

ÖZGEÇMİŞ

1. Adı Soyadı: ARMIN TÜRKSÖY

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4. Akademik Unvanı: Dr. Öğr. Üyesi

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7. Öğrenim Durumu: Doktora

8. Çalıştığı Kurum: İstinye Üniversitesi

9. Bildiği Yabancı Diller: Farsça (Ana dili), Azerice (Ana dili), İngilizce (YDS:90)



| Derece | Alan | Üniversite | Yıl |
|-----------|--|------------------------------|-----------|
| Lisans | Makine Mühendisliği | University of Tabriz | 2005-2010 |
| Y. Lisans | Makine Mühendisliği (Malzeme ve İmalat) | İstanbul Teknik Üniversitesi | 2010-2013 |
| Doktora | Makine Mühendisliği | Koç Üniversitesi | 2013-2017 |

10. Yüksek Lisans Tez Başlığı ve Tez Danışmanı:

- A. Bijanzad, 'Experimental study of minimum quantity lubrication effect on compacted graphite iron machining', İstanbul Teknik Üniversitesi, 2013

Supervisor: Prof. Dr. Mustafa BAKKAL

11. Doktora Tez Başlığı ve Tez Danışmanı:

- A. Bijanzad, 'Development of a novel linear compressor and thermo-mechanical analysis', Koç Üniversitesi, 2017

Supervisor: Prof. Dr. İsmail LAZOĞLU

6. Yönetilen Yüksek Lisans ve Doktora Tezleri

6.1. Yüksek Lisans Tezleri

- Heat-assisted machining of superalloys
- Effect of Polyurea coating on Aluminum foam (Tensile, Bending)
- Effect of lattice parameters on the mechanical performance of the hip implant

6.2. Doktora Tezleri

7. Yayınlar

(Yayınlarda Dergilerin ISSN, Kitapların ISBN No.larını da eklemenizi rica ederiz.)

7.1. Uluslararası hakemli dergilerde yayınlanan makaleler (SCI, SSCI, Arts and Humanities)

- 7.1.1 A. Bijanzad, A. Hassan, I. Lazoglu, H. Kerpicci, "Development of a new moving magnet linear compressor. Part A: Design and modeling", International Journal of Refrigeration, Volume 113,

2020, Pages 70-79.

7.1.2 A. Bijanzad, A. Hassan, I. Lazoglu, H. Kerpicci, "Development of a new moving magnet linear compressor. Part B: Performance analysis", International Journal of Refrigeration, Volume 113, 2020, Pages 94-102.

7.1.3 A. Hassan, A. Bijanzad, I. Lazoglu, "Electromechanical modeling of a novel moving magnet linear oscillating actuator". Journal of Mechanical Science and Technology, Volume 32, 2018, Pages 4423-4431.

7.1.1 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.

7.1.2 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.

7.1.3 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.

Yayın Süreci içinde olanlar (In process):

7.1.4 Heat Assisted Machining of superalloys: A Review, Springer-nature, The International Journal of Advanced Manufacturing Technology

7.2. Uluslararası diğer hakemli dergilerde yayınlanan makaleler

7.3. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

7.3.1 A. Hassan, A. Bijanzad, I. Lazoglu, "Effect of Excitation Frequency and Motor Constant on the Overall Performance of a Linear Oscillating Actuator", submitted to IEEE 7th International Conference on Power Engineering, Energy and Electrical Drives, Cadiz, Spain, Apr. 2017. (Manuscript ID: CD-005606)

7.3.2 A. Hassan, A. Bijanzad, I. Lazoglu, "Design and Analysis of Solenoid as a Linear Oscillatory Actuator", submitted to IEEE 7th International Conference on Power Engineering, Energy and Electrical Drives, Cadiz, Spain, Apr. 2017. (Manuscript ID: CD-005614)

7.3.3 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.

7.4. Yazılan uluslararası kitaplar veya kitaplarda bölümler

7.5. Ulusal hakemli dergilerde yayınlanan makaleler

7.6. Ulusal bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

7.7. Diğer yayınlar

8. Projeler

(Proje verilerinde, Hibe Veren Kurum, Tarih, Proje Kodunu da eklemenizi rica ederiz.)

8.1 *Analysis of the first linear compressor prototype in Turkey, Funded by Koç University, 2017*

8.2 *Development of a Novel Linear Compressor System", Funded by Arcelik A.S, 2015-2016*

8.3 *Development of a High Performance Linear Compressor" Funded by Arcelik A.S and the Ministry of Science, Technology and Industry, SAN-TEZ Bursu, 2012-2014.*

8.4 *Analysis of ceramic tool wear using MQL technique for the Compact Graphite Iron machining, Karcan cutting tools, (2012-2013)*

9. **İdari Görevler**

10. **Bilimsel ve Mesleki Kuruluşlara Üyelikler**

10.1 IEEE membership

10.2 ASME membership

11. **Ödüller**

11.1 Design, manufacture and analysis of the first linear compressor prototype in Turkey (2017)

11.2 Koç University PhD Scholarship (2016-2017)

11.3 Linear Compressor Project Scholarship (2015), Arçelik Aş.

11.4 SAN-TEZ Bursu/Turkish Ministry of Science, Industry and Technology and Arçelik Aş. (2013-2014)

11.5 Iran National Chemistry and Physics Olympiad (2003)

12. **Son iki yılda verdiğiniz lisans ve lisansüstü düzeydeki dersler için aşağıdaki tabloyu doldurunuz.**

| Akademik Yıl | Dönem | Dersin Adı | Haftalık Saati | | Öğrenci Sayısı |
|--------------|----------|---|----------------|----------|----------------|
| | | | Teorik | Uygulama | |
| 2020-2021 | Güz | Manufacturing Processes | 2 | 2 | 50 |
| | | Manufacturing Tech. In Automotive Ind. Design Project I | 3 | | 12 |
| | | Advanced Manufacturing Processes | 3 | | 40 |
| | | Mech. Eng. | 1 | | 2 |
| | İlkbahar | Manufacturing Processes | 3 | 1 | 54 |
| | | Manufacturing Processes (Turkish) | 3 | 1 | 9 |
| | | Engineering Materials | 2 | 2 | 52 |
| | | Mech. Eng. Design Project I | 1 | | 1 |
| | | Mech. Eng. Design Project II | 1 | | 2 |
| | | Introduction to FEA in Engineering | 3 | | 33 |
| 2019-2020 | Güz | Manufacturing Processes | 2 | 2 | 53 |
| | | Manufacturing Tech. In Automotive Ind. Design Project I | 3 | | 10 |
| | | Advanced Manufacturing Processes | 3 | | 30 |
| | | Materials Engineering | 2 | 2 | 30 |
| | | Mech. Eng. Design Project I | 1 | | 5 |
| | İlkbahar | Manufacturing Processes | 3 | 1 | 35 |
| | | Manufacturing Processes (Turkish) | 3 | 1 | 10 |
| | | Engineering Materials | 3 | 1 | 50 |
| | | Mech. Eng. Design Project I | 1 | | 1 |
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|-----------|----------|------------------------------------|---|---|----|
| | | Mech. Eng. Design Project II | 1 | | 4 |
| 2018-2019 | Güz | Manufacturing Processes | 3 | 1 | 35 |
| | | Materials Engineering | 3 | 1 | 42 |
| | | Advanced Manufacturing Processes | 3 | | 25 |
| | İlkbahar | Manufacturing Processes | 3 | 1 | 36 |
| | | Manufacturing Processes (Turkish) | 3 | 1 | 8 |
| | | Engineering Materials | 3 | 1 | 43 |
| | | Special Topics in Mech. Eng. | 3 | | 12 |
| | | Introduction to FEA in Engineering | 3 | | 15 |

Not: Açılmışsa, yaz döneminde verilen dersler de tabloya ilave edilecektir.

Öğretim asistanı (Teaching Assistant) olarak verilen dersler:

| Akademik Yıl | Dönem | Dersin Adı |
|--------------|----------|---|
| 2013-2014 | Güz | Introduction to Mechanical Engineering Design (CAD-CAM) |
| | İlkbahar | Dynamics |
| 2014-2015 | Güz | Introduction to Mechanical Engineering Design (CAD-CAM) |
| | İlkbahar | General Physics 2 (Electric charge and electric field) |
| 2015-2016 | Güz | Computer Integrated Manufacturing |
| | İlkbahar | Dynamics |
| 2016-2017 | Güz | Computer Integrated Manufacturing |
| | İlkbahar | Graduation Term Project |

13. Daha önce çalışılan kurum/kuruluş/şirketler

| No | Kurum Adı | Görev Süresi (Gün.Ay.Yıl olarak tam aralığı veriniz) | Ünvanı |
|----|--|--|-------------------------------|
| 1 | Koç Üniversitesi | (01.09.2013-0.1.10.2017) | Araştırma Görevlisi |
| 2 | Koç Üniversitesi | (01.09.2013-0.1.10.2017) | Öğretim Asistanı |
| 3 | İstanbul Teknik Üniversitesi | (01.09.2010-01.08.2013) | Araştırmacı |
| 4 | Tabriz Ghohar dried fruits packaging company | (15.10.2007-01.07.2009) | Tasarımcı ve Üretim Mühendisi |
| 5 | Ranjbar dried fruit processing | (15.04.2006-01.08.2007) | CAD/CAM Tasarımcı |

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Profile pages:

- [Google Scholar](#)
- [ResearchGate](#)
- [Current position](#)
- [Alumni](#)
- [LinkedIn](#)



EDUCATION

Ph.D., Mechanical Engineering, **Koc University**, Istanbul, Turkey
Supervisor: Prof. Dr. Ismail Lazoglu

Aug. 2013- Oct. 2017

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

M.Sc., Mechanical Engineering, **Istanbul Technical University**, Istanbul, Turkey

Sep. 2010- Aug. 2013

Supervisor: Prof. Dr. Mustafa Bakkal

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

B.Sc., Mechanical Engineering, Manufacturing & Production, **University of Tabriz**, Tabriz

Sep. 2005- Feb. 2010

Supervisor: Lect. Mohammad Moltaji Hagh

- **Thesis:** Mechanical alloying

INTERESTS & EXPERIENCE FIELDS

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

Last updated June 2021

- Lattice-based implant design
- Metal-based composites.

PUBLICATIONS

- **A. Bijanzad**, A. Hassan, I. Lazoglu, H. Kerpicci, "*Development of a new moving magnet linear compressor. Part A: Design and modeling*", International Journal of Refrigeration, Volume 113, 2020, Pages 70-79.
- **A. Bijanzad**, A. Hassan, I. Lazoglu, H. Kerpicci, "*Development of a new moving magnet linear compressor. Part B: Performance analysis*", International Journal of Refrigeration, Volume 113, 2020, Pages 94-102.
- A. Hassan, **A. Bijanzad**, I., Lazoglu, "*Electromechanical modeling of a novel moving magnet linear oscillating actuator*". Journal of Mechanical Science and Technology, Volume 32, 2018, Pages 4423–4431.
- **A. Bijanzad**, A. Hassan, I. Lazoglu, "*Analysis of Solenoid based Linear Compressor for Household Refrigerator*", International Journal of Refrigeration, Volume 74, 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, 2017, pages 3758-3766.
- A. T. Kuzu, **A. Bijanzad** & M. Bakkal, "*Experimental Investigations of Machinability in the Turning of Compacted Graphite Iron using Minimum Quantity Lubrication*", Machining Science and Technology, Volume 19, 2015, pages 559-576.
- A. Hassan, **A. Bijanzad**, I. Lazoglu, "*Effect of Excitation Frequency and Motor Constant on the Overall Performance of a Linear Oscillating Actuator*", submitted to IEEE 7th International Conference on Power Engineering, Energy and Electrical Drives, Cadiz, Spain, Apr. 2017.
- A. Hassan, **A. Bijanzad**, I. Lazoglu, "*Design and Analysis of Solenoid as a Linear Oscillatory Actuator*", submitted to IEEE 7th International Conference on Power Engineering, Energy and Electrical Drives, Cadiz, Spain, Apr. 2017.
- **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.

In progress publications

- *Heat Assisted Machining of superalloys: A Review*, Springer-nature, The International Journal of Advanced Manufacturing Technology
- *Numerical and analytical analysis of induction assisted turning of Inconel 718 and Monel 400*, Applied Thermal Engineering

- *A parametric static analysis of lattice-based hip implant*, Materials Today: Proceedings
- *Numerical and analytical analysis of autofrettage process in 15-5PH stainless steel*
- *Effect of polyurea coating on the tensile and bending properties of Aluminum foams*, Materials & Design.

SKILLS

- MATLAB
- SolidWorks, NX Siemens, nTopology, CATIA, Esprit (CAM), NX 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.), Mech. Properties testing (Tensile, Compression, Bending, Impact, Fatigue, Hardness)
- 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, 3D scanning (Scan in a box)
- Eos metal 3D printer (In progress)

FELLOWSHIP & Awards

- Tubitak Efficiency Challenge (3rd in Turkey) (2019-2020)
- Design and manufacture of the first linear compressor prototype in Turkey (2017)
- Koç University Ph.D. Scholarship (2016-2017)
- Linear Compressor Project Scholarship, Arçelik Aş. (2014-2016)
- SAN-TEZ/Turkish Ministry of Science and Arçelik Aş. (2013-2014)
- Analysis of ceramic tool wear using MQL in CGI machining, Karcan (2012-2013)
- Iran National Chemistry and Physics Olympiad (2003)

PROFESSIONAL EXPERIENCE

- **Assistant Professor, Altinbas University, Istanbul Turkey,** (2018-2021)
 - Graduate student projects (supervision)*
 - Heat-assisted machining of superalloys
 - Numerical and analytical analysis of autofrettage process in 15-5PH stainless steel
 - Effect of Polyurea coating on Aluminum foam (Tensile, Bending)
 - Effect of lattice parameters on the mechanical performance of the hip implant
 - Undergraduate student projects (supervision)*
 - Design, analysis, and fabrication of a solenoid engine
 - Design, analysis, and fabrication of a UAV
 - Design, analysis, and fabrication of a thermoelectric cooling device
 - Design, analysis, and fabrication of a solar-based bicycle
 - Design, analysis, and fabrication of an RC submarine
 - Design, analysis, and fabrication of an electric foundry for metal casting

- **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,** (2007-2009)
 - **Tabriz Ghohar** dried fruits packaging company
- **Design Engineer and CAD/CAM lecturer,** (2006-2007)
 - **Tabriz Ghohar** dried fruits packaging company
 - **Ranjbar** dried fruit processing company

TEACHING EXPERIENCE

- (2020-2021 Spring Semester)
 - Manufacturing Processes (IE258 Ind. Eng.)
 - Manufacturing Processes (Turkish) (END 258 Ind. Eng.)
 - Engineering Materials (ME 220 Mech. Eng.)
 - Mech. Eng. Design Project I (ME491 Mech. Eng.)
 - Mech. Eng. Design Project II (ME492 Mech. Eng.)
 - Introduction to FEA in Engineering (ME492 Mech. Eng.- Master program)
- (2020-2021 Fall Semester)
 - Manufacturing Processes (ME341 Mech. Eng.)
 - Manufacturing Tech. in Automotive Ind. (ME446 Mech. Eng.- Elective course)
 - Advanced Manufacturing Processes (ME530 Mech. Eng.- Master program)
 - Mech. Eng. Design Project I (ME491 Mech. Eng.)
- (2019-2020 Spring Semester)
 - Manufacturing Processes (IE258 Ind. Eng.)
 - Manufacturing Processes (Turkish) (END 258 Ind. Eng.)
 - Engineering Materials (ME 220 Mech. Eng.)
 - Mech. Eng. Design Project I (ME491 Mech. Eng.)
 - Mech. Eng. Design Project II (ME492 Mech. Eng.)
- (2019-2020 Fall Semester)
 - Manufacturing Processes (ME341 Mech. Eng.)
 - Materials Engineering (ME420 Mech. Eng.- Elective course)
 - Manufacturing Tech. in Automotive Ind. (ME446 Mech. Eng.- Elective course)
 - Advanced Manufacturing Processes (ME530 Mech. Eng.- Master program)

- Mech. Eng. Design Project I (ME491 Mech. Eng.)
- (2018-2019 Spring Semester)
 - Manufacturing Processes (IE258 Ind. Eng.)
 - Manufacturing Processes (Turkish) (END 258 Ind. Eng.)
 - Engineering Materials (ME 220 Mech. Eng.)
 - Special Topics in Mech. Eng. (ME 581 Mech. Eng.- Elective course)
 - Introduction to FEA in Engineering (ME492 Mech. Eng.- Master program)
- (2018-2019 Fall Semester)
 - Manufacturing Processes (ME341 Mech. Eng.)
 - Materials Engineering (ME420 Mech. Eng.- Elective course)
 - Advanced Manufacturing Processes (ME530 Mech. Eng.- Master program)

Memberships

- ASME
- UCTEA Chamber of Mechanical Engineers (Turkey)
- IEEE

NATIONALITY

Iranian, Turkish

LANGUAGES

- Azerbaijani (Native)
- Turkish (Native)
- Farsi (Native)
- English (Advanced)
- Arabic (Elementary)
- German (Elementary)

REFERENCES

Ismail LAZOGLU

Professor of Mechanical Engineering, Koc University,
Rumeli Feneri Yolu, Sariyer, 34450, Istanbul, Turkey,
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Technical University, Gümüşsuyu, 34437, Beyoğlu,
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Ozgen AKALIN

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Technical University, Maslak, 34396, Sarıyer, Istanbul,
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