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Education

1991 Isfahan Univ. of Technology (B.S.-Electronics Engineering)
1994 Sharif Univ. of Technology, (M.S.-Telecommunication Engineering)
2001 Univ. Technology Malaysia, (Ph.D.-Electrical Engineering)

Employment History

1996-Now Assistant Professor, Islamic Azad University of Iran-Majlesi Branch

Academic Visit/ Post Doctorate

4/2007-10/2007 Visiting Scholar, Pohang University of Science and Technology (Postech), S. Korea
2/2004-9/2004 Visiting Scholar, Broadband Networks Lab; Carleton University-Canada
7/2002-7/2003 Post-doctorate, Visual Communication Lab, Gwangju Inst. of Science and Technology, S.Korea

Research Background and Interest

My main research interests are:
• Computer Graphic and Virtual Reality
• Multimedia Signal Processing
- Image/ Video Coding Methods and Standards
- Speech/ Video Streaming over Network
- Digital Watermarking

Memberships

- Member, the Institute of Electrical and Electronics Engineers (IEEE).

Honors/ Awards

- Rank second in Mathematical Olympiad in the state, 1986.
- Rank 34th in the nation-wide entrance exam for Iranian-state owned universities, 1986
- Research Fellowship of University Technology Malaysia, 1998.
- Islamic Development Bank Post-Doctorate Scholarship, 2003.

Publications

1- Mohsen Ashourian, Yo-Sung Ho. "A Robust Method for Data Hiding in Color Images", Lecture Notes in Computer Science (LNCS), Vol. 3768, pp. 258 – 269, 2005 .
2- Mohsen Ashourian, Keyvan Mohebbi, " Using Space-Time Coding for Watermarking of Three-Dimensional Triangle Mesh ", Lecture Notes in Computer Science (LNCS), Vol. 3768, pp. 349 –359, 2005.
3- Mohsen Ashourian, Reza Enteshari. " A Low Cost and Efficient Sign Language Video Transmission System.:, Lecture Notes in Artificial Intelligence (LNAI), vol. 3682, pp. 1090-1098, 2005.
4- Mohsen Ashourian, Yo-Sung Ho. "Blind Image Data Hiding in the Wavelet Domain." Lecture Notes in Computer Science (LNCS), vol. 3333, pp. 659-666, 2003
5- Mohsen Ashourian, Yo-Sung Ho. "Multiple Description Coding for Image Data Hiding in the Spatial Domain." Lecture Notes in Computer Science (LNCS), vol. 2869, pp. 659-666, 2003.
6- Mohsen Ashourian, Yo-Sung Ho. "Multiple Description Coding for Image Data Hiding Jointly in the Spatial and DCT Domains." Lecture Notes in Computer Science (LNCS), vol. 2836, pp.179-190, 2003.
7- Mohsen Ashourian, Z. Mohdyusof, "Optimum dithering for scalar quantization of image subbands." Journal Elektrika, Malaysia, March 2000.
8. J. Zhu, A. Matrawy, I. Lambadaris, Mohsen Ashourian , "Optimization of Resilient Packet Ring Networks Scheduling for MPEG-4 Video Streaming," Int. Conference on communication, (ICC 2005), Korea, May 2005
9.. Mohsen Ashourian, "Embedding Sign Language Interpretation of a Video in the Wavelet Transform Domain," European Signal Processing Conference, Sept. 2004.
10 Mohsen Ashourian, "A fixed rate multiple description three-dimensional subband video coder" Proceeding of IEEE Region Ten Conference, Thailand, Oct. 2004.
11 Mohsen Ashourian, R. Enteshary. "Digital Watermarking of 3-Dimensional Mesh in Spherical Coordinate," Int. Conference on Computer Graphic, Greece, June 2004.
12 Mohsen Ashourian, F. Mesrinejad. "Design of a Fixed-Rate Multiple Description Image Coder," Proceeding of IEEE Region Ten Conference, India Oct. 2003.
13 Mohsen Ashourian, Yo-Sung Ho. "Analysis of the Quantization Watermarking in the Wavelet Transform Domain", Proceeding of IEEE International Symposium on Signal Processing and its Applications. France, July 2003.

14. Mohsen Ashourian. "Optimum Design of Subband Coder for a First Order Autoregressive Process." Proceeding of IEEE Region Ten Conference, China 2002.

Dissertation

- Mohsen Ashourian. "Low Bit-Rate 3-D Subband Video Coding" PhD Thesis, 2001.
- Mohsen Ashourian. "Speech Analysis Using Wavelet Transform", Master Thesis, 1994.

Tutorials Presented

Mohsen Ashourian, I. Lambadaris, "Resilient Packet Ring Protocol", in IEEE Region Ten Conference, Thailand. 2004.

References

• Lambadaris, Ioannis, Associate Professor, Department of System and Computer Engineering, Carleton University, Ottawa; Tel:+1 613 520-2600 ext. 1974 ; Fax:+1 613 520-5727 ; Ioannis.Lambadaris@sce.carleton.ca
• Ho, Yo-Sung , Professor, Visual Communications Laboratory ; Dept. of Information and Communications, Gwangju Institute of Science and Technology (formerly known as Kwangju Inst. Of Science and Technology),1 Oryong-dong,
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MSc Thesis Abstract

Speech Analysis and Compression Using Wavelet Transform

Recently wavelet transform has been emerged as a new and powerful tool or signal analysis, and it successfully used in various signal processing applications. The goal of this thesis was to investigate the potential of wavelets in analysis and compression of speech signal. In the first part of this thesis we used wavelets for accurate estimation of pitch period of speech signal, and we examine the performance of this pitch detector. In the second part, we developed a new speech coder. We used LPC coding for the speech signal and then we encoded the residual signal using a wavelet encoder. We evaluate the vocoder performance at 2400 and 4800 bps.

PhD Thesis Abstract