

Senka Krivić



I joined the Intelligent and Interactive Systems (IIS) lab in February 2014 as a PhD student. There I am working on the [SQUIRREL](#) project and as a teaching assistant of the proseminar [Introduction to Intelligent and Autonomous Systems](#) and [Introduction to Programming](#). My work is under the supervision of Professor Justus Piater.

Previously, I received Bachelor and Master degrees in Automatic Control and Electronics at the Faculty of Electrical Engineering, University of Sarajevo. During my studies, I focused on mobile robotics and intelligent control. My bachelor thesis was on “Mobile Robot Map Building” and my master thesis was on “Biometric Authentication Based on Artificial Neural Networks”, both under supervision of Professor Samim Konjicija.

Research Interests

Robotics, Machine Learning, Robot Learning, Movement Primitives, Computational Intelligence, Optimization

Contact Information

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Teaching

Universität Innsbruck

- [Introduction to Programming, fall 2017/2018](#)
- [Introduction to Intelligent and Autonomus Systems \(UIBK link\)](#), spring 2017/2018,
- [Introduction to Intelligent and Autonomus Systems \(UIBK link\)](#), spring 2015/2016,
- [Introduction to Intelligent and Autonomus Systems \(UIBK link\)](#), spring 2014/2015,
- [Introduction to Intelligent and Autonomus Systems \(UIBK link\)](#), spring 2013/2014,

Thesis (co)supervision

Thesis	Student	Status
Navigation with Simultaneous Localization and Mapping for Indoor Omni-Directional Mobile Robot	Matej Stanic	completed
Floating-Base Inverse Kinematics for Mobile Manipulation	Konstantin Beiser	completed
Human-Robot Interaction via Voice-Controllable User Interface	Philipp Häusle	completed

University of Sarajevo

- Intelligent Control, fall 2013/2014

Publications

Year	Conferences	Paper	Files
2018	IEEE/RSJ International Conference on Intelligent Robots and Systems	Online Adaptation of Robot Pushing Control to Object Properties , Senka Krivic and Justus Piater	
2017	International Joint Conference on Artificial Intelligence (IJCAI)	Decreasing Uncertainty in Planning with State Prediction , Senka Krivic, Michael Cashmore, Daniele Magazzeni, Bram Ridder, Justus Piater	code
2017	18th Towards Autonomous Robotic Systems (TAROS) Conference	Autonomous Object Handover using Wrist Tactile Information , Jelizaveta Konstantinova, Senka Krivic, Agostino Stilli, Justus Piater, Kaspar Althoefer	
2016	CASE 2016	A Robust Pushing Skill For Object Delivery Between Obstacles , Senka Krivić, Emre Ugur, Justus Piater	
2015	ESANN	Learning missing edges via kernels in partially-known graphs , Senka Krivić, Sandor Szedmak, Hanchen Xiong, Justus Piater	Dataset MMMVR
2013	9th ASCC	Optimization based algorithm for correction of systematic odometry errors of mobile robot , Krivic, S.; Mrzic, A. ; Velagic, J. ; Osmic, N.	
2012	13th MECATRONICS-REM	Haptic paddle and fuzzy based virtual environment model control system as a didactic tool , Krivic, S., Kaknjo, A. ; Hujdur, M. ; Zubovic, N. ; Sokic, E.	
2012	35th MIPRO	Design and implementation of fuzzy controller on embedded computer for water level control , Krivic, S. ; Hujdur, M. ; Mrzic, A. ; Konjicija, S.	
2011	34th MIPRO	Building mobile robot and creating applications for 2D map building and trajectory control , Krivic, S.; Mrzic, A. ; Osmic, N.	
Year	Workshops		

Year	Conferences	Paper	Files
2017	Knowledge-based techniques for problem solving and reasoning (KnowProS 2017) at AAAI2017	Initial State Prediction , Senka Krivic, Michael Cashmore, Bram Ridder, Justus Piater, <i>paper</i>	
2016	UK Planning and Scheduling Special Interest Group	Initial State Prediction in Planning , Senka Krivic, Michael Cashmore, Bram Ridder, Justus Piater, <i>extended abstract</i>	
2015	IROS 2015 workshop on Learning object affordances	Acting on Push Affordances: Adapting Dynamic Movement Primitives Based on Object Behaviour , Senka Krivic, Emre Ugur, Justus Piater, <i>extended abstract</i>	Poster
2014	ARW	Exploiting the Environment for Object Manipulation , Simon Hangl, Senka Krivic, Philipp Zech, Emre Ugur, Justus Piater, <i>Best Student Paper Award</i>	

More Information

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LinkedIn
GitHub

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