

İSMAIL ENES YİĞİT



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About to finish my PhD and looking to work with a multinational company to tackle technical problems involving software together with the corresponding electromechanical systems. Specially interested in computational geometry, Manufacturing, Robotics, CAD and CAM. Eager to gain new skills, follow the academia and use the newly gained knowledge in the industrial applications.

Education

- 2013 to date:** Ph.D. Koç University Mechanical Engineering (3.88/4.0)
2012 - 2013: B.Sc. Rutgers University Applied Sciences and Engineering (3.43/4)
2009 - 2012: B.Sc. Bahçeşehir University Mechatronics Engineering (3.17/4)
2005 - 2009: Bostancı Doğa High School (84.02/100)

Publications

- ◆ Yigit, I. Enes, Mohammed A. Isa and Ismail Lazoglu. "[Additive Manufacturing with modular support structures.](#)" Solid Freeform Fabrication 2018: Proceedings of the 29th Annual International Solid Freeform Fabrication Symposium – An Additive Manufacturing Conference
- ◆ Mohammed A. Isa, Yigit, I. Enes, and Ismail Lazoglu. "[Analysis of Build Direction in Deposition-Based Additive Manufacturing of Overhang Structures.](#)" Solid Freeform Fabrication 2018: Proceedings of the 29th Annual International Solid Freeform Fabrication Symposium – An Additive Manufacturing Conference
- ◆ Yigit, I. Enes, and Ismail Lazoglu. "[Analysis of tool orientation for 5-axis ball-end milling of flexible parts.](#)" CIRP Annals-Manufacturing Technology 64.1 (2015): 97-100.
- ◆ Yigit, I. E., and Ismail Lazoglu. "[A solid modeler based engagement model for 5-axis ball end milling.](#)" Procedia CIRP 31 (2015): 179-184.
- ◆ S. E. Layegh K., I. E. Yigit, and I. Lazoglu, "[The effect of tool orientation on five axis ball end milling of ti6al4v.](#)" in The 16th International Conference on Machine Design and Production (UMTIK), 2014.
- ◆ A. Mamedov, I. E. Yigit, and I. Lazoglu, "[Force model for micro milling of free form surfaces.](#)" in The 16th International Conference on Machine Design and Production (UMTIK), 2014.
- ◆ Bank, H.S., Yigit, I.E., Bicer, M., Mazzeo, A. "[Paper-based Touch Pads with a Reduced Number of Multiplexed Wires](#)" ASME IMECE 2013 Conference IMECE 2013-64944

Experience

Graduate Research Assistant

2013 to date

Worked on several different topics at Koç University Manufacturing and Automation Research Center

- Currently conducting research on robotic additive manufacturing. Writing slicing algorithms in VS C++ environment and testing the results on Motoman HP20 Industrial robotic arm.
- Conducted research for Ford Motor company on Predictive Cruise Control systems. Modeled & simulated a truck to find throttle levels which optimize fuel consumption without impacting travel times.
- Conducted research on machining. Modelled the engagement surface between the tool and the workpiece. Validated results on a 5-axis Mori Seiki milling machine.

Graduate Teaching Assistant

2013 to date

Conducted teaching assistantship for well-known professors at Koç University

- Mechatronics [Mech542](#)
- Introduction to Mechanical Engineering Design [Mech203](#)
- Dynamics [Mech206](#)
- Finite Mathematics [Math101](#)

Internship

Summer 2012

Practiced in the research and development department of [Esit](#) as intern in 2012. Had experience on product development, user interface development, embedded programming, control devices, and automatic weighing system.

Internship**Summer 2011**

Was an intern at [Sys-Robot Technologies](#) in 2011 Acquired experience on Fanuc Robot Controllers specialized in different welding operations and automation fixtures. Also, used Solid Works to assist various part designs and used CAM2Q software with the Faro-Arm to measure and calibrate the fixtures.

Internship**Summer 2011**

Worked part time at the workshop of [Mertled](#) Co. in 2011 and gained experience in fundamental electronics, design-fabrication, soldering operations, and embedded C programming.

Internship**Summer 2010**

Completed internship during summer in 2010 at the research and development department of [ESTA](#) GROUP and got experience on energy projects specifically on LPG and gas stations, automation of LPG stations, PLC's, and control panels.

Projects

- ◆ Robotic Additive Manufacturing
- ◆ [Tangible orb interface for viewing of CAD \(Computer aided design\) models](#)
- ◆ Design and development of Stewart Platform
- ◆ Design and development of Desktop Milling Machine

Skills

- ◆ **CAD/CAM software:** SolidWorks, NX Siemens PLM Software, AutoCAD
- ◆ **Engineering Simulation & Analysis:** Matlab, Simulink, ANSYS Workbench
- ◆ **Programming:** C#, C++, C, Python
- ◆ **Other:** Fluent in Windows, Linux and MS-Office
- ◆ **Automation:** Motoman Robots, Mitsubishi Robots Fanuc Robots
- ◆ Read and analyze technical journals
- ◆ Basic machine shop experience including milling and lathe machines
- ◆ **Language: Turkish:** Native, **English:** Fluent, **Spanish:** Elementary, **German:** Very interested in learning