

YK

Yusuf Kaya

Mechanical Engineering Student | DAAD
Exchange Scholarship Applicant

Summary

Third-year Mechanical Engineering student at Istanbul Technical University (ITU) with a CGPA of 3.87 / 4.00, ranked 3rd in a cohort of 180. Applying for the DAAD Engineering Exchange Scholarship to study at TU Munich for one semester. IELTS score: 7.5. Strong background in thermodynamics, CAD design, and renewable energy systems. IEEE student member with two conference papers.

Experiences

Undergraduate Research Assistant — Thermal Systems Lab, ITU Faculty of Mechanical Engineering

Feb 2024 - Present Istanbul, Turkey

- Simulating heat exchanger performance under variable flow conditions using ANSYS Fluent
- Co-authored paper accepted at IEEE ICEPE 2024: 'Efficiency optimization of shell-and-tube heat exchangers via CFD'
- Maintained shared lab equipment and training documentation for 8 undergraduate students

Contact Details



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Istanbul, Turkey



[LinkedIn](#)

Education

B.Sc. Mechanical

**Engineering — CGPA: 3.87
/ 4.00 | Rank: 3 / 180**

Istanbul Technical University (ITU)

Sep 2022 - Jun 2026 (Expected)

High School Diploma —

**GPA: 98.4 / 100 | Top 0.1%
National University
Entrance Exam (YKS)**

Ankara Fen Lisesi (Science High
School)

Sep 2018 - Jun 2022

Skills

Engineering Intern — R&D Department, Arçelik A.Ş. (Beko Group)

Jul 2024 - Aug 2024 Istanbul, Turkey

- Assisted in testing compressor efficiency for next-generation refrigeration units
- Used SolidWorks to redesign a component bracket, reducing material weight by 11%
- Documented findings in a technical report presented to the R&D senior team

Team Lead — Formula SAE Electric Vehicle Project, ITU Racing Team

Oct 2022 - Present Istanbul, Turkey

- Lead a 6-member sub-team designing the powertrain cooling system for a formula electric vehicle
- Placed 12th overall at Formula Student Germany 2024 (Hockenheimring) out of 112 teams

[Website](#) [LinkedIn](#) [GitHub](#)

Projects

Solar-Powered Water Pump for Rural Communities

Designed and prototyped a low-cost solar-driven irrigation pump using recycled components; deployed in a village in Konya province as part of a university social impact initiative.

CFD Simulation of Wind Turbine Blade Profiles

Compared NACA airfoil profiles at varying Reynolds numbers using OpenFOAM; presented at ITU Undergraduate Research Day 2023 — Best Poster Award.

ANSYS Fluent & CFD Simulation -
Advanced

SolidWorks & AutoCAD - Advanced

Python (NumPy, Matplotlib, FEniCS) -
Intermediate

MATLAB & Simulink - Intermediate

Thermodynamics & Heat Transfer -
Advanced

Technical Report Writing (LaTeX) -
Advanced

3D Printing & Rapid Prototyping -
Intermediate

Languages

Turkish - Native

English - Fluent — IELTS 7.5

German - Elementary — A2 (Goethe
Institut)

Certificates

**IEEE ICEPE 2024 — Accepted
Conference Paper (Co-author)**
IEEE -

IELTS Academic — Score: 7.5
British Council - Oct 2026

**SolidWorks CSWA — Certified
Associate Mechanical
Designer**
Dassault Systèmes -

**ITU Dean's High Honour List
— 2022-23, 2023-24**
Istanbul Technical University -