CURRICULUM VITAE

PROF. DAVID ZHANG

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EDUCATIONS

Ph.D	Electrical & Computer Engineering, University of Waterloo, Canada, 1994
Ph.D	Computer Science, Harbin Institute of Technology (HIT), China, 1985
M.S	Computer Science, Harbin Institute of Technology (HIT), China, 1983
B.Sc	Computer Science, Peking University, Beijing, China, 1974

EMPLOYMENT

X.Q. Deng Presidential Chair Professor School of Science & Engineering, Chinese University of Hong Kong, Shenzhen (2021 -)
 Presidential Chair Professor School of Science & Engineering, Chinese University of Hong Kong, Shenzhen

Presidential Chair Professor (2018–2021)	School of Science & Engineering, Chinese University of Hong Kong, Shenzhe
Emeritus Chair Professor (2018 –)	Hong Kong Polytechnic University, Hong Kong
Chair Professor (2005-2018)	Department of Computing, Hong Kong Polytechnic University, Hong Kong
Full Professor (1999-2004)	Department of Computing, Hong Kong Polytechnic University, Hong Kong
Associate Professor (1995-1999)	Department of Computer Science, City University of Hong Kong Department of Computing, Hong Kong Polytechnic University
Research Assistant Professor (1994-1995)	Department of Electrical & Computer Engineering, University of Waterloo, Canada
Associate Professor/ Visiting Scholar (1988-1991)	Institute of Automation, Chinese Academy of Science, Beijing, China Department of Electrical Engineering, University of Windsor, Canada
Postdoctoral Fellow (1986-1988)	Department of Automation, Tsinghua University, Beijing, China
Lecturer (1974-1980)	Department of Computer Science, Heilongjiang University, China

OTHER PROFESSOERSHIPS

Emeritus Chair Professor (2018-)	Department of Computing, Hong Kong Polytechnic University, Hong Kong
Adjunct Professor (2011-)	National University of Defense Technology, China
Adjunct Professor (2009-)	Faculty of Computer Science and Technology, Peking University, China
Visiting Chair Professor/ (双聘教授) (2006-)	Graduate School at ShenZhen, Tsinghua University, China

Adjunct Professor (2004-2008) Beijing University of Aeronautics & Astronautics, China

Visiting Professor (讲习教授) (2003-2005)	Department of Computer Science & Engineering, Tsinghua University
Adjunct Professor (2002-2010)	Department of System Design, University of Waterloo, Canada
Guest Professor (2000-2014)	Institute of Image Proc. & Pattern Rec., Shanghai Jiao Tong University
Adjunct Professor (2000-2003)	Department of Automation, Tsinghua University
Adjunct/Chair Professor/ Supervisor of PhD (1995-)	Department of Computer Science and Engineering Harbin Institute of Technology (HIT), China

SELECTED HONORS

Honors

高水平大学专项人才项目-冠名校长讲座教授, 2021

Fellow, Canadian Academy of Engineering (CAE), 2021.

Shenzhen High-Level Professionals (深圳市高层次专业人才), 2021.

Guangdong Talent A Card (广东省人才优粤 A 卡), 2020.

Fellow, Asia-Pacific Artificial Intelligence Association (AAIA), 2020.

Fellow, Academy of Sciences, Royal Society of Canada (RSC), 2020.

IEEE Life Fellow, IEEE for contribution to biometrics identification and systems, 2019. *External Assessor, BSc (Hons) Computing,* UCSI University, 2016-2018.

Pengcheng Scholar (鹏城学者), Shenzhen Government, 2009-10.

Fellow, IEEE for contribution to biometrics identification and systems, 2008.

Fellow, IAPR (International Association of Pattern Recognition) for contribution to biometrics technology and systems, 2006.

Distinguished Speaker, IEEE Computer Society Distinguished Visitors Program (Asia/Pacific) 2005-2013 (<u>http://www.computer.org/portal/web/chapters/asia</u>)

Croucher Senior Research Fellow, in Natural Science, Technology & Medicine, 2004/2005, the Croucher Foundation, Hong Kong (<u>http://www.croucher.org.hk/</u>).

Academic Awards

Listed as a Highly Cited Researcher in Engineering by Clarivate Analytics 2014-2021 (Continuously 8 years).

(Each year total around 3,000 researchers in 21 fields of the sciences and social sciences, each ranking among the top 1% most cited during **over past 11 years**) (<u>http://highlycited.com/</u>)

Listed in World's Top 2% Scientists 2020 with career scientific impact, 2020 ((https://ecebm.com/2020/11/30/stanford-university-names-worlds-top-2-scientists/)

2013 IET Computer Vision Premium Award (£500- only one Premium Award available per journal to recognize the best research papers)- J. Ning, L. Zhang, D. Zhang, C. Wu, "Robust mean-shift tracking with corrected background-weighted histogram," *IET Computer Vision*, Vol. 6, Issue 1, 2012, P. 62-69.

Most Valued Paper published in Pattern Recognition journal 46 (p463) in 2013, Lin Zhang, Zhang, D. Zhang, H. Zhu, "Online finger-knuckle-print verification for personal authentication," *Pattern Recognition*, Vol. 43, Issue 7, July 2010, Pages 2560-2571

Most Valued Paper published in Pattern Recognition journal 42 (p463) in 2013, A. Kong, D. Zhang, M. Kamel, "A survey of palmprint recognition," *Pattern Recognition*, Vol. 42, Issue 7, July 2009, Pages 1409-18.

President's Award (team), as a Team Leader for Research & Scholarly Activities, 2012, PolyU

1st place in Fingerprint Singular Point Detection Competition 2010 (with Qijun Zhao, Feng Liu, David Zhang and Feng Yue), Feb 2010

President's Award for Outstanding Performance/Achievement 2001/2002, PolyU

Winner, Best Researcher Award 2001, Faculty of Engineering, PolyU

Outstanding Researcher Award, Department of Computing, PolyU (00/01)

Who's Who in the World (16th, ed.), Marquis (1999)

Executive Councilor, China Society of Image & Graphics (1998)

K.C. Wong Education Foundation Award, Hong Kong, (1997/2010)

Senior Member in IEEE (1995-)

Ph.D Award, University of Waterloo, Ministry of Colleges & University, Canada (1993-1995)

Faculty of Engineering of Waterloo Graduate Scholarship, Canada (1993-1994)

Postdoctoral Scholarship Award, National Academic Council, China (1988)

Project Awards

The 1st Prize, 2011 Nature Science Award (Heilongjiang Province), Palmprint Authentication, Dec 2011.

The Winner of the Fingerprint Singular Points Detection Competition (SPD2010) (http://paginas.fe.up.pt/~spd2010/) in International Conference on Image Analysis and Recognition (ICIAR2010), Povoa de Varzim, Portugal, June 21-23, 2010.

Hong Kong Award for Industry, High-Performance Palmprint-Based Security System, Machinery and Machine Tool Design Certificate of Merit, Hong Kong Government (2009).

Silver Medal for palmprint security system, the 34th International Exhibition of Inventions, New Techniques and Products of Geneva, 5-9 April, 2006.

Special Gold Award and Gold Medal, High Speed and Low Cost Security System using Palmprint Technology, the 14th National Invention Exhibition of China, No. 141026, (2003)

Hong Kong Industry Award, Palmprint Identification System, the Certificate of Merit under the Consumer Design Category, Hong Kong Government (2003)

Silver Medal, Innovative High Speed and Low Cost Palmprint Security Control System, The Seoul International Invention Fair 2002, Seoul, Korea (2002)

Research Achievement Award, the project: On-line Remote Sensing Processing, National Scientific Council (First Prize), China (1986)

Research Achievement Award, the project: Fingerprint Recognition System, National Scientific Council (Third Prize), China (1986)

Supervised Student Awards

Wangmeng Zuo - National Excellent Doctoral Dissertation Award Nomination, 2009, China

Xiangqian Wu – National Excellent Doctoral Dissertation Award Nomination, 2007, China

Xiangqian Wu - The Excellent Dissertation Award 2006, Chinese Computer Federation, China

Lisheng Xu - *The 3rd Winner* (the total 5), *Best Student Project Proposal*, Pulse Detection and Classification, IEEE CS Technical Committee on Computational medicine (TCCM), IEEE Computer Society, 2003.

Wai-Kin Kong – *Young Inventors Award* (the total 12 and only one from Hong Kong), 2003, Far Eastern Economic Review and HP Invent.

Xiangqian Wu - *The Excellent Paper Award* in the Third International Conference on Wavelet Analysis and Its Applications, 28-30 May 2004, Chongqing, China.

Granted Patents

Patents in China

- 34. G. Lu, Z. Jiang and D. Zhang, "一种基于局部点检测的脉象信号分割方法", 发明专利(No. CN109512405B; ZL 201910014382.6). 11 May 2021.
- 33. D. Zhang and X. Qu, "握姿人手图像识别系统及其识别方法", 发明专利(No. CN106055896B). 5 April 2019.
- 32. D. Zhang and J. Li, "中医体外诊断方法及装置", 发明专利(No. CN104978551B). 15 Oct 2019.
- 31. D. Zhang, X. Liang, G. Lu, N. Luo and Y. Liu, "掌纹掌脉图像采集装置及通关闸机", 发明专利(No. CN107239772B). 16 Oct 2018.
- 30. D. Zhang, X. Liang, G. Lu, N. Luo and Y. Liu, "手掌特征识别方法、手掌特征识别设备、及存储介质", 发明专利(No. CN107341473B). 6 July 2018.
- 29. C. Zhu, G. Lu, K. Wu, D. Zhang, and D. Zhong, "一种基于梅尔频谱一阶导数的语音信号特征学习方法", 发明专利(No. CN108766462A). 6 Nov 2018.
- 28. D. Zhang and D. Guo, "一种呼气分析装置和方法", 发明专利(No. ZL 201110101083X).
- 27. D. Zhang and X. Qu, "门把形握姿人手图像采集装置及握姿人手图像识别系统", 发明专利(No. ZL 2014 2 0166090.7).
- 26. D. Zhang, B. Shen and G. Lu, "光电与压力融合的中医脉象传感器", 发明专利(No. ZL 2011 1 00492712).
- 25. D. Zhang, X. Qu and J. Zhou, "一种人体掌纹图像采集装置及处理方法", 发明专利(No. ZL 2011 1 0362063.8).
- 24. D. Zhang and Xingzheng Wang, "人体数字舌图像颜色色域空间及其提取方法", 发明专利(No. ZL 201110291360.8).
- 23. D. Zhang, et al., "快速定位的三部多点压力脉象仪", 发明专利(No. ZL 201110264635.9).
- 22. D. Zhang, X. Wang and G. Lu, "一种集成便携式标准化中医舌像获取设备", 发明专利(No. ZL 201010534059.0).
- 21. D. Zhang, B. Huang and X. Wu, "一种舌色还原色卡的制作方法", 发明专利(No. ZL 201010226642.5).
- 20. D. Zhang, Z. Liu and B. Huang, "基于舌体特征的身份识别方法", 发明专利(No. ZL 200810137062.1).
- 19. D. Zhang, G. Lu and Z. Guo, "在线掌纹、手掌静脉图像身份识别方法及其专用采集仪", 发明专利 (No. ZL 200710144914.5).
- 18. D. Zhang, G. Lu and Z. Guo, "基于手掌静脉与掌纹的近红外成像设备与身份识别方法", 发明专利 (No. ZL 200710144916.4).

- 17. D. Zhang, G. Lu and Z. Guo, "一种多光谱掌纹身份认证方法及其专用采集仪", 发明专利(No. ZL 200710144917.9).
- 16. D. Zhang, N. Luo and W. Li, "三维掌纹身份鉴别系统的手掌定位及中心区提取方法", 发明专利(No. ZL 200710144915.X).
- 15. D. Zhang, et al., "Method and Apparatus for Palmprint Identification", 发明专利 (No. ZL 200703822593.X).
- 14. X. Wu, D. Zhang and K. Wang, "掌纹密钥系统", 发明专利(No.: ZL 200710072581.X).
- 13. D. Zhang, N. Li, K. Wang, H. Zhang and B. Huang, "基于舌象特征的病证计算机分析系统", 发明专利(No.: ZL 200616 10150867.0).
- 12. D. Zhang, N. Li, K. Wang, B. Huang and H. Zhang, "舌象纹理自动分析方法", 发明专利(No.: ZL 200610150873.6).
- 11. D. Zhang, W. Tang and L. Xu, "Three portions and nine pulse-takings pulse condition detector of pulse condition sensor of herbalist doctor, and pulse condition detection method: 中医脉象传感器, 三部九候脉象检测仪及脉象检测方法",发明专利(No. ZL 200610073864.1).
- 10. D. Zhang, N. Li, K. Wang, B. Huang and H. Zhang, "基于像素的舌苔舌质颜色提取及分类方法", 发 明专利(No.: ZL 200610150871.7).
- 9. D. Zhang, K. Wang, L. Xu, DY. Zhang, B. Geng and Z. Guo, "自动调节切脉压力的脉象检测装置及脉 象特征提取方法", 发明专利(No.: ZL 200610009639.1).
- 8. X. Wu, D. Zhang and K. Wang, "基于差分运算的高精度掌纹识别方法", 发明专利(No.: ZL 200610010548.X).
- 7. D. Zhang, N. Li, K. Wang, B. Huang and H. Zhang, "基于舌象的中医八纲证候计算机分类方法", 发 明专利(No.: CN1973758A).
- 6. D. Zhang, N. Li, K. Wang, B. Huang and H. Zhang, "基于舌象的中医卫气营血证候计算机分类方法", 发明专利(No.: CN1973759A).
- 5. D. Zhang, Z. Yan, N. Li and K. Wang, "便携式近红外舌下静脉图像采集仪", 发明专利(No.: CN101214140 A).
- 4. D. Zhang, K. Wang, L. Xu, DY. Zhang, B. Geng and Z. Guo, "自动调节切脉压力的中医脉象检测装置", 实用新型专利(No.: ZL 200520036985.X).
- 3. D. Zhang, N. Li, K. Wang, B. Pang and H. Zhang, "舌像采集设备", 实用新型专利(No.: ZL 02273777.4)/发明专利(No.: ZL 02132458.1).
- 2. D. Zhang, et al., "On-Line Palmprint Capture Device", (No.: ZL 02273776.6).
- 1. D. Zhang, et al., "Palmprint Image Capturing Device", (No.: ZL 02132457.3).

Patents in Asia

- 1. D. Zhang, et al., "Method and Apparatus for Palmprint Identification", Japanese Patent No. 4246154, 16 Jan 2009.
- 2. D. Zhang, et al., "Method of Palm print Identification using Geometry, Line and/or Texture Features", Hong Kong Patent No. HK1062117, 17 Sept 2004.

Patents in USA

- 1. D. Zhang and Z. Liu, "Method and system for identifying a person based on their tongues," US States Patent No. 8,355,543 B2, Jan 15, 2014.
- D. Zhang, Q. Zhao, N. Luo and G. Lu, "Partial Fingerprint Recognition," US States Patent No. 8,411,913 B2, Apr. 2, 2013.

- 3. D. Zhang, G. Lu, Z. Guo and N. Luo, "Method and apparatus for personal identification using palmprint and palm vein," US States Patent No. 8,229,178 B2, Jul 24, 2012.
- 4. L. Zhang, Lin Zhang, H. Zhu, D. Zhang and N. Luo, "Method and system for identifying a person using their finger-joint print," US States Patent No. 8,208,692 B2, Jun 26, 2012.
- 5. D. Zhang and A. Kumar, "Method of Multi-Modal Biometric Recognition using Hand-Shape and Palmprint", United States Patent No. 8,135,181 B2, 13 March 2012.
- 6. D. Zhang, et al., "Method and System for Personal Identification using 3D Palmprint Imaging", United States Patent No. 8,265,347 B2, 11 Sept 2012.
- 7. D. Zhang, et al., "Method of Palmprint Identification", United States Patent No. 7,496,214 B2, 24 Feb 2009.
- 8. D. Zhang, et al., "Method for Analyzing Palm Print for the Identification of an Individual using Gabor Analysis", Unite States Patent No. 7,466,846 B2, 16 Dec 2008.

Knowledge Transfer

US States Patent No. 8,229,178 B2 has been licensed with "Smart Secure ID in Sweden AB (ref.: LA16-248)" in 2017.

SELECTED ACTIVITIES (1998 -)

Current Editorial Activities

Advisory Board, Chinese Medicine (CM), (2007-) (http://www.cmjournal.org/about/edboard)

Editor-in-Chief, International Journal of Image and Graphics (2000-) (<u>http://www.worldscinet.com/ijig/ijig.shtml</u>)

Guest Editor, Special Section: Biometric Systems and Applications, *IEEE Trans. on SMC-Systems* (2014) (<u>http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6871388</u>)

Book Series Editor, International Book Series on Biometrics (2002-) (http://www.springer.com/series/6191)

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics, Part A (2001-) (<u>http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=3468</u>)

Associate Editor, Information Sciences (International Journal) (2003-) (http://www.journals.elsevier.com/information-sciences/editorial-board/)

Associate Editor, Integrative Medicine Research, Elsevier (2012-) (http://www.elsevier.com/journals/integrative-medicine-research/2213-4220)

Associate Editor, Chinese Journal of Computers, (2000-) (http://cjc.ict.ac.cn/eng/bwhe/index.htm)

Past Editorial Activities

Advisor, "Undergraduate Topics in Computer Science", Textbook Series, Springer, UK (2006-2009) *Guest Editor*, Special Issue: Biometrics, *Pattern Recognition* 36(1) (2003) *Guest Editor*, Special Issue: Biometrics Systems, *IEEE Trans. on SMC-C* 35 (3) (2005) *Guest Editor,* Special Issue: Computational Intelligence-Based Biometric Technologies, *IEEE Computational Intelligence Magazine* 2(2) (2007)

Guest Editor, Special Section: Biometric Instrumentation and Measurement, *IEEE Trans. on IM* 59 (4)(2010) (<u>http://www.informatik.uni-trier.de/~ley/db/journals/tim/tim59.html</u>).

Guest Editor, Special Section: Hand-Based Biometrics, Information Science (2012)

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics, Part C (2001-2006)

Associate Editor, Pattern Recognition (International Journal) (2000-2007)

Editorial Board Member, International Journal of Robotics and Automation (2000-2010)

Editorial Board Member, Information: An International Journal (2002-2010)

Associate Editor, Neural, Parallel & Scientific Computations (International Journal) (2001-2005)

IEEE Committee Activities

Member, IEEE CS Fellows Evaluation Committee, IEEE Computer Society, 2014.

Chair, Technical Committee on Biometrics, IEEE SMC Society, 2013-.

- *Chair,* Intelligent Systems Applications Technical Committee (ISATC), IEEE Computational Intelligence Society (CIS), 2006-2007.
- *Member*, AVSS Steering Committee, IEEE Computer Society (2006); IEEE TAB Committee on Biometrics (2006-07); IEEE CIS Outstanding Dissertation Award Committee (2007); IEEE CIS Members Activities Committee (2007); IAPR Technical Committee on Biometrics (IAPR TC4) (2005-2007).
- *Chair,* Biometrics Applications Task Force, Intelligent Systems Applications Technical Committee (ISATC), IEEE Computational Intelligence Society (CIS) (2004-2005)
- *Member*, Task Force in Biometrics & Multimedia, Emergent Technologies Technical Committee, IEEE Computational Intelligence Society (2003); Technical Sub-Committee on Biometric Technologies, IEEE Industrial Electronics Society (2003)

Conference Organization

<u>2022</u>

Conference General Chair- **CVIE2022** (2022 The 2nd International Conference on Computer Vision and Information Engineering), Sanya, Feb. 18-20, 2022; The 2nd International Conference on Computer Vision and Information Engineering (**CVIE** 2022) will be held in Sanya, China during Feb. 18-20, 2022; IEEE-CACML Asia Conference on Algorithms, Computing and Machine Learning (**CACML** 2022), Hangzhou, China, 25-27 March 2022,

<u>2021</u>

Conference Chairman- **ICIPMV2021** (2021 3rd International Conference on Image Processing and Machine Vision), Hong Kong, May 22-24, 2021; *Honorary Chairman-* **ICCPR2021** (2021 10th International Conference on Computation and Pattern Recognition), Shanghai, 15-17 Oct. 2021; *Organizing Committee Members-* **Biomed-2021** (Global Conference on Biomedical Engineering and Systems), July 22-23, 2021;

<u>2020</u>

Honorary Chairman- ICCPR2020 (2020 9th International Conference on Computing and Pattern Recognition), Xiamen, 30 Oct- 1 Nov. 2020;

<u>2019</u>

International Conference Chair- ICGSP2019 (2019 3rd International Conference on Graphics and Signal Processing, Hong Kong, 1-3 June, 2019; ICCIA2019 (2019 4th IEEE International Conference on Computational Intelligence and Applications), Nanchang, 21-23 June 2019; ICSIP2019 (2019 4th International Conference on Signal and Image Processing), Wuxi, 19-21 July 2019; ACAI2019 (2019 2nd International Conference on Algorithms, Computing and Artificial Intelligence), Sanya, 20-22 December 2019; ICIT2019 (2019 7th International Conference on Information Technology: IOT and Smart City), Shanghai, 20-23 December 2019;

<u>2018</u>

International Conference Chair- ICIGP2018 (2018 International Conference on Image and Graphics Processing, Hong Kong, 24-26 Feb 2018; ICBBS2018 (2018 7th International Conference on Bioinformatics and Biomedical Science), Shenzhen, 23-15 June 2018; ICSIP2018 (2018 International Conference on Signal and Image Processing), Shenzhen, 13-15 July 2018; ICCIA2018 (2018 3th IEEE International Conference on Computational Intelligence and Applications), Hong Kong, 28-30 July 2018.

<u>2017</u>

Advisory Chair- **ICBFE2017** (2017 International Conference on Biometrics and Forensic Engineering), Singapore, 22-24 June 2017.

International Conference Chair- ICBCB2017 (2017 5th International Conference on Bioinformatics and Computational Biology), Hong Kong, 6-8 Jan, 2017; ICBEA2017 (2017 International Conference on Biometrics Engineering and Application), Hong Kong, 21-23 April, 2017; ICSIP2017 (2017 International Conference on Signal and Image Processing), Singapore, 4-6 Aug., 2017; CAIIT2017 (2017 International Conference on Artificial Intelligence and Information Technology), Hong Kong, 20-22 Oct., 2017.

<u>2016</u>

International Conference Chair: - ICSIP2016 (2016 International Conference on Signal and Image Processing), Beijing, 13-15 Aug., 2016; - ICBBE2016 (2016 3rd International Conference on Biomedical and Bioinformatics Engineering), Taipei, 12-14 Nov., 2016; - CCISP2016 (2016 International Conference on Communication, Image and Signal Processing), Dubai, 18-20 Nov., 2016.

<u>2015</u>

International Conference Advisor- ICCC2015 (2015 IEEE International Conference on Computer and Communications), Chengdu, 10-11 Oct., 2015; Conference Chair- ICIVC2015 (2015 the 4nd International Conference on Image, Vision and Computing), Hong Kong, 19-20 Sept 2015; ICGIP2015 (2015 the 7nd International Conference on Graphics and Image Processing), Singapore, 23-25 Oct., 2015; ICMVA2015 (2015 International Conference on Machine Vision and Applications), Hong Kong, 22-23 June 2015; Co-Chair- CIBIM2015 (2015 IEEE Symposium on Computational Intelligence in Biometrics and Identity Management), South Africa, 8-10 Dec 2015.

<u>2014</u>

Honorary Chair- ICIVC2014 (2014 the 3nd International Conference on Image, Vision and Computing), Paris, 27-30 May 2014; ICGIP2014 (2014 the 6nd International Conference on Graphics and Image Processing), Beijing, 24-26 2014; General Chair- SMARTCOMP2014 (International Conference on Smart Computing), Hong Kong, 3-5 November 2014; Co-Chair-CIBIM2014 (2014 IEEE Symposium on Computational Intelligence in Biometrics and Identity Management), Orlando, 9-12 Dec 2014; Conference Chair- WCEEE2014 (2014 World Congress on Electronics and Electrical Engineering), Hong Kong, 26-28 Dec. 2014;

<u>2013</u>

Honorary Chair- ICIVC2013 (2013 the 2nd International Conference on Image, Vision and Computing), Beijing, 1-2 Sept 2013; Honorary Chair- WCEEE2013 (2013 World Congress on Electronics and Electrical Engineering), Kuala Lumpur, Malaysia, 29-30 Dec. 2013; Honorary hair- ICGIP2013 (2013 5th International Conference on Graphics and Image Processing), Hong Kong, 26-27 Oct. 2013; Co-Chair- CIBIM2013 (2013 IEEE Symposium on Computational Intelligence in Biometrics and Identity Management), Singapore, 15-19 April 2013.

<u>2012</u>

General Chair- ICCH2012 (*International Conference on Computerized Healthcare*), Hong Kong, 17-18 Dec 2012.

<u>2011</u>

Honorary Conference Chair- ICLISS2011 (The International Conference on Logistic, Informatics and Services Science), Hong Kong, 26-27 Nov 2011; General Chair- ICHB2011 (The International Conference on Hand-Based Biometrics), Hong Kong, 17-18 Nov 2011; Chair-CIBIM 2011 (Workshop on Computational Intelligence in Biometrics and Identity Management), 11-15 April 2011, Paris, France.

<u>2010</u>

General Chair- ICEB2010 (The 3rd International Conference on Ethics and Policy of Biometrics and International Data Sharing), Hong Kong, 4-5 January 2010; ICMB2010 (International Conference on Medical Biometrics), Hong Kong, 28-30 June, 2010;

Workshop Co-Chair- ETCHB2010 (The First International Workshop on Emerging Techniques and Challenges for Hand-based Biometrics), Istanbul, Turkey, 22 August, 2010.

Program Chair- ICIE2010 (The WASE International Conference on Information Engineering), Beidai River, China, 14-15 August 2010; GCSE2010 (The WASE Global Congress on Science Engineering), Yantai, China, 27-28 Nov. 2010.

<u>2009</u>

Program Chair- IEEE CIB2009 (The IEEE Workshop on Computational Intelligence in Biometrics: Theory, Algorithms, and Applications), Nashville, Tennessee, USA, March 30 - April 2, 2009

International Advisory Committee- IIH-MSP2009 (The International Conference on Intelligent Information Hiding and Multimedia Signal Processing), Kyoto, Japan, Sept 14-16, 2009;

International Technical Program Committee- **DSP2009** (The 16th International Conference on Digital Signal Processing), July 5-7, 2009, Island of Santorini, Greece; **CAIP2009** (*the 13th Int. Conference on Computer Analysis of Images and Patterns*), Münster, Germany, Sept. 2-4, 2009.

<u>2008</u>

General Chair- ICMB2008 (The first International Conference on Medical Biometrics), 4-5 Jan, 2008 in Hong Kong;

Program Committee Member- FG2008 (IEEE International Conference on Automatic Face and Gesture Recognition): September 2008 in Amsterdam, The Netherlands; ICISP'08 (International Conference on Image and Signal Processing): July 1-3, 2008 in Cherbourg, France; CISIS'08 (International Workshop on Computational Intelligence in Security for Information Systems), Oct 23 – 24, 2008, Genova, Italy; IEEE CVPR'08 (IEEE Conference on Computer Vision and Pattern Recognition), June 24-26, 2008, Anchorage, Alaska.

Scientific Committee Member- **ROBUST 2008** (Robust Biometrics: Understanding Science & Technology): November 2-5, 2008 in Hawaii, USA;

<u>2007</u>

General Chair- Workshop on Biometrics, 29 June, 2007, Hong Kong.

Program Chair- **IEEE CIMSA2007** (IEEE International Conference on Computational Intelligence for Measurement Systems and Applications), 27-29 June 2007, Ostuni – Italy.

Program Committee Member- **ICB2007** (International Conference on Biometrics), August 27-29, 2007 in Korea; **ACST2007** (the IASTED International Conference on Advances in Computer Science and Technology), Phuket, Thailand, April 02-04, 2007; **AutoID 2007** (5th IEEE Workshop on Automatic Identification Advanced Technologies, Alghero, Italy, 7-8 June 2007; **CIARP2007** (Iberoamerican Congress on Pattern Recognition), Viña del Mar-Valparaiso, Chile, November 13-16, 2007; **CNIS 2007** (IASTED-International Conference on Communication, Network and Information Security), Berkeley, USA, 9/24/2007 - 9/26/2007; **ICIP2007**: IEEE International Conference on Image Processing, San Antonio, Texas, USA, September 16-19, 2007; **ICGD&BC2007** (The First International Conference on Global Defense and Business Continuity), July 1-6, 2007 - Silicon Valley, USA.

<u>2006</u>

Program Chair- ICBA2006 (2nd International Conference on Biometrics Authentication), Hong Kong, 5-7 Jan. 2006; *Program Chair-* VisionChina2006 (Conference on Machine Vision Technology), ShenZhen, 11-12 Nov. 2006.

Advisory Committee Member- ICIAR (International Conference on Image Analysis and Recognition), Portugal (Póvoa do Varzim), September 18-20, 2006; ICAIET2006 (Third International Conference on Artificial Intelligence and Applications in Engineering and Technology, University Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia on 22-24 November 2006.

Program Committee Member- SPIEOR36 (Biometric Technology for Human Identification): International Symposium on Defense and Security, Orlando (Kissimmee), 17-21 April 2006; CVPR2006(*IEEE Computer Society* International Conference on Computer Vision and Pattern Recognition): New York, NY: June 17-22, 2006; FG2006(7th *IEEE International Conference on Automatic Face and Gesture Recognition*): Southampton, UK: April 10-12, 2006; CIAPR2006, the 11th Iberoamerican Congress on Pattern Recognition, Mexico, November, 2006; **BC2006** (Biometric Consortium Conference): Baltimore, Maryland, USA, September 19-21, 2006.

<u>2005</u>

Advisory Committee Member – BioSecure (BioSecure Residential Workshop): Paris, France, August, 2005.

Program Chair- BRS2005 (International Workshop on Biometrics Recognition Systems), Beijing,
22-23 Oct. 2005; Program Committee Member- SPIEOR31 (Biometric Technology for Human Identification): International Symposium on Defense and Security, Orlando (Florida), 28 March - 1
April, 2005; AVBPA2005: The fifth International conference Audio- and Video-based Biometrics
Person Authentication, Westchester Marriott, Tarrytown, New York, USA, 20-22 July, 2005; also
Far East Liaison, ICIP2005: IEEE International Conference on Image Processing, Genoa, Italy,
September 11-14, 2005; CVPR2005 (IEEE Computer Society International Conference on Computer Vision and Pattern Recognition): San Diego, CA, USA, June20-26, 2005; BC2005 (Biometric Consortium Conference): Hyatt Regency, Crystal City, VA, Sept 19-21, 2005; AutoID (the 4th Automatic Identification Advanced Technologies), Buffalo, NY on Oct. 17-18, 2005; AMFG2005 (IEEE International Workshop on Analysis and Modeling of Faces and Gestures associated with ICCV2005), 15-21 Oct, Beijing.

<u>2004</u>

Program Chair- ICIG2004 (3rd International Conference on Image & Graphics), Hong Kong, 18-20 Dec. 2004

Founder and Program Chair- **ICBA2004** (1st International Conference on Biometrics Authentication), Hong Kong, 15-17 July 2004

Program Committee Member- **SPIE5404:** Defense and Security Symposium 2004 -Biometric Technology for Human Identification, Orlando (Florida), 12-16 April, 2004; **BioAW2004** (Biometric Authentication Workshop), Prague, Italy, 11-15 May 2004; **ACCV2004** (Asian Conference on Computer Vision), Jeju Island, Korea, 28-30 Jan. 2004; **FG2004** (International Conference on Automatic Face and Gesture Recognition), Seoul, Korea, 17-19 May 2004; **ICPR2004** (International Conference on Pattern Recognition), Track 4, Cambridge, UK, 23-26 Aug. 2004; **Biometrics Symposium 2004** (at the Biometric Consortium Conference BC2004), Crystal City, VA, 19-22 Sept. 2004.

<u>2002</u>

Session Chair, Session II.4: Facial Analysis, the 16th ICPR (2002), Quebec, Canada, 11-15 August, 2002

Program Committee Member, ACCV2002 (Asian Conference on Computer Vision), Melbourne, Australia, 22-25 January 2002; ISEC-02 (3rd International Symposium on Electronic Commerce, North Carolina, USA, 18-19 October, 2002

Organization Co-Chair, **ICIG2002** (2nd International Conference on Image and Graphics), Hefei, China, 23-25 August 2002

<u>2001</u>

Program Committee Member, 4th International Conference on Computer-Aided, Industrial Design and Conceptual Design, Jinan, Shandong, China, 2001

Program Co-Chair, the National Conference on Image and Graphics, Hang Zhou, China, 23-25 July 2001

<u>2000</u>

Program Co-Chair, **ICIG2000** (the First International Conference on Image and Graphics), Tianjin, China, 18-20 July 2000.

International Program Committee Member, International Workshop on Multimedia Data Storage, Retrieval, Integration and Applications, Hong Kong, Jan. 2000

<u>1998-1999</u>

Program Committee Member, International Conference on Information & Comm. Eng, Korea, 1999

Program Committee Member, **ISOMA'98** Sixth International Symposium on Manufacturing & Applications, Alaska, May, 1998; Machine Learning, Neural Nets and Genetic Algorithms (1st World Congress on Systems Simulation), Singapore, Sept. 1998.

Session Chairs, IEEE SMC Conference on System, Man and Cybernetics (SMC), Beijing, 1998; **ICNIP98** (International Conference on Neural Information Processing), Hong Kong, 1998.

Government/Industry Consultants

Member, Judging Panel of the Hong Kong Awards for Industries: Machinery and Equipment Design (2007-2012).

Member, Technology Advisory Panel of the Business Incubation Programme (Incu-Tech) of the Hong Kong Science and Technology Parks Corporation (HKSTP) (2006-2008).

Consultant, HIT Group (1998-2010)

Director, PteC Information Technology Ltd (1999)

Advisor, HKID Card consortium, CKI (2001)

Academic Association Leaderships/ Professional Activities

Member, Division Committee for Selection of New Fellow, ASE Division, RSC Academy of Science (2020 - 2022)

External Assessor, Faculty of Business and Information Science, UCSI University, Malaysia, (2016 - 2018)

Head, Department of Computing, PolyU (2008 - 2010)

Founder, International Association of Medical Biometrics (2008 -)

Founder, Hong Kong Biometrics Authentication Society (2002 -)

Associate Head, Department of Computing, PolyU (2002 - 2008)

Chair, Departmental Research Committee, Department of Computing, PolyU (1999 - 2002)

Director, Biometric Research Centre (UGC/CRC), PolyU (1998 -)

Director, Bioinformatics Research Centre (HIT), NFSC (1998 -)

Project Leader, BAC-PT, Department of Computing, PolyU (1998 - 1999)

RESEARCH GRANTS (as Principal Investigator)(1996-)

- D. Zhang, *Principal Investigator* (1995-96), (Internal Strategic Grant, valued at \$226,000)
 "Integrating case based reasoning and neural networks system design"
- D. Zhang, *Principal Investigator* (1996-98), (Internal Strategic Grant, valued at \$402,634)
 "VLSI system design of neural network for pattern recognition applications"
- D. Zhang, *Principal Investigator* (1997-98), (Internal Strategic Grant, valued at \$339,270)
 "Real-time automated fingerprint identification system design methodology"
- D. Zhang, *Principal Investigator* (1996-98), (External: Industry fund. China Aerospace International Holdings Limited, Hong Kong, \$264,000)
 "Speech compression for VLSI implementation"
- D. Zhang, *Principal Investigator* (1997-99), (External: CERG Grant, valued at \$322,300)
 "VLSI system design methodology for artificial neural networks"
- D. Zhang, *Principal Investigator* (1998-00), (Internal: Central fund, valued at \$200,000)
 "Automatic biometric verification by combining texture technology"
- D. Zhang, *Principal Investigator* (1998-00), (Internal: Central fund, valued at \$225,232)
 "Automatic Palmprint on-line Verification"
- D. Zhang, *Principal Investigator* (1999-02), (Fundable CERG Grant, valued at \$240,000)
 "On-line palmprint verification: technology and system"
- D. Zhang, *Principal Investigator* (1998-01), (External: NFSC, China, valued at \$260,000)
 "Computer automatic tongue diagnosis system"
- D. Zhang, *Principal Investigator* (1998-02), (External: 863 High-Tech Committee, China, \$350,000)
 "Biometrics Traditional Chinese Medicine (TCM)"
- D. Zhang, *Principal Investigator* (1999-01), (Internal: Central fund, valued at \$450,400)
 "On-line Iris Recognition"
- D. Zhang, *Principal Investigator* (1998-01), (External: UGC-CRC Fund: CRC 3/98 in Hong Kong, HK\$1,200,000)
 - "Biometrics Technology Centre for Security Industry in Hong Kong"
- D. Zhang, *Principal Investigator* (2000-01), (Internal: Departmental fund in PolyU, HK\$450,000)
 "Automatic Tongue Feature Recognition by Biometrics Technologies"
- D. Zhang, *Principal Investigator* (2000-02), (External: CERG Grant: 510500, \$467,817),
 "A New Biometrics Authentication System based on Palmprint Features"
- D. Zhang, *Principal Investigator* (2001-02), (Internal: Central fund, \$894,580)
 "Biometrics-based Security Service for Authentication in e-World"
- D. Zhang, *Principal Investigator* (2001-03), (Internal: Central fund, \$320,000)
 "Developing a Fully Featured Security Standalone Biometric Palmprint Device"
- D. Zhang, *Principal Investigator* (2001-03), (External: MM Centre, \$1,200,000)
 "Biomedical Image Processing and Human Body based Diagnosis"
- D. Zhang, *Principal Investigator* (2002-03), (External: IGAR, \$845,000)
 "On-Line Palmprint Verification System for Construction Site"
- D. Zhang, Principal Investigator (2002-04), (External: Faculty Fund, \$275,280)

- "Building a High Performance Personal Authentication System using Biometrics Technology"
- D. Zhang, *Principal Investigator* (2002-04), (Internal: Central fund, \$200,000)
 "On-Line Palmprint Identification: Technology and System"
- D. Zhang, *Principal Investigator* (2003-04), (External: NFSC, China, \$250,000)
 "Palmprint Research and Development"
- D. Zhang, *Principal Investigator* (2004-06), (External: NFSC: 60332010, China, \$400,000)
 "Biometric Fusion Technology"
- D. Zhang, *Principal Investigator* (2005-06), (External: 863 High-Tech Committee, China, \$200,000)
 "Biometric System Design"
- D. Zhang, *Principal Investigator* (2006-07), (External: CERG: 531605, \$375,454)
 "Dynamic Fusion Techniques for Personal Recognition using Multi-Biometrics"
- D. Zhang, *Principal Investigator* (2006-08), (External: ITF: Guangdong-Hong Kong Technology Cooperation Funding Scheme, GHP/049/05, \$5,200,000)
 "The Development of New Biometric Devices for Information Security"
- D. Zhang, *Principal Investigator* (2005-06), (Internal: Chair Professor fund: \$1,000,000)
 "Biometric Authentication Technology and System for High Security in E-World"
- D. Zhang, *Principal Investigator* (2006-09), (External: NSFC Oversea Key Collaboration Fund: 60620160097, \$950,000)
 "Study on Pulse and Tongue integration"
- D. Zhang, *Principal Investigator* (2006-08), (External: ITF: Guangdong-Hong Kong Technology Cooperation Funding Scheme, GHP/049/05, \$5,200,000)
 "The Development of New Biometric Devices for Information Security"
- D. Zhang, *Principal Investigator* (2008-10), (External: PPR: Public Policy Research, \$600,000)
 "Public healthcare welfare by computerized TCM (Traditional Chinese Medicine) diagnosis system"
- D. Zhang, *Principal Investigator* (2008-09), (External: CERG: 535008, \$303,342)
 "Development of Reliable antispoofing techniques for biometric authentication"
- D. Zhang, *Principal Investigator* (2009-12), (Internal: Niche Areas: \$4.85M)
 "Biometric Research for PolyU Niche Area"
- D. Zhang, *Principal Investigator* (2009-10), (External: Commission of European Communities: €74,081.00)
 "Biometric Research Centre and the 3rd International Conference on Ethics and Policy of Biometrics"
- D. Zhang, *Principal Investigator* (2011-14), (External: NSFC Oversea Key Collaboration Fund: 61020106004, RMB2,800,000),
 "生物特征识别中的新方法及其应用"
- D. Zhang, *Principal Investigator* (2012-13), (External: Hong Kong Hospital Authority: \$173,400)
 "Comparison of Clinical Analysis Using Chinese Medicine (CM) Techniques, Medical Biometrics (MB)
 Based on Pattern Recognition and Structured Comprehensive Risk Assessment Using the JADE Portal in Diabetes and Obesity"
- D. Zhang, Principal Investigator (2013-14), (External: Hong Kong Scholars- 香江学者计划: \$315,000)
 "Research on Sparse Representation and Their Applications in Biometric Recognition"
- D. Zhang, Principal Investigator (2013-16), (External: GRF: \$576,000)

"Semi-Coupled Dictionary Learning for Image Cross-modality Transform and Recognition"

- D. Zhang, *Principal Investigator* (2014-16), (External: NSFC General Program: RMB800K)
 "Facial Beauty Study using Biometrics Technology"
- D. Zhang, Principal Investigator (2014-15), (External: Hong Kong Scholars 香江学者计划): \$315,000)
 "Facial Beauty Analysis Biometrics Technology"
- D. Zhang, Principal Investigator (2014-15), (External: 深圳市战略新兴产业发展专项资金: RMB500K)
 "Medical Image processing and Pattern Recognition"
- D. Zhang, *Principal Investigator* (2014-16), (Internal: Departmental Fund: HK\$450K)
 "Big Data Analysis for Healthy Care"
- D. Zhang, Principal Investigator (2014-18), (External: NSFC Key Program: RMB3M)
 "Human Body based Healthy Sensing and Computing" -面向人类健康的体外诊察信息感知与计算方法研究
- D. Zhang, Principal Investigator (2015-17), (External: GRF: \$875,000)
 "Large Scale Metric Learning for Matching of Heterogeneous Multimedia Data"
- D. Zhang, *Principal Investigator* (2016-18), (External: GRF: \$695,861)
 "Context-Aware Spatio-Temporal Modeling for Object Tracking in the Wild"
- D. Zhang, *Principal Investigator* (2018-20), (External: GRF: \$700,000)
 "Transfer Learning for Image Analysis by both Probabilistic Latent Variable and Space Reconstruction"
- D. Zhang, Principal Investigator (2018-21), (RMB1.2M)"校长基金"
- D. Zhang, *Principal Investigator* (2019-21), (External: Shenzhen Government (Shenzhen Institute of Artificial Intelligence and Robotics for Society): RMB2.3M)
 "High Performance Palmprint Recognition"-基于高精度/高防伪的掌纹活体身份识别核验机器人
- D. Zhang, *Principal Investigator* (2019-22), (External: Shenzhen Government (Shenzhen Research Institute of Big Data): RMB3M)
 "Big Data Collection for Computerized TCM Analysis"
- D. Zhang, Co-Principal Investigator (2020-22), (External: 广东省基础与应用基础研究基金项目 2019B 1515120055): RMB500K+RMB125K) "手指多模态特征提取与识别"
- D. Zhang, Principal Investigator (2021), (SDS Research Fund): RMB600K)
- D. Zhang, Principal Investigator (2021), (广东省银龄专项): RMB300K)
- D. Zhang, Principal Investigator (2021), (视频靶自动标定和弹着点定位算法技术合作): RMB600K)
- D. Zhang, *Principal Investigator* (2021-22), (External: Shenzhen Government (Shenzhen Institute of Artificial Intelligence and Robotics for Society): RMB 1.5M)
 "中医机器人多源信息智能诊察关键问题研究"
- D. Zhang, Principal Investigator (2022-26), (港中大(深圳)-联易融计算机视觉与人工智能联合实验室): RMB 10M)
- D. Zhang, Principal Investigator (2022-25), (External: NSFC General fund): RMB600K
 "大规模非接触式多模态掌纹识别研究"
- D. Zhang, Principal Investigator (2022-23), (深圳市模式分析与感知计算重点实验室-启动筹建): RMB5M

KEYNOTE SPEECH/INVITED TALK

- D. Zhang, "AI 与中医现代化:研究与进展",中国计算机大会分论坛, Shenzhen, 16 Dec 2021 (on-line)
- D. Zhang, "AI+ 先进生物特征识别:研究与进展", 院士高峰论坛,东莞, 12-13 Dec 2021
- D. Zhang, "Advanced Biometrics", SDS, Shenzhen, 18 May 2021
- D. Zhang, "Facial Multi-Charanteristics", 4th International Conference on Computer Graphics and Digital Image Processing(CGDIP), Kunning, China, 24 June 2020. (on-line)
- D. Zhang, "Advanced Biometrics: Research and Development", 2020 International Conference on Pattern Recognition and Artificial Intelligence(PRAI), Zhongshan, China, October 19-23, 2020. (on-line)
- D. Zhang, "Advanced Biometrics: Research and Development", 2020 国际计算机大数据与人工智能会 议, Changsha, 2-4 Nov 2020.
- D. Zhang, "AI and TCM Modernization: Research and Development", *博鳌亚洲论坛国际科技与创新论坛大会*, Macao, 9-11 Nov 2020.
- D. Zhang, "Palmprint Authentication: Research and Development", *The International Symposium on Computer Graphics, Multimedia & Image Processing(CGMIP 2020)*, 9 Dec 2020. (on-line)
- D. Zhang, "基于人脸多特征的人工智能应用", *粤港澳大湾区暨海峡两岸青年科学家人工智能学术会 议*, Shenzhen, China, 12 Dec 2020.
- D. Zhang, "Signal Processing for vitro diagnosis in Medical Biometrics Applications", 3th International Conference on Graphics and Signal Processing, Hong Kong, 1-3 June 2019.
- D. Zhang, "Computational Intelligence and its Biometrics Applications", 2019 4th International Conference on Computational Intelligence and Applications, Nanchang, China, 21-23 June 2019.
- D. Zhang, "New Biometrics Development Commemorating China's artificial intelligence for 40 years", *Global AI and Robotics Conference (CCF-GARC)*, Shenzhen, China, 12-15 July 2019.
- D. Zhang, "Palmprint Authentication: Research and Development", 16th International Conference on Image Analysis and Recognition, Waterloo, Canada, 27-29 Aug. 2019.
- D. Zhang, "Computerized TCM Data Analysis", *International Symposium on Traditional Medicine*, Daejeon, Korea, 1-2 Oct. 2019.
- D. Zhang, "Facial Multi-Characteristics and its Applications", *International Conference on Computing and Pattern Recognition*, Beijing, 23-25 Oct. 2019.
- D. Zhang, "Biometrics Systems", 7th International Conference on Information Technology, Shanghai, 20-23 Dec. 2019.
- D. Zhang, "Biometrics Systems", International Conference on Image and Graphics Processing, Hong Kong, 24-26 Feb. 2018.
- D. Zhang, "Biometrics in Medical Application", 7th International Conference on Bioinformatics and Biomedical Science, Shenzhen, 23-25 June 2018.
- D. Zhang, "Biometrics Signal and Image Processing", *International Conference on Signal and Image Processing*, Shenzhen, 13-15 July 2018.
- D. Zhang, "Computational Intelligence and Biometrics", 3th IEEE International Conference on Computational Intelligence and Applications, Hong Kong, 28-30 July 2018.

- D. Zhang, "Advanced Biometrics", 2018 2th International Conference on Data Mining, Communication and Information Technology, Shanghai, 25-27 May, 2018.
- D. Zhang, "Biometrics: New Developments", 2017 5th International Conference on Bioinformatics and Computational Biology, Hong Kong, 6-8 Jan, 2017.
- D. Zhang, "Hang-Based Biometrics", 2017 International Conference on Biometrics and Forensic Engineering, Singapore, 22-24 June 2017.
- D. Zhang, "Medical Biometrics", 2016 3rd International Conference on Biomedical and Bioinformatics Engineering (ICBBE), Taipei, 12-14 Nov, 2016.
- D. Zhang, "Development of New Biometrics Applications", 2016 the 11th Chinese Conference on Biometrics Recognition (CCBR2016), Chengdu, China, 14-16 Oct, 2016.
- D. Zhang, "Biometrics New Challenges", *International Conference on Intelligent Computing (ICIC2016)*, Lanzhou, China, 2-5 Aug, 2016.
- D. Zhang, "Biometrics Signal and Image Processing", International Conference on Signal and Image Processing (ICSIP2016), Beijing, China, 13-15 Aug, 2016.
- D. Zhang, "Development of New Biometrics Applications", 2016 the 11th Chinese Conference on Biometrics Recognition (CCBR2016), Chengdu, China, 14-16 Oct, 2016.
- D. Zhang, "Biometrics: New Challenges", 2015 the 10th Chinese Conference on Biometrics Recognition (CCBR2015), Tianjin, China, 13-15 Nov, 2015.
- D. Zhang, "3D/Multispectral Biometrics", 2015 IEEE International Conference on Computer and Communication, Chengdu, China, 10-11 Oct, 2015.
- D. Zhang, "Medical Biometrics", 2015 4th International Conference on Image, Vision and Computing, Hong Kong, 19-20 Sept, 2015.
- D. Zhang, "Advanced Biometrics", 2015 International Conference on Machine Vision and Applications, Hong Kong, 22-23 June, 2015.
- D. Zhang, "Biometrics Computing", International Symposium on Biometrics and Security Technologies 2014, Kuala Lumpur, 26-27 Aug 2014.
- D. Zhang, "Biometrics Research", 2013 the 2nd International Conference of Image, Vision and Computing, Beijing, Sept 1-2, 2013.
- D. Zhang, "Biometrics Development and Challenges", 2013 5th International Conference on Graphics and Image Processing, Hong Kong, 26-27 Oct, 2013.
- D. Zhang, "Biometrics Computing", 2013 World Congress on Electronics and Electrical Engineering, Kuala Lumpur, Malaysia, 29-30 Dec, 2013.
- D. Zhang, "Biometrics Development and Challenges", *IEEE DVP Talk in IEEE Canada*, Quebec, 19-21 April, 2012.
- D. Zhang, "Biometrics Computing", *IEEE DVP Talk in ICTer2011*, Sir Lanka, 31 August 4 Sept. 2011.
- D. Zhang, "Biometrics: Challenges & Applications", IEEE DVP Talk, Malaysia, 21 June 2011.
- D. Zhang, "Palmprint Research and Systems", *The First International Conference on Instrument & Measurement, Computer, Communication and Control (IMCCC2011)*, Beijing, 21-23 Oct. 2011.
- D. Zhang, "New Development of Biometrics Research", *The International Conference on Awareness* Science and Technology (ICAST2011), Dalian, 27-30 Dept 2011.

- D. Zhang, "Medical Biometrics-Computerized TCM Diagnosis", *The International Workshop on Information Technology for Chinese Medicine (ITCM2010)*, Hong Kong, 18-21 Dec. 2010.
- D. Zhang, "Challenges in Biometrics Research", 2009 Asia-Pacific Conference on Information Processing, Shenzhen, 18-19 July 2009.
- D. Zhang, "Biometrics Authentication: New Development and Applications", 2009 WASE International Conference on Information Engineering, Taiyuan, 10-11 July 2009.
- D. Zhang, "Palmprint Identification", *International Data Sharing and Biometrics Identification*, Singapore, 2-3 July 2009.
- D. Zhang, "Biometrics: New Developments", 2nd IEEE International Conference on Computer Science and Information Technology (ICCSIT 2009), Beijing, 8-11 Aug 2009.
- D. Zhang, "Palmprint Authentication", 6th Digital Assurance Exhibition and Conference, Egypt, Middle East and Africa, Cairo International Convention Centre, 25-27 May 2008.
- D. Zhang, "Biometrics Recognition", *HKIE ITD: Conference on IT Security* 2007, Hong Kong, 4 May 2007.
- D. Zhang, "Biometrics Identification", *ITD: Technical Conference on IT Security and Cyber Crime* 2006, Hong Kong, 8 July 2006.
- D. Zhang, "Palmprint Authentication: Technology and System", *International Conference on Pattern Recognition and Machine Intelligence*, Kolkata, India, 18-22 Dec. 2005.
- D. Zhang, "Biometric Technologies and Security Access Control", IS Summit, Hong Kong, 8-9 Nov 2005.
- D. Zhang, "Palmprint Authentication", Biometric Engineering Research Centre (BERC), Korea, 29 April 2005.
- D. Zhang, "Biometrics Development: Palmprint Technologies and Systems", *Bio-Secure 05*, Paris, French, 15-19, 2005.
- D. Zhang, "New Member in Biometric Family: Palmprint", *The Croucher Advanced Study Institute, Recent Development on Biometric Authentication, HKBU, Dec. 2004.*
- D. Zhang, "Biometrics: Research & Development", *Biometric Industrial and Academy Conference*, Tokyo/ Kobe, 23-27 Jan. 2005.
- D. Zhang, "Biometric Security", Tsinghua University/ Peking University/ Beihang University/ Chinese Academy of Science/ Shanghai Jiao Tong University/ National University of Defence Technology / Nanjing University of Science and Technology, 13 Sept – 20 Nov. 2004.
- D. Zhang, "Biometrics A Unique Authentication Approach", *Public Seminar Biometrics for User Authentication*, HKCERT and HKPC, Hong Kong, 31 August, 2004.
- D. Zhang, "Palmprint Technology and System", *International Conference on Pattern Recognition*, Cambridge, UK, 18-22 August, 2004.
- D. Zhang, "Palmprint Authentication", Biometric Tutorial, *The First International Conference on Biometric Authentication*, Hong Kong, 8-10 Jan. 2004.
- D. Zhang, "Biometric Feature Retrieval using Palmprint Images", *The Workshop on Multimedia* Information Retrieval and Management, Hong Kong, 21-23 May 2003.
- D. Zhang, "Palmprint Security: Technology and System", *Education Department, China Government*, Beijing, 7 Dec. 2003.

- D. Zhang, Invited Speaker. "Biometrics Authentication", *IT seminar for the Civil Service Training and Development Institute(CSTDI), the HK Government,* 21 May 2003.
- D. Zhang, Invited Speaker. "A New Biometrics Solution: Palmprint Authentication", *Biometrics Solution Seminar, ITSD, the HK Government*, 20 May 2003.
- D. Zhang, Invited Speaker. "Biometrics Applications in Smart Card", Asia Pacific Smart Card Association (APSCA) Meeting 39, Hong Kong, 14 June 2001.
- D. Zhang, Invited Speaker. "Security and Biometrics", Education & Customer Department by Hong Kong Government, 2000.
- D. Zhang, Invited Speaker. "Biometrics Authentication and Application", The First International Conference on Image and Graphics, Nanjing, China, 2000.
- D. Zhang, Invited Speaker. "Who are you in the future", International Symposium on the Trend of Information Science and Technology, Peking University, 1998.
- D. Zhang, Invited Speaker. "Automatic biometric-based identification", 2nd National Image & Graphics Conference, Xi An, China, 1998.
- D. Zhang, Invited Speaker. "Neural networks and speech processing", International Conference on Speech Processing, Harbin, China, 1998.
- D. Zhang, Invited Speaker. "Neural networks system design", AI Summer School, 863 expert group, Harbin, China, 1997.
- D. Zhang, Invited Speaker. "Artificial neural networks", Center of Intelligent Design, Automation and Manufacturing (CIDAM), CityU, 1997.

	All	H-Index	i10-Index
Google Scholar Citation Indices	72,800+	125	651
Scopus Citation Metrics	44,200+	101	-
Web of Science Citation Metrics	35,600+	88	-

PARTIAL PUBLICATIONS

BOOKS

- J. Li, B. Zhang and D. Zhang, 2021, *Information Fusion: Technologies and Applications*, World Scientific/Higher Education Press.
- F. Liu, Q. Zhao and D. Zhang 2020, Advanced Fingerprint Recognition: From 3D Shape to Ridge Detail, 291pp, ISBN 978-981-15-4127-8, Springer.
- D. Zhang and K. Wu, 2020, Pathological Voice Analysis, 265pp, ISBN 978-981-32-9195-9, Springer.
- B. Zhang, Q. Zhao and D. Zhang, 2019, *Facial Multi-Characteristics and Applications*, 411pp, ISBN 978-981-3234-57-4, World Scientific/Higher Education Press.
- D. Zhang, G. Lu and L. Zhang, 2018, *Advanced Biometrics*, 335pp, ISBN 978-3-319-61544-8, Springer, Singapore.
- L. Zhang, F. Tian and D. Zhang, 2018, *Electronic Nose: Algorithmic Challenges*, 263pp, ISBN 978-981-13-2166-5, Springer, Singapore.

- D. Zhang, W. Zuo and P. Wang, 2018, Computational Pulse Signal Analysis, 344pp, ISBN 978-981-10-4043-6, Springer, Singapore.
- D. Zhang, D. Guo and K. Yan, 2017, Breath Analysis for Medical Applications, 309pp, ISBN 978-981-10-4321-5, Springer, Singapore.
- D. Zhang, H. Zhang and B. Zhang, 2017, *Tongue Image Analysis*, 335pp, ISBN 978-981-10-2166-4, Springer, Singapore.
- D. Zhang, Y. Xu and W. Zuo, 2016, *Discriminative Learning in Biometrics*, 266pp, ISBN 978-981-10-2055-1, Springer, Singapore.
- D. Zhang, F. Chen and Y. Xu, 2016, Computer Models for Facial Beauty Analysis, 268pp, ISBN 978-3-319-32596-5, Springer, USA.
- D. Zhang, Z. Guo and Y. Gong, 2015, *Multispectral Biometrics- Systems & Applications*, 229pp, ISBN 978-3-319-22484-8, Springer, UK.
- D. Zhang, W. Zuo and N. Li, 2015, *Medical Biometrics-Computerized TCM Data Analysis*, 363pp, ISBN 978-7-04-042883-4, World Scientific/Higher Education Press.
- D. Zhang and G. Lu 2014, 3D Biometrics- Technologies and Systems, 290pp, ISBN 978-1-4614-7400-5. Springer, USA.
- Y. Xu, Z. Fan and D. Zhang, 2014, 基于稀疏矩阵的人脸识别式识别, 国防工业出版社, 227pp, ISBN 978-7-18-09758-0.
- N. Li, D. Zhang, K. Wang and Y. Zhu (Eds.-in-Chief), 2011, *Tongue Diagnostics*, Academy Press (Xue Yuan), 650pp, ISBN 978-7-5077-3736-3.
- D. Zhang and M. Sonka (Eds.), 2010, *Medical Biometrics*, Second International Conference ICMB2010, Springer Verlag, 424pp, ISBN 0303-9743, LNCS 6165.
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