Jun Ueda

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Professional interests:
Manipulator control; Hand control; Biomechanics; Human modeling; Biologically-inspired actuator

Employment:
September 2006 –Present **Instructor**
Department of Mechanical Engineering, Massachusetts Institute of Technology, USA
March 2005 – Present **Visiting Scholar**
d'Arbeloff Laboratory for Information Systems and Technology,
Department of Mechanical Engineering, Massachusetts Institute of Technology, USA
April 2002 – Present **Assistant Professor**
Robotics Laboratory, Graduate School of Information Science, Nara Institute of Science and Technology, Japan
April 1996 - March 2000 **Senior Research Engineer**
Advanced Technology R&D Center, Mitsubishi Electric Corporation, Hyogo, Japan

Awards and scholarships:
- Postdoctoral fellowships for research abroad, the Japan Society for the Promotion of Science, Scholarship from Feb. 2006 to Feb. 2008 at MIT
- Overseas advanced educational research practice support program, MEXT Japan, Scholarship from March 2005 to Jan. 2006 at MIT
- Special award of 2004 Original Paper Awards, FANUC FA and Robot Foundation, Japan, 2005
- Research incentive award, Human Interface Society, Japan, 2004

Selected Publications:
1. **Jun Ueda**, Lael Odhner, and H. Harry Asada, “Broadcast Feedback of Stochastic Cellular Actuators Inspired by Biological Muscle Control,” The International Journal of Robotics Research, *submitted*.
2. **Jun Ueda**, Masayuki Matsugashita, Reishi Oya, Tsukasa Ogasawara, "Control of Muscle Force during Exercise using a Musculoskeletal-Exoskeletal Integrated Human Model", *10th International Symposium on Experimental Robotics (ISER)*, Rio de Janeiro, 2006.
3. **Jun Ueda**, Lael Odhner, Sang-Gook Kim, Harry Asada, "Distributed Stochastic Control of MEMS-PZT Cellular Actuators with Broadcast Feedback," *The first IEEE / RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics* (*BioRob 2006*), Pisa, Tuscany, Italy, February 20-22, 2006.
4. **Jun Ueda**, Atsutoshi Ikeda, Tsukasa Ogasawara, "Grip-force Control of an Elastic Object by Vision-based Slip Margin Feedback during the Incipient Slip", *IEEE Transactions on Robotics*, Vol.21, Issue 6, pp.1139- 1147, December, 2005.
5. Hiroshi Takemura, Masato Deguchi, **Jun Ueda**, Yoshio Matsumoto, Tsukasa Ogasawara, “Slip-adaptive Walk of Quadruped Robot”, *Journal of Robotics and Autonomous Systems*, Vol. 53, Issue 2 , Pages 124-141, November 2005.
6. **Jun Ueda**, Yutaka Ishida, Masahiro Kondo, Tsukasa Ogasawara, "Development of the NAIST-Hand with Vision-based Tactile Fingertip Sensor", *Proceedings of the 2005 IEEE International Conference on Robotics and Automation (ICRA 2005)*,pp.2343-2348, Barcelona, Spain, April, 2005.
7. Yuichi Kurita, Atsutoshi Ikeda, **Jun Ueda**, Tsukasa Ogasawara, "A Fingerprint Pointing Device Utilizing the Deformation of the Fingertip during the Incipient Slip", *IEEE Transactions on Robotics*, Vol.21, pp.801- 811, 2005
8. **Jun Ueda**, Kenji Shirae, Yoshio Matsumoto, Shingo Oda, Tsukasa Ogasawara, “Momentum Compensation for the Fast Dynamic Walk of Humanoids based on the Pelvic Rotation of Contact Sport Athletes”, *Proceedings of 2004 IEEE/RSJ International Conference on Humanoid Robots* (Humanoids 2004), November 10 – 12, Santa Monica, CA, 2004.
9. **Jun Ueda**, Tsuneo Yoshikawa, "Robust Arm Configuration of Manipulator Mounted on Flexible Base", *IEEE Transactions on Robotics*, Vol. 20, No. 4, pp.781- 789, Aug., 2004.
10. **Jun Ueda**, Tsuneo Yoshikawa, "Force Reflecting Bilateral Teleoperation with Time Delay By Signal Filtering", *IEEE Transactions on Robotics and Automation*, Vol. 20, No. 3, pp.613- 619, June, 2004.
11. **Jun Ueda**, Tsuneo Yoshikawa, "Mode Shape Compensator for Improving Robustness of Manipulator Mounted on Flexible Base", *IEEE Transactions on Robotics and Automation*, Vol. 20, No. 2, pp. 256- 268, April, 2004.