chen, D.-R. Duh, and Y. S. Han, "An Improved Modulo ( $2^n + 1$ ) Multiplier for IDEA," *Journal of Information Science and Engineering*, pp. 911-923, March 2007.
52. C.-W. Chang, P.-N. Chen, and Y. S. Han, "A Systematic Bit-wise Decomposition of M-ary Symbol Metric," *IEEE Trans. on Wireless Communications*, pp. 2742-2751, October, 2006. **(Full paper)**
53. Y. S. Han, 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)**
54. T.-Y. Wang, Y. S. Han, 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)**
55. J. Deng, Y. S. Han, and Z. J. Haas, "Analyzing Split Channel Medium Access Control Schemes," *IEEE Trans. on Wireless Communications*, pp. 967-971, May, 2006.
56. W. Du, J. Deng, Y. S. Han, 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) (Has been cited more than 1110 times according to Google Scholar)**
57. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Scheduling Sleeping Nodes in High Density Cluster-based Sensor Networks," *ACM/Kluwer MONET Spe-*

- cial Issue on "Energy Constraints and Lifetime Performance in Wireless Sensor Networks,"* pp. 825-835, December, 2005. **(Full paper)**
58. T.-Y. Wang, Y. S. Han, 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.
  59. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Balanced-energy Sleep Scheduling Scheme for High Density Cluster-based Sensor Networks," *Computer Communications : special issue on ASWN04*, pp. 1631-1642, September, 2005. **(Full paper)**
  60. W. Du, J. Deng, Y. S. Han, P. K. Varshney, J. Katz, and A. Khalili, "A Pairwise Key Pre-distribution Scheme for Wireless Sensor Networks," *ACM Trans. on Information and System Security (TISSEC)*, pp. 228-258, May, 2005. **(Full paper) (Has been cited more than 2000 times according to Google Scholar)**
  61. T.-Y. Wang, Y. S. Han, P. K. Varshney, and P.-N. Chen, "Distributed Fault-Tolerant Classification in Wireless Sensor Networks," *IEEE Journal on Selected Areas in Communications (JSAC): special issue on Self-Organizing Distributed Collaborative Sensor Networks*, pp. 724-734, April, 2005. **(Full paper)**
  62. C.-C. Lee, P.-C. Chung, D.-R. Duh, Y. S. Han, 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)**
  63. Y. S. Han, 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.
  64. P.-N. Chen and Y. S. Han, "Asymptotic Minimum Covering Radius of Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 549-564, November, 2001. **(Full paper)**
  65. P.-N. Chen, T.-Y. Lee, and Y. S. Han, "Distance-Spectrum Formulas on the Largest Minimum Distance of Block Codes," *IEEE Trans. on Information Theory*, pp. 869-885, May, 2000. **(Full paper)**
  66. Y. S. Han, "A New Decoding Algorithm for Complete Decoding of Linear Block Codes," *SIAM Journal on Discrete Mathematics*, pp. 664-671, November, 1998. **(Full paper)**
  67. Y. S. Han, "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.
  68. Y. S. Han, C. R. P. Hartmann, and K. G. Mehrotra, "Decoding Linear Block Codes Using a Priority-First Search: Performance Analysis and Suboptimal Version," *IEEE Trans. on Information Theory*, pp. 1233-1246, May, 1998.
  69. Y. S. Han, and C. R. P. Hartmann, "The Zero-Guards Algorithm for General Minimum Distance Decoding Problem," *IEEE Trans. on Information Theory*, pp. 1655-1658, September, 1997.
  70. D. L. Tao, C. R. P. Hartmann, and Y. S. Han, "New Encoding/Decoding Methods for Designing Fault-Tolerant Matrix Operations," *IEEE Trans. on Parallel and Distributed Systems*, pp. 931-938, September, 1996. **(Full paper)**
  71. Y. S. Han, 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) (Has been cited about 130 times according to Google Scholar)**

#### • Refereed Conference

1. S. Huang, H. Hou, and Y. S. Han, "An Improved MDS Condition of Blaum-Bruck-Vardy Codes," *The 10th International Symposium on Turbo Codes & Iterative Information Processing*, Hong Kong, December, 2018.

2. L. Deng, W. S. Wong, P.-N. Chen, and Y. S. Han, "Delay-Constrained Input-Queued Switch," *The Nineteenth International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2018)*, Los Angeles, USA, June 2018. (Poster)
3. L. Deng, J. Deng, P.-N. Chen, and Y. S. Han, "On the Asymptotic Performance of Delay-Constrained Slotted ALOHA," *The 27th International Conference on Computer Communications and Networks (ICCCN 2017)*, Hangzhou, China, July, 2018. (**Invited paper**)
4. H. Hou and Y. S. Han, "On Binary MDS Array Codes with Asymptotically Weak-Optimal Repair," *2018 INFORMS International Conference*, Taipei, June, 2018. (**Invited talk**)
5. L.-H. Chang, C. Wang, P.-N. Chen, Y. S. Han, and V. Y. F. Tan, "Distance Spectrum Formula for the Largest Minimum Hamming Distance of Finite-Length Binary Block Codes," *2017 IEEE Information Theory Workshop (ITW 2017)*, Kaohsiung, November, 2017.
6. H. Hou and Y. S. Han, "BASIC Codes for Distributed Storage Systems," *The 26th International Conference on Computer Communications and Networks (ICCCN 2017)*, Vancouver, Canada, July, 2017. (**Invited paper**)
7. H. Hou, P. O. C. Lee, Y. S. Han, and Y. Hu, "Triple-Fault-Tolerant Binary MDS Array Codes with Asymptotically Optimal Repair," *2017 International Symposium on Information Theory (ISIT2017)*, Aachen, Germany, June, 2017.
8. Y. S. Han, S.-W. Fu, and P.-N. Chen, "A New Step-by-Step Complete Decoding Algorithm for Binary Cyclic Codes," *2017 International Conference on Signals and Systems (ICSigSys2017)*, Bali, Indonesia, May, 2017.
9. S.-M. Tseng, D.-F. Tseng, T.-R. Tsai, and Y. S. Han, "Robust Turbo Decoding in Single-Carrier Systems over Memoryless Impulse Noise Channels," *2016 International Conference on Advanced Technologies for Communications (ATC'2016)*, Hanoi, Vietnam, October, 2016.
10. X. Wang, W. H. Mow, and Y. S. Han, "List-Output Priority-First Sequential Decoding for Physical-Layer Network Coding," *Thirteenth International Symposium on Wireless Communication Systems (ISWCS'2016)*, Poznan, Poland, September, 2016.
11. P.-N. Chen, Y. S. Han, H.-Y. Lin, and P. K. Varshney, "Optimal Byzantine Attack for Distributed Inference with M-ary Quantized Data," *2016 International Symposium on Information Theory (ISIT2016)*, Barcelona, Spain, July, 2016.
12. J.-T. Tsai and Y. S. Han, "Cooperative Rotational Sweep Schemes for Geographic Routing," *IEEE International Conference on Communications (ICC'2016)*, Kuala Lumpur, Malaysia, May, 2016.
13. V. S. S. Nadendla, Y. S. Han, and P. K. Varshney, "Information-Dispersal Games for Security in Cognitive-Radio Networks," *2015 International Symposium on Information Theory (ISIT2015)*, Hong Kong, June, 2015.
14. D.-F. Tseng, L.-C. Chang, and Y. S. Han, "A Robust Receiver for OFDM Systems in Nonlinear Impulse Channels," *2nd IEEE International Symposium on Telecommunication Technologies (ISTT2014)*, Langkawi Island, Malaysia, November, 2014.
15. S.-J. Lin, W.-H. Chung, and Y. S. Han, "Novel Polynomial Basis and Its Application to Reed-Solomon Erasure Codes," *The 55th Annual IEEE Symposium on Foundations of Computer Science (FOCS 2014)*, Philadelphia, October, 2014.
16. S.-J. Lin, W.-H. Chung, and Y. S. Han, "On the Fault-Tolerance of Unified-Form Exact-MSR Codes," *The 6th International Symposium on Communications, Control, and Signal Processing (ISCCSP 2014)*, Athens, Greece, May, 2014. (**Invited Talk**)
17. A. Vempaty, Y. S. Han, L. R. Varshney, and P. K. Varshney, "Coding Theory for Reliable Signal Processing," *2014 International Conference on Computing, Networking and Communication (ICNC 2014)*, Honolulu, Hawaii, February, 2014. (**Invited Position Talk**)

18. B. Kailkhura, Y. S. Han, S. Brahma, and P. K. Varshney, "On Covert Data Falsification Attacks on Distributed Detection Systems," *The 13th International Symposium on Communications and Information Technologies (ISCIT 2013)*, Samui Island, Thailand, September, 2013.
19. A. Vempaty, Y. S. Han, and P. K. Varshney, "Byzantine Tolerant Target Localization in Wireless Sensor Networks Over Non-Ideal Channels," *The 13th International Symposium on Communications and Information Technologies (ISCIT 2013)*, Samui Island, Thailand, September, 2013.
20. Y. S. Han, H.-T. Pai, R. Zheng, and P. K. Varshney, "Update-Efficient Regenerating Codes with Minimum Per-Node Storage," *2013 International Symposium on Information Theory (ISIT2013)*, Istanbul, Turkey, July, 2013.
21. A. Vempaty, Y. S. Han, and P. K. Varshney, "Target Localization in Wireless Sensor Networks Using Error Correcting Codes in the Presence of Byzantines," *The 38th International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013)*, Vancouver, Canada, May, 2013.
22. B. Kailkhura, S. Brahma, Y. S. Han, and P. K. Varshney, "Optimal Distributed Detection in the Presence of Byzantines," *The 38th International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2013)*, Vancouver, Canada, May, 2013.
23. D.-F. Tseng, T.-R. Tsai, and Y. S. Han, "Robust Turbo Decoding in Impulse Noise Channels," *the 17th IEEE International Symposium on Power Line Communications and its Applications (ISPLC 2013)*, Johannesburg, South Africa, March, 2013.
24. D.-F. Tseng, R.-B. Yang, T.-R. Tsai, Y. S. Han, and W. H. Mow, "Efficient Clipping for Broadband Power Line Systems in Impulsive Noise Environment," *the 16th IEEE International Symposium on Power Line Communications and its Applications (ISPLC 2012)*, Beijing, P. R. China, March, 2012.
25. Y. S. Han, R. Zheng, and W. H. Mow, "Exact Regenerating Codes for Byzantine Fault Tolerance in Distributed Storage," *The IEEE INFOCOM 2012*, Orlando, March, 2012.
26. S.-Y. Huang, C.-L. Wu, P.-N. Chen, T.-Y. Wang, and Y. S. Han, "Combining Channel Estimation and Sensor Fault Protection in Wireless Sensor Networks," *The 8th International Conference on Information, Communications and Signal Processing (ICICS 2011)*, Singapore, December, 2011.
27. D.-F. Tseng, Y. S. Han, W. H. Mow, and J. Deng, "Efficient Decoding over Power-line Channels," *The 5th International Workshop on Signal Design and its Applications in Communications (IWSDA '11)*, Guilin, P. R. China, October, 2011.
28. T.-Y. Wu, P.-N. Chen, F. Alajaji, Y. S. Han, "On the Construction and MAP Decoding of Optimal Variable-Length Error-Correcting Codes," *2011 International Symposium on Information Theory (ISIT2011)*, Saint-Petersburg, Russia, June, 2011.
29. J. Deng, S. C.-H. Huang, Y. S. Han, and J. H. Deng, "Fault-Tolerant and Reliable Computation in Cloud Computing," *IEEE Globecom 2010 Workshop on Web and Pervasive Security (WPS 2010)*, Miami, December, 2010.
30. C.-Y. Wang, S.-L. Lin, P.-N. Chen, and Y. S. Han, "Path Deletions for Finite Stack-Size Sequential-Type Decoding Algorithms," *2010 International Symposium on Information Theory and its Applications (ISITA2010)*, Taichun, Taiwan, October, 2010.
31. Y. S. Han, S. Omiwade, and R. Zheng, "Survivable Distributed Storage with Progressive Decoding," *IEEE INFOCOM 2010 (mini-conference)*, San Diego, March, 2010.
32. J. Deng, Y. S. Han, and B. Liang, "Fairness Index Based on Variational Distance," *IEEE 2009 Global Communications Conference (Globecom'2009)*, Hawaii, November, 2009.
33. C.-L. Wu, M. Skoglund, P.-N. Chen, and Y. S. Han, "A Systematic Space-Time Code Design and Its Maximum-Likelihood Decoding for Combined Channel Estimation and

- Error Correction,” *2009 International Symposium on Information Theory (ISIT2009)*, Seoul, South Korea, June, 2009.
34. C.-L. Wu, P.-N. Chen, and Y. S. Han, “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.
  35. Y. S. Han, T.-Y. Wu, H.-T. Pai, P.-N. Chen, and S.-L. Shieh, “Priority-First Search Decoding for Convolutional Tail-biting Codes,” *2008 International Symposium on Information Theory and its Applications (ISITA2008)*, Auckland, New Zealand, December, 2008.
  36. Y.-M. Huang, C.-F. Lo, and Y. S. Han, “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.
  37. Y.-M. Huang and Y. S. Han, “Trellis-Based Joint Huffman and Convolutional Soft-Decision Priority-First Decoding,” *2008 IEEE Data Compression Conference (DCC 2008)*, Utah, March, 2008, p. 521.
  38. J. Deng and Y. S. Han, “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.
  39. S.-L. Shieh, P.-N. Chen and Y. S. Han, “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.
  40. P.-N. Chen, T.-Y. Wang, Y. S. Han, and Y.-T. Wang, “On the Design of Soft-Decision Fusion Rule for Coding Approach in Wireless Sensor Networks,” *International Conference on Algorithms, Systems, and Applications (WASA2006)*, Xian, P. R. China, August, 2006. *Lecture Notes in Computer Science (LNCS)*, Springer-Verlag, pp. 140-150, 2006.
  41. P.-N. Chen, T.-Y. Wang, Y. S. Han, P. K. Varshney, C. Yao, and S.-L. Shieh, “Fault-Tolerance Analysis of a Wireless Sensor Network with Distributed Classification Codes,” *the IEEE International Symposium on Information Theory (ISIT2006)*, Seattle, July, 2006, pp. 217-221.
  42. H.-T. Pai and Y. S. Han, “Power-Efficient Data Fusion Assurance Using Direct Voting Mechanism in Wireless Sensor Networks,” *the 2006 IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing (SUTC2006)*, Taichung, Taiwan, June, 2006, pp. 2-7.
  43. H.-T. Pai, J.-T. Sung, and Y. S. Han, “Adaptive Retransmission for Distributed Detection in Wireless Sensor Networks,” *the IEEE Workshop on Ad Hoc and Ubiquitous Computing (AHUC2006)*, Taichung, Taiwan, June, 2006, pp. 368-375.
  44. J. Deng and Y. S. Han, “Using MDS Codes for the Key Establishment of Wireless Sensor Networks,” *International Conference on Mobile Ad-hoc and Sensor Networks (MSN ’05)*, Wuhan, P. R. China, December 2005. *Lecture Notes in Computer Science (LNCS)*, Springer-Verlag, pp. 732-744, 2005.
  45. S.-L. Shieh, S.-T. Kuo, P.-N. Chen and Y. S. Han, “Strategies for Blind Transport Format Detection Using Cyclic Redundancy Check in UMTS WCDMA,” *2005 IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WIMOB2005)*, Montreal, Canada, August, 2005, pp. 44-50.
  46. H.-T. Pai, J.-T. Sung, and Y. S. Han, “A Simple Two-Dimensional Coded Detection Scheme in Wireless Sensor Networks,” *the First IEEE International Workshop in Heterogeneous Wireless Sensor Networks (HWISE-2005)*, Fukuoka, Japan, July 2005, pp. 383-387.
  47. P.-N. Chen, T.-Y. Wang, Y. S. Han, P. K. Varshney and C. Yao, “Asymptotic Performance Analysis for minimum-Hamming-distance fusion,” *the IEEE International*

- Conference on Acoustics, Speech, and Signal Processing 2005 (ICASSP'05)*, Philadelphia, USA, March 2005, pp. 865-868.
48. S.-L. Shieh, P.-N. Chen, and Y. S. Han, "A Novel Modification of Cyclic Redundancy Check for Message Length Detection," *the 2004 IEEE International Symposium on Information Theory and its Applications (ISITA2004)*, Parma, Italy, October, 2004.
  49. C.-W. Chang, P.-N. Chen, and Y. S. Han, "Realization of a Systematic Bit-wise Decomposition Metric," *the 2004 IEEE Asia-Pacific Conference on Circuits and Systems (APCCAS'04)*, Tainan, Taiwan, December, 2004, pp. 1065-1068.
  50. J. Deng, Y. S. Han, W. B. Heinzelman, and P. K. Varshney, "Balanced-energy Sleep Scheduling Scheme for High Density Cluster-based Sensor Networks," *4th Workshop on Applications and Services in Wireless Networks (ASWN04)*, Boston, Massachusetts, August, 2004, pp. 99-108. **(Selected for possible publication in a special issue of Elsevier's Computer Communications Journal)**
  51. Y.-J. Chen, D.-R. Duh, and Y. S. Han, "A New Modulo  $(2^n + 1)$  Multiplier for IDEA," *the 2004 International Conference on Security and Management (SAM'04)*, Las Vegas, Nevada, June, 2004, pp. 318-324.
  52. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "A Combined Decision Fusion and Channel Coding Scheme for Fault-Tolerant Classification in Wireless Sensor Networks," *the 2004 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2004)*, Montreal, Quebec, Canada, May, 2004, pp. 1073-1076.
  53. J. Deng, Y. S. Han, P.-N. Chen, and P. K. Varshney, "Optimum Transmission Range for Wireless Ad Hoc Networks," *the IEEE Wireless Communications and Networking Conference 2004 (WCNC04)*, Atlanta, GA, March, 2004, pp. 1024-1029.
  54. W. Du, Y. S. Han, and S. Chen "Privacy-Preserving Multivariate Statistical Analysis: Linear Regression and Classification," *the 2004 SIAM International Conference on Data Mining (SDM2004)*, Lake Buena Vista, FL, April, 2004, pp. 222-233. (Regular paper)
  55. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Further Results on Fault-Tolerant Distributed Classification Using Error Correcting Codes," *the SPIE's Aerosense conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications*, Orlando, FL, April, 2004.
  56. W. Du, J. Deng, Y. S. Han, S. Chen and P. K. Varshney "A Key Management Scheme for Wireless Sensor Networks Using Deployment Knowledge," *the IEEE INFOCOM 2004*, Hong Kong, March 2004, pp.586-597.
  57. W. Du, J. Deng, Y. S. Han, and P. K. Varshney, "A Pairwise Key Pre-distribution Scheme for Wireless Sensor Networks," *Proceedings of 10th ACM Conference on Computer and Communications Security (CCS2003)*, Washington DC, October, 2003, pp. 42-51.
  58. J. Deng, Y. S. Han, and Z. J. Haas, "Analyzing Split Channel Medium Access Control Schemes with ALOHA Reservation," in *Ad-Hoc, Mobile, and Wireless Networks – ADHOC-NOW '03*, S. Pierre, M. Barbeau, and E. Kranakis, Eds. 2003, vol. 2865 of Lecture Notes in Computer Science (LNCS), pp. 128-139, Springer-Verlag.
  59. W. Du, J. Deng, Y. S. Han, and P. K. Varshney, "A Witness-Based Approach for Data Fusion Assurance in Wireless Sensor Networks," *Proceedings of IEEE 2003 Global Communications Conference (GLOBECOM2003)*, San Francisco, CA, December, 2003, pp. 1435-1439.
  60. T.-Y. Wang, Y. S. Han, and P. K. Varshney, "Fault-Tolerant Classification in Multi-sensor Networks Using Coding Theory," *Proceedings of the 6th International Conference on Information Fusion (Fusion2003)*, Cairns, Australia, July, 2003, pp. 772-779. **(invited paper)**
  61. T.-Y. Wang, P. K. Varshney, and Y. S. Han, "Distribution Classification Fusion Using Error Correcting Codes," *Proceedings of the SPIE's Aerosense conference on Multi-*



- sensor, *Multisource Information Fusion: Architectures, Algorithms, and Applications*, Orlando, FL, April, 2003, pp. 47-57.
62. Y. S. Han, P.-N. Chen, and M. Fossorier, "A Generalization of the Fano Metric and Its Effect on Sequential Decoding Using a Stack," *Proceedings of the IEEE International Symposium on Information Theory (ISIT2002)*, Lausanne, Switzerland, June, 2002, p. 134.
  63. P.-N. Chen, Y. S. Han, C. R. P. Hartmann, and H.-B. Wu, "Analysis of Decoding Complexity Using New Variation of Berry-Esseen Theorem," *Proceedings of the IEEE International Symposium on Information Theory (ISIT2002)*, Lausanne, Switzerland, June, 2002, p. 286.
  64. C.-K. Lin, P.-N. Chen and Y. S. Han, "A Low-Complexity Stochastic Codebook Searching Algorithm for FS1016," *Workshop on the 21st Century Digital Life and Internet Technologies*, Tainan, Taiwan, May, 2001.
  65. Y. S. Han and P.-N. Chen, "Asymptotic Covering Radius of Block Codes," *Proceedings of the International Symposium on Information theory and Its Applications (ISITA2000)*, Honolulu, Hawaii, November, 2000, pp. 521-524.
  66. T.-Y. Lee, P.-N. Chen and Y. S. Han, "Determination of the Asymptotic Largest Minimum Distance of Block Codes," *Proceedings of the IEEE International Symposium on Information Theory (ISIT2000)*, Sorrento, Italy, June, 2000, p. 227.
  67. H.-B. Wu, P.-N. Chen, and Y. S. Han, "Investigation of the Maximum-Likelihood Soft-Decision Sequential Decoding algorithms for convolutional Codes," *Proceedings of the International Symposium on Communications*, Kaohsiung, Taiwan, November, 1999, pp. 82-86.
  68. Y. S. Han, "A Minimum  $\rho$ -Distance Decoding Algorithm of Linear Block Codes Based on Voronoi Neighbors," *Proceedings of the International Symposium on Communications*, Hsinchu, Taiwan, December, 1997, pp. 99-103.
  69. Y. S. Han, "An Optimal Gradient Decoding Algorithm for Hard-Decision Decoding of Linear Block Codes," *Proceedings of the International Conference on Combinatorics, Information Theory and Statistics*, Portland, Maine, July, 1997, p. 36. **(invited speaker)**
  70. Y. S. Han, "A New Treatment of Priority-First Search Maximum-Likelihood Soft-Decision Decoding for Linear Block Codes," *Proceedings of the IEEE International Symposium on Information Theory (ISIT1997)*, Ulm, Germany, June, 1997, p. 394. **(honored as long presentation)**
  71. Y. S. Han, "The Zero-Coverings Algorithm for General Minimum Distance Decoding Problem," *Proceedings of the IEEE International Symposium on Information Theory (ISIT1997)*, Ulm, Germany, June, 1997, p. 330.
  72. Y. S. Han, "The Effect of Heuristic Information on the Soft-Decision Decoding for Linear Block Codes," *Proceedings of the Seventh IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC1996)*, Taipei, Taiwan, October, 1996. pp. 309-311.
  73. Y. S. Han, C. R. P. Hartmann, C.-T. Chin, and C. K. Mohan, "Efficient Suboptimal Decoding of Linear Block Codes," *Proceedings of the 32nd Allerton Conference on Communication, Control, and Computing*, University of Illinois, Urbana-Champaign, September, 1994, pp. 93-102. **(invited paper)**
  74. Y. S. Han, C. R. P. Hartmann, and K. G. Mehrotra, "Further Results on Decoding Linear Block Codes Using a Generalized Dijkstra's Algorithm," *Proceedings of the 1994 IEEE International Symposium on Information Theory (ISIT1994)*, Trondheim, Norway, June, 1994, p. 342.
  75. Y. S. Han, C. R. P. Hartmann, and C.-C. Chen, "Efficient Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes Using Algorithm A\*," *Proceedings of the 1993 IEEE International Symposium on Information Theory (ISIT1993)*, San Antonio, Texas, January 1993, p. 27. **(honored as long presentation)**

76. D. L. Tao, Y. S. Han, and C. R. P. Hartmann, “New Encoding/Decoding Methods for Designing Fault-Tolerant Matrix Operations,” *Proceedings of SPIE, Vol. 1770, Advanced Signal Processing, Algorithms, Architectures, and Implementations III*, pp. 72-83, July 1992.

- **Technical reports**

1. Y. S. Han, and C. R. P. Hartmann, “Designing Efficient Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes Using Algorithm A\*,” Technical Report SU-CIS-92-10, School of Computer and Information Science, Syracuse University, Syracuse, NY, June 1992.
2. Y. S. Han, C. R. P. Hartmann, and C-C Chen, “Efficient Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes Using Algorithm A\*,” Technical Report SU-CIS-91-42, School of Computer and Information Science, Syracuse University, Syracuse, NY, December 1991.

- **Patents**

1. S.-L. Shieh, P.-N. Chen, and Y. S. Han, “Cyclic Redundancy Check Modification for Length Detection of Message with Convolutional Protection,” US Patent: US 7,219,292 B2, May 15, 2007.
2. S.-L. Shieh, S.-T. Kuo, P.-N. Chen, and Y. S. Han, “System and Method for Blind Transport Format Detection with Cyclic Redundancy Check,” US Patent: US 7,716,554 B2, May 11, 2010.