

**NANYANG TECHNOLOGICAL UNIVERSITY  
CV Form for Academic Staff (Part-I)**

**Name: Lin Zhiping**

**Present Appointment: Associate Professor**

**School: EEE**

**Date of 1st Appointment: 19 Feb. 1999**

---

**Academic Qualifications: (State Name of University, year of award & class of honours)**

B. Eng. - South China Institute of Technology – 1982

Ph.D. - University of Cambridge – 1987

**Professional Qualifications/Memberships: (State date of membership)**

SrMIEEE – 2000

**Summary of Working Experience: (with dates)**

1987 -1988: Post-doctoral Researcher, The University of Calgary, Canada

1988 -1993: Lecturer/Associate professor, Shantou University, PR China

1993 -18 Feb 1999: Engineer/Senior Engineer, DSO National Laboratories, Singapore

19 Feb 1999 - now: Associate Professor, Nanyang Technological University (NTU), Singapore

**NANYANG TECHNOLOGICAL UNIVERSITY**  
**CV Form for Academic Staff (Part-II)**

**Name:** Lin Zhiping

**School:** EEE

---

**A. TEACHING**

**(1) Awards and recognitions**

NTU URECA journal publication award 2011 (with Zhang Dongye, URECA student under my supervision).

NTU URECA journal publication award 2012 (with Liu Yiyang, URECA student under my supervision).

NTU URECA Popularity Votes award 2013 (with Li Shiwei, URECA student under my supervision).

STMicroelectronics iNEMO Design Contest 2013 - Second Prize (with Li Shiwei and Wu Haozhou, FYP students under my supervision).

NTU URECA journal publication award 2014 (with Li Jianshu, URECA student under my supervision).

NTU URECA journal publication award 2015 (with M. L. Doan, URECA student under my supervision).

NTU URECA 2014 conference support for Chen Yue, URECA student under my supervision.

NTU URECA journal publication award 2015 (with Zhu Wanzheng, URECA student under my supervision).

NTU URECA 2015 conference support for Yin Hongxu, URECA student under my co-supervision.

NTU School of EEE Champion of DIP Competition for Smart Electronics, for the DIP project supervised by Gwee Bah Hwee and co-supervised by Lin Zhiping, Dec. 2015.

Featured in the "Experience of URECA professors" of the URECA 2015 Yearbook (as 1 of the 2 professors for the first time in URECA Yearbook).

NTU URECA journal publication award 2016 (with Li Jianshu, URECA student under my supervision).

NTU URECA journal publication award 2016 (with T. L. Nguyen, URECA student under my supervision).

NTU URECA journal publication award 2017 (with Ding Shuya, URECA student under my supervision).

NTU URECA 2017 conference support for Chen Zhihuan, URECA student under my supervision.

NTU URECA 2018 conference support for Sun Jiajun, URECA student under my supervision.

NTU URECA journal publication award 2019 (with L. D. Nguyen, URECA student under my supervision).

NTU URECA 2019 conference support for Gao Ruihan, URECA student under my supervision.

NTU URECA 2019 conference support for Peng Jiawei, URECA student under my supervision.

Nanyang Outstanding Young Alumni Award 2019 for Yan Zhan, FYP student under my supervision 2015 – 2016.

NTU URECA Undergraduate Research Excellence Award 2019 for Gao Ruihan, URECA student under my supervision.

NTU URECA Undergraduate Research Excellence Award 2019 for Peng Jiawei, URECA student under my supervision.

NTU PROFESSIONAL INTERNSHIP BOOK PRIZE for ACADEMIC YEAR 2018-19 for Gao Ruihan, intern student under my tutoring.

NTU URECA 2019 conference support for Peng Jiawei, URECA student under my supervision.

2020           Mentored URECA and FYP student Gao Ruihan who won **Lee Kuan Yew Gold Medal**

2020           Mentored FYP student Li Xintong who won **Lee Kuan Yew Gold Medal**

2020           Mentored FYP student Liu Yuan who won **Koh Boon Hwee Scholars Award**

2020           Mentored URECA and FYP student Peng Jiawei who won URECA Undergraduate Research Excellence Award

**(2) Development of teaching materials**

- (a) Lecture notes of E406 – Information Engineering Design
- (b) Lecture notes of EE6421 – Statistical Signal Processing
- (c) Lecture notes of EE6422 – Adaptive Signal Processing
- (d) Lecture notes of E6423 – Array Signal Processing
- (e) Lecture notes of E6426 – Image Processing and Pattern Recognition
- (f) Lecture notes of EE4905 – Biomedical Signal Processing
- (g) Lecture notes of EE7402 – Statistical Signal Processing

- (h) Lecture notes of EE6424 – Digital Audio Signal Processing
- (i) Lecture notes of EE6401 – Advanced Digital Signal Processing
- (j) Lecture notes of NM6005 – Digital Signal Processing

## (2) Short courses

- (a) 7-8 Jan. 2004: Conduct a short course on “Introduction to biomedical signal processing”, Centre for Continuing Education, NTU, Singapore
- (b) 24-25 June 2004: Conduct a short course on “Array signal processing”, Activemedia Innovation P/L, Singapore
- (c) 18-19 Jan. 2006: Conduct a short course on “Array signal processing”, Nanyang ENC P/L, Singapore
- (d) 25-26 Jan. 2007: Conduct a short course on “Array signal processing”, Nanyang ENC P/L, Singapore
- (e) 30 Nov. 2008: Conduct “A tutorial on Grobner bases with applications to signals and systems,” IEEE APCCAS, Macao, China
- (f) 20 May, 2012: Conduct “Computer Algebra and Its Applications to Circuits, Signals and Systems,” IEEE ISCAS, Seoul, South Korea
- (g) 19 May, 2013: Conduct “Computer Algebra and Its Applications to Circuits, Signals and Systems,” IEEE ISCAS, Beijing, China
- (h) June 2017: Conduct “Statistical Signal Processing,” Beijing Jiaotong University, China

## B. RESEARCH

### (1) Awards

- (a) 1983-1987: Scholarship for studying overseas towards a PhD degree from the Chinese Government (this award was given to those who won a nationwide competition in 1982).
- (b) 1983-1986: Overseas Research Student award from the Committee of Vice Chancellors and Principals of the U.K. (this award was given to outstanding overseas PhD students studying in a U.K. university).
- (c) 2007: IEEE Signal Processing Society Young Author Best Paper Award (to Qiyue Zou, a former Masters student) for the paper co-authored by Q. Zou, Z. Lin and R.J. Ober, “The Cramer Rao lower bound for bilinear systems,” *IEEE Transactions on Signal Processing*, USA, vol. 54, pp. 1666-1680, May, 2006.
- (d) 2011-2020: The patent of “Method of predicting acute cardiopulmonary events and survivability of a patient” was awarded a license by ZOLL Medical Corporation, USA (to Marcus Ong Eng Hock (SGH), Lin Zhiping, Ser Wee, Huang Guangbin).
- (e) 2012: Best paper final list at the International Symposium on Circuits and Systems (ISCAS), Seoul, Korea, May, 2012, for the paper co-authored by Jiuwen Cao and **Zhiping Lin**, entitled “The Detection Bound of the Probability of Error in Compressed Sensing Using Bayesian Approach”.
- (f) 2015: Best paper award at the International Conf. on Extreme Learning Machines 2015 (ELM 2015), Hangzhou, China, 15 – 17, Dec. 2015, for the paper co-authored by Beom-Seok Oh, Lei Sun, Chung Soo Ahn, Yong Kiang Yeo, Yan Yang, Liu Nan and **Zhiping Lin**, entitled “Extreme Learning Machine based Mutual Information Estimation with Application to Time-Series Change-points Detection”.

- (g) 2016: Meritorious Paper Award (Ranked 22nd in 1200 Submissions) for the paper co-authored by Tianchi Liu, **Zhiping Lin**, Marcus Eng Hock Ong, Zhi Xiong Koh, Pin Pin Pek, Yong Kiang Yeo, Beom-Seok Oh, Andrew Fu Wah Ho and Nan Liu, “Manifold Ranking Based Scoring System with Its Application to Cardiac Arrest Prediction: A Retrospective Study in Emergency Department Patients,” *Computers in Biology and Medicine*, vol. 67, pp. 74-82, 2015. 2015.
- (h) 2017: Best paper award at the International Conf. on Extreme Learning Machines 2017 (ELM 2017), Yantai, China, 4 – 7, Oct. 2017, for the paper co-authored by Kun Qin, Lei Sun, Shengmin Zhou, Badong Chen, Beom-Seok Oh and **Zhiping Lin**, entitled “A Normalized Mutual Information Estimator Compensating Variance Fluctuations for Motion Detection”.
- (i) 2018: Best paper award at the International Conf. on Extreme Learning Machines 2018 (ELM 2018), Singapore, 21 – 23, Nov. 2018, for the paper co-authored by Zhaoxia Wang and **Zhiping Lin**, “Optimal Feature Selection of Learning based Algorithms for Sentiment Classification”.

## (2) Citations

- (a) Total number of citations: 3547, H-index: 29 (by SCI); 6091, H-index: 41 (by Google Scholar)

## (3) Recognitions

- (a) 2007-2008: Serve as **Distinguished Lecturer**, Circuits and Systems Society, IEEE
- (b) 2003: Outstanding Reviewer, IEEE Transactions on Circuits and Systems I
- (c) July 1998: Invited to give a plenary address at the First International Workshop on Multidimensional Systems, Poland
- (d) Sept. 2011: Invited to give a plenary address at the Seventh International Workshop on Multidimensional Systems, France
- (e) August 2018: Invited to give a keynote speech at the fourteenth International conference on Signal Processing, Beijing, China
- (f) November 2018: Invited to give a keynote speech at the Ninth International conference on Extreme Learning Machines, Singapore

## (4) Service as editor and associate editor for international journals

- (a) 2011 - 2015: **Editor-in-Chief**, *Multidimensional Systems and Signal Processing*
- (b) 2015 - 2020: **Subject Editor**, *Journal of The Franklin Institute*
- (c) 2017 - 2018: Guest Editor, Special Issue on “Advances in Machine Learning for Signal Analysis and Processing,” in *Journal of The Franklin Institute*
- (d) 1993 – 2004; 2016 - present: Editorial Board Member, *Multidimensional Systems and Signal Processing*
- (e) 2014 - 2015: Associate Editor, *Journal of The Franklin Institute*
- (f) 2014 - 2015: Lead Guest Editor, Special Issue on “Extreme Learning Machine on High Dimension and Large Data Applications,” in *Mathematical Problems in Engineering*
- (g) 2005 - 2010: Co-Editor, *Multidimensional Systems and Signal Processing*
- (h) 2010 -2011: Associate Editor, *IEEE Transactions on Circuits and Systems II*
- (i) 2000 - 2007: Associate Editor, *Circuits, Systems, and Signal Processing*
- (j) 2001: Guest Editor, Special Issue on “Applications of Grobner Bases to Multidimensional Systems and Signal Processing”, in *Multidimensional Systems and Signal Processing*

## (5) Service for International Conferences

- (a) 2013: **General Chair** of the Ninth ICICS, Tainan, Taiwan
- (b) 2001: Program Co-Chair of the Third ICICS, Singapore
- (c) 2003: General Vice-Chair of the Fourth ICICS, Singapore

- (d) 2006: Finance Chair of the IEEE Asia-Pacific Conference on Circuits and Systems (APCCAS), Singapore
- (e) 2003-2006: Steering Committee Member of APCCAS
- (f) 2008: Tutorial speaker of IEEE APCCAS, Macao, China
- (g) Session Chair: IEEE ISCAS's 2001, 2003 – 2007, 2009, 2010, 2012 – 2015, 2017, and several other international conferences
- (h) Special Session Organizer: IEEE ISCAS's 2001, 2003, 2005, 2015; IEEE ICIP 2004, ICARCV 2000
- (i) Program Committee Member: IEEE ISCAS's 2001 – 2005, 2008 - 2019 and several other international conferences

**(6) Invited presentations at scientific meetings/workshops**

IEEE ISCAS's 1999, 2001, 2003, 2015; IEEE ICIP 2004; MTNS's 2000, 2006, Telehealth 2007, IEEE APCCAS 2008 and several other international conferences

**(7) Appointment as external assessor**

- (a) Assess a grant proposal for The Israel Science Foundation, 2004;
- (b) Assess a grant proposal for Research Grants Council (RGC) of Hong Kong, 2018, 2019;
- (c) Assess a grant proposal for Natural Sciences and Engineering Research Council of Canada (NSERC), 2020.

**(8) Service as a reviewer**

- (d) Mathematical Reviews
- (e) IEEE Transactions on Acoustic, Speech and Signal Processing
- (f) IEEE Transactions on Audio, Speech and Language Processing
- (g) IEEE Transactions on Signal Processing
- (h) IEEE Transactions on Image Processing
- (i) IEEE Transactions on Circuits and Systems (I, II)
- (j) IEEE Transactions on Automatic Control
- (k) IEEE Transactions on Aerospace and Electronic Systems
- (l) IEEE Transactions on Antenna and Propagation
- (m) IEEE Transactions on Neural Networks
- (n) IEEE Transactions on Neural Networks and Learning Systems
- (o) IEEE Transactions on Geoscience and Remote Sensing
- (p) IEEE Transactions on Cybernetics
- (q) IEEE Transactions on Instrumentation and Measurements
- (r) IEEE Signal Processing Letters
- (s) IEEE Journal of Selected Topics in Signal Processing
- (t) IEE Proceedings of Vision, Image and Signal Processing
- (u) IEE Proceedings of Radar, Sonar & Navigation
- (v) IEE Proceedings of Control Theory & Applications
- (w) IEE Electronics Letters
- (x) Journal of the Franklin Institute
- (y) Multidimensional Systems and Signal Processing
- (z) Circuits, Systems and Signal Processing
- (aa) Automatica
- (bb) Many more other journals

**(9) External research funding**

- (a) DSO National Labs. (DSO/C/00/39/L), Principal Investigator (with G. Bi), “Wideband SAR signal analysis and processing”, August 2000 - February 2002, total sum awarded: S\$82,609;
- (b) Research Grants Council, Hong Kong (CRCG 10202466/19870), Co-Investigator (with J. Lam, K. Galkowski and S. Xu), “State space theory of multidimensional systems: realization, singularity and stabilization”, Oct 2000 - Sept 2002, total sum awarded: HK\$110,000;
- (c) DSTA (POD 0001752), “Low frequency FOPEN Radar study”, Collaborator (with Y. Lu), Mar 2001 - Nov 2003, total sum awarded: S\$727,120;
- (d) National Institutes of Health, USA (R01 AI50747), Collaborator (with R. J. Ober and E. S. Ward), “Image processing of immunological microscopy samples”, March 2002 - February 2006, total sum awarded: US\$800,738;
- (e) National Institutes of Health, USA (RO1 GM071048), Collaborator (with R. J. Ober and E. S. Ward), “Quantitative aspects of single molecule detection”, May 2005 - April 2009, total sum awarded: US\$1,046,500;
- (f) Japan Society of the Promotion of Science, Japan (JSPS.KAKENHI15560383), Collaborator (with L. Xu), “Study on the strong stabilization problem of multidimensional systems”, April 2003 - March 2005, total sum awarded: JPY1,400,000.
- (g) Japan Society of the Promotion of Science, Japan (JSPS.KAKENHI19560448), Collaborator (with L. Xu), “Algebraic Approach to Low-order LFR Uncertainty Modeling and Multidimensional Realization”, April 2007 - March 2009, total sum awarded: JPY2,210,000.
- (h) SingHealth, Singapore (TDF/CS001/2006), Co-Principal Investigator (with M.E.H. Ong), “A prospective non-randomized study – measurement of pre-hospital heart rate variability as a clinical predictor of hospital outcomes in acutely ill patients”, Nov. 2006 – Oct. 2009, total sum awarded: S\$99,974.
- (i) DSO National Labs. (DSOCL07023), Principal Investigator, “SAR change detection and video compression”, May 2007 - Oct. 2008, total sum awarded: S\$100,000;
- (j) A\*STAR (SERC 072 134 0056), Co-Principal Investigator (with A. Makur, S. Farook), "New Synthesis Algorithm Developments And Hardware Implementations For Image Processing Applied To Medical Diagnostic And Communication Systems", March 2008 – Aug. 2011, total sum awarded: S\$514,340.
- (k) A\*STAR (SBIC RP C-015/2007), Co-Principal Investigator (with G.C.K. Chen, P. Chen and Z. Song), “Development of Photothermal Imaging System for Imaging sub-cellular organelles”, April 2008 – March 2011, total sum awarded: S\$815,507.
- (l) SingHealth TEST Fund (TEST 08-02), Co-Principal Investigator (with M.E.H. Ong, Ser Wee, G. B. Huang), “Real-Time Measurement of Prehospital Heart Rate Variability as a Clinical Predictor of Hospital Outcomes in Acutely Ill Patients,” Sept 2008 to March 2010, total sum awarded: \$151,000.
- (m) SingHealth iTAG Fund, Co-Principal Investigator (with M.E.H. Ong), “Prospective Clinical Validation of A Triage Device for Real-Time Prediction of Cardiac Arrest Incorporating Heart Rate Variability and Traditional Vital Signs Using Artificial Intelligence,” Dec. 2010 to Dec. 2011, total sum awarded: \$ 96,800.
- (n) NMRC, (EDG11may017), Co-Principal Investigator (with Y. Zheng), “A non-invasive Microwave Acoustic Imaging Apparatus for Breast Cancer Scanning and Diagnosis,” 2012 - 2014, total sum awarded: S\$200,000.
- (o) Temasek Lab @ NTU (TL-9012100261-05), Principal Investigator, “TDOA-FDOA Geolocation and Tracking in Mixed LOS-NLOS Environments,” Jul – Nov. 2012, total sum awarded: S\$24,000;
- (p) Temasek Lab @ NTU (TL-DSOCL 12193-02), Principal Investigator, “Mobile Single Antenna Geolocation,” March 2013 – June 2014, total sum awarded: S\$80,000;
- (q) Environment & Water Industry Development Council (1102-IRIS-05-04), Co-Principal Investigator (with A. Q. Liu), “Nano-Opto-Fluidic System (NOFS) For Rapid Viral Detection and Sorting Via Optical Force,” Dec 2013 – May 2019, total sum awarded: S\$1,702,700;
- (r) A\*STAR-NHG-NTU Skin Research Grant (SRG\14011), Principal Investigator, “Digital image analysis for assessment of severity of melasma in patients,” Aug 2014 – Jan. 2016, total sum awarded: S\$73,000.

- (s) Delta-EEE Joint Grant (M4061567), Principal Investigator (with Wee Ser), “An Intelligent Wearable Device Incorporating ECG and Respiratory Sound for Medical Applications,” Jan 2015 – Nov. 2019, total sum awarded: \$578,300.
- (t) Defence Science & Technology Agency (DSTA) (TL-9015102100), Principal Investigator (with Guo Xin) “Project Mosquito Net,” Oct. 2015 – Jan. 2019, total sum awarded: \$1,979,000.
- (u) National Research Foundation (NRF-CRP11-2012-01), Principal Investigator, “Computational Multi-Layered Displays,” April 2014 – March 2019, total sum awarded: S\$828,650.
- (v) DSO National Labs. (DSOCL18199), Principal Investigator, “Sub-Project 2 TRITON: Algorithm Development and Real Data Validation,” March – July 2019, total sum awarded: S\$34,000;
- (w) A\*STAR Science & Engineering Research Council (SERC 1922500054), Principal Investigator, “Human-Robot Interaction Phase 1,” Oct 2019 – Sep 2022, S\$ 521,400.
- (x) DSO National Labs. (DSOCL19198), Principal Investigator, “RIVENDELL Track 2: Signal Anomaly Analytics,” March 2020 – Sep 2021, total sum awarded: S\$140,000;
- (y) Ministry of Education, Singapore, AcRF Tier 2, Co-Principal Investigator (with Y. Zheng), “Towards An Intelligent Sensor for Non-invasive Glucose Monitoring in Diabetes,” Jun 2020 – May 2023, total sum awarded: S\$ 851,760.

**(10) Internal research funding**

- (a) Ministry of Education, Singapore (Nanyang Technological University) (URC RG 42/99), Principle Investigator (with R. J. Ober and E. S. Ward), “Multidimensional signal processing of NMR data”, May 2000 – April 2003, total sum awarded: S\$28,507;
- (b) Nanyang Technological University, Singapore (CSP/RF/04/05), Principle Investigator (with D. Ghista and R. S. Tan), “Three-dimensional (3D) video signal analysis, compression and applications,” May 2006 – Dec 2007, total sum awarded: S\$40K.
- (c) Nanyang Technological University, Singapore (2006ICTG09), Principle Investigator (with M.E.H.Ong and G. B. Huang), “Processing and classification of heart rate variability signals with clinical applications,” Oct 2006 – Oct 2007, total sum awarded: S\$50K.
- (d) Ministry of Education, Singapore (Nanyang Technological University) (RG185/14), Principle Investigator (with G. B. Huang), “Estimation of Driver Stress from Ultra-Short Term Heart Rate Variability”, March 2015 – Dec 2016, total sum awarded: S\$98,600.
- (e) Ministry of Education, Singapore (Nanyang Technological University) (RG31/16), Principle Investigator (with Y. C. Lim), “Optimization of High Performance FIR Digital Filters and Filterbanks for Efficient Implementation”, Nov 2016 – Dec. 2018, total sum awarded: S\$50,000.
- (f) Ministry of Education, Singapore (Nanyang Technological University) (RG21/17), Principle Investigator, “Optimization of the Sharpest Digital Filter Transfer Function with Minimum Arithmetic Complexity”, Nov 2017 – Jan. 2020, total sum awarded: S\$ 99,966.67.

**(11) Research activities**

Research activities are mainly on three areas: (a) multidimensional systems and signal processing; (b) bio-signal processing; (c) array and SAR signal processing, (d) machine learning. For major research projects, see (9) and (10).

**(12) Conjectures**

Several important conjectures have been posed by me and solved recently by other researchers. See <http://www.ntu.edu.sg/home/ezplin/> for more details.

**C. SERVICE**

### (1) Other services to the University

- (a) Chair, EEE Website Committee, 2020 – present;
- (b) Member, MSc Application Evaluation Committee, 2020 – present;
- (c) Member of the Senate, NTU, August 2016 – 2020;
- (d) Chairman of FYP Committee, School of EEE, Sept. 2007 – Aug. 2012;
- (e) Member of the Future Healthcare Committee, College of Engineering, Jan. 2012 – 2013;
- (f) Program Director, Centre for Signal Processing, School of EEE, Jan 2003 – 2011;
- (g) Program Director, Valens Centre of Excellence, School of EEE, April 2011 – 2020;
- (h) Chairman of School's Search Committee, School of EEE, March – May 2007;
- (i) Member of School's Search Committee, School of EEE, July – Sept. 2007
- (j) Member of FYP Committee, School of EEE, 1999 – 2007;
- (k) Member of Research Report Editorial Board, School of EEE, 2006 – 2009;
- (l) Member of Working Committee for MSc Program (Info-Comm), Sept -- Dec 2005;
- (m) Subject coordinator – EE7402 Statistical Signal Processing, 2013 – present;
- (n) Subject coordinator – EE6424 Digital Audio Signal Processing, 2015 – 2020;
- (o) Subject coordinator – EE6401 Advanced Digital Signal Processing, 2019 – present;
- (p) Subject coordinator – EE6421 Statistical Signal Processing, 2005 – 2007; 2009 – 2013;
- (q) Subject coordinator – EE6422 Adaptive Signal Processing, August 2007 – 2009;
- (r) Subject coordinator – EE6423 Array Signal Processing, July 2000 – July 2006;
- (s) Subject coordinator – EE6426 Image Processing and Pattern recognition, July 2002 – July 2004;
- (t) Subject coordinator – EE3072 Project (java programming), 2010 – 2013.

### (2) Service to society/local industry

- (a) Member of DSP Technical Committee, Circuits and Systems Society, IEEE, Sept 2001 – present
- (b) Member of Biomedical Circuits and Systems Technical Committee, Circuits and Systems Society, IEEE, Jan. 2005 – present
- (c) Vice Chair of Singapore Chapter of Circuits and Systems, IEEE, Jan. – Dec. 2006
- (d) Chair of Singapore Chapter of Circuits and Systems, IEEE, Jan. 2007 – Dec. 2008
- (e) Chair of Singapore Chapter of Circuits and Systems, IEEE, Jan. – Dec. 2019
- (f) Secretary of Singapore Chapter of Signal Processing, IEEE, Feb. 2020 – Dec. 2020
- (g) Treasurer of Singapore Chapter of Signal Processing, IEEE, Jan. 2021 -
- (h) Vice President of The Teochew Doctorate Society Singapore (TDSS), Oct. 2020 -

## D. WORK LOAD

Supervision of post-doctoral fellows and research students:

(Senior) research fellows:

- (1) Yonghong Zeng, 2000 – 2002;
- (2) Yuping Cheng, 2001-2003;
- (3) Niladri Puhan, 2008 - 2009;
- (4) Huiling Xu, 2009 – 2011;
- (5) Zhang Jingbo, 2013 - 2019;
- (6) Sun Lei, 2015;
- (7) Oh Beomseok, 2015 - 2019;
- (8) Yu Yajun, 2016;
- (9) Zhao Ruijie, 2017;
- (10) Liu Minghui, 2018;
- (11) Luo Fulin, 2020 -;
- (12) Weng Zhenyu, 2021 -.



Other researchers:

- (1) Hong Ye, 2005;
- (2) Pavitra Padmanabhan, 2006-2007;
- (3) Hongtao Yu, 2006 - 2008;
- (4) Xuexin Yap, 2008;
- (5) Nolang Fanani, 2009 – 2012;
- (6) Yi Lili, 2012 - 2013;
- (7) Zhang Dongye, 2013 - 2014;
- (8) Gu Jun, 2014 – 2015;
- (9) Yeo Yong Kiang, 2014 - 2019;
- (10) Wan Fangyuan, 2016 – 2017;
- (11) Wan Fengxia, 2017- 2018;
- (12) Liu Qinglai, 2018 - 2019;
- (13) Edward Ong 2018 - 2019.

PhD students:

- (1) Yuanjin Zheng, 1999 – 2002;
- (2) Hong Ye, 2000 – 2005;
- (3) Yongzhi Liu, 2002 - 2007;
- (4) Hongtao Yu, 2003 - 2009;
- (5) Yau Wong, 2006 - 2012;
- (6) Jiuwen Cao, 2008 - 2013;
- (7) Yi Lili, 2008 - 2015;
- (8) Zhou Hongming (co-sup), 2009 - 2014;
- (9) Mirza Bilal, 2010 - 2015;
- (10) Liu Tianchi (co-sup), 2013 - 2019;
- (11) Liang Yunfeng, 2014 - 2019;
- (12) Lin Dongyun, 2014 - 2019;
- (13) Zheng Shaonan (co-sup), 2014 - 2019;
- (14) Liu Qinglai, 2016 - 2020;
- (15) Peng Siyuan (co-sup), 2016 - 2020;
- (16) Zhuang Huiping, 2017 -;
- (17) Peng Xinggan (co-sup), 2019 -.

Total number of Masters of Engineering students supervised: 5.

Total number of Masters of Science students supervised: 10.

## E. PUBLICATIONS

Category	Total no. published todate	No. in Last 3 Years
(a) Books, monographs and chapters	4	0

(b) Journal Papers -	(i) Overseas	182	45
	(ii) Local	3	0
(c) Conference Papers		184	40
(d) Others (patents)		3	1

**(a) Book Chapters**

1. Yuanjin Zheng, Fei Gao, Zhiping Lin, “Correlated Microwave Acoustic Technique for Breast Cancer Detection,” in *Multimodality Breast Imaging: Diagnosis and Treatment* (Ng Yin Kwee et al., Eds.), SPIE, 2013.
2. L. Xu, Z. Lin, J.Q. Ying, O. Saito, Y. Anazawa, “Open problems in control of linear discrete multidimensional systems,” in *Unsolved Problems in Mathematical Systems and Control Theory*, (Vincent Blondel, Alexander Megretski, Eds.), Princeton University Press, USA, Part 6, pp.212-220, 2004 (ISBN: 0-691-11748-9).
3. Z. Lin, Y. Zeng, G. Bi, J. Yeo, “Signal Processing for Large Bandwidth and Long Duration Waveform SAR”, in *Radar signal processing and its applications*, (J. Li, R. Hummel, P. Stoica and E.G. Zelnio, Eds.), pp. 119-137, Kluwer Academic Publishers, USA, 2003 (ISBN: 1-402-07397-6).
4. Z. Lin, “Output feedback stabilizability and stabilization of linear nD systems,” in *Multidimensional Signals, Circuits and Systems* (K. Galkowski and J. Wood, Eds.), Chapter 4, pp. 59 – 76, Taylor & Francis, UK, 2001 (ISBN: 0-415-25363-2).

**(b) Journal Papers**

**(i) Overseas**

1. Long D Nguyen, Ruihan Gao, Dongyun Lin, and Zhiping Lin. “Biomedical image classification based on a feature concatenation and ensemble of deep CNNs.” *Journal of Ambient Intelligence and Humanized Computing*, pages 1–13, published online, March 2020.
2. Beom-Seok Oh and Zhiping Lin, “Extraction of Global and Local m-DS features from FMCW Radar Returns for UAV Detection,” *IEEE Transactions on Aerospace and Electronic Systems*, DOI: 10.1109/TAES.2020.3034020.
3. Xuefeng Chen, Huiling Xu, Xiaokai Zhai, Zhiping Lin, Generalised KYP lemma with its application in finite frequency H8 distributed filter design for nonideally interconnected networked control systems. *International Journal of Systems Science*, Volume 52, Issue 3, 2021, Pages 635-656.
4. S. Peng, W. Ser, B. Chen, Z. Lin, “Robust Semi-Supervised Nonnegative Matrix Factorization for Image clustering,” *Pattern Recognition*, Article 107683, March, 2021.
5. Hui Wang, Huiling Xu, Xiaokai Zhai, Xuefeng Chen, Zhiping Lin, “Asymptotic stability analysis and model reduction for spatially interconnected time-delay systems,” *Journal of the Franklin Institute*, 2020, 357(17):12670-12699.
6. ## Xiaoping Lai, Jiuwen Cao, Xiaofeng Huang, Tianlei Wang, and Zhiping Lin, “A Maximally Split and Relaxed ADMM for Regularized Extreme Learning Machines,” *IEEE Transactions on Neural Networks and Learning Systems*, vol. 31, pp. 1899 – 1913, 2020.
7. S. Peng, W. Ser, B. Chen, Z. Lin, “Robust orthogonal nonnegative matrix tri-factorization for data representation,” *Knowledge-Based Systems*, vol. 201 – 202, Article 106054, 2020.
8. Fulin Luo, Tan Guo, Zhiping Lin, Jinchang Ren, Xiaocheng Zhou, “Semisupervised Hypergraph Discriminant Learning for Dimensionality Reduction of Hyperspectral Image,” *IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING*, VOL. 13, pp. 424 – 456, 2020.

9. Jingbin Li, Jiahui Lv, Beom-Seok Oh, Zhiping Lin, Ya Jun Yu, "Identification of Stress State for Drivers Under Different GPS Navigation Modes," *IEEE Access*, vol. 8, pp. 102773-102783, June 2020.
10. Y. Huang, Y. Jin, Y. Li, Z. Lin "Towards Imbalanced Image Classification: A Generative Adversarial Network Ensemble Learning Method," *IEEE Access*, vol. 8, pp. 88399-88409, May 2020.
11. H. Zhuang, Z. Lin, and K.-A. Toh, "Training a multilayer network with low-memory kernel-and range projection," *Journal of the Franklin Institute*, vol. 357, no. 1, pp. 522 – 550, 2020.
12. # Z. Wang, Z. Lin, "Optimal Feature Selection for Learning-based Algorithms for Sentiment Classification," *Cognitive Computation*, vol. 12, pp. 238 – 248, 2020.
13. S. Peng, W. Ser, B. Chen, L. Sun, and Z. Lin, "Robust nonnegative matrix factorization with local coordinate constraint for image clustering," *Engineering Applications of Artificial Intelligence*, vol. 88, pp. 103354, 2020.
14. # Sungchul Cho, Beom-Seok Oh, Kar-Ann Toh, Zhiping Lin, "Extraction and Cross-Matching of Palm-Vein and Palmprint From the RGB and the NIR Spectrums for Identity Verification," *IEEE Access*, Vol. 8, pp. 4005 - 4021, Jan. 2020.
15. # Weitao Song, Qijia Cheng, Phil Surman, Yue Liu, Yuanjin Zheng, Zhiping Lin, and Yongtian Wang, "Design of a light-field near-eye display using random pinholes," *Optics Express*, Vol. 27, Issue 17, pp. 23763-23774, 2019. <https://doi.org/10.1364/OE.27.023763>.
16. Weitao Song, Qijia Cheng, Yue Liu, Yuanjin Zheng, Zhiping Lin, and Yongtian Wang, "Three-dimensional image authentication using binarized images in double random phase integral imaging," *Chinese Optics Letters*, Vol. 17, No. 5, pp. 051002 (1-5), 2019.
17. B.-S. Oh\*\*, H. Zhuang\*, K.-A. Toh and **Z. Lin**, "Augmented Empirical Mode Decomposition for Complex-valued Univariate Signals," *IET Signal Processing*, vol. 13, No. 4, May 2019. DOI: 10.1049/iet-spr.2018.5428.
18. # S. N. Zheng\*, H. Cai, J. F. Song, J. Zou, L. K. Chin, P. Y. Liu, Z. Lin, D. L. Kwong, and A. Q. Liu "A Single-chip Integrated Spectrometer via Tunable Microring Resonator Array," *IEEE Photonics Journal*, vol. 11, no. 5, pp. 6602809 (10 pages), Oct. 2019.
19. ## B.-S. Oh\*\*, X. Guo, and **Z. Lin**, "A UAV Classification System based on FMCW Radar Micro-Doppler Signature Analysis," *Expert Syst. Appl.*, vol. 132, pp. 239–255, 2019.
20. # D. Lin\*, **Z. Lin**, J. Cao, R. Velmurugan, E.S. Ward, R. J. Ober, "A two-stage method for automated detection of ring-like endosomes in fluorescent microscopy images," *PLoS ONE* 14(6): e0218931, 2019. <https://doi.org/10.1371/journal.pone.0218931>
21. # Q. Liu\*, Y. C. Lim and Z. Lin, "A class of IIR filters synthesized using frequency response masking technique," *IEEE Signal Process. Lett.*, vol. 26, no. 11, pp. 1693–1697, Nov. 2019.
22. # Q. Liu\*, Y. C. Lim and Z. Lin, "Design of pipelined IIR filters using two-stage frequency-response masking technique," *IEEE Trans. Circuits Syst. II, Exp. Briefs*, vol. 66, no. 5, pp. 873-877, May 2019.
23. ## S. N. Zheng\*, J. Zou, H. Cai, J. F. Song, L. K. Chin, P. Y. Liu, Z. Lin, D. L. Kwong, and A. Q. Liu, "Microring resonator-assisted Fourier transform spectrometer with enhanced resolution and large bandwidth in single chip solution," **Nature Communications**, 102349, 2019.
24. # H. Sun, B.-S. Oh\*\*, X. Guo and Z. Lin, "Improving the Doppler Resolution of Ground-Based Surveillance Radar for Drone Detection," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 55, pp. 3667 – 3673, Dec. 2019.
25. ## J. Cao, K. Zhang, H. Yong, X. P. Lai, B. Chen and **Z. Lin**, "Extreme Learning Machine with Affine Transformation Inputs in an Activation Function," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 30, pp. 2093 – 2107, 2019. DOI: 10.1109/TNNLS.2018.2877468.
26. # R. J. Zhao\*\*, X. P. Lai, D. B. H. Tay and **Z. Lin**, "An Alternating Variable Technique for the Constrained Minimax Design of Frequency-Response-Masking Filters", *Circuits, systems, and Signal Processing*, vol. 38, pp. 827–846, 2019.
27. R. Zhao\*\*, X. Lai, X. Hong, and **Z. Lin**. "A matrix-based IRLS algorithm for the least lp-norm design of 2-D FIR filters," *Multidimensional Systems and Signal Processing*, vol. 30, pp. 1 – 15, 2019.
28. # J. Kim, K. Oh, B.-S. Oh\*\*, Z. Lin and K.-A. Toh, "A projection based line features extraction for finger-knuckle-print verification," *Cognitive Computation*, vol. 11, no. 1, pp. 50-70, February 2019.
29. L. Li, **Z. Lin**, Y. Chai and J. Cai, "Output feedback stabilization of two-dimensional fuzzy systems," *Multidimensional Systems and Signal Processing*, vol. 30, pp. 1731–1748, 2019. DOI: 10.1007/s11045-018-0625-x.

30. # H. Xu, **Z. Lin**, X. Zhai, H. Feng, X. Chen, “Quadratic Stability Analysis and Robust Distributed Controllers Design for Uncertain Spatially Interconnected Systems,” *Journal of the Franklin Institute*, vol. 355, pp. 7924 - 7961, 2018.
31. # Y. Liang\*, L. Sun, W. Ser, F. Lin, S. T. G. Thng, and **Z. Lin**, “Classification of Non-Tumorous Skin Pigmentation Disorders Using Voting Based Probabilistic Linear Discriminant Analysis,” *Computers in Biology and Medicine*, vol. 99, pp.123-132, 2018.
32. # Dongyun Lin\*, Lei Sun, Kar-Ann Toh, Jing Bo Zhang, and **Zhiping Lin**, “Biomedical image classification based on a cascade of an SVM with a reject option and subspace analysis,” *Computers in Biology and Medicine*, vol. 96, pp. 128 – 140, 2018.
33. # S. Peng\*, W. Ser, B. Chen, L. Sun, and **Z. Lin**, “Correntropy based graph regularized concept factorization for clustering,” *Neurocomputing*, vol. 316, pp. 34 – 48, 2018.
34. ## B.-S. Oh\*\*, K.-A. Toh, A. B. J. Teoh, and Z. Lin, "An Analytic Gabor Feedforward Network for Single-sample and Pose-invariant Face Recognition," *IEEE Transactions on Image Processing*, vol. 27, pp. 2791 – 2805, 2018.
35. # D. Lin\*, L. Sun, K.-A. Toh, J. B. Zhang and **Z. Lin**, “Twin SVM with a reject option through ROC curve,” *Journal of the Franklin Institute*, vol. 355, pp. 1710 – 1732, 2018.
36. # Lei Sun, Kar-Ann Toh, Badong Chen and Zhiping Lin, “Exploiting the Categorical Reliability Difference for Binary Classification,” *Journal of the Franklin Institute*, vol. 355, pp. 2022-2040, 2018.
37. # Jun Zhang, Zhuliang Yu, Zhenghui Gu, Yuanqing Li and Zhiping Lin, “Multichannel Electrocardiogram Reconstruction in Wireless Body Sensor Networks through Weighted  $\ell_{1,2}$  Minimization,” *IEEE Transaction on Instrumentation and Measurement*, vol. 67, pp. 2024 – 2034, 2018.
38. ## Jun Zhang, Zhuliang Yu, Ling Cen, Zhenghui Gu, Yuanqing Li, and Zhiping Lin, “Deterministic Construction of Sparse Binary Measurement Matrix via Incremental Integer Optimization,” *Information Sciences*, vol. 430–431, pp. 504–518, 2018.
39. # Hailong Meng, Xiaoping Lai, Jiuwen Cao, Zhiping Lin, “A Sequential Partial Optimization Algorithm with Guaranteed Convergence for Minimax Design of IIR Digital Filters,” *Circuits, Systems and Signal Processing*, vol. 37, pp. 4336–4362, 2018.
40. # S. Peng\*, W. Ser, B. Chen, L. Sun, and Z. Lin, “Robust constrained adaptive filtering under minimum error entropy criterion,” *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 65, pp. 1119 – 1123, 2018.
41. # Beom-Seok Oh\*\*, Xin Guo, Fangyuan Wan\*, Kar-Ann Toh and **Zhiping Lin**, “Micro-Doppler mini-UAV Classification Using Empirical Mode Decomposition Features,” *IEEE Geoscience and Remote Sensing Letters*, vol. 15, no. 2, pp. 227-231, 2018.
42. ## K.-A. Toh, Z. Lin, L. Sun and Z. Li “Stretchy binary classification,” *Neural Networks*, vol. 97, pp. 74 – 91, 2018.
43. ## Tianchi Liu\*, Chamara Kasun Liyanaarachchi Lekamalage, Guang-Bin Huang, and **Zhiping Lin**, “An adaptive graph learning method based on dual data representations for clustering,” *Pattern Recognition*, vol. 77, pp. 126-139, 2018.
44. # S. Ding, B. Mirza, **Z. Lin**, J. Cao, X. Lai, T. V. Nguyen and J. Sepulveda, “Kernel based online learning for imbalance multiclass classification,” *Neurocomputing*, Volume 277, Pages 139-148, February 2018.
45. # T. Liu\*, C. K. L. Lekamalage, G.-B. Huang and **Z. Lin**, “Extreme Learning Machine for Joint Embedding and Clustering,” *Neurocomputing*, Volume 277, Pages 78-88, February 2018.
46. # D.B.H. Tay, Z. Lin, “Almost Tight Rational Coefficients Biorthogonal Wavelet Filters,” *IEEE Signal Processing Letters*, Vol. 25, No. 6, pp. 748 - 752, June, 2018.
47. J. Li, **Z. Lin**, S.G. Razul, A.A. Kumar, Y. Zheng and C.M. See, "DOA estimation with a rotational uniform linear array (RULA) and unknown spatial noise covariance", *Multidimensional Systems and Signal Processing*, Vol. 29, Issue 2, pp. 537–561, 2018.
48. ## S. Peng\*, W. Ser, B. Chen, L. Sun, and Z. Lin, “Constrained maximum correntropy adaptive filtering,” *Signal Processing*, 140, 116-126, 2017.
49. # Beom-Seok Oh\*\*, Kangrok Oh, Andrew Beng Jin Teoh, **Zhiping Lin** and Kar-Ann Toh, “A Gabor-based Network for Heterogeneous Face Recognition,” *Neurocomputing*, vol. 261, pp. 253 – 265, 2017.
50. # N. Liu, J. T. Sakamoto, J. Cao, Z. X. Koh, A. F. W. Ho, Z. Lin and M. E. H. Ong, “Ensemble-Based Risk Scoring with Extreme Learning Machine for Prediction of Adverse Cardiac Events,” *Cognitive Computation*, Vol. 9, Issue 4, pp 545–554, August 2017.

51. # Beom-Seok Oh\*\*, Lei Sun, Chung Soo Ahn, Yong Kiang Yeo, Yan Yang, Nan Liu and **Zhiping Lin**, "Extreme Learning Machine based Mutual Information Estimation with Application to Time-Series Change-points Detection," *Neurocomputing*, vol. 261, pp. 204 – 216, 2017.
52. Yunfeng Liang\*, Lei Sun, Wee Ser, Feng Lin, Evelyn Yuxin Tay, Emily Yiping Gan, Tien Guan Thng, **Zhiping Lin**, "Hybrid threshold optimization between global image and local regions in image segmentation for melasma severity assessment," *Multidimensional Systems and Signal Processing*, vol. 28, No. 3, pp. 977-994, 2017.
53. ## Shengyu Nan, Lei Sun, Badong Chen, Zhiping Lin and Kar-Ann Toh ``Density-Dependent Quantized Least Squares Support Vector Machine For Large Data Sets", *IEEE Transactions on Neural Networks and Learning Systems*, vol. 28, pp. 94 – 106, 2017.
54. T. L. Nguyen\*, L. Xu, **Z. Lin** and D. B. H. Tay, "On minimal realizations of first-degree 3D systems with separable denominators". *Multidimensional Systems and Signal Processing*, vol. 28, No. 1, pp. 305 – 314, 2017.
55. ## X. P. Lai, H. Meng, J. Cao and **Z. Lin**, "A Sequential Partial Optimization Algorithm for Minimax Design of Separable-Denominator 2-D IIR Filters," *IEEE Trans. Signal Processing*, Vol. 65, No. 4, pp. 876 – 887, Feb., 2017.
56. D.B.H. Tay, Z. Lin, "Highly Localized Near Orthogonal Graph Wavelets," *Electronics Letters*, vol. 52, No. 11, pp. 966 – 968, 2016.
57. # B. Mirza\*, **Z. Lin**, "Meta-Cognitive Online Sequential Extreme Learning Machine for Imbalanced and Concept-Drifting Data Classification," *Neural Networks*, vol. 80, pp. 79 – 94, 2016.
58. # R. Zhao\*\*, X. P. Lai, **Z. Lin**, "Weighted Least Squares Design of 2-D FIR Filters Using a Matrix-based Generalized Conjugate Gradient Method," *Journal of the Franklin Institute*, Vol. 353, pp. 1758 – 1780, 2016.
59. # X. P. Lai, Z. Lin, "Iterative Reweighted Minimax Phase Error Designs of IIR Digital Filters with Nearly Linear Phases," *IEEE Trans. Signal Processing*, Vol. 64, No. 9, pp. 2416 – 2428, May, 2016.
60. Tianchi Liu\*, Yan Yang, Guang-Bin Huang, Yong Kiang Yeo and Zhiping Lin, "Driver Distraction Detection Using Semi-Supervised Machine Learning", *IEEE Transactions on Intelligent Transportation Systems*, vol. 17, No. 4 pp. 1108 – 1120, April, 2016.
61. W. Zhu\*, W. Huang, **Z. Lin**, Y. Yang, S. Huang and J. Zhou, "Data and feature mixed ensemble based extreme learning machine for medical object detection and segmentation", *Multimedia Tools and Applications*, vol. 75, No. 5, pp. 2815-2837, 2016.
62. Tianchi Liu, Zhiping Lin, Marcus Eng Hock Ong, Zhi Xiong Koh, Pin Pin Pek, Yong Kiang Yeo, Beom-Seok Oh, Andrew Fu Wah Ho and Nan Liu, "Manifold Ranking Based Scoring System with Its Application to Cardiac Arrest Prediction: A Retrospective Study in Emergency Department Patients," *Computers in Biology and Medicine*, vol. 67, pp. 74-82, 2015.
63. Jiuwen Cao and Zhiping Lin, "Extreme Learning Machine on High Dimensional and Large Data Applications: A Survey," *Mathematical Problems in Engineering*, vol. 2015, pp. 1-12, 2015, doi:10.1155/2015/103796.
64. Gao Huang, Tianchi Liu, Yan Yang, Zhiping Lin, Shiji Song and Cheng Wu, "Discriminative clustering via extreme learning machine," *Neural Networks*, vol. 70, pp. 1-8, Oct. 2015.
65. E.Y. Tay, E.Y. Gan, V.W.D. Tan, Z. Lin, Y. Liang, F. Lin, S. Wee and T.G. Thng, "Pilot study of an automated method to determine melasma area and severity index," *British Journal of Dermatology*, Volume 172, Issue 6, pages 1535–1540, June 2015.
66. Hongming Zhou, Guang-Bin Huang, Zhiping Lin, Han Wang, and Yeng Chai Soh, "Stacked Extreme Learning Machine," *IEEE Transactions on Cybernetics*, vol. 45, No. 9, pp. 2013 – 2025, Sept. 2015.
67. D.B.H. Tay, Z. Lin, S. Murugesan, "Design of Near Orthogonal Graph Filter Banks," *IEEE Signal Processing Letters*, Vol. 22, No. 6, pp. 701 - 704, June, 2015.
68. L. Sun, K.-A. Toh, Z. Lin, "Bayesian binary classification adopting orthogonal polynomials," *Pattern Recognition* vol. 48 (6), pp. 2013-2028, June, 2015.
69. M. L. Doan, T. T. Nguyen, Z. Lin, L. Xu, "Notes on minimal realization of multidimensional systems," *Multidimensional Systems and Signal Processing*, **Special Issue on symbolic methods in multidimensional systems theory**, vol. 26, no. 2, pp. 519 – 553, April, 2015.
70. L. Sun, B. Chen, K.-A. Toh, Z. Lin, "Sequential extreme learning machine incorporating survival error potential," *Neurocomputing*, vol. 155, pp. 194-204, May, 2015.
71. B. Mirza, Z. Lin and N. Liu, "Ensemble of Subset Online Sequential Extreme Learning Machine for Class Imbalance and Concept Drift," *Neurocomputing*, vol. 149, Part A, pp. 316-329, February 2015.

72. R. J. Ober, A. Tahmasbi, S. Ram, Z. Lin, and E. S. Ward, "Quantitative Aspects of Single-Molecule Microscopy," *IEEE Signal Processing Magazine*, vol. 32, No. 1, pp. 58-69, Jan. 2015.
73. Liu N, Lee MAB, Ho AFW, Fook-Chong S, Haaland B, Koh ZX, Pek PP, Chua EC, Ting BP, Lin Z, Ong MEH. Risk stratification for prediction of adverse coronary events in ED chest pain patients with a ML score compared with the TIMI score. *International Journal of Cardiology* 2014; 177(3): 1095-1097.
74. Liu N, Cao J, Lin Z, Pek PP, Koh ZX, Ong MEH. Evolutionary voting based extreme learning machines. *Mathematical Problems in Engineering* 2014; 2014: Article ID 808292, 7 pages.
75. Liu N, Goh J, Lin Z, Koh ZX, Fook-Chong S, Haaland B, Wai KL, Ting BP, Shahidah N, Ong MEH. Validation of a risk scoring model for prediction of acute cardiac complications in chest pain patients presenting to the emergency department. *International Journal of Cardiology* 2014; 176(3): 1091-1093.
76. J. Cao, Z. Lin, "Bayesian signal detection with compressed measurements," *Information Sciences*, Vol. 289, pp. 241–253, Dec., 2014.
77. Liu N, Koh ZX, Chua EC, Tan LM, Lin Z, Mirza B, Ong MEH, "Risk scoring for prediction of acute cardiac complications from imbalanced clinical data," *IEEE Journal of Biomedical and Health Informatics*, Vol. 18, No. 6, pp. 1894 - 1902, November 2014.
78. X. P. Lai, Z. Lin, "Optimal Design of Constrained FIR Filters Without Phase Response Specifications," *IEEE Trans. Signal Processing*, vol. 62 no. 17 pp. 4532-4546, Sep. 2014.
79. Nan Liu, Zhi Xiong Koh, Junyang Goh, Zhiping Lin, Benjamin Haaland, Boon Ping Ting and Marcus Eng Hock Ong, "Prediction of adverse cardiac events in emergency department patients with chest pain using machine learning for variable selection," *BMC Medical Informatics and Decision Making*, Vol. 14, No. 75, Aug, 2014.
80. Y. Wong, J. Chao, Z. Lin, R.J. Ober, "Effect of time discretization of the imaging process on the accuracy of trajectory estimation in fluorescence microscopy," *Optics Express*, vol. 22 Issue 17, pp.20396-20420, Aug., 2014.
81. D.B.H. Tay, Z. Lin, S. Murugesan, "Orthogonal Wavelet Filters with Minimum RMS Bandwidth," *IEEE Signal Processing Letters*, Vol. 21, No. 7, pp. 819 - 823, July, 2014.
82. J. Q. Yu, W. Huang, L. K. Chin, L. Lei, Z. P. Lin, W. Ser, H. Chen, T. C. Ayi, P. H. Yap, C. H. Chen and A. Q. Liu, "Droplet Optofluidic Imaging for  $\lambda$ -Bacteriophage Detection via Co-culture of Host Cell Escherichia coli," *Lab on a Chip* , Vol. 14, 3519-3524, June, 2014.
83. J. Li, Y. Zheng, Z. Lin, "Recursive Identification of Time-varying Systems: The Self-tuning RLS Algorithm", *Systems and Control Letters*, vol. 66, pp. 104-110, April, 2014.
84. L. Yi, S. Razul, Z. Lin, and C.-M. See, "Target Tracking in Mixed LOS/NLOS Environments Based on Individual Measurement Estimation and LOS Detection" *IEEE Transactions on Wireless Communications*, vol. 13, no. 1, pp. 99 – 111, Jan., 2014.
85. Lizhen Li, Li Xu & Zhiping Lin, "Stability and stabilisation of linear multidimensional discrete systems in the frequency domain," *International Journal of Control*, Vol. 86, No. 11, pp. 1969–1989, Nov., 2013.
86. Ong ME, Goh K, Fook-Chong S, Haaland B, Wai KL, Koh ZX, Shahidah N, Lin Z., "Heart rate variability risk score for prediction of acute cardiac complications in ED patients with chest pain," *Am J Emerg Med.*, vol. 31(8): 1201-7, Aug, 2013.
87. Zhang, Q., Y. S. Meng, Y. Shan, and Z. Lin, "Direct comparison transfer of microwave power sensor calibration with an adaptor: Modeling and evaluation," *Progress In Electromagnetics Research Letters*, Vol. 38, 25-34, 2013.
88. Chi Lok Wong, George Chung Kit Chen, Xiaochao Li, Beng Koon Ng, Ping Shum, Peng Chen, Zhiping Lin, Chinlon Lin, Malini Olivo, "Colorimetric surface plasmon resonance (SPR) imaging Biosensor Array based on polarization orientation rotation," *Biosensors and Bioelectronics*, Vol. 47, pp. 545-52, 2013.
89. B. Mirza, Z. Lin, K.-A. Toh, "Weighted Online Sequential Extreme Learning Machine for Class Imbalance Learning," *Neural Process Lett*, vol. 38, pp. 465 – 486, 2013.
90. Y. Shan, Y.S. Meng, Z. Lin, "Generic Model and Case Studies of Microwave Power Sensor Calibration Using Direct Comparison Transfer," *IEEE Transactions on Instrumentation & Measurement*, vol. 62, no. 6, pp. 1834 – 1869, 2013.

91. L. Wang, H. Xu, L. Xu, Z. Lin, "Analysis and Design of Unknown Input Observers for a Class of 2-D Nonlinear Systems," *Multidimensional Systems and Signal Processing*, **Special Issue on multidimensional systems theory and control**, vol. 24, no. 4, pp. 621 – 635, 2013.
92. M. E. H. Ong, C. H. L. Ng, K. Goh, N. Liu, Z. X. Koh, N. Shahidah, T. T. Zhang, S. Fook-Chong and Z. Lin, "Prediction of Cardiac Arrest in Critically Ill Patients presenting to the Emergency Department Using a Machine Learning Score Incorporating Heart Rate Variability Compared with the Modified Early Warning Score," *Critical Care*, Vol. 16, No. 3, paper no. R108, 2012.
93. N. Liu, Zhiping Lin, Jiuwen Cao, Z. Koh, T. Zhang, G.-B. Huang, W. Ser, and Marcus E. H. Ong, "An Intelligent Scoring System and Its Application to Cardiac Arrest Prediction," *IEEE Transactions on Information Technology in BioMedicine*, vol. 16, No. 6, pp. 1324 – 1331, 2012.
94. Y. Liu, Z. Lin G. Molteni, D. Zhang, "Eigenvalues and Equivalent Transformation of A Trigonometric Matrix Associated with Filter Design", *Linear Algebra and Its Applications*, Vol. 437, pp. 2961-2972, Dec. 2012.
95. J. Cao, Z. Lin, G.-B. Huang, "Self-adaptive evolutionary extreme learning machine," *Neural Process Lett*, vol. 36, pp. 285–305, 2012.
96. Z. Lin, Y. Liu, G. Molteni, D. Zhang, "Spectral properties for a new composition of a matrix and a complex representation", *The Electronic Journal of Linear Algebra*, Vol. 23, pp. 530-539, 2012.
97. L. Xu, S. Yan, Z. Lin, S. Matsushita, "A New Elementary Operation Approach to Multidimensional Realization and LFR Uncertainty Modeling: The MIMO Case" *IEEE Transactions on Circuits and Systems I, USA*, Vol. 59, No. 9, pp. 638-651, Mar. 2012.
98. H. Xu, Z. Lin and A. Makur, "The existence and design of functional observers for two-dimensional systems," *Systems and Control Letters*, vol. 60, pp. 362-368, Feb. 2012.
99. X. P. Lai, Z. Lin, "Minimax phase error design of IIR digital filters with prescribed magnitude and phase responses," *IEEE Trans. Signal Processing*, Vol. 60, No. 2, pp. 980-986, Feb. 2012.
100. D. Zhang, Z. Lin and Y. Liu, "On eigenvalues and equivalent transformation of trigonometric matrices", *Linear Algebra and Its Applications*, Vol. 436, pp. 71-78, Feb. 2012.
101. J. Cao, Z. Lin, G.-B. Huang, N. Liu "Voting based Extreme Learning Machine," *Information Sciences*, Vol. 185, no. 1, pp. 66–77, 2012.
102. J. Cao, Z. Lin and G.-B. Huang, "Composite Function Wavelet Neural Networks with Differential Evolution and Extreme Learning Machine," *Neural Process Lett*, Vol. 33, pp. 251–265, 2011.
103. Chi Lok Wong, George C. K. Chen, Beng Koon Ng, Shuchi Agarwal, Zhiping Lin, Peng Chen and Ho Pui Ho, "Multiplex spectral surface plasmon resonance imaging (SPRI) sensor based on the polarization control scheme," *Optics Express*, vol. 19, no. 20, pp. 18965-78, Sep., 2011.
104. Chi Lok Wong, George C. K. Chen, Beng Koon Ng, Shuchi Agarwal, Nolang Fanani, Zhiping Lin, Srivathsan Vasudevan and Peng Chen, "Photothermal imaging for the imaging of nano-particles beyond the diffraction limit" *Optical Engineering*, vol. 50, (073201, 5 pages), July, 2011.
105. N. Liu, Z. Lin, Z. Koh, G.-B. Huang, W. Ser, and M. E. H. Ong, "Patient outcome prediction with heart rate variability and vital signs", *Journal of Signal Processing Systems*, vol. 64, No. 2, pp. 265 - 278, Aug. 2011.
106. Y. Wong, Z. Lin, R.J. Ober, "Limit of the Accuracy of Parameter Estimation for Moving Single Molecules Imaged by Fluorescence Microscopy," *IEEE Transactions on Signal Processing*, vol. 59, pp. 895 – 911, March, 2011.
107. L. Xu, H. Fan, Z. Lin and Y. Xiao, "Coefficient-dependent direct-construction approach to multidimensional realization and LFR uncertainty modeling," *Multidimensional Systems and Signal Processing*, vol. 22, pp. 97 – 129, March, 2011.
108. X. P. Lai, Z. Lin, and H. K. Kwan, "A Sequential Minimization Procedure for Minimax Design of IIR Filters Based on Second-Order Factor Updates," *IEEE Trans. Circuits and Systems II*, vol. 58, pp. 51 – 55, Jan., 2011.
109. H. Xu, Z. Lin and A. Makur, "Non-fragile H<sub>2</sub> and H-infinity filter designs for polytopic two-dimensional systems in Roesser model," *Multidimensional Systems and Signal Processing*, Vol. 21, No. 3, pp. 255-275, 2010.
110. X. P. Lai, Z. Lin, "Minimax design of IIR digital filters using a sequential constrained least-squares method," *IEEE Trans. Signal Processing*, Vol. 58, No. 7, pp. 3901-3906, 2010.
111. J. Cao, Z. Lin and G.-B. Huang, "Composite function wavelet neural networks with extreme learning machine," *Neurocomputing*, Vol. 73, Nos. 7-9, pp. 1405–1416, 2010.

- 112.C.L. Wong, G.C.K. Chen, T.C. Kiat, S. Vasudevan, T. A. Pham, N.B. Puhan, A. Marta, A. Shuchi, Z. Lin and P. Chen, "Photothermal Imaging (PTI) system for the imaging of gold nano-particles and cellular organelles", *Advanced Materials Research*, Vol. 74, pp. 45-48, 2009.
- 113.Z. Lin and Y. Liu, "Design of Arbitrary Complex Coefficient WLS FIR Filters with Group Delay Constraints," *IEEE Transactions on Signal Processing*, USA, vol. 57, pp. 3274-3279, August, 2009.
- 114.L. Xu; H. Fan; Z. Lin; N. K. Bose, "A Direct-Construction Approach to Multidimensional Realization and LFR Uncertainty Modeling," *Multidimensional Systems and Signal Processing*, Netherlands, Vol. 19, No. 3, pp. 323-359, Dec. 2008.
- 115.E.H.M. Ong, P. Padmanabhan, Y.H. Chan, Z. Lin, J. Overton, K. Ward K. and D.Y. Fei, "An observational, prospective study exploring the use of heart rate variability as a predictor of clinical outcomes in pre-hospital ambulance patients," *Resuscitation*, Vol. 78, No. 3, pp. 289-297, Sep. 2008.
- 116.Y. Liu and Z. Lin, "Optimal Design of Frequency-Response Masking Filters with Reduced Group Delays," *IEEE Transactions on Circuits and Systems I*, USA, Vol. 55, No. 6, pp. 1560-1570, July 2008.
- 117.S. Xu, J. Lam, Y. Zou, Z. Lin and K. Galkowski, "H\_infinity Output Feedback Control for Two-Dimensional Continuous Systems," *Dynamics of Continuous, Discrete and Impulsive Systems, Series B*, vol. 17, pp. 1-14, Feb. 2008.
- 118.Z. Lin, L. Xu, N.K. Bose, "A Tutorial on Grobner Bases with Applications in Signals and Systems," (Invited paper), *IEEE Transactions on Circuits and Systems I*, USA, Vol. 55, No. 1, pp. 445-461, Feb. 2008.
- 119.L. Xu, Q. Wu, Z. Lin, Y. Xiao, "A New Constructive Procedure for 2D Coprime Realization in Fornasini-Marchesini Model," *IEEE Transactions on Circuits and Systems I*, USA, Vol. 54, No. 9, pp. 2061-2069, Sep. 2007.
- 120.F. Pan, H. Yu, and Z. Lin, "Scalable Fast Rate-Distortion Optimization for H.264/AVC," *EURASIP Journal on Applied Signal Processing, Special Issue on Advanced Video Technologies and Applications for H.264/AVC and Beyond*, Vol. 2006, Article ID 37175, pp. 1-10, 2006.
- 121.Z. Lin and Y. Liu, "Design of Complex FIR Filters with Reduced Group Delay Using Semidefinite Programming," *IEEE Signal Processing Letters*, USA, Vol. 13, No. 9, pp. 529-532, Sep. 2006.
- 122.F. Pan, Z. Lin, X. Lin, S. Rahardja, W. Juwono, F. Slamet, "Adaptive Frame Skipping Based on Spatio-temporal Complexity for Low Bit-Rate Video Coding," *Journal of Visual Communication and Image Representation, Special Issue on Real-Time Imaging*, Vol. 17, pp.554-563, 2006.
- 123.Q. Zou, Z. Lin, R.J. Ober, "The Cramer Rao lower bound for bilinear systems," *IEEE Transactions on Signal Processing*, USA, vol. 54, pp. 1666-1680, May, 2006.
- 124.Y. Liu and Z. Lin, "On the applications of the frequency-response masking technique in array beamforming," *Circuits, Systems and Signal Processing, Special Issue on Computationally Efficient Digital Filters: Design Techniques and applications*, USA, Vol. 25, No. 2, pp. 201-224, 2006.
- 125.S. Xu, J. Lam, Z. Lin, K. Galkowski, "An LMI approach to the computation of lower bounds for stability margins of 2D discrete systems", *Dynamics of Continuous, Discrete and Impulsive Systems, Series B*, vol. 13, pp. 221-236, Feb. 2006.
- 126.H. Ye, Z. Lin, "Speed-up simulated annealing by parallel coordinates," *European Journal of Operational Research*, vol. 173, pp. 59-71, 2006.
- 127.L. Xu, L. Wu, Q. Wu, Z. Lin, Y. Xiao, "On Realization of 2D Discrete Systems by Fornasini-Marchesini Model," *Int. J. Control, Automation and Systems*, vol. 3, No. 4, pp. 631-639, Dec. 2005.
- 128.H. Yu, Z. Lin, and F. Pan, "Applications and Improvement of H.264 in Medical Video Compression", *IEEE Transactions on Circuits and Systems I, Special issue on Biomedical Circuits and Systems: A New Wave of Technology*, USA, Vol. 52, No. 12, pp. 2707-2716, Dec. 2005.
- 129.H. Yu, F. Pan, and Z. Lin, "Content Adaptive Rate Control for H.264", *International Journal of Innovative Computing, Information and Control*, Vol. 1, No. 4, pp. 685-700, Dec. 2005.
- 130.Z. Lin, Q. Zou, E.S. Ward, R.J. Ober, "Cramer Rao lower bound for parameter estimation in nonlinear systems," *IEEE Signal Processing Letters*, USA, Vol. 12, No. 12, pp. 855-858, Dec. 2005.
- 131.Z. Lin, L. Xu, H. Fan, "On Minor Prime Factorizations for nD Polynomial Matrices", *IEEE Trans. Circuits and Systems-II*, USA, Vol. 52, No. 9, pp. 568-571, Sep. 2005.
- 132.Y. Zeng, Z. Lin, G. Bi, J. Yeo, S. Lu, "Dilation dependent matched filtering for SAR signal processing", *IEEE Trans. on Aerospace and Electronic Systems*, USA, Vol. 41, No. 2, pp. 729-736, April, 2005.



- 133.S. Xu, J. Lam, Y. Zou, Z. Lin and W. Paszke, "Robust Positive Real Synthesis for 2-D Continuous Systems via State and Output Feedback", *Circuits, Systems and Signal Processing*, USA, vol. 24, No.2, pp. 183-199, 2005.
- 134.S. Xu, J. Lam, Y. Zou, Z. Lin and W. Paszke, "Robust H-infinity Filtering for Uncertain 2-D Continuous Systems", *IEEE Transactions on Signal Processing*, USA, vol. 53, No. 5, pp. 1731-1738, May, 2005.
- 135.X. Lai, Z. Lin, E. S. Ward and R. J. Ober, "Noise Suppression of Point Spread Functions and its Influence on Deconvolution of Three-dimensional Fluorescence Microscopy Image Sets", *Journal of Microscopy*, UK, vol. 217, pt. I, pp. 93-108, Jan. 2005.
- 136.R. J. Ober, X. Lai, Z. Lin, E. S. Ward, "State space realization of a three-dimensional image set with application to noise reduction of fluorescent microscopy images of cells", *Multidimensional Systems and Signal Processing*, Netherlands, vol. 16, no. 1, pp. 7-48, Jan. 2005.
- 137.Z. Lin, J. Q. Ying, L. Xu, "Elementary Factors of MIMO Linear nD Systems: A New Result," *Int. J. Computer Research*, vol. 12, No. 3, pp. 453-458, 2004.
- 138.J. Lam, S. Xu, Y. Zou, Z. Lin and K. Galkowski, "Robust Output Feedback Stabilization for Two-Dimensional Continuous Systems in Roesser Form", *Applied Mathematics Letters*, vol. 17, pp. 1331-1341, 2004.
- 139.Z. Lin, L. Xu, Q. Wu, "Applications of Grobner Bases to Signal and Image Processing: A Survey", *Linear Algebra and Its Applications*, **Special issue on linear algebra in signal and image processing**, Netherlands, Vol. 391, pp. 169-202, Nov. 2004.
- 140.L. Xu, M. Yamada, Z. Lin, O. Saito and Y. Anazawa, "Further Improvements on Bose's 2D Stability Test", *Int. J. Control, Automation and Systems*, Korea, vol. 2, no. 3, pp. 319-332, Sept, 2004.
- 141.L. Xu, Q. Wu, Z. Lin, Y. Anazawa, "A Mu Approach to Robust Stability Analysis of nD Discrete Systems", *Multidimensional Systems and Signal Processing*, vol. 15, No. 3, pp. 277-293, 2004.
- 142.Q. Zou, Z. L. Yu and Z. Lin, "A Robust Algorithm for Linearly Constrained Adaptive Beamforming", *IEEE Signal Processing Letters*, USA, vol. 11, no. 1, pp. 26-29, 2004.
- 143.W. Paszke, J. Lam, K. Galkowski, S. Xu, Z. Lin, "Robust stability and stabilization of 2D discrete state-delayed systems", *Systems and Control Letters*, vol. 51, no. , pp. 277-291, Netherlands, 2004.
- 144.L. Xu, J. Ying, Z. Lin, O. Saito, "Comments on 'stability tests of N-dimensional discrete time systems using polynomial arrays'", *IEEE Trans. Circuits and Systems-II*, USA, vol. 50, no. 9, pp. 666-669, 2003.
- 145.Y. Zheng, Z. Lin, "Recursive Adaptive Algorithms for Fast and Rapidly Time-Varying Systems", *IEEE Trans. Circuits and Systems-II*, USA, vol. 50, no. 9, pp. 602-614, Sep., 2003.
- 146.K. Galkowski, S. Xu, J. Lam, Z. Lin, "LMI approach to state-feedback stabilization of multidimensional systems", *Int. J. Control*, UK, vol. 76, pp. 1428-1436, 2003.
- 147.S. Xu, J. Lam, Z. Lin, et al. "Positive real control of two-dimensional systems: Roesser models and linear repetitive processes", *Int. J. Control*, UK, vol. 76, no. , pp. 1047-1058, 2003.
- 148.K. Galkowski, Z. Lin, J. Lam, S. Xu, "LMI approach to stability analysis of three-dimensional systems", *Bulletin of The Polish Academy of Sciences*, Poland, vol. 51, no. 4, pp. 361-379, 2003.
- 149.G. Bi, Y. Zeng and Z. Lin, "Odd-factor algorithms for multi-dimensional discrete W transform", *Circuits, Systems and Signal Processing*, USA, vol. 22, no. 4, pp. 377-389, USA, 2003.
- 150.Y. Zeng, G. Bi, Z. Lin and L. Cheng, "Fast computation of MD-DCT-IV/MD-DST-IV by MD-DWT or MD-DCT-II", *SIAM J. Scientific Computing*, vol. 24, no. 6, pp. 1903-1918, 2003.
- 151.R. J. Ober, Q. Zou and Z. Lin, "Calculation of the Fisher Information Matrix for Multidimensional Data Sets", *IEEE Transactions on Signal Processing*, USA, vol. 51, no. 10, pp. 2679-2691, Oct., 2003.
- 152.Z. Lin, Y. Zeng, G. Bi, J. Yeo, "Signal Processing for Large Bandwidth and Long Duration Waveform SAR", *Multidimensional Systems and Signal Processing*, **Special Issue on Radar Signal Processing and Its Applications**, Netherlands, Vol. 14, no. 1, pp. 119-137, Netherlands, Jan., 2003.
- 153.Y. P. Cheng, Z. Bao, P. F. Zhao, Z. Lin, "Doppler Compensation for Binary-coded Waveforms", *IEEE Trans. on Aerospace and Electronic Systems*, USA, 2002, vol. 38, no. 3, pp. 1068 – 1072, July, 2002.
- 154.S. Xu, J. Lam, Z. Lin, K. Galkowski, "Positive Real Control for Uncertain Two-dimensional Systems", *IEEE Trans. Circuits and Systems-I*, USA, vol. 49, no. 11, pp. 1659 – 1666, Nov. 2002
- 155.Z. Lin, J. Q. Ying, L. Xu, "An Algebraic Approach to Strong Stabilizability of Linear nD MIMO Systems", *IEEE Trans. Automatic Control*, USA, vol. 47, no. 9, pp. 1510 – 1514, Sep., 2002
- 156.R. J. Ober, Z. Lin, H. Ye and E. S. Ward, "Achievable accuracy of parameter estimation for multi-dimensional NMR experiments", *Journal of Magnetic Resonance*, USA, vol. 157, no. 1, pp. 1-16, 2002

- 157.Y. Zeng, G. Bi, Z. Lin, "Combined polynomial transform and radix-q algorithm for multi-dimensional DCT-III", *Multidimensional Systems and Signal Processing*, Netherlands, Vol. 13, no. 1, pp. 79-99, Jan. 2002
- 158.Y. Zeng, G. Bi and Z. Lin, "Lifting factorization of discrete W transform", *Circuits, Systems and Signal Processing*, USA, vol. 21, no. 3, pp. 277-298, 2002
- 159.Z. Lin, N. K. Bose, "A generalization of Serre's conjecture and some related issues", *Linear Algebra and Its Applications*, Netherlands, Vol. 338, pp. 125-138, Nov. 2001
- 160.Y. Zheng, Z. Lin, Y. Ma, "Recursive Blind Identification of Time-Varying Non-Gaussian AR Model and Application to Blind Equalization of Time-Varying Channel", *IEE Proceedings: Vision, Image and Signal Processing*, UK, Vol. 148, no. 4, pp. 275-282, Aug. 2001
- 161.Z. Lin, J. Q. Ying, L. Xu, "Factorizations for nD polynomial matrices", *Circuits, Systems, and Signal Processing*, USA, Vol. 20, no. 6, pp. 601-618, Dec. 2001
- 162.Y. Zheng, Z. Lin, D. B. H. Tay, "State-dependent vector hybrid linear and nonlinear ARMA modeling: applications", *Circuits, Systems, and Signal Processing*, USA, Vol. 20, no. 5, pp. 575-597, Oct. 2001
- 163.Y. Zheng, Z. Lin, D. B. H. Tay, "State-dependent vector hybrid linear and nonlinear ARMA modeling: theory", *Circuits, Systems, and Signal Processing*, USA, Vol. 20, no. 5, pp. 551-574, Oct. 2001
- 164.Y. Zheng, D. B. H. Tay, Z. Lin, "Modeling Nonstationary General Distributed Signal Processes and Identifying Time-Varying Autoregressive System by Wavelets: Theory and Application", *Signal Processing*, Vol. 81, no. 9, pp. 1823-1848, Netherlands, August, 2001
- 165.Z. Lin, J. Lam, K. Galkowski, S. Xu, "A Constructive Approach to Stabilizability and Stabilization of a Class of nD Systems", *Multidimensional Systems and Signal Processing*, **Special issue on applications of Grobner bases to multidimensional systems and signal processing**, Vol. 12, no. 3, pp. 329-343, Netherlands, July, 2001
- 166.Y. Zheng, Z. Lin, D. B. H. Tay, "Time varying parametric system multiresolution identification by wavelets", *Int. J. System Science*, Vol. 32, No. 6, pp. 775-793, UK, June, 2001
- 167.Z. Lin, "Further results on n-D polynomial matrix factorizations", *Multidimensional Systems and Signal Processing*, Netherlands, vol. 12, no. 2, pp. 199-208, April, 2001
- 168.J. Q. Ying, Z. Lin, L. Xu, "Some algebraic aspects of the strong stabilizability of time-delay linear systems", *IEEE Trans. Automatic Control*, USA, vol. 46, no. 3, pp. 454 - 457, March, 2001
- 169.Z. Lin, "Feedback stabilization of MIMO nD linear systems", *IEEE Trans. Automatic Control*, USA, vol. 45, no. 12, pp. 2419-2424, Dec. 2000
- 170.Z. Lin, "On syzygy modules for polynomial matrices", *Linear Algebra and Its Applications*, Netherlands, vol. 298, pp. 73-86, Nov., 1999
- 171.Z. Lin, "Notes on n-D polynomial matrix factorizations", *Multidimensional Systems and Signal Processing*, Netherlands, vol. 10, no. 4, pp. 379--393, 1999
- 172.Z. Lin, "Feedback stabilization of MIMO 3-D linear systems", *IEEE Trans. Automatic Control*, USA, vol. 44, no. 10, pp. 1950-1955, Oct, 1999
- 173.Z. Lin, "On the elementary factors of linear systems over unique factorization domains", *Systems and Control Letters*, Netherlands, vol. 37, no. , pp. 237-241, July, 1999
- 174.J. Q. Ying, L. Xu, Z. Lin, "A computational method for determining strong stabilizability of n-D systems", *J. Symbolic Computation*, UK, vol. 27, no. 5, pp. 479-499, May, 1999
- 175.Q. Jiang, S. S. Goh, Z. Lin, "Local discriminant time-frequency atoms for signal classification", *Signal Processing*, Netherlands, vol. 72, no. 1, pp. 47--52, 1999
- 176.Q. Jiang, S. S. Goh, N. C. Lim, Z. Lin, "Selection of initial parameters for signal representation by adaptive wavelets", *Optical Engineering*, USA, vol. 37, no. 9, pp.2613--2619, 1998
- 177.Z. Lin, "Feedback stabilizability of MIMO n-D linear systems", *Multidimensional Systems and Signal Processing*, Netherlands, vol. 9, no. 2, pp. 149--172, 1998
- 178.Z. Lin, "On primitive factorizations for 3-D polynomial matrices", *IEEE Trans. Circuits and Systems*, USA, vol. 39, no. 12, pp. 1024--1027, Dec., 1992
- 179.Z. Lin, L. T. Bruton, "BIBO stability of inverse 2-D digital filters in the presence of nonessential singularities of the second kind", *IEEE Trans. Circuits and Systems*, USA, vol. 36, no. 2, pp. 244--254, 1989
- 180.Z. Lin, L. T. Bruton, N.R. Bartley, "Design of highly selective two-dimensional recursive fan filters by relaxing symmetry constraints", *IEE Electronics Letters*, UK, vol. 24, no. 22, pp. 1361--1362, 1988
- 181.Z. Lin, "On matrix fraction descriptions of multivariable linear n-D systems", *IEEE Trans. Circuits and Systems*, USA, vol. 35, no. 10, pp. 1317--1322, 1988

182.Z. Lin, "Feedback stabilization of multivariable two-dimensional linear systems", *Int. J. Control*, UK, vol. 48, no. 3, pp. 1301--1317, 1988

(ii) **Local**

1. Z. Lin, W. Ser, *et al.*, "Bio-Signal Processing Research Activities in the Centre for Signal Processing", *EEE Journal*, Singapore, pp. 2--11, 2005.
2. Y. Liu, Z. Lin, "Frequency-Response Masking and Its Application to Active Array Beamforming", *EEE Journal*, Singapore, pp. 54--55, 2005.
3. Z. Lin, Y. H. Zeng, G. Bi, "Wideband SAR signal analysis and processing", *EEE Journal*, Singapore, pp. 52--53, 2002.

(c) **Conferences Papers**

1. # W. Hu, X. Cai, J. Hou, S. Yi, and Z. Lin, "GTC: Guided Training of CTC Towards Efficient and Accurate Scene Text Recognition," in Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence, New York, USA, Feb., 2020.
2. W. Zeng, J. Cao, J. Wang, X. Lai and Z. Lin, "MAM: Mixed Attention Module with Random Disruption Augmentation for Image Classification," 2020 IEEE International Symposium on Circuits and Systems (ISCAS), Seville, Spain, 2020, pp. 1-5, doi: 10.1109/ISCAS45731.2020.9180752.
3. Y. Liu, M. Tian, J. Hou, S. Yi and Z. Lin, "Pentadent-Net: Pedestrian Attribute Recognition With Distance Refinement And Correlation Mining," 2020 IEEE International Conference on Image Processing (ICIP), Abu Dhabi, United Arab Emirates, Oct. 2020.
4. Chenhui Luan, Ruyao Cui, Lei Sun, Zhiping Lin, "A SIAMESE NETWORK UTILIZING IMAGE STRUCTURAL DIFFERENCES FOR CROSS-CATEGORY DEFECT DETECTION," 2020 IEEE International Conference on Image Processing (ICIP), Abu Dhabi, United Arab Emirates, Oct. 2020
5. Y. Liu and Z. Lin, "Reinforced Sample Re-weighting for Pedestrian Attribute Recognition," IEEE World Congress on Computational Intelligence (IEEE WCCI) 2020, Glasgow, UK, 2020.
6. Muqing Deng, Jili Li, Jiangmin Tian, Xiaoping Lai, Jiuwen Cao and Zhiping Lin, "Human Gait Recognition Using Image Entropy Vector With Extreme Learning Machines," IEEE World Congress on Computational Intelligence (IEEE WCCI) 2020, Glasgow, UK, 2020.
7. Weichong Ng, Guohua Wang, Siddhartha Siddhartha, Zhiping Lin and Bhaskar Jyoti Dutta, "Range-Doppler Detection in Automotive Radar with Deep Learning," IEEE World Congress on Computational Intelligence (IEEE WCCI) 2020, Glasgow, UK, 2020.
8. # Qinglai Liu\*, Yong Ching Lim and **Zhiping Lin**, "Design of Pipelined IIR Filters Using Two-Stage Frequency-Response Masking Technique," in Proceedings of IEEE ISCAS 2019, Sapporo, Japan, 26-29 May, 2019.
9. # Ruihan Gao\*, Jiawei Peng\*, Long Nguyen\*, Yunfeng Liang\*, Steven Thng, **Zhiping Lin**, "Classification of Non-Tumorous Facial Pigmentation Disorders Using Deep Learning and SMOTE," in Proceedings of IEEE ISCAS 2019, Sapporo, Japan, 26-29 May, 2019.
10. # Siyuan Peng\*, Wee Ser, Badong Chen and **Zhiping Lin**, "Dual Graph Regularized Sparse Nonnegative Matrix Factorization for Data Representation," in Proceedings of IEEE ISCAS 2019, Sapporo, Japan, 26-29 May, 2019.
11. # Xiaoping Lai, Jiuwen Cao and Zhiping Lin, "Minimax Magnitude Response Approximation of Pole-Radius Constrained IIR Digital Filters," in Proc. IEEE ICASSP 2019, Brighton, UK, 12-17 May, 2019.
12. # Jiawei Peng\*, Ruihan Gao\*, Long Nguyen\*, Yunfeng Liang\*, Steven Thng, **Zhiping Lin**, "Classification of Non-Tumorous Facial Pigmentation Disorders Using Improved SMOTE and Transfer Learning," in Proceedings of IEEE ICIP 2019, Taipei, Taiwan, September, 2019.
13. H. Zhuang, **Z. Lin**, and K.-A. Toh, "A low-memory learning formulation for a kernel-and-range network," in Proceedings of IEEE International Joint Conference on Neural Networks (IJCNN), Budapest, Hungary, July, 2019, pp. 1-6.
14. Phi Xuan Nguyen, Zhongkang Lu, Weimin Huang\*, Su Huang, Akie Katsuki, **Zhiping Lin**, "Medical Image Segmentation with Stochastic Aggregated Loss in a Unified U-Net," IEEE-EMBS Biomedical Health Informatics, 2019

15. Beom-Seok Oh\*\*, Andrew Beng Jin Teoh, Kar-Ann Toh and Zhiping Lin, “Grassmannian Clustering for Multivariate Time Sequences,” in Proc. International Computer Symposium (ICS), Yunlin, Taiwan, 20-22 December 2018.
16. Z. Wang, S-B. Ho, Z. Lin, “Stock Market Prediction Analysis by Incorporating Social and News Opinion and Sentiment,” 2018 IEEE International Conference on Data Mining Workshops (ICDMW), pp. 1375-1380. IEEE, 2018.
17. Zhaoxia Wang and Zhiping Lin, “Optimal Feature Selection of Learning based Algorithms for Sentiment Classification”, presented at International Conf. on Extreme Learning Machines 2018 (ELM 2018), Singapore, 21 – 23, Nov. 2018.
18. Huiping Zhuang\*, Beom-Seok Oh\*\*, Dongyun Lin\*, Kar-Ann Toh and **Zhiping Lin**, “Multicomponent Signal Decomposition using Morphological Operations,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
19. Xiaoping Lai, Jiuwen Cao, Ruijie Zhao and Zhiping Lin, “A Relaxed ADMM Algorithm for WLS Design of Linear-Phase 2D FIR Filters,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
20. Qinglai Liu\*, Yong Ching Lim and **Zhiping Lin**, “Design of Recursive Filters Using Frequency-Response Masking Technique,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
21. Jiajun Sun\*, Guohua Wang, **Zhiping Lin**, Sirajudeen Gulam Razul, Xiaoping Lai, “Automatic Modulation Classification of Cochannel Signals using Deep Learning,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
22. Jiajun Sun\*, Siyuan Peng\*, Qinglai Liu\*, Ruijie Zhao and **Zhiping Lin**, “Robust Constrained Recursive Least P-Power Algorithm for Adaptive Filtering,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
23. Ruijie Zhao, Xiaoping Lai, Zhiping Lin and Zhifeng Gao, “A Bi-matrix-based Conjugate Gradient Algorithm for the WLS Design of Centro-symmetric 2-D FIR Filters,” in Proc. International Conference on Digital Signal Processing (DSP), Shanghai, China, 19-21 November 2018.
24. Xinyue Ma\*, Beom-Seok Oh\*, Lei Sun, Kar-Ann Toh, and **Zhiping Lin**, “EMD-based Entropy Features for micro-Doppler mini-UAV classification,” in Proc. International Conference on Pattern Recognition (ICPR), pp. 1295-1300, Beijing, China, 20-24 Aug 2018.
25. # Weimin Huang, Lu Huang\*, Zhiping Lin, Su Huang, Yanling Chi, Jiayin Zhou, Junmei Zhang, Ru-San Tan, Liang Zhong, “Coronary Artery Segmentation by Deep Learning Neural Networks on Computed Tomographic Coronary Angiographic Images,” IEEE EMBC’18, pp. 608-611, Hawaii, USA, July, 2018.
26. # Xiaoyu Liu\*, Aung Aung Phyoo Wai, Shastikk Kumaran, Yukesh Ragavendar Saravanan and **Zhiping Lin**, “Instance-Based Genre-Specific Music Emotion Prediction with An EEG Setup,” IEEE EMBC’18, pp. 2092-2095, Hawaii, USA, July, 2018.
27. # Han Lu\*, Haihong Zhang, **Zhiping Lin** and Ng Soon Huat, “A Novel Deep Learning based Neural Network for Heartbeat Detection in Ballistocardiograph,” IEEE EMBC’18, pp. 2563-2566, Hawaii, USA, July, 2018.
28. # Xiaoping Lai, Jiuwen Cao and Zhiping Lin, “A Novel Relaxed ADMM with Highly Parallel Implementation for Extreme Learning Machine,” in Proceedings of IEEE ISCAS 2018, Florence, Italy, May, 2018.
29. # Ruijie Zhao, Xiaoping Lai and **Zhiping Lin**, “An Iterative Reweighted Minimax Algorithm for the Design of FRM-based Two-channel QMF Banks,” in Proceedings of IEEE ISCAS 2018, Florence, Italy, May, 2018.
30. # Siyuan Peng\*, Wee Ser, **Zhiping Lin** and Badong Chen, “Sparse nonnegative matrix factorization based on maximum correntropy criterion,” in Proceedings of IEEE ISCAS 2018, Florence, Italy, May, 2018.
31. # Long D. Nguyen\*, Dongyun Lin\*, **Zhiping Lin** and Jiuwen Cao, “Deep CNNs for microscopic image classification by exploiting transfer learning and feature concatenation,” in Proceedings of IEEE ISCAS 2018, Florence, Italy, May, 2018.
32. # Aditya Galada\*, Jianmin Zhang, Yong Kiang Yeo\*\*, Wee Ser, **Zhiping Lin**, Doris Tan, Yvonne Chow, Swapna Tony, Jaclyn Chow and David Foo, “ECG Signal Processing and Analysis for Data Arising from Rehab Patients Doing Exercises,” in Proceedings of IEEE ISCAS 2018, Florence, Italy, May, 2018.

33. # Anil Kumar, Dongye Zhang, **Zhiping Lin**, Sirajudeen Gulam Razul, and Chong Meng Samson See, "Direction finding and multipath mitigation using single antenna," IEEE ISCAS 2018, Florence, Italy, May, 2018.
34. Zhihuan Chen, Zhaoxia Wang, Zhiping Lin and Ting Yang, "Comparing ELM with SVM in the field of sentiment classification of social media text data," presented at International Conf. on Extreme Learning Machines 2017 (ELM 2017), Yantai, China, 4 – 7, Oct. 2017.
35. Kun Qin, Lei Sun, Shengmin Zhou, Badong Chen, Beom-Seok Oh and Zhiping Lin, "A Normalized Mutual Information Estimator Compensating Variance Fluctuations for Motion Detection", presented at International Conf. on Extreme Learning Machines 2017 (ELM 2017), Yantai, China, 4 – 7, Oct. 2017.
36. Beom-Seok Oh, Xin Guo, Fangyuan Wan, Kar-Ann Toh and **Zhiping Lin**, "An EMD-based micro-Doppler signature analysis for mini-UAV blade flash reconstruction," Proceedings of 2017 IEEE International Conference on Digital Signal Processing (DSP), August, 2017, London, UK.
37. Yunfeng Liang, **Zhiping Lin**, Lei Sun, Wee Ser, Feng Lin and Steven Thng, "An Improved Image Segmentation Method for Melasma Severity Assessment," Proceedings of 2017 IEEE International Conference on Digital Signal Processing (DSP), August, 2017, London, UK.
38. Q. Liu, Y. Lim, **Z. Lin**, "Design of Sparse Frequency-Response Masking Filters with Arbitrary Delay Using 11-Minimization," Proceedings of 2017 IEEE International Conference on Digital Signal Processing (DSP), August, 2017, London, UK.
39. # Weimin Huang, Chen Ling, Su Huang, Zhongkang Lu, Zhiping Lin, "Rodent Brain Extraction Using B-Spline Based Deformable Model," IEEE EMBC'17, Seogwipo, South Korea, July, 2017.
40. # Haihong Zhang, Zimin Wang, Kejun Dong, Ng Soon Huat and **Zhiping Lin**, "Towards precise tracking of electric-mechanical cardiac time intervals through joint ECG and BCG sensing and signal processing," IEEE EMBC'17, Seogwipo, South Korea, July, 2017.
41. F. Wan, Q. Liu, C. Wang, X. Guo, Z. Lin, "An Improved MTI filters for Ground Clutter Reduction in UAV Classification," Proc. the Second International Workshop on Pattern Recognition, May 2017, Singapore.
42. R. Zhao, Z. Lin, K.-A. Toh, L. Sun, X. Lai, "Almost Minimax Design of FIR filter Using an IRLS Algorithm without Matrix Inversion," Proc. the Second International Workshop on Pattern Recognition, May 2017, Singapore.
43. B.-S. Oh, Z. Gu, G. Wang, K.-A. Toh, Z. Lin, "Analytic Radar micro-Doppler Signatures Classification," Proc. the Second International Workshop on Pattern Recognition, May 2017, Singapore.
44. # N. Le, **Z. Lin**, D. Tay, L. Xu, J. Cao, "Design of Orthogonal Filterbanks with Rational Coefficients Using Grobner Bases," Proc. IEEE ISCAS 2017, Baltimore, MD, USA, May, 2017.
45. # Q. Liu, Y. Lim, **Z. Lin**, X. Lai, "Design of IIR Frequency-Response Masking Filters with Near Linear Phase Using Constrained Optimization," Proc. IEEE ISCAS 2017, Baltimore, MD, USA, May, 2017.
46. # Y. Liang, **Z. Lin**, L. Sun, J. Cao, "Document Image Binarization via Optimized Hybrid Thresholding," Accepted for Lecture Presentation by Proc. IEEE ISCAS 2017, Baltimore, MD, USA, May, 2017.
47. # D. Lin, **Z. Lin**, L. Sun, K. Toh, J. Cao, "LLC Encoded Bow Features and Softmax Regression for Microscopic Image Classification," Proc. IEEE ISCAS 2017, Baltimore, MD, USA, May, 2017.
48. # D. Lin, **Z. Lin**, R. Velmurugan. R. Ober, "Automatic Endosomal Structure Detection and Localization in Fluorescence Microscopic Images," Proc. IEEE ISCAS 2017, Baltimore, MD, USA, May, 2017.
49. R. Zhao, X. Lai, Z. Lin, X. Hong. "A Matrix Iterative Algorithm for the WLS Design of Variable Fractional Delay FIR Filters," Proceedings of 2016 IEEE International Conference on Digital Signal Processing (DSP), October, 2016, Beijing, China.
50. B. Mirza, S. Kok, Z. Lin, Y. Yeo, X. Lai, J. Cao, J. Sepulveda. "Efficient Representation Learning for High- Dimensional Imbalance Data," Proceedings of 2016 IEEE International Conference on Digital Signal Processing (DSP), October, 2016, Beijing, China.
51. T. Wang, J. Cao, J. Wang, X. Lai, Z. Lin. "Excavation Devices Classification Using Enhanced Acoustics by MVDR Beamforming With a Cross Microphone Array," Proceedings of 2016 IEEE International Conference on Digital Signal Processing (DSP), October, 2016, Beijing, China.

52. Y. Yu, Z. Yang, B. Oh, Y. Yeo, Q. Liu, G. Huang, Z. Lin, "Investigation on Driver Stress Utilizing ECG signals with On-board Navigation Systems in Use," in Proc. of the 14th International Conference on Control, Automation, Robotics and Vision, ICARCV 2016, Phuket, Thailand, November 13 – 15, 2016.
53. X. Zhang, Y. Liang, D. Lin, Z. Lin, S. Thng, E. Gan, E. Tay, "Reaction-diffusion Based Level Set Method with Local Entropy Thresholding for Melasma Image Segmentation," in Proc. of the 14th International Conference on Control, Automation, Robotics and Vision, ICARCV 2016, Phuket, Thailand, November 13 – 15, 2016.
54. Weimin Huang, Jiaqi Zhang, Zhiping Lin, Su Huang, Yuping Duan, Zhongkang Lu, "Template Based Rodent Brain Extraction and Atlas Mapping," IEEE EMBC'16, Orlando, FL, USA, August 2016.
55. David Tay, Zhiping Lin, "Biorthogonal Filter Banks Constructed from Four Halfband Filters," in Proc. IEEE ISCAS 2016, Montreal, Canada, May, 2016.
56. L. Sun, B. Chen, K. Toh and Z. Lin, "A parameter-free Cauchy-Schwarz information measure for independent component analysis," In proceedings of 2016 IEEE International Conference on Acoustics, Speech and Signal Processing, pp. 2524-2528, March 2016, Shanghai, China.
57. G. Wang, X. Jiang, S. Razul, C.-M. See, Z. Lin, "Passive TDOA and DOA Based HF Geolocation without Ionosphere Information," in Proc. International Conference on Information, Communications and Signal Processing (ICICS) 2015, Dec. 2015, Singapore.
58. Wanzheng Zhu, Beom-Seok Oh, Weimin Huang, Zhiping Lin, Yuehao Pan and Jiayin Zhou, "Hybrid Classifiers Ensemble with An Undersampling Scheme for Liver Tumor Segmentation," in Proc. International Conference on Information, Communications and Signal Processing (ICICS) 2015, Dec. 2015, Singapore.
59. Beom-Seok Oh, Yong Kiang Yeo, Fang Yuan Wan, Yi Wen, Yan Yang and Zhiping Lin, "Effects of Noisy Sounds on Human Stress using ECG Signals: An Empirical Study," in Proc. International Conference on Information, Communications and Signal Processing (ICICS) 2015, Dec. 2015, Singapore.
60. K.J. Hong, W. Ser, Z. Lin, and David C.G. Foo, "Acoustic Detection of Excessive Lung Water using Sub-band Features," IEEE Dallas Circuits and Systems Conference, Dallas, Texas, USA, 12 – 13 October 2015.
61. Tianchi Liu, Yan Yang, Guang-Bin Huang, Zhiping Lin, Felix Klanner, Cornelia Denk and Ralph H. Rashofer, "Cluster regularized extreme learning machine for detecting mixed-type distraction in driving," in Proceedings of IEEE 18th International Conference on Intelligent Transportation Systems (ITSC), pp. 1323 - 1326, 15-18 Sept. 2015.
62. Y. Pan, W. Huang, Z. Lin et al., "Brain Tumor Grading Based on Neural Networks and Convolutional Neural Networks," in Proc. 37th Annual International Conference of the IEEE EMBC, pp. 699-702, Milan, Italy, August, 2015.
63. Lei Sun, Badong Chen, Shengyu Nan, Zhiping Lin, Kar-Ann Toh, "A dictionary updating scheme incorporating words elimination into Quantized Kernel Least-Mean-Squares for changing environments," Proceedings of 2015 IEEE International Conference on Digital Signal Processing (DSP), July, 2015, Singapore.
64. Dongyun Lin, Zhiping Lin, Shakeela Sothiharan, Lei Lei and Jingbo Zhang. "An SVM based scoring evaluation system for fluorescence microscopic image classification," Proceedings of 2015 IEEE International Conference on Digital Signal Processing (DSP), July, 2015, Singapore.
65. Arjuna Madanayake, Chamith Wijenayake, Zhiping Lin, Nathan Dornback, "Recent Advances in Multidimensional Systems and Signal Processing: an Overview," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
66. David Tay, Zhiping Lin, "Graph QMF with Flatness Constraints," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
67. Hongxu Yin, Bah Hwee Gwee, Zhiping Lin et al., "Novel Real-Time System Design for Floating-Point Sub-Nyquist Multi-Coset Signal Blind Reconstruction," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
68. J. Cao, Z. Lin, "Performance Bound of Multiple Hypotheses Classification in Compressed Sensing," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
69. Bilal Mirza, Zhiping Lin, Jiuwen Cao and Xiaoping Lai, "Voting Based Weighted Online Sequential Extreme Learning Machine for Imbalance Multi-Class Classification," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.

70. Yumeng Gao, Zhiping Lin, Tong Tong Zhang, Nan Liu, Tianchi Liu, Wee Ser, Zhi Xiong Koh, Marcus Eng Hock Ong, "Effects of Two New Features of Approximate Entropy and Sample Entropy on Cardiac Arrest Prediction," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
71. Z. Lin, Y. Wong, R.J. Ober, "Limit of the Accuracy of Parameter Estimation for Two Molecules Moving in Close Proximity," in Proc. IEEE ISCAS 2015, Lisbon, Portugal, May, 2015.
72. Yunfeng Liang, Zhiping Lin, Jun Gu, Wee Ser, Feng Lin, Evelyn Yuxin Tay, Emily Yiping Gan, Virlynn Wei Ding Tan, Tien Guan Thng, "Melasma Image Segmentation Using Extreme Learning Machine," in Proceedings of ELM-2014 Volume 2, pp. 379–387, Singapore, Dec. 2014.
73. T. Liu, Y. Yang, G.-B. Huang, and Z. Lin, "Detection of drivers distraction using semi-supervised extreme learning machine," in Proceedings of ELM-2014 Volume 2, pp. 379–387, Singapore, Dec. 2014.
74. C. K. L. Lekamalage, T. Liu, Y. Yang, Z. Lin, and G.-B. Huang, "Extreme learning machine for clustering," in Proceedings of ELM- 2014 Volume 1, pp. 435–444, Singapore, Dec. 2014.
75. Lei Sun, Kar-Ann Toh, Zhiping Lin, Badong Chen, "Empirical Survival Error Potential Weighted Least Squares for Binary Pattern Classification", In Proceedings of The 13th International Conference on Control, Automation, Robotics and Vision (ICARCV), pp. 949-952, Singapore, Dec. 2014.
76. W. Huang, L. Quan, Z. Lin et al., "Abdominal wall extraction using constrained deformable model and abdominal context," in Proc. 36th Annual International Conference of the IEEE EMBC, pp. 4699-4702, Chicago, US, August, 2014.
77. W. Huang, Y. Yang, Z. Lin et al., "Random Feature Subspace Ensemble Based Extreme Learning Machine for Liver Tumor Detection and Segmentation," in Proc. 36th Annual International Conference of the IEEE EMBC, pp. 4675-4678, Chicago, US, August, 2014.
78. Y. Chen, D. Zhang, Z. Lin, X. Lai, "A Sequential Weighted Least Squares Procedure for Design of IIR Filters and Two-Channel IIR Filter Banks," in Proc. IEEE ISCAS 2014, Melbourne, Australia, June, 2014.
79. T. Qiu, Y. Shan, Y.S. Meng, Z. Lin, "Microwave Power Sensor Calibration Using Direct Comparison Technique with different adaptors," in Proc. IEEE ISSNIP 2014, Singapore, April, 2014.
80. B. Mirza, Z. Lin, "One-Vs-All for Class Imbalance Learning," in Proc. of the 9th International Conference on Information, Communications and Signal Processing, Taiwan, Dec. 2013.
81. D. Zhang, Z. Lin, A. Kumar, S. G. Razul and C. M. S. See, "Location Estimation from a Single Mobile Rotated Antenna," in Proc. 9th International Conference on Information, Communications and Signal Processing, Taiwan, Dec. 2013.
82. W. Huang, N. Li, Z. Lin, G.-B. Huang, W. Zong, J. Zhou, Y. Duan, "Liver Tumor Detection and Segmentation using Kernel-based Extreme Learning Machine," in Proc. 35th Annual International Conference of the IEEE EMBC, Osaka, Japan, July, 2013.
83. L. Yi, S. Razul, Z. Lin, and C.-M. See, "Gating and Robust EKF Based Target Tracking in Mixed LOS/NLOS Environments," in Proc. IEEE ICASSP 2013, Vancouver, Canada, May, 2013.
84. X.P. Lai, Z. Lin, "Design and Application of Allpass Filters with Equiripple Group Delay Errors," in Proc. IEEE ISCAS 2013, Beijing, China, May, 2013.
85. Z. Lin, Y. Wong, R.J. Ober, "Influence of Prior Knowledge on the Accuracy Limit of Parameter Estimation in Single-Molecule Fluorescence Microscopy," in Proc. IEEE ISCAS 2013, Beijing, China, May, 2013.
86. J. Cao, Z. Lin, G.B. Huang, "Voting Base Online Sequential Extreme Learning Machine for Multi-Class Classification," in Proc. IEEE ISCAS 2013, Beijing, China, May, 2013.
87. L. Yi, S. Razul, Z. Lin, and C.-M. See, "Gating and Robust EKF Based Target Tracking in Mixed LOS/NLOS Environments," in Proc. IEEE ISCAS 2013, Beijing, China, May, 2013.
88. H. Xu, Z. Lin, A. Makur, L. Xu, "Robust Unbiased  $H^\infty$  Filtering for Uncertain Two-dimensional Systems," in Proc. 12th International Conference on Control, Automation, Robotics & Vision, Guangzhou, China, 5-7th December 2012.
89. W. D. Leong, Y. Zheng, Z. Lin, S. Diao, Y. Gao, "MIMO ultra-wideband system for breast cancer detection," in Proc. IEEE Int. Symp. on Radio-Freq. Integration Tech. Singapore, Nov. 2012, pp. 143 - 146.
90. W. Huang, Z.M. Tan, Z. Lin, G.-B. Huang, J. Zhou, C.K. Chui, Y. Su, and S. Chang, "A Semi-automatic Approach to the Segmentation of Liver Parenchyma from 3D CT Images with Extreme Learning Machine," in Proc. 34th Annual International Conference of the IEEE EMBC, San Diego, California USA, August - September, 2012.

91. X.P. Lai, A. Xue, Z. Lin, C. Lai, "A Sequential Constrained Least-Squares Method to Minimax Design of table IIR Digital filters," in Proc. the 15th International Conference on Information Fusion, Singapore, July, 2012.
92. D. Xu, Z. Lin, C. L. Wong, S. Vasudevan, B. K. Ng, Y. Zheng, G. C. Chen, "Applications of Super-Resolution in Photothermal Imaging," in Proc. IEEE ICIEA 2012, Singapore, July, 2012.
93. Z. Yu, Z. Lin, "Scene Change Detection Using Motion Vectors and DC components of Prediction Residual in H.264 compressed Videos," in Proc. IEEE ICIEA 2012, Singapore, July, 2012.
94. Y. CAI, Y. SHAN, Z. LIN, and H. NEO, "Coaxial Power Sensor Calibration with Adaptor by Direct Comparison Transfer", Conference On Precision Electromagnetic Measurements (CPEM2012) Digest, pp.90-91, Washington DC, USA, July, 2012.
95. L. Yi, S. Razul, Z. Lin, and C.-M. See, "Road Constraint Assisted Target Tracking in Mixed Los/NLOS Environments Based on TDOA Measurements," in Proc. IEEE ISCAS 2012, Seoul, Korea, May, 2012.
96. J. Cao, Z. Lin, "The Detection Bound of the Probability of Error in Compressed Sensing Using Bayesian Approach," in Proc. IEEE ISCAS 2012, Seoul, Korea, May, 2012.
97. Y. Wong, Z. Lin, R.J. Ober, "Effect of Time Discretization on the Limit of the Accuracy of Parameter Estimation for Moving Single Molecules Imaged by Fluorescence Microscopy," in Proc. ISBI 2012 Barcelona, Spain, May, 2012.
98. H. Xu, Z. Lin, A. Makur, L. Xu, "Asymptotic Unknown Input Observers for 2-D Systems," in 7th Proc. International Workshop on Multidimensional Systems, Poitiers, France, Sept. 2011.
99. W. Zong, H. Zhou, G.-B. Huang, Z. Lin: "Face Recognition Based on Kernelized Extreme Learning Machine," Proc. AIS 2011, LNAI 6752, pp. 263–272, 2011.
100. L. Xu, S. Yan, S. Matsushita, Z. Lin, "Roesser model realization of MIMO n-D systems by elementary operations," in Proc. IEEE ISCAS 2011, Rio de Janeiro, Brazil, May, 2011.
101. X.R. Ong, Y. Shan, Y. Zhou and Z. Lin, "Monte Carlo Simulation Method in Measurement Uncertainty Evaluation," in Proc. APSIPA ASC, Singapore, Dec, 2010.
102. C. Hong, Y. Zeng, Z. Lin, "Time Synchronization in Cooperative Communication," in Proc. APSIPA ASC, Singapore, Dec, 2010.
103. H. Xu, Z. Lin, A. Makur, "2-D IIR Filter Bank Design by An LMI Approach," in Proc. ICARCV, Singapore, Dec, 2010.
104. L. Yi, C.-H. Lim, C.-M. See, S.G. Razul and Z. Lin, "Robust tracking in mixed LOS/NLOS environments," in Proc. ICARCV, Singapore, Dec, 2010.
105. L. Yi, S. Razul, Z. Lin, and C.-M. See, "Target tracking in mixed los/nlos environments based on individual toa measurement detection," in Prof. 2010 IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM), Oct. 2010, pp. 153 –156.
106. T.Z.D. Ong, Y. Zheng and Z. Lin, "Design and Experimental Investigation of UWB Microwave Imaging via MIMO Beamforming," in Proc. IEEE International Conference on Ultra-Wideband, Nanjing, China, September 20-23, 2010.
107. X.P. Lai, Z. Lin, "Design of IIR Digital Filters with Prescribed Phase Error and Reduced Group-delay Error," in Proc. WCICA, Jinan, China, July 6-9 2010.
108. H. Xu, Z. Lin, A. Makur, "Non-Fragile H-Infinity Filter Design for Polytopic 2-D Systems in Fornasini- Marchesini Model," in Proc. IEEE ISCAS 2010, Paris, France, May, 2010.
109. X.P. Lai, Z. Lin, "A Sequential Constrained Least-Squares Method to Minimax Design of Stable IIR Digital filters," in Proc. IEEE Conference on Decision and Control, Shanghai, China, December 16-18, 2009.
110. S. Vasudevan, G.C.K. Chen, Z. Lin, N.B. Puhon, T.C. Kiat, "Three-Dimensional Phase Images Using Photothermal Microscope Integrated with Digital Holographic Interferometry", presented at Novel Techniques in Microscopy, OSA Spring Optics & Photonics Congress, Vancouver, Canada, April 26-30, 2009.
111. H. Yu, Z. Lin, F.C.T. Teo, "An Efficient Coding Scheme Based on Image Alignment for H.264/AVC," in Proc. IEEE ISCAS 2009, Taipei, May, 2009.
112. P. Padmanabhan, Z. Lin, G.-B. Huang, M.E.H. Ong, "Patient Classification Based on Pre-Hospital Heart Rate Variability," in Proc. IEEE APCCAS, Macao, China, Nov. 30 - Dec. 3, 2008.
113. K.C. Kwok, Z. Lin, Y. Zeng, "Precoded MIMO-SC-FDE and Blind Channel Estimation," in Proc. IEEE APCCAS, Macao, China, Nov. 30 - Dec. 3, 2008.



- 114.H. Yu, Z. Lin, G.L. Chai, C.H. Yan, N. Raman, "A DCT-based change detection method for multi-temporal SAR images," in Proceedings of 2008 IEEE Geoscience and Remote Sensing Symposium, Boston, USA, July 2008.
- 115.Y. Liu, Z. Lin, "Design of WLS FIR Filters with Group Delay Constraint," in Proc. ICICS 2007, Singapore, Dec. 10-13, 2007.
- 116.P. Padmanabhan, Z. Lin, M. E. H. Ong, W. Ser, G.-B. Huang, "Automatic extraction of HRV sequences from noisy ECG data for reliable analysis and telediagnosis", in Proc. Third IASTED International Conference on Telehealth, Montreal, Canada, May 31-June 1, 2007.
- 117.H. Yu, Z. Lin, R. S. Tan, T. T. Le, D. Ghista., "H.264 Standard for Left Ventricle Video Compression and Telediagnosis", (Invited paper), in Proc. Third IASTED International Conference on Telehealth, Montreal, Canada, May 31-June 1, 2007.
- 118.Z. Lin, L. Xu, Y. Anazawa, "Revisiting the Absolutely Minimal Realization for Two-Dimensional Digital Filters," in Proc. IEEE ISCAS 2007, New Orleans, USA, May 27-30, 2007.
- 119.Z. Lin, Y. Liu, "FRM Filter Design with Group Delay Constraint Using Second-Order Cone Programming," in Proc. IEEE ISCAS 2007, New Orleans, USA, May 27-30, 2007.
- 120.Y. Liu, Z. Lin, "Design of Arbitrary FIR Digital Filters with Group Delay Constraint," in Proc. IEEE APCCAS, Singapore, Dec. 4-7, 2006.
- 121.Z. Xu, Z. Lin, A. Makur, "Multiple Description Image Coding with Hybrid Redundancy," in Proc. IEEE APCCAS, Singapore, Dec. 4-7, 2006.
- 122.L. Xu, Z. Lin, Y. Anazawa, "Symbolic Computation Approach for Minimal Realization of a Class of nD Systems," in Proc. ICEMS2006, Nagasaki, Japan, Nov., 20-23, 2006.
- 123.L. Xu, H. Fan, Z. Lin, N. K. Bose, "A Direct-Construction Approach to Multidimensional Realization and LFR Uncertainty Modeling," in Proc. 17th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2006), Kyoto, Japan, July 24-28, 2006.
- 124.H. Fan, L. Xu, Z. Lin, "A Constructive Procedure for Three-Dimensional Realization," in Proc. 6th World Congress on Intelligent Control and Automation, Dalian, China, June, 2006.
- 125.Z. Xu, A. Makur, Z. Lin, "Characterization and design of oversampled linear phase filterbanks with arbitrary oversampling ratio," in Proc. IEEE ISCAS 2006, Kos, Greece, May 21-24, 2006.
- 126.Z. Lin, Y. Liu, "FIR Filter Design with Group Delay Constraint Using Semidefinite Programming", in Proc. IEEE ISCAS 2006, Kos, Greece, May 21-24, 2006.
- 127.Z. Lin, H.T. Yu, F. Pan, "A Scalable Fast Mode Decision Algorithm for H.264", in Proc. IEEE ISCAS 2006, Kos, Greece, May 21-24, 2006.
- 128.Z. Lin, M. S. Boudellioua, L. Xu, "On the Equivalence and Factorization of Multivariate Polynomial Matrices", in Proc. IEEE ISCAS 2006, Kos, Greece, May 21-24, 2006.
- 129.L. Xu, Z. Lin, Y. Anazawa, "Minimal Realization for a Class of nD Filters by Grobner Basis Approach," in Proc. of Asian Symposium on Computer Mathematics, Seoul, Korea, Dec. 2005.
- 130.H. Yu, F. Pan, Z. Lin, Y. Sun, "A Perceptual Bit Allocation Scheme for H.264", in Proc. IEEE International Conference on Multimedia and Expo, Amsterdam, Netherlands, July 2005.
- 131.L. Xu, Z. Lin, Y. Anazawa, "On the Synthesis of Stable Stabilizing Compensators for Linear nD SISO Systems," in Proc. Fifth International Conference on Control and Automation, Budapest, Hungary, June, 2005.
- 132.L. Xu, H. Fan, Z. Lin, Y. Xiao, Y. Anazawa, "A Constructive Procedure For Multidimensional Realization and LFT Uncertainty Modelling," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 133.H.T. Yu, Z. Lin, F. Pan, "An Improved Rate Control Algorithm For H.264," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 134.Z. Lin, Q. Zou, R.J. Ober, "The CRLB for Bilinear Systems and Its Biomedical Applications," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 135.R.J. Ober, Z. Lin, Q. Zou, "On Identifiability of Bilinear Systems," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 136.Y. Liu, Q. Zou, Z. Lin, "Generalized Sidelobe Cancellers with Leakage Constraints," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 137.Y. Liu, Z. Lin, "Design of Complex FIR Filters Using the Frequency-Response Masking Approach," in Proc. IEEE ISCAS 2005, Kobe, Japan, May, 2005.
- 138.X. Lai, E. S. Ward, Z. Lin, and R. J. Ober. "Three-dimensional state space realization algorithm: noise suppression of fluorescence microscopy images and point spread functions", in Proc. SPIE International Symposium on Biomedical Optics, San Jose, USA, Jan. 2005.

- 139.L. Xu, Q. Wu, Z. Lin, Y. Xiao, Y. Anazawa, "Further Results on Realization of 2D Filters by Fornasini-Marchesini Model," in Proc. ICARCV, China, Dec, 2004.
- 140.R. J. Ober, X. Lai, Z. Lin, E. S. Ward, "A State Space Approach to Noise Reduction of 3D Fluorescent Microscopy Images," in Proc. of the IEEE ICIP, Singapore, Oct., 2004.
- 141.H. Yu, F. Pan, and Z. Lin, "A New Bit Estimation Scheme for H.264 Rate Control", In Proc. of the 2004 IEEE International Symposium on Consumer Electronics, Reading, UK, Sept. 2004.
- 142.L. Xu, L. Wu, Q. Wu, Z. Lin, Y. Xiao, "Reduced-order realization of Fornasini-Marchesini model for 2d systems," in Proc. ISCAS, Vancouver, Canada, May, 2004.
- 143.Y. Liu, Z. Lin, "Active Array Beamforming Using the Frequency-Response Masking Technique," in Proc. IEEE ISCAS, Vancouver, Canada, May, 2004.
- 144.Z. Lin, L. Xu, Q. Wu, "Design of Multidimensional Filter Banks Using Grobner Bases: A Survey," in Proc. IEEE ISCAS, Vancouver, Canada, May, 2004.
- 145.F. Pan, Z. Lin, X. Lin, S. Rahardja, W. Juwono, F. Slamet, "Content Adaptive Frame Skipping for Low Bit Rate Video Coding," in Proc. of the fourth International Conference on Information, Communications and Signal Processing, Singapore, Dec., 2003.
- 146.Y. Zeng, G. Bi, Z. Lin, "Multi-Dimensional Integer Discrete W Transform," in Proc. of the fourth International Conference on Information, Communications and Signal Processing, Singapore, Dec., 2003.
- 147.Z. Lin, L. Xu, Q. Wu, "Grobner Bases and Applications in the Design of Multidimensional IIR Filter Banks," in Proc. of the fourth International Conference on Information, Communications and Signal Processing, Singapore, Dec., 2003.
- 148.Q. Zou, Z. L. Yu, Z. Lin, "Norm and Coefficient Constraints for Robust Adaptive Beamforming," in Proc. IEEE ISCAS, Bangkok, Thailand, May, 2003
- 149.Q. Zou, Z. Lin, R.J. Ober, "The Fisher Information Matrix for Two-dimensional Separable-denominator Continuous Systems," in Proc. IEEE ISCAS, Bangkok, Thailand, May, 2003
- 150.H. Ye and Z. Lin, "Global Optimization of Neural Network Weights Using Subenergy Tunneling Function and Ripple Search," in Proc. IEEE ISCAS, Bangkok, Thailand, May, 2003
- 151.Z. Lin, Q. Zou, R.J. Ober, "The Fisher Information Matrix for Two-Dimensional Data Sets," in Proc. IEEE ICASSP, Hong Kong, China, April, 2003.
- 152.Z. Lin, "Grobner Bases and Applications in Control and Systems," in Proc. ICARCV, Singapore, Dec, 2002
- 153.H. Ye and Z. Lin, "A Stochastic Method For Minimizing Functions With Many Minima," in Proc. IEEE Int. Workshop on Neural Networks for Signal Processing, Switzerland, Sep, 2002
- 154.Z. Lin, Jiang Qian Ying, Li Xu, Cishen Zhang, "Sufficient Conditions for the Strong Stabilizability of Linear nD MIMO Systems," in Proc. Int. Conf. on Control and Automation, Xiamen, China, June, 2002
- 155.Y.P. Cheng, Y.L. Lu, Z. Lin, "A Super Resolution SAR Imaging Method Based on CSA", in Proc. IGARSS 2002, Canada, June 2002.
- 156.Q. Zou, Z. Lin, "Measurement time requirement for generalized cross-correlation based time-delay estimation," in Proc. IEEE ISCAS, Arizona, USA, May, 2002
- 157.Y. Zeng, G. Bi, L.Z. Cheng and Z. Lin, "A New Fast Algorithm for Multi-Dimensional DCT-IV/DST-IV," in Proc. the 3rd International Conference on Information, Communications and Signal Processing, Singapore, Oct., 2001
- 158.Z. Lin, Y. Zeng, G. Bi and J. Yeo, "Wideband SAR signal analysis and processing," in Proc. the 3rd International Conference on Information, Communications and Signal Processing, Singapore, Oct., 2001
- 159.W.K. Ng, Z. Lin and D.B.H. Tay, "Color Image Compression using Inter-pixels and Inter-frames Correlation," in Proc. the 3rd International Conference on Information, Communications and Signal Processing, Singapore, Oct., 2001
- 160.Y. Zheng, Z. Lin, "A new wavelet-based tracking algorithm for rapidly time-varying systems," Proc. the 11th IEEE Workshop on Statistical Signal Processing, Singapore, August, 2001
- 161.L. Wang, K. K. Teo and Z. Lin, "Predicting time series using wavelet packet neural networks", Proc. 2001 IEEE International Joint Conference on Neural Networks, July 15-19, 2001, Washington, DC., USA, pp.1593-1597, 2001.

- 162.K.K. Teo, L. Wang and Z. Lin, "Wavelet packet multi-layer perceptron for chaotic time series prediction: effects of weight initialization," in Proc. Intelligent Systems Design and Applications, San Francisco, USA, 2001
- 163.Y. Zeng, G. Bi, Z. Lin, "Integer sinusoidal transforms based on lifting factorization," in IEEE Proc. Int. Conf. Acoustic, Speech and Signal Processing, Salt Lake City, USA, 2001
- 164.Q. Zou, X. Zou, M. Zhang and Z. Lin, "A robust speech detection algorithm in a microphone array teleconferencing system," in Proc. IEEE Int. Conf. Acoustic, Speech and Signal Processing, Salt Lake City, USA, 2001
- 165.Z. Lin, J.Q. Ying, L. Xu, "Further results on primitive factorizations for n-D polynomial matrices," in Proc. IEEE Symp. Circuits and Systems, Sydney, Australia, 2001
- 166.Z. Lin, "Feedback stabilizability of linear systems over unique factorization domains," in Proc. Int. Conf. Control, Automation, Robotics and Vision, Singapore, 2000
- 167.K.K. Teo, L. Wang and Z. Lin, "Wavelet multi-layer perceptron neural network for time-series prediction," in Proc. Int. Conf. Computing and Information, Kuwait, 2000
- 168.Y. Zheng, Z. Lin, "Blind equalization of time-varying channel on-line based on non-Gaussian parametric model," in Proc. Int. Conf. Signal Processing Applications and Technology, Dallas, USA, 2000
- 169.Z. Lin and N.K. Bose, "Some conjectures on multivariate polynomial matrices," in Proc. Second International Workshop on Multidimensional Systems, Czocha Castle, Poland, pp. 165-170, 2000
- 170.J.Q. Ying, Z. Lin, L. Xu and J. Wu, "On the strong stabilizability of time-delay linear systems," in Proc. Math Theory of Networks and Systems, Perpignan, France, 2000
- 171.Z. Lin and J.Q. Ying, "Stabilizability tests for linear nD MIMO systems," in Proc. Math Theory of Networks and Systems, Perpignan, France, 2000
- 172.W.K. Ng, Z. Lin, "A new shape-adaptive DCT for coding of arbitrarily shaped image segments," in Proc. IEEE Int. Conf. Acoustic, Speech and Signal Processing, vol. 4, pp. 2115-2118, Istanbul, Turkey, 2000
- 173.Y. Zheng, Z. Lin, "Time-varying autoregressive system identification using wavelets," in Proc. IEEE Int. Conf. Acoustic, Speech and Signal Processing, vol. 1, pp. 572-575, Istanbul, Turkey, 2000
- 174.Z. Lin and J.Q. Ying, "On nD polynomial matrix factorizations," in Proc. IEEE Symp. Circuits and Systems, Geneva, Switzerland, vol. V, pp. 757-760, May, 2000
- 175.W.M. Lawton, Z. Lin, "Matrix completion problems in multidimensional systems," in Proc. IEEE Symp. Circuits and Systems, Florida, USA, vol., 5, pp. 45-48, May, 1999
- 176.Z. Lin, "On the elementary factors of MIMO linear systems," in Abstracts of the First International Workshop on Multidimensional Systems, Lagow, Poland, pp. 91-93, July, 1998
- 177.Z. Lin, "Output feedback stabilizability and stabilization of linear nD systems," (plenary address), in Abstracts of the First International Workshop on Multidimensional Systems, Lagow, Poland, pp. 30-32, July, 1998
- 178.Z. Lin, "Adaptive linear prediction with application to missing observations," in Proc. IEEE TENCON - Digital Signal Processing Applications, Perth, Australia pp. 473--478, 1996
- 179.Z. Lin, "Detection of helicopter signals using cyclostationarity," in Proc. IEEE Conf. Acoust. Speech Signal Proc., Detroit, USA, pp. 1952--1955, 1995
- 180.Z. Lin, "On primitive factorizations for n-D polynomial matrices," in Proc. IEEE Symp. Circuits and Systems, Chicago, USA, pp. 595--598, 1993
- 181.Z. Lin, "Stabilization and realization of a class of generalized linear systems," in Proc. American Control Conf., Seattle, USA, pp. 976--977, 1986
- 182.Z. Lin, "Effects of groups of operators on generalized Nyquist diagrams," in Proc. American Control Conf., Seattle, USA, pp. 759--760, 1986
- 183.Z. Lin, "New proof and algorithms for 2-D polynomial matrix primitive factorization over real coefficient field," in Proc. IEEE Symp. Circuits and Systems, San Jose, USA, pp. 828--831, 1986
- 184.Z. Lin, "Stabilization of two-dimensional systems by output feedback control: MIMO case," in Proc. IEEE Symp. Circuits and Systems, San Jose, USA, pp. 388--390, 1986

**(d) Patent**

1. Z. Lin, "Automatic meter reading systems", U.K. Patent No. 2,284,961, Sep. 1997.

2. M. E. H. Ong, Z. Lin, W. Ser and G.-B. Huang, "Method of predicting acute cardiopulmonary events and survivability of a patient," US patent No. 8,932,220, 15 Jan. 2015.
3. Zhiping Lin, Yong Kiang Yeo, Jianmin Zhang, Wee Ser, and Yenpo Tai, "System and method for health condition monitoring," Singapore patent, application number: SG\_201710150 - SG(041.05948.PSG), 14 Nov. 2018.