

Armin BIJANZAD

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Profile pages: <https://scholar.google.com.tr/citations?user=Y-yXGIYAAAAJ&hl=en>
https://www.researchgate.net/profile/Armin_Bijanзад

EDUCATION

2013/8 - 2017/10 PhD, Mechanical Engineering, Koç University, Istanbul, Turkey

- **Thesis: Development of a novel linear compressor and thermo-mechanical analysis**

2010/9 - 2013/8 M.Sc., Mechanical Engineering, Istanbul Technical University, Istanbul, Turkey

- **Thesis: Experimental study of minimum quantity lubrication effect on compacted graphite iron machining**

2005/9 - 2010/2 B. Sc., Mechanical Engineering, Manufacturing and production, University of Tabriz, Tabriz

- **Thesis: Mechanical alloying**

INTRESTS&EXPERIENCE FIELDS

- Design and Analysis of Linear compressors
- Resonant based oscillatory systems
- Finite Element Simulations and Analytical Modeling
- Nonlinear Dynamics and Modal Analysis
- Modeling and Simulation of Electromechanical Systems
- Structural design and analysis
- Mechanics and Dynamics of Machining
- Advanced manufacturing processes

PUBLICATIONS

- A. Bijanzad, A. Hassan, I. Lazoglu, "Analysis of Solenoid based Linear Compressor for Household Refrigerator", *International Journal of Refrigeration*, , Volume 74, February 2017, Pages 114-126.

- A. Hassan, A. Bijanzad, I. Lazoglu, "Dynamic Analysis of a Novel Moving Magnet Linear Actuator", *Transactions on Industrial Electronics*, Volume 64, Issue: 5, 2017, pages 3758-3766.
- Ali Taner Kuzu, Armin Bijanzad & Mustafa Bakkal, "Experimental Investigations of Machinability in the Turning of Compacted Graphite Iron using Minimum Quantity Lubrication", *Machining Science and Technology*, Volume 19, Issue: 4, 2015, pages 559-576.
- A. Hassan, A. Bijanzad, I. Lazoglu, "Electromechanical Modeling of a Novel Moving Magnet Linear Oscillating Actuator", *Journal of Mechanical Science and Technology*, Springer. Vol 32 (9), pp. 4423-4431, 2018.
- A Bijanzad, AT Kuzu, M Bakkal, "Influence of MQL on tool wear in CGI turning", *7th International Conference and Exhibition on Design and Production of Machines and Dies/Molds, Antalya, Turkey, June 2013.*

SKILLS

- MATLAB, Fortran
- SolidWorks, NX Siemens, CATIA, AutoCAD, Esprit (CAM)
- ANSYS Workbench, COMSOL Multiphysics
- Analysis Labview, Cutpro
- Sensors (Dynamometer, Accelerometer, Laser displacement sensors, Impact hammer, Load cells, Vibrometers, Calorimetric setup, Temperature measurement units, etc.)
- Data acquisition, CMM, White Light Interferometry, Surface Roughness measurement, CNC CAM analysis (G-code programming, Post process, Machining)
- Rapid Prototype techniques, SEM, Reverse engineering, 3d printing

FELLOWSHIP & Awards

- Design, manufacture and analysis of the first linear compressor prototype in Turkey (2017)
- Koç University PhD Scholarship (2016-2017)
- Linear Compressor Project Scholarship (2015), Arçelik Aş.
- SAN-TEZ Bursu/Turkish Ministry of Science, Industry and Technology and Arçelik Aş. (2013-2014)
- Analysis of ceramic tool wear using MQL technique for the Compact Graphite Iron machining, Karcan cutting tools, (2012-2013)
- Iran National Chemistry and Physics Olympiad (2003)

PROFESSIONAL EXPERIENCE

- Assistant Professor School of Engineering and Natural Sciences, Altınbaş University, Istanbul Turkey, (2018-present)

- Research Assistant at **Manufacturing and Automation Research Center (MARC), Koç University, Istanbul Turkey, (2013-2017)**
 - Solenoid based linear compressor prototype
 - Moving magnet linear compressor prototype
 - Permanent Magnet Linear Machine Design
 - Resonant Linear Compressor for Refrigerators
 - Analysis and simulation of the linear compressor

- Teacher Assistant at **Koç University, (2013-2017)**
 - General Physics 2 (Electric charge and electric field)
 - Introduction to Mechanical Engineering Design (Computer Aided Design)
 - Dynamics
 - Computer Integrated Manufacturing and Automation

- Research Assistant at **Istanbul technical University, (2010-2013)**
 - Compacted Graphite Iron (CGI) machining with Minimum Quantity Lubrication (MQL) using ceramic inserts

- Design and manufacturing Engineer, (2006-2009)