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Erol GÜLTEKİN

Date of Birth : 1984
Birth of Place : Ardanuç / Artvin
Marital Status : Married
Military Service : Done (2010-2011)

EDUCATION

Ph.D **University of Turkish Aeronautical Association, Ankara**
2014 – 2019
Graduate School of Aeronautics and Astronautics, Mechanical and Aeronautical Engineering
Subject of Ph.D. Thesis: Design and Development of a Two-Stroke Engine with Rhombic Drive Mechanism
Thesis Supervisor: Prof. Dr. Can Çınar, Gazi University, Ankara, Turkey

MSc **Uludağ University, Bursa- Polytechnic University of Turin, Italy**
2008 – 2011
Graduate School of Natural and Applied Sciences,
Mechanical Engineering Dept. Automotive Engineering
Subject of MSc Project: A Survey of Hybrid Electric Vehicle Powertrain and Configurations of Automotive Firms
Project Supervisor : Prof. Dr. Ferruh Öztürk, Uludağ University, Bursa, Turkey

BSc **Gazi University, Ankara**
2003 - 2008
Technical Education Faculty, Automotive Teaching
Senior Design Project: Electrical Vehicles and Design Calculations of PEM Fuel Cells

High School **Hürriyet Anatolian Technical High School, Bursa**
1998 - 2003
Aircraft Repair Technology and Body Engine

EXPERIENCE

2012- Ongoing **University of Turkish Aeronautical Association - Ankara**
Mechanical Engineering – Asst. Prof. Dr. 2019- Ongoing
Lecturer 2012-2019

Administrative Roles:
Chairperson 2021-Ongoing
Vice Dean 2020-2021
Member of Faculty Committee 2020-Ongoing
Vice Chairperson 2019- 2021
Member of Department Committee 2012- Ongoing
Member of Mechanical and Aeronautical Engineering Committee 2022- 2023
Coordinator of Double Major & Minor Degree 2012- 2021
Coordinator of Internship Commission 2012- 2020
Bologna Supervisor 2012-2016
Coordinator of MÜDEK 2014-2015
Vice Chairperson of Scientific Research Project Office 2013-2014

2011- 2012 **Rollmech Automotive A.Ş. / Bursa**
Product Engineering–Benchmark/Value Analysis Engineer

2010- 2011 **K.K. Astsubay MYO Komutanlığı / Balıkesir**
Department of Automotive – Lecturer

2008- 2010 **Bosch Rexroth A.Ş. / Bursa**
Bosch Production System-BPS Method Engineering

06.2007-07.2007	Türk Traktör A.Ş. / Ankara R&D -Trainee
01.2007-02.2007	Doğuş Oto A.Ş. / Ankara After Sale Service - Trainee
08.2006-09.2006	Mais A.Ş. Yetkili Servisi / Bursa After Sale Service- Trainee
07.2004-08.2004	Motorlu Araçlar Mercedes-Benz Bayii / Bursa Training Dept.- Voluntary Trainee
07.2002-08.2002	1.Hava İkmal Bakım Merkezi / Eskişehir Technical Departments- Trainee
07.2001-08.2001	THY A.Ş. / İstanbul Technical Departments- Trainee

QUALIFICATIONS

Languages	<ul style="list-style-type: none"> ▪ Turkish Native Speaker ▪ English C1 – YÖKDİL 93.75/100 ▪ German A2 level
Computer Skills	Catia, Ansys, Abaqus, SolidWorks, Pro-Engineer, Autocad, Matlab, Minitab, Visio and MS-Office. Basic level of Fortran, Pascal and Delphi programming.

PUBLICATIONS

A-Articles Published In Journals That Entered SCI, SSCI AND AHCI Indexes

A4. Gültekin, E., Calam, A., and Şahin, M. Experimental investigation of Trimethyl Borate as a fuel additive for a SI Engine. **Energy Sources, Part A: Recovery, Utilization, and Environmental Effects**, 2023, 45:1, 419-433, doi:10.1080/15567036.2023.2171516

A3. Gültekin, E., and Yahşi, M.. Dynamic Compression and Impact Analyses of the Lattice Structures for Battery Safety. **Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering**, 2022;0(0), doi:10.1177/09544070221149812

A2. Gültekin, E., Çınar, C., and Okur, M. “Design, manufacturing and testing of a two-stroke engine with rhombic drive mechanism”. **International Journal of Environmental Science and Technology**, 2020;17: 455-462, doi: 10.1007/s13762-019-02488-z

A1. Gültekin, E., Cinar, C. A thermodynamic comparison of rhombic drive and slider–crank mechanisms for a two-stroke SI engine, **Energy Sources, Part A: Recovery, Utilization, and Environmental Effects**, 2022, 44:1, 1060-1077, DOI: 10.1080/15567036.2019.1639000

B-Articles Published In Other Journals

B2. Gültekin, E., Yahşi, M. “Investigation of Lattice Structures for the Battery Pack Protection”. **International Journal of Automotive Science and Technology**, 2021; 5-4: 331-338, <https://doi.org/10.30939/ijastech..1020932>

B1. Gültekin, E., Yahşi, M. “A Study About Shape and Topology Optimizations on A Connecting Rod”. **International Journal of Automotive Science and Technology**, 2021; 5-2: 141-146, doi.org/10.30939/ijastech..899599

C-Refereed International Congress & Symposium Publications In Proceedings

C10. Yahşi, M., **Gültekin, E.** “Comparison of Hexahedral and Tetrahedral Elements on Topology-Optimized Lattice-Based Structure for Electrical Vehicle Battery Packs”. 11th International Conference on Applied Sciences December 29-30, 2022-Diyarbakir, Turkey.

C9. Yahşi, M., **Gültekin, E.** “Comparison of 7075-T6 and AISI 316 Steel Lattice Structure for the Electric Vehicle Battery Housing”. 8th International Mardin Artuklu Scientific Researches Conference, June 4-6, 2022, Mardin, Turkey.

C8. Yahşi, M., **Gültekin, E.** “Impact Simulations of the Lattice Structures for the Electric Vehicle Battery Housing”. 8th International Mardin Artuklu Scientific Researches Conference, June 4-6, 2022, Mardin, Turkey.

C7. Yahşi, M., **Gültekin, E.** “Fatigue Analysis for a 7050-T7451 Aluminum Connecting Rod”. 10th International Conference on Engineering & Natural Sciences, May 16-18, 2021, ISPEC/Siirt, Turkey.

C6. **Gültekin, E.**, Yahşi, M., “Analysis of the Lattice Structures for the Battery Pack of Electrical and Hybrid Vehicles”. 10th International Conference on Engineering & Natural Sciences, May 16-18, 2021, ISPEC/Siirt, Turkey.

C5. **Gültekin, E.**, Torun, T.B. and Barutçu, M.B. “Design of a Mechanical Scissor Lift for a Coach Model”. 8th International Conference on Engineering & Natural Sciences, June 12-14, 2020, ISPEC/Ankara, Turkey.

C4. **Gültekin, E.**, Karagöz, M.O., Demir, K., Sahin, M.S, Günes, E.C. “Development of a Dynamometer for Performance Measurement of Small Size Internal Combustion Engines”. The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, 24th-26th June, 2020, IMSMATEC 2020, Turkey.

C3. **Gültekin, E.**, Kılınçarslan, E. “An Investigation for Thermal Behavior of Honeycomb-like Structure in Electrical Vehicle Batteries”. The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, 24th-26th June, 2020, IMSMATEC 2020, Turkey.

C2. **Gültekin, E.** “A Range Model for a Series Hybrid Electric Vehicle”. The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, IMSMATEC 2019, Kapadokya.

C1. **Gültekin, E.**, Çınar, C. “Design and Analysis of a Novel Rhombic Driven Two-Stroke SI Engine”. The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, IMSMATEC 2019, Kapadokya.

JOURNAL REVIEWER

Energy Conversion and Management, Energy, Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, Propulsion and Power Research, Mühendis ve Makina

COURSES (Last two years)

Academic Year	Term	Course Name	Hours/week		Number of Students
			Theoretical	Applied	
2022-2023	Spring	ME 104 Mechanical Engineering Orientation	0	2	28
		ME 121 Computer Aided Engineering Graphics I	2	2	11
		ME 206 Thermodynamics II	3	0	10

		ME 306 Machine Theory II	3	0	7
		ME 431 Manufacturing Systems	3	0	11
		ME 498 Senior Design Project II	0	2	1
	Fall	UÇT 2053 Aircraft Aerodynamics, Structure and Systems I	6	2	22
		ME 123 Computer Aided Engineering Graphics	2	2	59
		ME 205 Thermodynamics I	3	0	58
		ME 209 Manufacturing Techniques	3	0	29
		ME 305 Machine Theory I	3	0	12
		ME 497 Senior Design Project I	0	2	1
		MA 533 Combustion in Engines I	3	0	11
2021-2022	Bahar	ME 123 Computer-Aided Engineering Graphics	2	2	45
		ME 206 Thermodynamics II	3	0	14
	Güz	ME 121 Computer Aided Engineering Graphics I	2	2	29
		ME 123 Computer-Aided Engineering Graphics	2	2	41
		ME 481 Automotive Engineering I	3	-	14
		ME 305 Machine Theory I	3	-	15

Already taught courses

Introduction to Mechanical Engineering, Human Factors, Aircraft Structures and Systems-Module 11A, Computer Architecture and Usage, Material Science and Manufacturing Techniques, Systems of Lean Manufacturing, Senior Project I, Senior Project II, Integrated Training I, Integrated Training II, Mechanics of Vehicle, Gasoline Engine Technology, Diesel Engine Technology, Systems of Fuel Injection, Automotive Electric and Electronics

PROJECTS

Owner of Project-Participant/Director	Name of Project	Date of Project
UTAA_Erol Gültekin	Manufacturing and Testing of Lattice Structure Systems designed for Electrical Vehicle Battery Safety	2022
Rollmech Automotive_Erol Gültekin	McLaren Door Hinges	2012
Rollmech Automotive_Erol Gültekin	Ford V362 Door Hinges	2012
Rollmech Automotive_Erol Gültekin	Ford V363 Door Hinges	2012
Rollmech Automotive_Erol Gültekin	Ford C-Max Sliding Door Mechanism	2012
Rollmech Automotive_Erol Gültekin	Ford B-Max Sliding Door Mechanism	2012
Rollmech Automotive_Erol Gültekin	Fiat Doblo Sliding Door Mechanism	2011
Rollmech Automotive_Erol Gültekin	Renault Clio Trunk Hinges	2011
Rollmech Automotive_Erol Gültekin	Renault Clio Trunk and Hood Locks	2011
Rollmech Automotive_Erol Gültekin	Renault Clio Hand brake	2011
Rollmech Automotive_Erol Gültekin	Renault Seat Locks	2011
Rollmech Automotive_Erol Gültekin	Mercedes-Benz Heavy Vehicle Hinges	2011
Rollmech Automotive_Erol Gültekin	Cost Reduction Activities	2011
Bosch Rexroth_Erol Gültekin	Total Productive Maintenance(TPM)	2010
Bosch Rexroth_Erol Gültekin	Quick Change Over (QCO)	2010
Bosch Rexroth_Erol Gültekin	Value Stream Mapping and Analysing	2010
Bosch Rexroth_Erol Gültekin	5S Activities	2009
Bosch Rexroth_Erol Gültekin	Plant Standardization Activities	2009
Bosch Rexroth_Erol Gültekin	Machine Layout Project	2008
Gazi University.& METU_Erol Gültekin	Turbo-Rotary Engine Design Project	2007

TRAININGS

Some of the trainings taken:

- **Training of Trainer**

University of Turkish Aeronautical Association YAGEM - 2021

- **Cessna 172 S Training**

Turkish Aeronautical Association - 2012

- **EASA Part 147 Flight Crew Licensing Initial Training**
Airline Maintenance&Engineering Training Limited- 2012
- **EASA Part 147 European Operations Initial Training**
Airline Maintenance&Engineering Training Limited- 2012
- **EASA Part 66 & 147 Initial Training**
Airline Maintenance&Engineering Training Limited- 2012
- **EASA Part 145 Initial Training**
Airline Maintenance&Engineering Training Limited- 2012
- **EASA Part M Training Course**
Airline Maintenance&Engineering Training Limited- 2012
- **Stack-Up Training**
Rollmech Automotive Inc. - 2011
- **Lean Six Sigma Green Belt Training**
Rollmech Automotive Inc. - 2011
- **Problem Solving Techniques Training**
Bosch Inc. - 2009
- **5S Training**
Bosch Inc. - 2009
- **Poka Yoke Training**
Bosch Inc. - 2009
- **Value Stream Design Training**
Bosch Inc. - 2009
- **Applied Total Productive Maintenance Training (TPM)**
Bosch Inc. - 2009
- **ISO 16949 Management Systems for Automotive Sector Basic Training**
SASTEK Inc. - 2007
- **ISO 14001:2004 Environmental Management Systems Basic**
SASTEK Inc. - 2007
- **ISO 9001-2000 Quality Management Systems Basic**
SASTEK Inc. - 2007
- **Catia V5R17**
Gazi University - 2007
- **Chassis Technologies**
Bakırcı Automotive - 2007
- **Public Relations**
BELTEK - 2007
- **SolidWorks**
BELTEK - 2006

Awards High School Top Degree, Honor/ High Honor Degrees at BSc.

Abroad experience Belgium–Investigation of fiber-optic infrastructure-EU Project- 2014, France, Luxemburg.

Netherlands

Hobbies Skiing, paragliding, free type parachute, aeromodelling, swimming, athletics

If needed, the references will be shared upon request.