

Assistant Professor U, Kin Tak

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Academic Qualification:

Ph.D. in Computer Technology and its Application, Macau University of Science and Technology (2007~2012)

Master in Computer Technology and its Application, Macau University of Science and Technology (2002~2004)

Bachelor in Electrical and Electronics Engineering, University of Macau (1992~1996)

Teaching Area

Digital Signal Processing Experiments

Digital Circuits

CAD for Electronic Circuits

Principle of Computer Organization

Research Area

Digital Signal Processing

Data Security

Embedded System: Application based on microprocessors, ISP PLD, FPGA and DSP

Cyber-Physical Systems; Big Data Analytics; Wireless Networks

Lecturer in FIT of Macau University of Science and Technology (2005~2012)

FIT Lab Technician in Macau University of Science and Technology (2001~2005)

Electronic Engineer in bel Fuse Ltd. (1996~2001)

Academic Publication

1. KinTak U, Jing HUANG. Least Error Approximation And Its Application Of Free-Form Curves Based On Many-Knot Spline. Journal of Engineering Graphics. 2010 No.1. pp 88-93.
2. KinTak U, Ruixia Song, DongXu Qi. A Scheme for Information Disguise Based on Triangular Partition of Digital Image. Journal of Computer Research and Technology, 2009, Vol 46, No. 9, pp. 1432-1437. [EI]
3. KinTak U, Zesheng Tang, Dongxu Qi. A non-uniform rectangular partition coding of digital image and its application. Proceedings of 2009 IEEE International Conference on Information and Automation (ICIA2009). 2009, pp. 995-999. [EI]
4. KinTak U, ShenDun Hu, DongXu Qi. (A Novel Robust Image Watermarking Scheme based on Non-uniform Rectangular Partition. Journal of Macau University of Science and Technology. 2009, Vol. 3, No. 1, pp. 20-26

5. KinTak U, Dongxu Qi, Zesheng Tang. A Robust Image Watermarking Algorithm based on Non-Uniform Rectangular Partition and Encryption Scrambling. Proceedings of the Seventh International Conference on Information, Communications and Signal Processing (ICICS 2009). Dec,2009, ISBN: 978-1-4244-4657-5. [EI & IEEE Xplore]
6. KinTak U, ShengDun Hu, Dongxu Qi, Zesheng Tang. A Robust Image Watermarking Algorithm Based on Non-Uniform Rectangular Partition and DWT. Proceedings of the 2nd Conference on Power Electronics and Intelligent Transportation System (PEITS 2009). 2009, pp 25-28. [ISTP and EI Compendex]
7. KinTak U, ShengDun Hu, Dongxu Qi, Zesheng Tang. A Robust Image Watermarking Algorithm Based on Non-Uniform Rectangular Partition and SVD. Proceedings of 2009 Pacific-Asia Conference on Knowledge Engineering and Software Engineering (KESE 2009). 2009, pp 163-166. [ISTP and EI Compendex]
8. KinTak U, ShengDun Hu, Dongxu Qi, Zesheng Tang. A Robust Image Watermarking Algorithm based on Non-Uniform Rectangular Partition and DCT-SVD. Proceedings of 2010 International Conference on Measuring Technology and Mechatronics Automation (ICMTMA2010). 2010, Vol 1. pp 327-330. [ISTP and EI Compendex]
9. KinTak U, Nian Ji, Ruixia Song, Dongxu Qi, Zesheng Tang. A Novel Image Denoising Algorithm based on Non-Uniform Triangular Partition and Interpolation. Proceedings of the 2010 International Conference on Future Power and Energy Engineering(ICFPEE 2010). 2010. pp 67-70. [ISTP and EI Compendex]
10. KinTak U, Xiaoyu He,Bo Yang, Dongxu Qi and Zesheng Tang. A Novel Image Denoising Algorithm based on Non-Uniform Rectangular Partition and Interpolation. Proceedings of the 2010 International Conference on Multimedia Communications (Mediacom 2010). 2010. pp 9-12. [ISTP and EI Compendex]
11. ShengDun Hu, KinTak U. A Novel Video Steganography based on Non-uniform Rectangular Partition. Proceedings of the 14th IEEE International Conference on Computational Science and Engineering (CSE-2011). 2011. pp 57-61. [EI Compendex]
12. KinTak U, Nian Ji, Dongxu Qi and Zesheng Tang. An adaptive Quantization Technique for JPEG based on Non-uniform Rectangular Partition. Proceedings of the 2011 International Conference on Future Wireless Networks and Information Systems (ICFWI 2011). 2011. pp 179-187. [EI Compendex]
13. Xiong Gangqian, KinTak U, Xiong Changzhen, Qi Dongxu. Reversible Factorization of U Orthogonal Transform and Image Lossless Coding. Journal of Computer Research and Development. 2012, 49(4):pp 856-863. [EI Compendex]
14. KinTak U,Gangqiang Xiong, Zesheng Tang. A Non-uniform Regional Partition Coding of one dimension signal and its application. Applied Mechanics and Materials Vol. 441 (2014) pp 674-677 [EI]
15. Yuan Wei, KinTak U. 16.A Novel Non-uniform BTC and its application. Applied Mechanics and Materials Vol. 590 (2014) pp 789-794 [EI]
16. Lianghan Hu, KinTak U. Removal of Gaussian noise with Non-uniform Total Variation Partition.10th International Conference on Information, Communications and Signal Processing (ICICS2015) [EI]
17. Lianghan Hu, KinTak U.Removal of Salt and Pepper Noise with Non-uniform Weighted Mean Partition. 10th International Conference on Information, Communications and Signal Processing (ICICS2015) [EI]
18. ZhangLe Shen,KinTak U. A novel Image Zero-Watermarking Scheme based on Non-Uniform Rectangular Partition. 14th International Conference on Wavelet Analysis and Pattern Recognition(ICWAPR2017). 2017. pp 78-82 [EI]

19. Junyi Lu, KinTak U. Mobile Robot Navigation Based on Adaptive Neuro-Fuzzy Inference System with Virtual Target Strategy. 14th International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR2017).2017. pp 132-136 [EI]

20. Xiaoyu Liu, KinTak U. A novel Multi-Focus Image-Fusion Scheme based on Non-Uniform Rectangular Partition. 14th International Conference on Wavelet Analysis and Pattern Recognition (ICWAPR2017).2017. pp 53-58 [EI]

Professional Certification and Awards

1. Obtained the Access Prize of Macau ICT Awards 2003 with MUST* Block Encryption Algorithm in 2003.
2. The team formed by Dongxu Qi, Zhanchuan Cai, YanYan Liang, Jian Li and KinTak U obtained the 3rd prize of 2012 "Natural Science Award" from Science and Technology Development Fund, MSAR (FDCT) with the topic of "Theory on Non-continuous Orthogonal Function and its application on the massive data processing".
3. Obtained the prize of 2012 "Post-graduate Science and Technology R&D Award" from FDCT.

Professional Society Membership

1. Member of Macao Association for Promotion of Science and Technology