Prof. Rodrigo da Silva Guerra, Ph. D.

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Short bio

I am interested in the field of artificial intelligence and cognitive robotics, especially in what regards cooperation and learning between humans and robots. I work on developing and applying cognitive robotics related subjects, such as machine learning, neural networks, and computer vision, into practical problems. More recently I have focused on the subject of compliant robotic manipulation.

Work

2017 – Now	Chair of IEEE-RAS South Brazil
2016 – Now	Co-founder of Qiron Robotics
2012 – Now	Professor at Universidade Federal de Santa Maria, Brazil
2008 – 2011	Researcher at Japan Science and Technology (JST) working under guidance of Prof. Minoru Asada

Education

2011 – 2012	Post doctorate at Universidade Federal do Rio Grande do Sul
2005 – 2008	Doctorate at Osaka Univ. under supervision of Prof. Minoru Asada with MEXT scholarship, Japan. Title of the thesis: Using Insect/Robot Mixed Society as a Tool for Animal Behavior Studies
2002 – 2004	Masters in Electrical Eng. at Univ. Federal do Rio Grande do Sul, with CAPES scholarship, Brazil. Worked on a self-calibration algorithm for a stereo vision system.
1997 – 2001	Automation and Control Eng. undergrad course at Pontifícia Universidade Católica do Rio Grande do Sul, Brazil.
Languages	Portuguese (native), English, Japanese (spoken)

Journal papers

Tatsch, C.; Ahmadi, A.; Bottega, F.; Tani, J.; **Guerra, R. S.**; Dimitri: an Open-Source Humanoid Robot with Compliant Joint. Journal of Intelligent & Robotic Systems, 2017.

Guerra, R. S.; Aonuma, H.; Hosoda, K.; Asada, M.; Behavior Change of Crickets in a Robot-Mixed Society. Journal of Robotics and Mechatronics, v. 22, p. 526-531, 2010.

Guerra, R. S.; Aonuma, H.; Hosoda, K.; Asada, M.; Semi-automatic behavior analysis using robot/insect Mixed society and video tracking. Journal of Neuroscience Methods, v. 191, p. 138-144, 2010.

Book chapters

Gerndt, R.; Bohnen, M.; **Guerra, R. S.**; Asada, M.; The RoboCup Mixed-Reality League – A Case Study. In: Dubois, E.; Gray, P.; Nigay, L.; (Org). The Engineering of Mixed Reality Systems. P.399-419, 2010.

Selected recent conference papers

Ahmadi, A.; Tatsch, C.; Montenegro, F.J.C.; Tani, J.; **Guerra, R. S.;** Dimitri: A Low-Cost Compliant Humanoid Torso Designed for Cognitive Robotics Research. In: XIII Latin American Robotics Symposium 2016, Recife, 2016.

Martins, L. T.; **Guerra, R. S.**; Gerndt, R.; Maciel, E.; Tatsch, C.; A Polyurethane-Based Compliant Element for Upgrading Conventional Servos into Series Elastic Actuators. In: 11th IFAC Symposium on Robot Control, Salvador, 2015.

Martins, L. T.; Pretto, R. M., Gerndt, R.; **Guerra, R. S.** Design of a Modular Series Elastic Upgrade to a Robotics Actuator. In: RoboCup 2014: Robot Soccer World Cup XVIII, 2014.

Full list and other info: http://rodrigoguerra.com

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