

Dedicated and results-oriented Mechanical Engineering student with a strong academic background and practical experience in the design, development and optimization of energy and mechanical systems. Passionate about technical innovation and solving complex industrial challenges, I want to contribute to sustainable development through advanced research and applied engineering.

EDUCATION

Karabük University

Karabük, Turkey

Master in Mechanical Engineering

2022-Present

Thesis: *Investigation on wear behavior of Hardox 450 steel in nano lubrication environment.*

Supervisor: Doç. Dr. Mehmet Erdi KORKMAZ

Ecole Supérieure Polytechnique de la Jeunesse

Ouagadougou, Burkina Faso

B.S., Electromechanics

May, 2021

Topic: *Electrical network protection study: a case study of the HTA electrical network in departure 21, Ouagadougou.*

Supervisor: Mahamed BALIMA

EXPERIENCE

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Ouagadougou, Burkina Faso

Industrial mechanics and maintenance

Jan 2022 – May 2022

- Design and development of mechanical components for utility pole molds.
- Engine repair and machining.
- Optimization of manufacturing processes to improve efficiency and reduce costs.
- Equipment testing to guarantee product quality and reliability.
- Production process validation.
- Hybrid system-photovoltaic systems for residential use.
- Solar water pumping system maintenance

SONABEL

Ouagadougou, Burkina Faso

Electrical network maintenance department

Oct 2020 – Jan 2021

- Maintenance planning.
- Construction of HVA power networks.
- Electrical network relocation.
- Installation of public lighting network with solar photovoltaic system
- Customer management-call center-Marketing-Sale Management

SONABEL

Ouagadougou, Burkina Faso

Network study department

July 2019 – Aug. 2019

- Analysis of projects to extend distribution networks.
- Supervision of civil engineering works
- Computer-aided design

ADDITIONAL EXPERIENCE

Karabük University, Mechanical Engineering

Karabük, Turkey

Master's degree

Feb. 2024 – Present

- Evaluate the effect of different nano lubricant concentrations on the wear rate of Hardox 450 steel.

CHIRAC MATIBE DIONLAR

100.YIL MAH.1077, Karabük, Turkey

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- Compare the wear resistance of Hardox 450 steel under nano lubrication versus conventional lubrication.
- Analyze the impact of various nanoparticle types on the tribological properties of Hardox 450 steel.
- Investigate the influence of applied load and sliding speed on the wear behavior of Hardox 450 steel in a nano lubrication environment.
- Characterize the wear mechanisms and surface morphology of Hardox 450 steel after testing with nano lubricants.

ACHIEVEMENTS

- 3D modeling of vertical roller conveyor (2024);
- Gear mechanism modeling (2024);
- Drone project for agricultural - Computational fluid dynamics (CFD) for video drone (2024);
- 3D representation of a radiator (2024);
- 3D modeling of a V12 crankshaft (2024);
- Computational fluid dynamics (CFD) for wheel valve (2023).
- Installation of photovoltaic system, Burkina Faso (2022);
- Public lighting network design, Burkina Faso (2021);
- Study of energy requirements and installation of hybrid system, Burkina Faso (2021);
- Installation of a production line for electric poles, Burkina Faso (2021);
- Study of reactive energy compensation and mathematical analysis, Burkina Faso (2019).

LANGUAGES, AND HOBBIES

Languages: French (Native), English and Turkish.

Hobbies: 3D Modeling, Team sports, Artificial intelligence, and Graphics.

SKILLS

- **Software:** AutoCAD, SolidWorks, Ansys, PvSyst, CanecoBT, Dialux, Xrelais, XIPro.
- **Certificates:** Green economy and trade-UNitar and PAGE, (2024), Climate change negotiations-UNitar and LoCAL, (2024), Development project monitoring and evaluation-AFD, (2023), Environmental professions/IFDD, (2022), Renewable Energy and Energy Efficiency-ANEREE, (2019).

REFERENCES

Doç. Dr. Mehmet Erdi KORKMAZ
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Karabük university
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