

## Murat Ambarkutuk

### School Address

Mechanical Engineering Department  
Virginia Polytechnic Institute and State University  
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### Permanent Address

840 Plantation Road #100  
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(302) 772-8419

### Research Interests

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Signal Processing, Machine Vision, Computer Vision, Robotics.

### Education

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**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

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- *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

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### 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, L<sup>A</sup>T<sub>E</sub>X, Version Control

## Publications

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- [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

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- 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

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- 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

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- 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

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

## Examinations Taken

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- 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

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