

Research Achievements:Conference Paper

Article Title	Journal Name	Author	Category	Publication Date
Machine Learning – based Fast Intra Coding Unit Depth Decision for High Efficiency Video Coding	Journal of Information Science and Engineering	Zony-Yi Chen, Jiunn-Tsair Fang, Yen-Chun Liu,and Pao-Chi Chang	SCI	2016.10
Computational Complexity Allocation and Control for Inter-coding of High Efficiency Video Coding with Fast Coding Unit Split Decision	Journal of Visual Communication and Image Representation	J.-T. Fang, Z.-Y. Chen, C. R. Lai, P.-C. Chang	SCI	2016.10
Complexity Control for High-Efficiency Video Coding by Coding Layers Complexity Allocations	Journal of Electronic Imaging	J. T. Fang, K. W. Liang, Z. Y. Chen, W. Hsieh, and P. C. Chang	SCI	2016.04
Adaptive Rate Control Mechanism in H.264/AVC for Scene Changes	IEICE Transaction on Fundamentals of Electronics, Communications and Computer Sciences	J. T. Fang, Z. Y. Chen, C. C. Chan, and P. C. Chang	SCI	2014.12
Computation Reduction in High-Efficiency Video Coding Based on the Similarity of Transform Unit Blocks	J. Electron. Imaging	Z. Y. Chen, J. T. Fang, C. S. Chiang, and P. C. Chang	SCI	2014.11
Quantization-Distortion Models for Interlayer Predictions in H.264/SVC Spatial Scalability	IEEE Transaction on Broadcasting	R. J. Wang, J. T. Fang, Y. T. Jiang, and P. C. Chang	SCI	2014.06
Efficient PU Mode Decision and Motion Estimation for	Signal & Image Processing: An International Journal	4. Z. Y. Chen, J. T. Fang, T. L.		2014.04

H.264/AVC to HEVC Transcoder		Liao, and P. C. Chang		
Dynamic stopping criteria of turbo codes for clustered set partitioning in hierarchical trees encoded image transmission	Journal of Electronic Imaging	Jiunn-Tsair Fang, and Cheng-Shong Wu	SCI EI	2011.10
Clustering source output bits and equalizing bit error sensitivity to improve the quality and robustness of transmitted images over wireless channels	Signal Processing on Image Communications	Jiunn-Tsair Fang, Woei-Luen Shyu, Cheng-Shong Wu, and Kim-Joan Chen	SCI EI	2003.11
Clustering SPIHT output bits for wireless communications	IEE Electronics Letters	Jiunn-Tsair Fang, Woei-Luen Shyu, and Cheng-Shong Wu	SCI EI	2003.01

Research Achievements:Journal Article

Article Title	Journal Name	Author	Category	Publication Date
Computation Reduction in Transform Unit of High Efficiency Video Coding Coding based on Zero-coefficients	IEEE International Symposium on Computer, Consumer and Control (IS3C)	Jiunn-Tsair Fang, Yu-Chen Tsai, Jia-Xun Lee, and Pei-Shan Yu		2016.07
Fast Cover Song Retrieval in Advanced Audio Coding Domain based on Deep Learning Technique	Data Compression Conference (DCC), Snowbird, Utah, USA	J. T. Fang; Y. R. Chang, and P. C. Chang		2016.03
SVM-Based Fast Intra CU Depth Decision for HEVC	in Data Compression Conference	Yen-Chun Liu, Zong-Yi Chen, Jiunn-Tsair Fang,		2015.04

		and Pao-Chi Chang		
A Fast PU Mode Decision Algorithm for H.264/AVC to HEVC Transcoding	in Proc. Fourth International conference on Computer Science & Information Technology	17. J. T. Fang, Z. Y. Chen, T. L. Liao, and P. C. Chang		2014.02
Robust Rate Control Mechanism against Scene Change for H.264/AVC	The 17th IEEE International Symposium on Consumer Electronics	Jiunn-Tsair Fang, Chen-Cheng Chan, Shin-Ru Hsu, and Pao-Chi Chang		2013.06
Quality Estimation for H.264/SVC Inter-layer Residual Prediction in Spatial Scalability	Pacific-Rim Symposium on Image and Video Technology (PSIVT), 2011	R.J. Wang, Y. T. Jiang, J. T. Fang, and P.C. Chang		2011.11
探討向量量化中編碼簿的維度以提升小波轉換影像壓縮的品質	銘傳大學 2011 學年度資訊學院研討會	洪維君 簡佑峻 方俊才		2011.03
H.264 Rate Control Based on the Target Buffer Level and the Target Bits Allocation	in Proc. IPPR Conf. Computer Vision, Graphics, and Image Processing (CVGIP) Kaohsiung, Taiwan,	7. K.W. Liang, J.T. Fang, L.C. Chiang, and P.C. Chang		2010.08
樹狀向量壓縮與向量壓縮的特性比較樹狀向量壓縮與向量壓縮的特性比較	銘傳大學 2010 學年度資訊學院研討會	洪振峰 施懿庭 吳柏毅 方俊才		2010.03
位元分配在小波轉換向量量化的影像壓縮特性分析	銘傳大學 2010 學年度資訊學院研討會	李振源 方俊才		2010.03
向量量化編碼對數位浮水印的抗錯能力分析	銘傳大學 2010 學年度資訊學院研討會	劉家亨 呂孟儒 黃朝桓 方俊才		2010.03
用 Verilog 硬體語言設計區塊碼電路	銘傳大學 2009 學年度資訊學院研討會	范公誠、方俊才		2009.03

向量量化編碼對影像壓縮的特性分析	銘傳大學 2009 學年度資訊學院研討會	邱繼億、陳柏仁、方俊才		2009.03
以 Verilog 硬體語言模擬 Viterbi 解碼器的效能	銘傳大學 2008 學年度資訊學院研討會 2008	柏佑銘、方俊才		2008.03
Error-tolerant Turbo Decoding for Turbo Codes with CRC	International Symposium on Communications	Jiunn-Tsair Fang		2005.05
Poisson-based Model for Evaluating the Quality of Image Transmissions	International Symposium on Communications	Jiunn-Tsair Fang, and Cheng-Shong Wu		2005.
The Combination of Turbo Codes and Error Detection Codes to Achieve Unequal Error Protection for C-SPIHT Coded Images over AWGN Channels	International Symposium on Communications	Jiunn-Tsair Fang, Lun-Chieh Lo, Cheng-Shong Wu, Kim-Joan Chen		2003.
Joint Decode of SPIHT and Turbo Codes to Improve the Quality of Transmitted Images	International Symposium on Communications	Jiunn-Tsair Fang, Hsin-An Chen, Cheng-Shong Wu, Kim-Joan Chen		2003.

Research Achievements: Research Project

Project Title	Funding Source	Year/Months Implemented	Publication Date
HEVC 轉換單位的快速演算法	科技部	15/12	2015.08
結合 Turbo codes 和 SPIHT 以提昇無線通道下影像傳輸品質的穩定性	國科會	93.8-94.7	2004.09