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## *Koichi SHINODA*

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### ***Personal Information***

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Subject editor of Speech Communication

Associate editor of Computer Speech and Language, Elsevier.

**Citations: 2106; H-index: 22**

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### ***Biography***

Koichi Shinoda received the B.S. and M.S. degrees from the University of Tokyo, Tokyo, Japan in 1987 and 1989, respectively, both in physics, and the D. Eng. Degree in computer science from the Tokyo Institute of Technology, Japan, in 2001. In 1989, he joined NEC Corporation, Japan, where he was involved in research on automatic speech recognition. From 1997 to 1998, he was a Visiting Scholar with Bell Labs, Lucent Technologies, Murray Hill, NJ. From June 2001 to September 2001, he was a Principal Researcher with Multimedia Research Laboratories, NEC Corporation. From October 2001 to March 2002, he was an Associate Professor with the University of Tokyo, Japan. He is currently a Professor with the Tokyo Institute of Technology. His research interests include speech recognition, video information retrieval, statistical pattern recognition, and human interfaces. He received the Awaya Prize from the Acoustic Society of Japan in 1997 and the Excellent Paper Award from the IEICE in 1998. He was Publicity Chair in INTERSPEECH2010, Video Program Co-Chair in ACM Multimedia 2012. Dr. Shinoda is a senior member of IEEE, IEICE. He is a member of ACM, IPSJ, JSAI, and ASJ. He was a subject editor of Speech Communication from 2013 to 2015. He is currently an associate editor of Computer Speech and Language, Elsevier.

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### ***Research Description***

Speech recognition  
Video information retrieval,  
Statistical pattern recognition,  
Human interfaces

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### ***Selected Publications***

- [1] S. Sagayama, K. Shinoda, M. Nakai and H. Shimodaira "Analytic Methods for Acoustic Model Adaptation: A Review," in Proc. Isca ITR-Workshop2001, pp. 67-76, Sophia-Antipolis, 2001.

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- [2] T. Emori and K. Shinoda, "Rapid Vocal Tract Length Normalization using Maximum Likelihood Estimation," in Proc. EuroSpeech2001, pp. 1649-1652, Aalborg, 2001.
  - [3] K. Shinoda and C.-H. Lee, "A structural Bayes approach to speaker adaptation", IEEE Trans. Speech Audio Processing, vol. 9, no. 3, pp. 276-287, 2001.
  - [4] K. Shinoda and T. Watanabe, "MDL-based context-dependent subword modeling for speech recognition," J. Acoust. Soc. Jpn.(E), vol. 21, no. 2, pp.79-86, 2000.
  - [5] K. Shinoda and C.-H. Lee, "Unsupervised adaptation using structural Bayes approach," in Proc. ICASSP-98, Seattle, pp. II 793-796, 1998.
  - [6] K. Shinoda and C.-H. Lee, "Structural MAP speaker adaptation using hierarchical priors," Proc. IEEE Workshop on Speech Recognition and Understanding, Santa Barbara, pp. 381-387, 1997.
  - [7] K. Shinoda and T. Watanabe, "Acoustic modeling based on the MDL criterion for speech recognition," in Proc. EuroSpeech-97, Rhodes, vol. 1, pp. 99-102, 1997.
  - [8] K. Takagi, K. Shinoda, H. Hattori and T. Watanabe, "Unsupervised and incremental speaker adaptation under adverse environmental conditions," in Proc. ICSLP-96, Atlanta, pp. 2079-2082, 1996.
  - [9] K. Shinoda and T. Watanabe, "Speaker adaptation with autonomous model complexity control by MDL principle," in Proc. ICASSP-96, Atlanta, pp.717-720, 1996.
  - [10] K. Shinoda and T. Watanabe, "Speaker adaptation with autonomous control using tree structure," in Proc. EuroSpeech-95, Madrid, pp. 1143-1146, 1995.
  - [11] T. Watanabe, K. Shinoda, K. Takagi, and K. Iso, "High speed speech recognition using tree-structured probability density function," in Proc. ICASSP-95, Detroit, pp. 556-559, 1995.
  - [12] K. Shinoda and T. Watanabe, "Unsupervised speaker adaptation for speech recognition using demi-syllable HMM," in Proc. ICSLP-94, Yokohama, pp. 435-438, 1994.
  - [13] T. Watanabe, K. Shinoda, K. Takagi, and E. Yamada, "Speech recognition using tree-structured probability density function," in Proc. ICSLP-94, Yokohama, pp. 223-226, 1994.
  - [14] K. Shinoda, K. Iso, and T. Watanabe, "Speaker Adaptation for Demi-Syllable-Based Continuous-Density HMM," in Proc. ICASSP-91, Toronto, pp. 857-860, 1991.
  - [15] K. Shinoda, K. Iso, and T. Watanabe, "Speaker adaptation for demi-syllable based speech recognition using continuous HMM," in Proc. of ICSLP-90, Kobe, pp. 261-264, 1990.
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## **Patents**

- [1] US5274737, Reference pattern adapting device trainable by a small number of training patterns
- [2] EU0469577, Reference pattern adapting device trainable by a small number of training patterns
- [3] US5956676, Pattern adapting apparatus using minimum description length criterion in pattern recognition processing and speech recognition system
- [4] US5960396, Standard pattern production system employing information criterion
- [5] US6173076B1, Speech Recognition pattern adaptation system using tree scheme