

May 2022

Lajos Hanzo's PhD Students

1. Jason Woodard, 1995: Digital Coding of Speech Using Code Excited Linear Prediction;
2. Jurgen Streit, 1996: Digital Image Coding;
3. Jeffery Mark Torrance, 1997: Adaptive Full Response Digital Modulation for Wireless Communication Environments;
4. Peter Cherriman, 1998: Mobile video Networking;
5. Clare Brooks, 1998: Very Low Bit Rate Voice Compression for Mobile Communications;
6. Thomas Keller, 1999: Adaptive Multi-Carrier Techniques for Cellular and Local Area Networks;
7. Ee Lin Kuan, 1999: Burst-by-Burst Adaptive Multiuser Detection CDMA Techniques;
8. Choong Hin Wong, 1999: Wideband Adaptive Full Response Multilevel Transceivers and Equalizers;
9. Bee Leong Yeap, 2000: Turbo Equalisation Algorithms for Full and Partial Response Modulation;
10. Kai Yen, 2000: Genetic Algorithm Assisted CDMA Multiuser Detection;
11. Mong Suan Yee, 2000: Radial Basis Function Network Based Multilevel Channel Equalisation Techniques for Wireless Communications;
12. Tong-Hooi Liew, 2000: Channel Coding and Space-Time Coding for Wireless Channels;
13. Jonathan Blogh, 2001: Adaptive Modulation and Adaptive Antenna Assisted Wireless TDMA/CDMA Networks;
14. Chee Siong Lee, 2001: Wireless Video Broadcast to Fixed and Mobile Receivers;
15. Hee Thong How, 2001: Wideband Speech and Audio Compression for Wireless Communications;
16. Spyros Vlahoyiannatos, 2001: Blind Equalisation Schemes for Dispersive Stationary and Mobile Channels;
17. Byoung Jo Choi, 2001: Multi-Carrier Code Division Multiple Access;

18. Matthias Muenster, 2002: Antenna Diversity-Assisted Adaptive Wireless Multiuser OFDM Systems;
19. Soon Xin Ng, 2002: Coded Modulation Schemes for Wireless Channels;
20. Wei Liu (with Stephan Weiss) 2003 Digital Beamforming Employing Subband Techniques;
21. Hafizal Mohamad (with Stephan Weiss) 2004: Subband Adaptive Equalisation for Communication Transceivers;
22. Ahmad Kamsani Samingan (with Sheng Chen) 2004: Minimum Bit error Rate Multiuser Detection Techniques for DS-CDMA;
23. Jin Yee Chung, 2004: Wireless Video Telephony;
24. Mohamad Yusoff Alias (with Sheng Chen) Minimum Bit Error Rate Multiuser Detection for Multiple Antenna Aided Uplink OFDM Nurul Nadia Ahmad, 01.01.01-07.07.05: Minimum Bit Error Ratio Beamforming;
25. Feng Guo, 04.10.01 - 07.07.05: Low Density Parity Check Coding;
26. Song Ni, 04.10.01 - 07.07.05: Intelligent Wirelss Networking;
27. Hua Wei (George), 03.09.01 - 07.07.05: Interference Suppression in Single- and Multi-Carrier CDMA Systems;
28. Ming Jiang, 03.10.02 - 15.05.06: Hybrid Multi-User OFDM Uplink Systems Using Multiple Antennas;
29. Bin Hu (with Lie-Laing Yang), 03.10.02 - 18.09.06: Multicarrier DS-CDMA Communication Systems Using Smart Antennas;
30. Fang-Chun Kuo, 01.08.04 - 30.10.06 (MPhil) Generalised Low-Density Parity-Check Codes;
31. Xiang Liu, 01.05.03 - 22.01.07: Performance Analysis of Wireless Communications Systems in Fading Channels;
32. Yosef Akhtman, 03.10.02 - 12.03.07: Smart Antenna-Aided Multicarrier Tranceivers for Mobile Communications;
33. Osamah Alamri, 03.10.02 - 12.03.07: Turbo Detection of Sphere Packing Modulation Aided Space-Time Coding Schmes;
34. Viktor Bale (with Stephan Weiss), 01.12.01 - 12.03.07: Computationally Efficient Equalisation of Broadband Multiple-Input Multiple-Output Systems;
35. Jin Wang (with Lie-Liang Yang), 03.02.03 - 12.03.07: Iterative Source Decoding, Channel Decoding and Channel Equalisation;
36. Andreas Wolfgang (LH/SQC 02.10.03 29.06.07) Single-Carrier Time-Domain Space-Time Equalization Algorithms for the SDMA Uplink
37. Sohail Ahmed (LH/LLY Aug-07) Performance Enhancement of Frequency Hopping Systems in the Presence of Interference
38. Wei Liu (Xidian LH/LLY 02.10.03 26.11.07) Long range Channel Prediction and Transmit Preprocessing Techniques

39. Robert Maunder (LH 16.07.03 11.02.08) Irregular Variable Length Coding
40. Shuang Tan (LH/SQC 07.10.04 27.06.08) Minimum Error Rate Beamforming Transceivers
41. Ronald YS Tee (LH/SXN 01.04.04 27.06.08) Iterative Decoding of Multilevel and Bit-Interleaved Coded Modulation
42. Chun-Yi Wei (LH/SXN 07.10.04 27.06.08) Iterative Downlink Mult-User MIMO System
43. Anh Pham Quang (LH/LLY 01.03.04 22.09.08) Wavelet Video Compression for Iterative Wireless Transceivers
44. Seung H Won (LH/SXN 07.10.04 22.09.08) Initial Synchronisation in the Multiple-Input Multiple-Output Aided Single and Multi-Carrier DS-CDMA as well as DS-UWB Downlink
45. Nan Wu (LH/SXN 04.10.04 22.09.08) Generalized Space-Time Block Coding for Co-Located and Cooperative MIMO Systems
46. Thanh Nguyen Dang (LH/LLY 01.07.04 27.10.08) Fountain Codes for Wireless Internet
47. Mohammed El Hajjar (LH/SXN 06.10.05 24.11.08) Near-Capacity MIMOs Using Iterative Detection
48. Noor Shamsiah Othman (LH/SXN 06.11.01 24.11.08) Wireless Speech and Audio Communications
49. Wei Fang (LH/LLY 07.10.04 19.01.09) Cooperative Diversity Aided Direct-Sequence Code-Division Multiple-Access Systems
50. Rong Zhang, (LH 01.01.06 26.06.09): Non-Orthogonal Random Waveform Based Multiuser Communications;
51. Nicholas Bonello (LH/SQC 05.10.06 26.10.09) Near-Capacity Fixed-Rate and Rateless Channel Code Constructions
52. Raja Ali Riaz (LH/SQC 07.02.07 18.12.09) Channel-Coded Time-Hopping and Direct-Sequence UltraWideBand Systems
53. Lei Xu (LH/SC) 2008: OFDM Turbo Transceivers;
54. Chong Xu, 2009: Reduced-Complexity Near-Optimal Ant-Colony-aided Multi-User Detection for CDMA Systems;
55. Li Wang (LH/SXN 05.10.06 08.01.10) Low-Complexity Near-Optimum Detection Techniques for Non-Cooperative and Cooperative OFDM Ssystems
56. Muhammad Fasih Uddin Butt (LH/SXN) 2010: Self-Concatenated Coding for Wireless Communication Systems;
57. Nasruminallah, 2010: Low-Bit-Rate Joint Source-Channel Decoding Aided Wireless Video Communications;
58. Shinya Sugiura (LH/SC) 2010: Coherent Versus Non-Coherent Space-Time Shift Keying for Co-Located and Distributed MIMO Systems;
59. Du Yang (LH/LLY) 2010: Closed-Loop Multiple Antenna Aided Wireless Communications Using Limited Feedback;

60. Hong Chen (LH/RGM) 2010: Cross-Layer Operation Aided Wireless Networks;
61. Lingkun Kong (LH/SXN) 2010: Near-Capacity Co-Located and Distributed MIMO System;
62. Wang Yao (LH/SC) 2011: Particle Swarm Optimization Aided MIMO Transceiver Design;
63. Jiayi Zhang (LH/LLY) 2012: Energy-Efficient Cooperative Single-Carrier Frequency-Division Multiple-Access;
64. Salman Ghafoor, 2012: Radio Over Fiber Systems;
65. Hoang Anh Ngo, 2012: Hybrid automatic-repeat-reQuest Systems for Cooperative Wireless Communications;
66. Liang Li (Bashir/LH/RGM) 2012: Energy-Efficient Design and Implementation of Turbo Codes for Wireless Sensor Network;
67. Hung Nguyen, 2013: Network Coding for Cooperative Multi-User Wireless Communication Systems;
68. Xinyi Xu, 2013: Digital Optical Fibre Aided Virtual MIMO Systems in Multicell Multiuser Networks;
69. Li Li, 2013: Noncoherent Successive Relaying for Multi-User Wireless Systems;
70. Dandan Liang, 2013: Coherent and non-Coherent Coded Modulation for Cooperative Communications;
71. Yongkai Huo, 2013: Iterative Source-and-Channel Decoding Aided Video Communications;
72. Shaoshi Yang, 2013: Detection for Multiple-Input Multiple-Output Systems: Probabilistic Data Association and Semidefinite Programming Relaxation;
73. Jing Zuo (LH/SXN) 2013: Cross-Layer Aided Routing Design for Ad Hoc Networks;
74. Chen Dong, 2014: Buffer-Aided Multihop Wireless Communications;
75. Jiao Feng, 2014: Distributed Relay Selection Aided Cooperative Medium Access Control;
76. Mohammad Ismat Kadir, 2014: Co-Located and Distributed Multicarrier Space-Time Shift Keying for Wideband Channels;
77. Bo Zhang, 2014: Outage Analysis and Optimization for Wireless Multiuser Relay Networks;
78. Panagiotis Botsinis, 2015: Quantum-Assisted Multi-User Wireless Systems;
79. Chao Xu, 2015: Reduced-Complexity Communications System Design;
80. Zunaira Babar, 2015: Quantum Error Correction Codes;
81. Fan Jin, 2015: Resource Allocation for Heterogeneous Radio-Frequency and Visible-Light Networks;
82. Peichang Zhang (LH/SC) 2015: Coherent Versus Differential Multiple-Input Multiple-Output Systems;

83. Halil Yetgin (LH/MEH) 2015: Quality of Service Aware Cross-Layer Network Lifetime Maximization in Battery-Constrained Wireless Sensor Networks;
84. Kent Tsz Kan Cheung (HZ/SSY) 2015: Spectral/Energy Efficient Resource Allocation Optimization of Multi-User Multi-Relay OFDMA Cellular Networks;
85. Wei Liang (LH/SXN) 2015: Cooperative Communication for Cognitive Radio Networks.
86. Jie Hu, 2011-2015 (LH/LLY) Wireless Social Networking
87. Antony Thomas Varghese (LH/MEH) Radio Over Fiber Architectures for Optical/Wireless Integration
88. Hua Sun (LH/SXN) 2011-2015 Layered Turbo Trellis-Coded Modulation for cooperative communications
89. Junyi Jiang (LH/Rong) 2011-2015 Optical Wireless Communication Systems
90. Xin Zuo LH/RM 2009 - 2015 (LH/RM) Fully Parallel Implementation of Timing-Error-Tolerant LDPC Decoders
91. Wenbo Zhang (LH/RM) (2011-2015) Unary Error Correction Coding
92. Abdullah Aljohani, (LH/SXN) (2011-2015) Distributed Joint Source-Channel Coding and Modulation for Wireless Communications
93. Chuan Zhu LH/Rong 2010-2015 Joint Source-Channel Decoding and Unequal Error Protection Aided Video Transmission
94. Tao Wang LH/RM 2009 - 2016 Elias Gamma Error Correction Codes
95. Ateeq Ur Rehman, LLY/LH 2012 - 2016 Hybrid Automatic Repeat Request Assisted Cognitive Radios
96. An Li RM/BMAH/LH 2012 - 2016 A Fully-Parallel Turbo Decoding Algorithm and its Implementations
97. Matthew Felix Brejza, LH/RM 27-Sep-2012 - 2016 A Joint Algorithm and Architecture Design Approach to Joint Source and Channel Coding Schemes
98. Xuan Li, LH/Rong 27-Sep-2012 - 2016 Design and Optimisation of User-centric Visible-Light Networks
99. Isaac Perez-Andrade, RM/BMAH/LH 2012 - 2016 Timing-Error-Tolerant Iterative Decoders
100. Dimitrios Alanis, LH/SXN 2013 - 2016 Quantum-Assisted Multi-Objective Optimization of Heterogeneous Networks
101. Ibrahim Hemadeh, LH/MEH 2013 - 2017 Transceiver Design for Millimetre-Wave Communications: A Space-Time-Frequency Multi-Functional Processing Approach
102. Shruti Gupta LH/Rong Zhang 2014 - 2017 Energy Harvesting Aided Device-to-Device Communication Networks
103. Hongming Zhang LH/LLY 2013 -2017 Compressed Sensing Aided Design Aspects of Indoor Attocells
104. Peter Hailes RM/LH 2013-2017 Design and implementation of flexible FPGA-based LDPC decoders

105. Daryus Chandra LH/SXN Oct 2015-2019 Quantum Topological Error Correction Codes for Quantum Computation and Communication
106. Xiaoyu Zhang LH/SQC/RZ 2016 - 2020 Optical-OFDM Aided Wireless Communications
107. Yichuan Li LH/MEH 2015-2019 Analogue Radio Over Fiber Aided Wireless MIMO Downlink System Design
108. Abbas Ahmed LLY/LH 09-Mar-2015-2019 Iterative Initial Synchronization in Wireless Communications
109. Yangyishi Zhang RZ/LH 2015-2019 Signal Processing for Ultra fast Next-Generation Metallic Access Networks
110. Simeng Feng, RZ/LH, 2015-2019 User-Centric Visible Light Networking
111. Siyao Lu, MEH/LH 2015-2019 Compressed Sensing Aided Multi-Dimensional Index Modulation Trnasceiver Design
112. Luping Xiang RM/LH 2015-2019 Channel Coding Algorithms for Ultra-Reliable Low-Latency Communications
113. Tong Bai 01-Dec-2014-2018 Performance Analysis and Impairment Mitigation of Digital Subscriber Lines in the Face of Impulsive Noise
114. Satyanarayana Katla MEH/LH 2016-2019 Intelligence-Aided Transceiver Design for Millimeter Wave Communications
115. Yusha Liu LLY/LH 2016 - 2020 Spatial Modulation Aided Non-Orthogonal Multiple Access
116. Yanqing Zhang MEH/LH 2016 - 2020 Adaptive Unequal Error Protection for Scalable Video Streaming
117. Shuai Shao RM/LH 2016 - 2020 Advanced Channel Coding for 5G Wireless System
118. Rosie Cane SXN/LH 2017 - 2021 Fault-tolerant Quantum Stabilizer Codes for Improving the Fidelity of Transversal CNOT Gates
119. Yifeng Xiong lh/SXN 2018 - 2022 Quantum Error Mitigation for Error-Resilient Quantum Computation
120. Zeynep Kaykac RM/LH 2018 - 2022 Soft-Input Soft-Output Polar Decoding
121. Qingchao Li 2020 in progress
122. Xinyu Feng 2020 - in progress
123. Xin Liu 2020 - in progress
124. Hugo Jenkins 2021 - in progress
125. Dingzhao Wang 2022 - in progress