

[教师主页 \(/\)](#) [收藏 \(/\)](#)
[登录](#)



周巍

的个人主页 <http://jszy.nwpu.edu.cn/zhouwei>

被浏览次数: 1911



[相册 \(/user/photos/zhouwei.html\)](#)

基本信息 The basic information

姓名: 周巍

学院: 电子信息学院

学历: 博士研究生毕业

博士

职称: 副教授

职务: 副院长

学科: **工作经历 Work Experience**

电子科学与技术

邮箱: zhouwei@nwpu.edu.cn

电话:

西北工业大学电子信息学院, 2018年, 教授

西北工业大学电子信息学院, 2010年, 副教授

西北工业大学电子信息学院, 2006年, 讲师

西北工业大学电子信息学院, 2004年, 助教

美国加州大学圣地亚哥分校, 2017年, 访问学者

美国加州大学圣地亚哥分校, 2008年, 访问学者

加拿大卡尔加里大学, 2012年, 访问学者

教育经历 Education Experience

西北工业大学电子信息学院, 2001年, 学士

西北工业大学电子信息学院, 2004年, 硕士

西北工业大学电子信息学院, 2007年, 博士

教育教学 Education And Teaching

电路分析基础 (本科, 全英文)

专用集成电路设计基础 (硕士),

VLSI分析与设计 (博士)

招生信息 Admission Information

欢迎广大本科生保送或报考本人的研究生, 主要招生专业:

- 1、电路与系统
- 2、微电子学与固体电子学
- 3、电子与通信工程
- 4、集成电路工程

荣誉获奖 Awards Information

- 1、2011年, 教育部新世纪优秀人才。

- 2、2015年, 西北工业大学“本科教学最满意教师”。
- 3、2014年, 西北工业大学“翱翔新星”。
- 4、2012年, 西北工业大学“吴亚军优秀青年教师”
- 5、2011年, 西北工业大学“优秀青年教师”。
- 6、2011年, 西北工业大学本科教学优秀奖教金。
- 7、2009年, 国家级教学成果奖二等奖, “以培养学生创新能力为目标, 加强电子实验教学中心建设与实践教学改革”。
- 8、2009年, 陕西省高等教育教学成果奖特等奖, “以培养学生创新能力为目标, 加强电子实验教学中心建设与实践教学改革”。
- 9、2006年, 西北工业大学优秀教学成果奖一等奖, “采用双主二阶段式教学方法, 促进电类基础课程建设”。

科学研究 Scientific Research

研究方向:

1、智能视觉计算

- (1) 基于深度学习的视频智能处理
- (2) 先进视频编码标准HEVC/H.265的高效编码算法研究

2、超大规模集成电路设计

- (1) 面向视觉智能处理的深度学习芯片设计
- (2) 符合先进视频编码标准HEVC/H.265的超大规模集成电路设计

3、无人驾驶与智能驾驶

- (1) 基于深度学习的视觉环境感知
- (2) 基于深度强化学习的决策与控制

4、高性能集成电路智能热管理

- (1) 多核处理器热特性建模研究
- (2) 多核处理器温度监控方法研究

科研工作:

- 1、国家自然科学基金面上项目, 2018-2021, 负责人。
- 2、国家自然科学基金青年项目, 2010-2012, 负责人。
- 3、教育部新世纪优秀人才支持计划, 2012-2014, 负责人。
- 4、陕西省自然科学基金基础研究计划, 2016-2018, 负责人。
- 5、西北工业大学基础研究基金, 2014-2016, 负责人。
- 6、西北工业大学“翱翔新星”资助项目, 2014-2017, 负责人。

学术成果 Academic Achievements

主要论著及代表性论文:

1、Journal Paper:

- (1) **Wei Zhou**, Jingzhi Zhang, Xin Zhou, Zhenyu Liu, Xiaoxiang Liu, A High-Throughput and Multi-Parallel VLSI Architecture for HEVC Deblocking Filter, IEEI Transactions on Multimedia, vol.18, no.6, pp.1034-1047, June 2016.
- (2) Xiaocong Lian, Zhenyu Liu, **Wei Zhou**, ZheminDuan, Lossless Frame Memory Compression Using Pixel-Grain Prediction and Dynamic Order Entropy Coding, Transactions on Circuits and Systems for Video Technology, vol.26, no.1, pp.223-235, January 2016.
- (3) Xiaocong Lian, Zhenyu Liu, **Wei Zhou**, ZheminDuan, Parallel Content-Aware Adaptive Quantization-Oriented Lossy Frame Memory Recompression for HEVC, Transactions on Circuits and Systems for Video Technology, vol.28, no.4, pp.958-971, April 2018.
- (4) **Wei Zhou**, Xin Zhou, XiaocongLian, Zhenyu Liu and Xiaoxiang Liu, An Efficient Interpolation Filter VLSI Architecture for HEVC Standard, EURASIP Journal Advances in Signal Processing, (2015) 95:1-12, 2015.
- (5) **Wei Zhou**, Chang Yan, Jingzhi Zhang, Zhemin Duan, High-throughput sample adaptive offset hardware architecture for high-efficiency video coding, Journal of Electronic Imaging, 27(2), 023035: 1-16, Mar 2018.
- (7) **Wei Zhou**, ZheMin Duan, HongQi Hu, Fast Motion Estimation Algorithm for H.264/AVC Based on Centered Prediction, Journal of Systems Engineering and Information Technology, 2010.12.
- (8) Xin Li, Xingtao Ou, Zhi Li, Henglu Wei, **Wei Zhou** and Zhemin Duan, On-Line Temperature Estimation for Noisy Thermal Sensors Using a Smoothing Filter-Kalman Predictor, Sensors, 2018, 18, 433; doi:10.3390/s18020433
- (9) Xin Li, Xueting Wei, **Wei Zhou**, Heuristic thermal sensor allocation methods for overheating detection of real microprocessors, IET Circuits, Devices & Systems, Vol. 11 Iss. 6, pp. 559-567.
- (10) Xin Li, Xin Li, Wen Jiang, **Wei Zhou**, Optimising thermal sensor placement and thermal maps reconstruction for microprocessors using simulated annealing algorithm based on PCA, IET Circuits, Devices & Systems, 2017, Vol. 11 Iss. 6, pp. 559-567.
- (11) Henglu Wei, **Wei Zhou**, Xin Zhou, Rui Bai, Zhemin Duan, “Saliency-based coding tree unit-level rate control for high-efficiency video coding,” Journal of Electronic Imaging, 27(4), 043009 (2018), doi: 10.1117/1.JEI.27.4.043009.

(12) Henglu Wei, **Wei Zhou**, Xiu Zhang, Xin Zhou, Zhemin Duan, "All Zero Block Detection for HEVC Based on the Quantization Level of the Maximum Coefficient Multimedia Tools and Application, <https://doi.org/10.1007/s11042-018-6529-9>, 2018.

(13) Xin Zhou, Guangming Shi, **Wei Zhou**, Zhemin Duan, Visual saliency-based fast intracoding algorithm for high efficiency video coding, Journal Of Electronic (1), 013019.1-013019.11, Jan. 2017.

2、Conference Paper:

(1) **Wei Zhou**, Xin Zhou, Xiaocong Lian, An Efficient Interpolation Filter VLSI Architecture for HEVC, 40th International Conference on Acoustics, Speech and Processing (ICASSP 2015), Brisbane, Australia, 19-24 April 2015.

(2) Henglu Wei, Xin Zhou, **Wei Zhou**, Zhemin Duan, Nana Shan, Visual Saliency Based Perceptual Video Coding in HEVC, 2016 IEEE Int'l Symposium on Circuits Systems (ISCAS 2016), Montreal, Canada, May 22-26, 2016.

(3) Xiaocong Lian, Zhenyu Liu, **Wei Zhou**, Zhemin Duan, Using Pixel-Grain Prediction and K-order Ueg-Rice Entropy Coding Oriented Lossless Frame Memory Compression for Motion Estimation in HEVC, IEEE International Conference on Image Processing (ICIP 2015), Quebec City, Canada, Sep 2015.

(3) **Wei Zhou**, Jingzhi Zhang, Xin Zhou. A High-Throughput and Multi-Parallel Deblocking Filter VLSI Architecture for HEVC, Visual Communications and Image Processing, VCIP 2015, Singapore, 13-16 December 2015.

(4) Henglu Wei, **Wei Zhou**, Xin Zhou, Zhemin Duan. An efficient all zero block detection algorithm based on frequency characteristics of DCT in HEVC, Visual Communications and Image Processing, VCIP 2015, Singapore, 13-16 December 2015.

(5) Yue Niu, Zhenyu Liu, Chunsheng Mei, Xiangyang Ji, **Wei Zhou**, Dongsheng Wang., Sensitivity-based acceleration and compression algorithm for convolution network, the fifth IEEE Global Conference on Signal and Information Processing (GlobalSIP), Montreal, Quebec, Canada, November 14-16, 2017.

(6) Chunsheng Mei, Zhenyu Liu, Yue Niu, Xiangyang Ji, **Wei Zhou**, Dongsheng Wang, A 200MHZ 202.4GFLOPS@10.8W VGG16 Accelerator in Xilinx VX690, IEEE Global Conference on Signal and Information Processing (GlobalSIP), Montreal, Quebec, Canada, November 14-16, 2017.

(7) **Zhou, Wei**; Yan, Chang; Wei, Henglu; Zhang, Guanwen; Qing, Ai; Zhou, Xin; Fast RQT Structure Decision Method for HEVC, Asia-Pacific Signal and Information Processing Association Annual Summit and Conferences (APSIPA), Jeju, Korea, 13-16 Dec 2016.

(8) Qing, Ai; **Zhou, Wei**; Wei, Henglu; Zhou, Xin; Zhang, Guanwen; Yang, Jiamin; A fast CU partitioning algorithm in HEVC inter prediction for HD/UHD video, Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA 2016), Jeju, Korea, Dec.2016.

(9) Xiong, Liyuan; **Zhou, Wei**; Zhou, Xin; Zhang, Guanwen; Qing, Ai; Saliency Aware Fast Intra Coding Algorithm for HEVC; 2016 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA 2016), Jeju, Korea, Dec.2016.

(10) Zhang, Xiu; **Zhou, Wei**; Duan, Zhemin; Image Super-Resolution Reconstruction Based on fusion of K-SVD and Semi-Coupled Dictionary Learning; 2016 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA 2016), Jeju, Korea, Dec.2016.

(11) **Zhou, Wei**; Niu, Yue; Lian, Xiaocong; Zhou, Xin; Yang, Jiamin, A Stepped-RAM Reading and Multiplierless VLSI Architecture for Intra Prediction in HEVC, Pacific-Rim Conference on Multimedia (PCM), Xi'an, China, September 2016.

(12) Nana Shan, **Wei Zhou**, Rong Li, Zhemin Duan, Fast Mode Decision of Inter Prediction in HEVC, The 14th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2014), August 24-27, 2014, Dalian, China.

(13) Zhu Hongxiang, **Zhou Wei**, Dong Qing, Huang Xiaodong, Efficient Intra Prediction VLSI Architecture For HEVC Standard, TENCON 2013, Xi'an, China.

(14) Kang Runlong, **Zhou Wei**, Huang Xiaodong, An Efficient Deblocking Filter Algorithm for HEVC, 2nd IEEE China Summit and International Conference on Information Processing (ChinaSIP 2014), Xi'an, China.

(15) **Zhou Wei**, Zhou Xin, A Fast Hierarchical 1/4-pel Fractional Pixel Motion Estimation Algorithm of H.264 Video Coding, the 8th IEEE Conference on Information Electronics and Applications (ICIEA), pp.891-895, Australia, June 2013.

(16) Zhou Xin, **Zhou Wei**, Fast Inter Prediction Block Mode Decision Approach for H.264/AVC Based on All-Zero Blocks Detection, the 8th IEEE Conference on Information Electronics and Applications (ICIEA), pp.896-899, Australia, June 2013.

社会兼职 Social Appointments

- 1、Institute of Electrical and Electronics Engineers (IEEE), Member.
- 2、中国电子学会, 会员。
- 3、中国计算机学会, 会员。
- 4、中国仿真学会, 会员。

[English Version \(/en/zhouwei.html\)](http://en.zhouwei.html)

版权所有 © 西北工业大学 地址: 西安市友谊西路127号 邮编: 710072