

Ali Emek

ANKARA



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Summary

Specialized in System Designing of complex HVAC-R Systems for Defence&Aviation industry. Coordinating multiple engineering disciplines to success project's goals.

Calculating the required heating&cooling capacity , equipment selections , defining the logics ,performance test activities.

Experience

HVAC-R System Design Engineer

GÖKSER AR-GE SAVUNMA HAVACILIK

Jul 2021 - Present (2 years 5 months)

System Designing of Military Standard sophisticated HVAC-R Systems according to MIL STD 810G/H.

*Specifying Vapor Compression Cycle.(including subzero systems) System Requirements for Aviation and Military applications according to SAE ARP 4754 (System Requirements Document)

*Preparing Validation and Verification Matrix

*Managing Coordination between System Design, Mechanical Design and Manufacturing Department

*Managing HVAC Department

*Managing HVAC System Designing Projects such as Ground Support Equipment for Commercial and Military Aircraft and UAV drones

*System Designing Mobile Cooling&Heating Systems for Military Headquarters

*System Designing Mobile Cooling&Heating Systems for Mobile Hospitals

*Building Logic and Algorithm of the Systems

*Analyzing the scope of a proposed heating, ventilation, and air conditioning project to create a detailed estimation of the project's cost.

*Subcontractor Management

*Purchasing materials from suppliers

*Preparing equipments

*Assisting with other pre-manufacturing duties.

*Selection of VCS Equipments depending on project's application.

*Deciding evaporation, condensation temperatures

*Calculating pressure drops with CFD applications

*Designing outlet air temperature with $\pm 1^{\circ}\text{C}$ tolerances.

*Developing indigenous Cooling Subsystem Projects

*Preparing Test Plan

*Executing Tests

PROJECTS

MILITARY TENT AIR CONDITIONING EQUIPMENT

Developing mobile air conditioning equipment for military tent. Equipment designed for harsh environmental conditions according to military standards. Developing mobile air conditioning equipment for military tent. Equipment designed for harsh environmental conditions according to military standards.

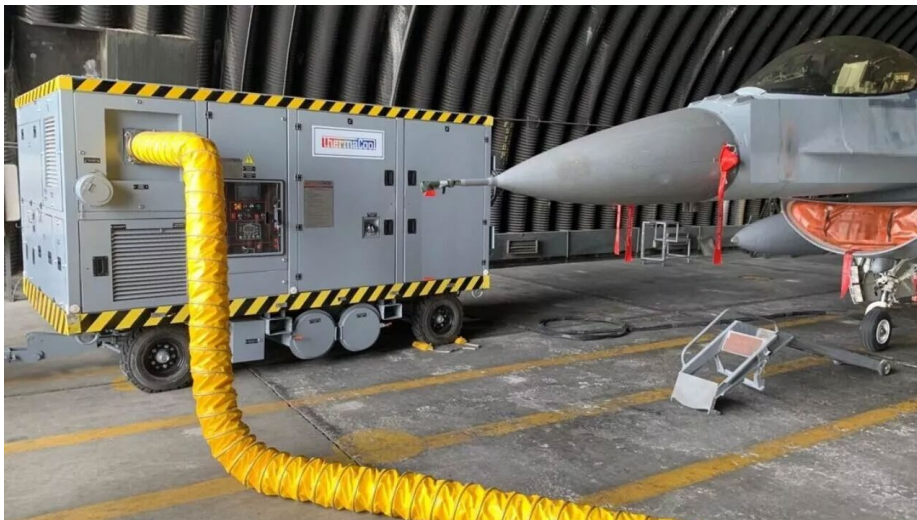


TRANSPORTABLE ENVIRONMENTAL TEST CHAMBER

Developing -55°C to +85°C Temperature Test Chamber for testing aviation equipments. The chamber has a cascade refrigeration system.

MILITARY STANDARD MOBILE Pre Conditioned Air(PCA) Ground Support Equipment(GSE) FOR FIGHTER JET

Mobile PCA device with generator to deliver pressurized cold/hot air and electrical power to Fighter Jet while on ground missions



MOBILE Ground Support Equipment(GSE) FOR UAV DRONES

Sophisticated Mobile Military Standard 810G HVAC System for Unmanned Aerial Vehicle to Cooling Critical Avionics



Mechanical Engineer

JANDARMA

Aug 2020 - Jul 2021 (1 year)

- Periodically building elevators safety control
- Heating plant construction control
- Tender document prepared



Product Engineer

GES Plast

Oct 2019 - Jun 2020 (9 months)

- Following daily production tasks
- Mass production efficiency studies
- Plastic injection molds improving studies
- Robotisation studies
- Shift management



Intern

Acro Tk

Feb 2019 - Mar 2019 (2 months)

- Preparing FMEA for plastic molds
- Calculating PPM values for production
- Following defective product and causes of faults



Intern

Bosch Thermotechnik GmbH

Jul 2015 - Aug 2015 (2 months)

- Fixture designing studies
- Heat exchanger leakage tests
- Production efficiency studies

Education



Pamukkale Üniversitesi (PAÜ)

Lisans Derecesi, Makine Mühendisliği

2014 – 2018

Licenses & Certifications

 **IATF 16949** - Udemy

 **Siemens NX 11.0** - Udemy

Advanced Excel - Ümmehan Elginkan Mesleki ve Teknik Eğitim Merkezi

KAIZEN - Ümmehan Elginkan Mesleki ve Teknik Eğitim Merkezi

TS-EN ISO 9001 - Ümmehan Elginkan Mesleki ve Teknik Eğitim Merkezi

6 SIGMA - Ümmehan Elginkan Mesleki ve Teknik Eğitim Merkezi

 **ANSYS Workbench: Applied Training Series**- Udemy

 **ANSYS Fluent CFD** - Udemy

 **HVAC Psychrometry , Air Handling System and Duct Selection** - Udemy

 **HVAC Fundamentals and BMS Controls** - Udemy

Skills

Testing • HVAC Engineering • System Architecture • MIL-STD-810 • HVAC Design • Failure Mode and Effects Analysis (FMEA) • Defect Management • Mass Production • Production Efficiency • People Management