

Mehmet Efe TIRYAKI

Curriculum Vitae

Research Interests : Robotics, Optimization-based Control,
State Estimation, Motion Planning,
Learning-based Control



Personal Data

Address: Scharrstraße 1, 70563 Stuttgart.
Phone: +49 174 1780134
Email: m.efetiryaki@gmail.com
Place and date of birth: Istanbul, Turkey | 20 April 1993
Media: [Google Scholar](#), [Github](#)

Education

- Sep 2016 – Nov 2018 **MSc, Robotics, Systems and Control**
Swiss Federal Institute of Technology in Zurich (ETHZ), Switzerland
Thesis : Skating with a Force Controlled Quadrupedal Robot
- Sep 2011 – June 2016 **BSc, Physics**
Double Major , Middle East Technical University (METU), Turkey
Thesis : Simulation of short pulse laser beams in nonlinear medium
- Sep 2011 – June 2015 **BSc, Mechanical Engineering**
Middle East Technical University (METU), Turkey
Thesis : Design of a Frequency Adjustable Tuned Vibration Absorber
- Sep 2015 – Feb 2016 **Exchange student, Physics**
Technical University of Darmstadt (TUD), Germany

Professional Experience

- Jan 2019 – Current Researcher
Physical Intelligence Department
Max Planck Institute for Intelligent System, Germany
- May 2018 – Oct 2018 Research Internship
Control Robotic Intelligence Group
Nanyang Technological University (NTU), Singapore
- Aug 2014 – Aug 2014 Internship
EKINOKS | Defense Industry Inc., Ankara, Turkey

Publications

- 2020 **Tiryaki ME**, Erin O, M. Sitti. A realistic simulation environment for MRI-based robust control of untethered magnetic robots with intra-operational imaging. *Robotics and Automation Letters IEEE*. under review.
- 2019 Erin O, Boyvat M, **Tiryaki M E**, Phelan M, Sitti M. Magnetic resonance imaging system-driven medical robotics. *Advanced Intelligent Systems*.
- 2019 Erin O, Antonelli D, **Tiryaki ME**, Sitti M. Towards 5-dof control of an untethered magnetic millirobot via MRI gradient coils. *International Conference on Robotics and Automation IEEE*. in-press.
- 2019 **Tiryaki ME**, Zhang X, Pham QC. Printing-while-moving: a new paradigm for large-scale robotic 3D Printing. *International Conference on Intelligent Robots and Systems (IROS)*.
- 2019 Kocer BB, **Tiryaki ME**, Pratama M, Tjahjowidodo T, Seet GGL. Aerial robot control in close proximity to ceiling: A force estimation-based nonlinear mpc. *International Conference on Intelligent Robots and Systems (IROS)*.
- 2018 Bjelonic M, Bellicoso CD, **Tiryaki ME**, Hutter M. Skating with a force controlled quadrupedal robot. *International Conference on Intelligent Robots and Systems (IROS)*.

Teaching Experience

Teaching Assistantships:

Sep 2015 – June 2015 Mechanical Engineering Dept., Middle East Technical University (METU)

Tutorials :

Sep 2018 – Oct 2018 ROS Workshop , NTU, Singapore

Computer Skills

Programming Languages: C++, Python, MATLAB, Java

Operating systems: Linux (Ubuntu/Centos), OSX, Windows

Robotic Software: ROS, Gazebo, Raising, Torch, Openrave, Simulink, Optitrack

CAD Software: Catia, SolidWorks, NX 8, KeyCreator

Markup Languages: HTML, LaTeX

Honors & Awards

2013 – 2016 National Undergraduate Scholarship Program

Non-refunded scholarship for double major students in areas of fundamental science with a high ranking in the university entrance exam

Language Skills

Turkish Native

English Fluent

German B1 level

References

Available upon request