MURAT ÖNEN

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Personal Profile

Not only a persevering physicist but also a resilient engineer achieving multidiscipline by studying in mechatronics and aerospace areas. Has gained a high-honor status for Bachelor's program thanks to time management skills and establishing priorities. Owns distinguished soft skills such as collaboration and communication besides quantitative skills.

Education

2018 – 2023	Physics, B.S., Double Major Program Middle East Technical University, Ankara, TURKEY CGPA: 3.52/4.00
2020 – 2022	Aerospace Engineering, B.S., Minor Program Middle East Technical University, Ankara, TURKEY CGPA: 3.37/4.00
2016 – 2021	Mechanical Engineering, B.S., Major Program Middle East Technical University, Ankara, TURKEY CGPA: 3.72/4.00
2012 – 2016	Izmir Kız High School İzmir, TURKEY Grade: 90.75/100

Work Experience

August 2021 – Present

Mechatronic Systems Design Engineer, Mechanical Design Department

ROKETSAN Rocket Industries & Trade Inc., Ankara, TURKEY

- taken responsibility to develop a mechanical gyroscope used to determine the position of rockets without GPS signals
- improved the safety mechanisms preventing premature detonation, performing kinematic optimization, and constructing the mathematical dynamic model
- come up with an innovative mechanism that redirects the reaction forces of the parts rotating over each other to prevent them from locking under friction or axial force, and this mechanism is inserted into artilleries for range correction
- been in the paper and patent application process for own study

January 2021 – August 2021	Research and Development Intern, Power Turbines Department TUSAŞ Engine Industries, Eskişehir, TURKEY

- conducted an extensive literature survey on factors affecting the efficiency of turbo-shaft engines
- examined the flow behavior of the fundamental parts using the Ansys Fluent program
- participated in the preparation of the Aero Rig tests of the TS1400 first Turkish-national helicopter engine

August 2020 – September 2020	Intern, Servo Technologies & Design Department ASELSAN Electronic Industries, Ankara, TURKEY

- conceptualized theoretical knowledge in engineering projects allowing radar systems move readily
- diagnosed a part of the project to calculate the center of mass for radar systems to receive signals smoothly
- investigated the verification and validation tests in environmental conditions laboratory

June 2019 – July 2019	Intern, Manufacturing Department FNSS Defense Systems, Ankara, TURKEY

- inspected different discrete manufacturing processes including welding, water jet cutting, and finishing operations
- earned the importance of engineering drawing in manufacturing and designing
- familiarized with executing a cost analysis for simple machined parts

Further Skills

Computer Skills	High Level Programming Languages: Python, Arduino CAD & CAM Programs: Siemens NX, SolidWorks, Catia Microsoft Office Programs Package MATLAB, Simulink ADAMS Dynamic Simulation Tool ANSYS Fluent, Mechanics
Language Skills	English: Advanced Turkish: Native tongue

Certificates & Awards

November 2022	IELTS, Score: 6.5/9
February 2021	Score: 91/100 ; ALES (Equivalent Exam of GRE)
March 2020	Extensive Case Study by Ford Otosan, Navigate
January 2019	Model Tank Competition Award by FNSS Defense Systems, EBEC

Main Projects in Bachelor's

October 2022 – February 2023 (Physics)	*Laser Driven Ion Acceleration: Space Propulsion*
April 2022 – June 2022 (Propulsion)	*Turbofan Engine Design: Improved Version of F100-PW-220*
March 2021 – July 2021 (BioMEMS)	*Design of a Syringe Pump for Microfluidic Applications*
February 2021 – June 2021 (Robotics)	*Adapting to Pandemic: Controlling Self-Positioning Object Remotely*
October 2020 – January 2021 (Mechatronics)	*Self-Playing Snake Game Using Search Algorithms*
February 2020 – June 2020 (Mechanism Design)	*Design of a Conveyor Box Transport Mechanism*
October 2019 – January 2020 (Mechanical Design)	*Gearbox Design of an Unmanned Helicopter*

Membership & Scholarships

2205 & 2248 Programs, Scholarship by TÜBİTAK for Encouraging Double Major in Sciences

Scholarship by Middle East Technical University

Scholarship by Turkey Government for Undergraduate Students

Chess Community, METU

Theater Club, METU Alumni Association

Turkish Folklore Community Choir, METU

References

Available upon request.