Publications:

A set of robotic building elements
Publication: Research › Patent – Annual report year: 2017

A Combination of Machine Learning and Cerebellar-like Neural Networks for the Motor Control and Motor Learning of the Fable Modular Robot
Publication: Research - peer-review › Journal article – Annual report year: 2017

A Combination of Machine Learning and Cerebellar Models for the Motor Control and Learning of a Modular Robot
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Self-reconfiguration of Modular Underwater Robots using an Energy Heuristic
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Collective Modular Underwater Robotic System for Long-Term Autonomous Operation
Publication: Research - peer-review › Paper – Annual report year: 2015

Fable II: Design of a Modular Robot for Creative Learning
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Short-Range Sensor for Underwater Robot Navigation using Line-lasers and Vision
Publication: Research - peer-review › Conference article – Annual report year: 2015

Fable: A Modular Robot for Students, Makers and Researchers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Playte, a tangible interface for engaging human-robot interaction
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A distributed and morphology-independent strategy for adaptive locomotion in self-reconfigurable modular robots
Publication: Research - peer-review › Journal article – Annual report year: 2012
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<td>Fable: Design of a Modular Robotic Playware Platform</td>
<td>Research - peer-review › Article in proceedings – Annual report year: 2013</td>
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<td>Fable: Socially Interactive Modular Robot</td>
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<td>Fault-tolerant gait learning and morphology optimization of a polymorphic walking robot</td>
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<td>Playful Interaction with Voice Sensing Modular Robots</td>
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<td>Sensor-coupled fractal gene regulatory networks for locomotion control of a modular snake robot</td>
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<td>Adaptive Strategy for Online Gait Learning Evaluated on the Polymorphic Robotic LocoKit</td>
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<td>The Assemble and Animate Control Framework for Modular Reconfigurable Robots</td>
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<td>Towards Python-based Domain-specific Languages for Self-reconfigurable Modular Robotics Research</td>
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<td>A Distributed Strategy for Gait Adaptation in Modular Robots</td>
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<td>Anatomy-based organization of morphology and control in self-reconfigurable modular robots</td>
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<td>Distributed online learning of central pattern generators in modular robots</td>
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<td>Fractal Gene Regulatory Networks for Robust Locomotion Control of Modular Robots</td>
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<td>Self-Reconfigurable Robots: An Introduction</td>
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<td>Elements of a development ecosystem for modular robot applications</td>
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<td>Exploit Morphology to Simplify Docking of Self-reconfigurable Robots</td>
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<td>Morphology Independent Learning in Modular Robots</td>
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<td>Reusable Electronics and Adaptable Communication as Implemented in the Odin Modular Robot</td>
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A functional language for programming self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Anatomy-Based Organization of Modular Robots
Publication: Research - peer-review › Conference article – Annual report year: 2008

A unified simulator for Self-Reconfigurable Robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Flexible, fpga-based electronics for modular robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Spatial Computing with Labels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Technological visions for interactive and adaptive furniture
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Towards interactive programming of modular robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

A domain-specific language for programming self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

A new meta-module for controlling large sheets of ATRON modules
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

A self-reconfigurable communication network for modular robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

ATRON robots: Versatility from self-reconfigurable modules
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Experiments on fault-tolerant self-reconfiguration and emergent self-repair
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Hierarchical robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Locomotion of Miniature Catom Chains: Scale Effects on Gait and Velocity
Publication: Research - peer-review › Conference article – Annual report year: 2007

Neighbor detection and crosstalk elimination in self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Roles and self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Evolution of Shape-Changing and Self-Repairing Control for the ATRON Self-Reconfigurable Robot
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006
Selecting a Meta-Module to Shape-Change the ATRON Self-Reconfigurable Robot
Publication: Research - peer-review › Conference article – Annual report year: 2006

Sensor networks and self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Towards artificial ATRON animals: Scalable anatomy for self-reconfigurable robots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

HYDRA: From cellular biology to shape-changing artefacts
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Metamodule control for the ATRON self-reconfigurable robotic system
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Projects:

Reconfigurable Modular Robotic System for Aquatic Environment
Project

Fault-tolerance and reconfiguration for collaborating heterogeneous underwater robots
Project: PhD

Modular Robotics for Underwater Environments
Project: PhD

Interactive Modular Playware and Play Dynamics
Project: PhD

Modular Robotic Playware
Project: PhD

Playware for Welfare Technology
Project: PhD

Sensorbaseret realtidsstyring af robotter
Project: PhD

Playful Human-Robot Interaction based on Adaptive Modular Playware
Project: PhD