


Brief CV

	Speaker	Koichi Ito
	Talk Title	Biometrics and Medical Image Processing
	Institution	Graduate School of Information Sciences
	Department	Department of Computer and Mathematical Sciences
	E-mail	ito@aoki.ecei.tohoku.ac.jp
	Webpage	http://www.aoki.ecei.tohoku.ac.jp/~ito/

1. Tentative Abstract

I talk about biometrics and medical image processing, which are parts of our research activities in Computer Structures Laboratory, Graduate School of Information Sciences, Tohoku University, Japan. I first briefly talk about the fundamentals of each research field. Then, I explain our activities of facial attribute estimation in biometrics and age estimation from MR images in medical image processing, where both methods employ some novel techniques of deep learning.

2. Brief Biography

Dr. Koichi Ito received the B.E. degree in electronic engineering, and the M.S. and Ph.D. degree in information sciences from Tohoku University, Sendai, Japan, in 2000, 2002 and 2005, respectively. He is currently an Associate Professor of the Graduate School of Information Sciences at Tohoku University. From 2004 to 2005, he was a Research Fellow of the Japan Society for the Promotion of Science.

3. List of Representative Publications

1. Koichi Ito, Hiroshi Nakajima, Koji Kobayashi, Takafumi Aoki and Tatsuo Higuchi, "A fingerprint matching algorithm using phase-only correlation," IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, Vol. E87-A, No. 3, pp. 682--691, March 2004.
2. Kazuyuki Miyazawa, Koichi Ito, Takafumi Aoki, Koji Kobayashi and Hiroshi Nakajima, "An effective approach for iris recognition using phase-based image matching," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 30, No. 10, pp. 1741--1756, October 2008.
3. Shoichiro Aoyama, Koichi Ito and Takafumi Aoki, "A finger-knuckle-print recognition algorithm using phase-based local block matching," Information Sciences, Vol. 268, pp. 53--64, June 2014.
4. Takafumi Aoki and Koichi Ito, "What is the role of universities in disaster response, recovery, and rehabilitation? Focusing on our disaster victim identification project," IEEE Communications Magazine, Vol. 52, No. 3, pp. 30--37, March 2014.
5. Koichi Ito, Kazumasa Noro, Yukari Yanagisawa, Maya Sakamoto, Shiro Mori, Kiyoto Shiga, Tetsuya Kodama and Takafumi Aoki, "A high-accuracy ultrasound contrast agent detection method for diagnostic ultrasound imaging systems," Ultrasound in Medicine & Biology, Vol. 41, No. 12, pp. 3120--3130, December 2015.
6. Koichi Ito and Takafumi Aoki, "Recent advances in biometric recognition," ITE Transactions on Media Technology and Applications, Vol. 6, No. 1, pp. 64--80, January 2018 (Invited paper).