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| 學歷 | 雪城大學 (SYRACUSE UNIVERSITY)   | Syracuse, NY     |
|    | <ul style="list-style-type: none"><li>• 計算機科學博士 (8 月 1993)<ul style="list-style-type: none"><li>– 論文題目: Efficient Soft-Decision Decoding Algorithms for Linear Block Codes Using Algorithm A*</li><li>– 1994 雪城大學博士論文獎</li></ul></li></ul> |                  |
|    | 國立清華大學   | 新竹, 台灣           |
|    | <ul style="list-style-type: none"><li>• 電機工程碩士 (6 月 1986)</li><li>• 電機工程學士 (6 月 1984)</li></ul>  |                  |
| 經歷 | 电子科技大学 (深圳) 高等研究院<br>6 月 2021 – 迄今<br>教授   | 中國               |
|    | 華為技術有限公司理論實驗室<br>3 月 2020 – 迄今<br>顧問   | 香港               |
|    | 東莞理工學院電子工程與智能化學院<br>2 月 2017 – 2 月 2021<br>傑出人才特聘教授  | 中國               |
|    | 國立台灣科技大學電機工程系<br>6 月 2011 – 1 月 2017<br>講座教授   | 台灣               |
|    | 國立台北大學電機資訊學院<br>2 月 2015 – 迄今<br>科技講座教授  | 台灣               |
|    | INSTITUTE OF NETWORK CODING<br>香港中文大學<br>6 月 2014 – 9 月 2014<br>1 月 2015 – 2 月 2015<br>訪問學者  | 香港               |
|    | DEPARTMENT OF ELECTRICAL ENGINEERING AND<br>COMPUTER SCIENCE<br>SYRACUSE UNIVERSITY<br>7 月 2012 – 6 月 2013<br>傅爾布萊特訪問學者  | Syracuse NY, USA |

DEPARTMENT OF COMPUTER SCIENCE  
UNIVERSITY OF HOUSTON  
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訪問學者

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國立台灣科技大學電機工程系  
8 月 2010 – 5 月 2011  
教授

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國立台北大學通訊工程研究所  
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教授兼所長

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DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  
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訪問學者

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8 月 2004 – 7 月 2008  
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國立暨南國際大學資訊工程學系  
8 月 1998 – 7 月 2004  
教授

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THE NEW YORK STATE CENTER FOR ADVANCED TECHNOLOGY IN  
COMPUTER APPLICATIONS AND SOFTWARE ENGINEERING (CASE)  
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DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE  
SYRACUSE UNIVERSITY  
9 月 2002 – 1 月 2004  
SUPRIA (Syracuse University Prototypical Research in Information Assurance)  
訪問研究學者

Syracuse NY, USA

DEPARTMENT OF ELECTRICAL ENGINEERING  
UNIVERSITY OF HAWAII AT MANOA  
6 月 2001 – 10 月 2001  
訪問學者

Honolulu, HI, USA

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

台灣

國立暨南國際大學資訊工程學系  
8 月 1997 – 7 月 1998  
副教授

台灣

華梵人文科技學院電子工程學系  
9 月 1994 – 7 月 1996

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計算機中心主任

華梵人文科技學院電子工程學系  
8 月 1993 – 7 月 1997  
副教授

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雪城大學資訊科學系  
8 月 1992 – 8 月 1993  
Graduate Research Associate

Syracuse, NY

雪城大學資訊科學系  
8 月 1989 – 7 月 1992  
Graduate Teaching Assistant

Syracuse, NY

學術服務

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  
2009 Dresden, Germany

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.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE  
(IEEE GLOBECOM 2015): COMMUNICATION AND INFORMATION  
SYSTEMS SECURITY SYMPOSIUM  
2015

San Diego, CA, USA

Technical Program Committee member.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE  
(IEEE GLOBECOM 2017): MOBILE AND WIRELESS  
NETWORKS SYMPOSIUM  
2017

Singapore

Technical Program Committee member.

IEEE INFORMATION THEORY WORKSHOP  
(IEEE ITW 2017)  
2017

Kaohsiung, Taiwan

Technical Program Committee member.

IEEE GLOBAL TELECOMMUNICATIONS CONFERENCE  
(IEEE GLOBECOM 2018): MOBILE AND WIRELESS  
NETWORKS SYMPOSIUM  
2018

Abu Dhabi, UAE

Technical Program Committee member.

THE 2019 IEEE INTERNATIONAL CONFERENCE ON  
COMMUNICATIONS (IEEE ICC 2019): COMMUNICATION AND INFORMATION  
SYSTEMS SECURITY SYMPOSIUM  
2019

Shanghai, China

Technical Program Committee member.

THE 9TH INTERNATIONAL WORKSHOP ON SIGNAL DESIGN AND ITS  
APPLICATIONS IN COMMUNICATIONS (IWSDA 2019)  
2019

Dongguan, China

General Co-Chair.

THE 2020 IEEE INTERNATIONAL CONFERENCE ON  
COMMUNICATIONS (IEEE ICC 2020): COMMUNICATION AND INFORMATION  
SYSTEMS SECURITY SYMPOSIUM  
2020

Dublin, Ireland

Technical Program Committee member.

#### 獎勵及榮譽

- **2013, 2013 ACM CCS Test-of-Time 獎<sup>1</sup>**
- 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)
- 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

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<sup>1</sup>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。

- 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<sup>2</sup>
- **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

- **國家自然科學基金**
  1. 1 月 **2017– 12 月 2020**。线性分组码的两阶段最大似然软判决译码方法，面上項目，計畫主持人。
- **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。

<sup>2</sup>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。

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。
  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。低開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。低開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. 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.
- 期刊論文
  1. J. Li, X. Tang, H. Hou, Y. S. Han, B. Bai, and G. Zhang, “PMDS Array Codes with Small Sub-packetization, Small Repair Bandwidth/Rebuilding Access,” *IEEE Trans. on Information Theory*, to appear. **(Full paper)**
  2. H. Hou, Y. S. Han, P. P. C. Lee, Y. Wu, G. Han, and M. Blaum, “A Generalization of Array Codes with Local Properties and Efficient Encoding/Decoding,” *IEEE Trans. on Information Theory*, pp. 107–125, January, 2023. **(Full paper)**
  3. N. Tang and Y. S. Han, “A New Decoding Method for Reed–Solomon Codes Based on FFT and Modular Approach,” *IEEE Trans. on Communications*, pp. 7790-7801, December, 2022. **(Full paper)**
  4. L.-H. Chang, P.-N. Chen, F. Alajaji, and Y. S. Han, “Decoder Ties Do Not Affect the Error Exponent of the Memoryless Binary Symmetric Channel,” *IEEE Trans. on Information Theory*, pp. 3501-3510, June, 2022. **(Full paper)**



5. C. Quan, B. Geng, Y. S. Han, and P. K. Varshney, "Enhanced Audit Bit Based Distributed Bayesian Detection in the Presence of Strategic Attacks," *IEEE Transactions on Signal and Information Processing over Networks*, pp. 49 - 62, January, 2022. **(Full paper)**
6. Z. Li, S.-J. Lin, P.-N. Chen, Y. S. Han, and H. Hou, "Update Bandwidth for Distributed Storage," *IEEE Trans. on Information Theory*, pp. 7159-7179, November, 2021. **(Full paper)**
7. L. Deng, Y. Yu, Y. Zhang and Y. S. Han, "Comparing Delay-Constrained ALOHA and CSMA: A Learning-Based Low-Complexity Approximate Approach," *IEEE Open Journal of the Communications Society*, vol. 2, pp. 1721-1735, 2021. **(Full paper)**
8. Y. S. Han, C. Chen, S.-J. Lin, and B. Bai, "On Fast Fourier Transform-Based Decoding of Reed-Solomon Codes," *Int. J. Ad Hoc and Ubiquitous Computing*, pp. 180-187, 36(3), 2021. **(Invited paper)**
9. N. Wang, S.-J. Lin, Y. S. Han, and N. Yu, "Variants of Golomb Coding and the  $n$ -ary Versions," *IEEE Trans. on Communications*, pp. 7460-7472, December, 2020. **(Full paper)**
10. H. Hou, Y. S. Han, and P. C. C. Lee, "Two Classes of Binary MDS Array Codes with Asymptotically Optimal Repair for Any Single Column," *IEEE Trans. on Communications*, pp. 6723-6736, November, 2020. **(Full paper)**
11. H. Hou, P. C. C. Lee, and Y. S. Han, "Zigzag-Decodable Reconstruction Codes with Asymptotically Optimal Repair for All Nodes," *IEEE Trans. on Communications*, pp. 5999-6011, October, 2020. **(Full paper)**
12. H.-Y. Lin, P.-N. Chen, Y. S. Han, and P. K. Varshney, "Minimum Byzantine Effort for Blinding Distributed Detection in Wireless Sensor Networks," *IEEE Trans. on Signal Processing*, pp. 647-661, 2020. **(Full paper)**
13. L. Yu, Z. Lin, S.-J. Lin, Y. S. Han, and N. Yu, "Fast Encoding Algorithms for Reed-Solomon Codes with between Four and Seven Parity Symbols," *IEEE Trans. on Computers*, pp. 699-705, May, 2020.
14. H. Hou, Y. S. Han, P. C. C. Lee, Y. Hu, and H. Li, "A New Design of Binary MDS Array Codes with Asymptotically Weak-Optimal Repair," *IEEE Trans. on Information Theory*, pp. 7095-7113, November, 2019. **(Full paper)**
15. S.-J. Lin, Y. S. Han, and N. Yu, "New Locally Correctable Codes Based on Projective Reed-Muller Codes," *IEEE Trans. on Communications*, pp. 3834-3841, June, 2019. **(Full paper)**
16. L.-H. Chang, P.-N. Chen, V. Y. F. Tan, C. Wang, and Y. S. Han, "On the Maximum Size of Block Codes Subject to a Distance Criterion," *IEEE Trans. on Information Theory*, pp. 3751-3757, June, 2019. **(Full paper)**
17. H. Cao, S.-J. Lin, W. Zhang, and Y. S. Han, "On the Security of Secret Sharing over a Ring and the Fast Implementation," *IEEE Signal Processing Letters*, pp. 705-709, May, 2019.
18. C. Chen, S.-J. Lin, and Y. S. Han, "Extended Versions of Polynomial Remainder Codes and Chinese Remainder Codes," *IEEE Communications Letters*, pp. 2407-2410, December, 2018.
19. 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*, pp. 2464-2474, November, 2018. **(Full paper)**
20. 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*, pp. 5053 - 5066, November, 2018. **(Full paper)**
21. H. Hou and Y. S. Han, "A Class of Binary MDS Array Codes with Asymptotically Weak-Optimal Repair," *SCIENCE CHINA Information Sciences*, pp. 100302:1-100302:11, October, 2018. **(Invited paper)**

22. 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.
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