

Murat Ambarkutuk

School Address

Mechanical Engineering Department
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Permanent Address

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Blacksburg, VA 24060
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Research Interests

Signal Processing, Machine Vision, Computer Vision, Robotics.

Education

Master of Science, *Mechanical Engineering*

Virginia Polytechnic Institute and State University, Blacksburg, VA (2015 – ongoing)

Master of Science, *Mechatronics Engineering*

Kocaeli University, Kocaeli, TURKEY GPA 3.61 (2013 – on hiatus)

Bachelor of Science, *Mechatronics Engineering*

Kocaeli University, Kocaeli, TURKEY GPA 2.96 (2008 – 2013)

Thesis: Box Dimensioning System with Kinect Sensor

Advisor: Professor Hasan Ocak

Professional Experience

- *Embedded Software Engineer* 07/15/2013 – 11/30/2013
Robotik Maden R&D Automation LLC, Kocaeli, Turkey
<http://www.robomaden.com>
- *Intern Student Researcher*
Machine Vision Laboratory, Kocaeli University, Kocaeli, Turkey
<http://mekatronik.kocaeli.edu.tr>
- *Intern*
Robotik Maden R&D Automation LLC, Kocaeli, Turkey
<http://www.robomaden.com>
- *Intern*
Emek Boru Spirally Welded Steel Pipe Manufacturing, Ankara, Turkey
<http://www.emekboru.com.tr>

Computing Skills

Engineering Tools

ROS, Matlab, Simulink, Image Processing Toolbox, Matlab Fuzzy Logic Toolbox, Proteus, Solidworks

Development Tools

Python, C++, C, C#, Visual Basic, OpenCV, Matlab, HTML, PHP, MySQL, Javascript, Linux Environment, Embedded Programming, \LaTeX , Version Control

Publications

- [1] H. E. Guner and **M. Ambarkutuk**, "Building wireless mesh sensor networks using xbee and arduino," in Computer Science and Engineering 2013, (Lviv, Ukraine), Lviv Polytechnic National University, 2013.
- [2] H. E. Guner, **M. Ambarkutuk**, L. Bilginer, and C. Oysu, "Magnetic braking and speed stabilization," in Mechanika, 2013 Conference Issue, (Kaunas, Lithuania), pp. 83–86, Proceedings of 18th International Conference, 2013.
- [3] H. E. Guner, O. Tekelioglu, **M. Ambarkutuk**, L. Bilginer, A. Askin, and S. Erkan, "Distance mechatronic laboratory for smes universities and vocational high schools in turkey," in Mechatronika 2014, (Brno, CzechRepublic), The 16th International Conference on Mechatronics, 2014.
- [4] H. E. Guner, O. Tekelioglu, **M. Ambarkutuk**, L. Bilginer, A. Askin, and S. Erkan, "Meslek yuksek okullari ve universiteler icin internet tabanlı mekatronik laboratuvarı uygulaması," in ISITES 2015, (Valencia, Spain), 3rd International Symposium On Innovative Technologies In Engineering And Science.

Honors, Achievement, Awards and Scholarships

- Full Academic Scholarship from Ministry of National Education, Turkey(2014)
- Honor Student(5th., 6th., 7th. and 8th. Semester of B.Sc.)
- 3rd Place, Motion and Control Days, Competition of Mechanical Engineering Chamber, Turkey(2011)

Related Coursework

- Intensive English Program, 10/2014 – 6/2015 (University of Delaware, US)
- English as a Foreign Language, 2/2014 – 8/2014 (Ankara University, Turkey)
- German Preparatory Course (2008, 2 semesters, Kocaeli University, Turkey)

Projects

- Dimensioning Box with Kinect Sensor based on Image Processing (2013)
- Mine Automation and Remote Tracking via Wireless Sensor Networks (2013), <http://smartsens.robomaden.com>
- Mecfuture (2013), <http://www.mecfuture.com> , <http://youtu.be/npgaTLuG6xI>
- Lane Departure Detection System (2013)
- Wearless Magnetic Breaking System (2012)
- The Design of an Arduino & Android controlled Ball & Plate Game (2011)
- The Crawling Mechanism based on Theo Jansen's Linkage Model (2010)

Languages

Turkish (*Native*), English (*Proficient*), German (*Novice*)

Examinations Taken

- TOEFL iBT (*Reading: 26, Listening: 25, Speaking: 20, Writing: 27*) – 2015
- GRE Revised (*Verbal Reasoning: 137, Quantitative Reasoning: 162, Analytical Writing: 3.0*) – 2014

Interests

Analog Photography, Running, Collaborating in Open Source Communities and Hackerspaces