Tadahiro Taniguchi

Born: June 24 1978
Place of birth: Kyoto, Japan
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Home: 6-18 Kitagosho-cho, Uzumasa Yasui,
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Education

Ph.D. Engineering, Kyoto University, 2006.

Dissertation: "Constructive Approach towards Autonomous Adaptive System Interacting with Environment" (in Japanese).

Committee: T. Sawaragi, T. Monnai and N. Tomita.

M.A. Engineering, Kyoto University, 2003.

B.S. Engineering, Kyoto University, 2001.

Employment

Ritsumeikan University, Department of Human & Computer Intelligence, College of Information Science and Engineering, Associate Professor, April 2010 – present.

Ritsumeikan University, Department of Human & Computer Intelligence, College of Information Science and Engineering, Assistant Professor, April 2008 – March 2010.

National Institute of Information and Communication Technology, Visiting Researcher, June 2008 - - March 2010.

Graduate School of Informatics, Kyoto University, Research Fellow of the Japan Society for the Promotion of Science (PD), April 2007 – March 2008.

Graduate School of Engineering, Kyoto University, Research Fellow of the Japan Society for the Promotion of Science (PD), April 2006 – March 2007.

Graduate School of Engineering, Kyoto University, Research Fellow of the Japan Society for the Promotion of Science (DC2), April 2005 – March 2006.

Fields of Research Interest

Artificial Intelligence, Machine Learning, Intelligent Robotics, Symbol Grounding and Decentralized System.

Recent Publications

Journal Papers

1. Akira Taniguchi, Haruki Yoshizaki, Tetsunarui Inamura and Tadahiro Taniguchi, Research on Simultaneous Estimation of Self-Location and Location Concepts, Transactions of the Institute of Systems, Control and Information Engineers, accepted. (in Japanese)

2. Tatsuya Hirose and Tadahiro Taniguchi, Abstraction Multimodal Low-Dimensional Representation from High-Dimensional Posture Information and Visual Images Journal of Robotics and Mechatronics, Vol.25 (1), 80–88. (2013)

3. Tadahiro Taniguchi, Algorithm for Adaptive Intelligent Agent Trading Electric Power in Decentralized Autonomous Smart Grid Analysis of Dynamics of Bottom-up Price Formation by Intelligent Power Router and Demand Response, Transactions of the Japanese Society for Artificial Intelligence, Vol.28 (1), 77-87. (2013) (in Japanese)

4. Tadahiro Taniguchi, Shiro Yano and Haruka Kobayashi, Finding Load Profile Primitives by using Independent Component Analysis, International Journal of Energy, Information and Communications, Vol.4 (2), 41-54. (2013)

5. Tadahiro Taniguchi, Genki Yamashita, Shogo Nagasaka, Takashi Bando, Kazuhito Takenaka and Kentaro Hitomi, Finding meaningful robust chunks from driving behavior based on double articulation analyzer, Transactions of the Society of Instrument and Control Engineers, Vol.49 (11), 1047-1056. (2013) (in Japanease)

6. Tadahiro Tagniguchi and Keita Hamahata and Naoto Iwahashi, Unsupervised Segmentation of Human Motion Data Using Sticky HDP-HMM and MDL-based Chunking Method for Imitation Learning, Advanced Robotics, Vol.25 (17), 2143–2172. (2011)

7. Tadahiro Taniguchi, Kazuma Tabuchi, and Tetsuo Sawaragi, Adaptive Design of Role Differentiation by Division of Reward Function in Multi-agent Reinforcement Learning, SICE Journal of Control, Measurement, and System Integration (JCMSI), Vol.3 (1), 26-34. (2010)

8. TadahiroTaniguchi, Naoto Iwahashi, Komei Sugiura, and Tetsuo Sawaragi, Constructive Approach to Role-Reversal Imitation Through Unsegmented Interactions, Journal of Robotics and Mechatronics, Vol.20 (4), 567-577. (2008)

9. Tadahiro Taniguchi, Tetsuo Sawaragi, Incremental acquisition of multiple nonlinear forward models based on differentiation process of schema model, Neural Networks, Vol.21 (1), 13-27. (2008)

10. Tadahiro Taniguchi and Tetsuo Sawaragi, Incremental Acquisition of Behaviors and Signs based on Reinforcement Learning Schema Model and STDP, Advanced Robotics, Vol.21 (10), 1177-1199. (2007)

Conference Papers

1. Takashi Bando, Kazuhito Takenaka, Shogo Nagasaka and Tadahiro Taniguchi Road Context Estimation from Driving Behavioral Data FAST-zero'13. (2013)

2. Takashi Bando, Kazuhito Takenaka, Shogo Nagasaka, Tadahiro Taniguchi Unsupervised drive topic finding from driving behavioral data 2013 IEEE Intelligent Vehicles Symposium. (2013)

3. Takashi Bando, Kazuhito Takenaka, Shogo Nagasaka, Tadahiro Taniguchi Drive annotation via multimodal latent topic model IEEE/RSJ International Conference on Intelligent Robots and Systems. (2013)

4. Tomoaki Nakamura, Takaya Araki, Takayuki Nagai, Shogo Nagasaka, Tadahiro Taniguchi, Naoto Iwahashi, Multimodal Concept and Word Learning Using Phoneme Sequences with Errors, IEEE/RSJ International Conference on Intelligent Robots and Systems. (2013)

5. Shiro Yano, Tadahiro Taniguchi, Dynamic game approach for Decentralized optimal controlof Renewable energy network, Fourth International Workshop on Agent Technologies for Energy Systems (ATES2013). (2013)

6. Kenya Sudo, Shogo Nagasaka, Kuniaki Kobayashi, Tadahiro Taniguchi and Toshiaki Takano, Encouraging User Interaction of Social Network Through Tweet Recommendation Using Community Structure, 2013 Conference on Technologies and Applications of Artificial Intelligence, 300-305 . (2013)

7. Tadahiro Taniguchi, Shogo Nagasaka, Kentarou Hitomi, Naiwala P. Chandrasiri, and Takashi Bando, Semiotic Prediction of Driving Behavior using Unsupervised Double Articulation Analyzer, 2012 IEEE Intelligent Vehicles Symposium, 849 - 854 . (2012)

8. Takaya Araki, Tomoaki Nakamura, Takayuki Nagai, Shogo Nagasaka, Tadahiro Taniguchi, Naoto Iwahashi, Online Learning of Concepts and Words Using Multimodal LDA and Hierarchical Pitman-Yor Language Model, IEEE/RSJ International Conference on Intelligent Robots and Systems 2012 (IROS 2012), 1623-1630. (2012)

9. Kazuhito Takenaka, Takashi Bando, Shogo Nagasaka, Tadahiro Taniguchi, Kentarou Hitomi, Contextual Scene Segmentation of Driving Behavior based on Double Articulation Analyzer, IEEE/RSJ International Conference on Intelligent Robots and Systems 2012 (IROS 2012), 4847-4852. (2012)

10. Kazuhito Takenaka, Takashi Bando, Shogo Nagasaka, Tadahiro Taniguchi Drive Video Summarization based on Double Articulation Structure of Driving Behavior, ACM Multimedia 2012. (2012)

11. Tadahiro Taniguchi and Shiro Yano, Decentralized Trading and Demand Side Response in Inter-Intelligent Renewable Energy Network, The 6th International Conference on Soft Computing and Intelligent Systems / The 13th International Symposium on Advanced Intelligent Systems. (2012)

12. Tadahiro Taniguchi, Shiro Yano, Haruka Kobayashi, Finding Load Profile Primitives by using Independent Component Analysis, The 1st International Workshop on Smart Technologies for Energy, Information and Communication. (2012)

13. Shiro Yano, Tatsunori Kishi, Tadahiro Taniguchi, Normality test on the annual electricity consumption and PV generation in Higashi-Ohmi City, The 1st International Workshop on Smart Technologies for Energy, Information and Communication. (2012)

14. Shogo Nagasaka, Tadahiro Taniguchi, Genki Yamashita, Kentarou Hitomi, and Takashi Bando, Finding meaningful robust chunks from driving behavior based on double articulation analyzer, IEEE/SICE Intl Symposium on System Integration 2012 (SII 2012). (2012)

15. Hiroyuki Koga and Tadahiro Taniguchi, Developing a User Recommendation Engine on Twitter Using Estimated Latent Topics, 14th International Conference on Human-Computer Interaction (Human-Computer Interaction, Part I, HCII 2011, LNCS 6761), 461-470. (2011)

16. Akira Shirai and Tadahiro Taniguchi, A Proposal of an Interactive Music Composition System Using Gibbs Sampler, 14th International Conference on Human-Computer Interaction (Human-Computer Interaction, Part I, HCII 2011, LNCS 6761), 490-497. (2011)

17. Tadahiro Taniguchi, Shogo Nagasaka, Double Articulation Analyzer for Unsegmented Human Motion using Pitman-Yor Language model and Infinite Hidden Markov Model, 2011 IEEE/SICE International Symposium on System Integration. (2011)

Awards

1. Best Poster Paper Award 1st Prize, IEEE Intelligent Vehicle 2013. (2013)

2. International Award Finalist, SICE Annual Conference 2007. (2007)

3. SUNAHARA Award, The Institute of Systems, Control and Information Engineers. (2007)

4. Promoting Research Award, The Institute of Systems, Control and Information Engineers. (2007)

5. Best Paper Award, The Institute of Systems, Control and Information Engineers. (2007)

6. Promoting Research Award, The Society of Instrument and Control Engineers. (2005)

Grants

1. JSPS KAKENHI Grant Numbers 80512251, Grant-in-Aid for Young Scientists (B). 2012–2015

2. JSPS KAKENHI Grant Numbers 20800060, Grant-in-Aid for Young Scientists(Start-up). 2008–2010

3. Grant-in-Aid for JSPS Fellows, 2005–2008