



# OSMAN MUCTEBA BISKINLER

## BATTERY PACK TEAM LEADER

Experienced Battery Systems Engineer with a Mechatronics Engineering background. Good experience in CAD design, production, 3D printing, U/S wire bonding, electrical harness, busbar design. Very familiar with battery pack components.

Demonstrated success in designing and producing a battery module and battery pack and corresponding sub-systems. Battery packs and modules are implemented to Gunsel Model 1.

Expertise includes building a talented multidisciplinary team with good communications across employees.



Please scan QR codes for detailed information.

## TECHNICAL SKILLS

- Siemens NX
- Catia V5
- Lithium-Ion Cells
- Insight
- Wire Bonding
- Vacuum Molding
- Sheet Metal Forming
- Industrial 3d printing
- UV Adhesives
- Microsoft Office Programs
- Keyshot
- Arduino

## SOFT SKILLS

- Team Building
- Team Work
- Problem Solving
- Creative Thinking
- Good Employee Relations

## WORK EXPERIENCE

### GUNSEL - CYPRUS



#### *Battery Pack Team Leader (October 2018 - Present)*

- Performed 3d design of the Battery Pack mechanical structure and general layout of the pack.
- Performed 3d design of the module Cooling system and co-developed battery pack coolant route with a big OEM.
- Managed engineers directly to design and build battery pack Electronical Low Voltage cable harness with co-operation with Gunsel Electronics team.
- Managed engineers directly to design and build High Voltage busbar designs & component assemblies.
- Designed UVA transmissive Holder, capable of carrying hundreds of 21700 cells. Manufactured those holders with the Vacuum molding technique for the low-mass prototype vehicle fleet.
- Managed engineers to develop a 400 nm wavelength Ultraviolet light system to be used to bond battery cells to holders. Reduced system cost compared to similar products on the market.
- Conducted reports on battery pack cooling system under certain load conditions. Energy and temperature flow is observed for both Battery Module and Battery Pack using Thermal Camera.
- Designed supportive equipment for producing battery modules and battery pack.
- Have good knowledge of Vacuum Molding, 3d printing, Wire bonding, Sheet metal forming, Thermoforming, Plasma Treatment, Ultraviolet Adhesives.

## WORK EXPERIENCE

### LANGUAGES

- English. (1997-2000 Primary School at London, United Kingdom)
- Turkish. (Native)

### CERTIFICATES

- Wire Bonding Training (Programmer - Operator)
- Stratasys Fortus 450mc (Model Slicing - Machine Maintenance)
- Thermoforming Machine (Basic Training)
- Graduated from second place, (Academic Success)

### INTEREST & HOBBIES

- I have huge passion for automobiles. Driving 270 horsepower, Rear-Wheel drive sports car. Attending drag races and drift challenges. 
- Made my own driving simulator game-bench at home. Racing against competitors across world, online
- Traveled more than 12 countries across world. Love meeting new people and cultures!

### GUNSEL - CYPRUS

#### Battery Systems Engineer (june 2017 - October 2018)

- Performed reverse engineering on Tesla Motors battery pack. Listed all of the Mechanical, Electrical components, suppliers. Module and Pack dimensions are found.
  - Chemical test has been conducted to specify Tesla Motors, Module Busbar material.
  - Spectral Analyze has been conducted to specify Tesla Motors, Module plastic injection part.
- Performed Cell-based, SOC tests, Charge-discharge cycles under certain environmental conditions and different C-ratings are performed and reported. Good familiarity with 21700, 18650 cells.
- 6.5kWh battery module and sub-components are designed and the prototype module is produced from Industrial 3d printer.
- Responsible engineer for U/S Wire Bonding machine also played a big part in selecting and purchasing the right machine for Battery Department. Got both operator and programmer level training from the factory, Germany. 
- Responsible engineer for Industrial 3d printing machine. I gave the operator and maintenance training to other engineers at the company. 

### UNIVERSITY PROJECTS

#### ATILIM UNIVERSITY- TURKEY

##### Mechatronics Engineer

- Designed and manufactured "Tanktronic" Tank robot. This robot has the capabilities to detect target, automatic turret aim and fire at the target. Firing mechanism is achieved by boosting the 111v Polymer batteries to 35Volts, and over charging the cannons. Cannons are made from capacitors. Target detection works at 5 meters, firing range is more than 15 meters. There is also sound when firing cannons and fume due to the burned capacitors. Total of 4 motors are used. 4 ways movement is possible. Control via bluetooth over smart phone. Remaining battery percentage could be seen from the smart phone. 
- Designing and manufacturing dinosaur robot using Theo-Jansen walking mechanism, controlled by smartphones bluetooth, capabilities like Dinosaur roaring when tail is pulled, dancing when head is touched, obstacle avoiding ultrasonic sensors in front, 4 channel neck movement, color sensing eyes, walking and running. Theo Jansen walking mechanism is designed and simulated by Working Model program. Using Catia V5 DMU kinematics walking mechanism is simulated in 3 dimensional. Software is done by using Arduino and electronic board design is completed using Proteus. 

### PREVIOUS EDUCATION

#### ATILIM UNIVERSITY - ANKARA

##### Bachelor of Mechatronics Engineering

- Attendant Solar Car Challenges. Won 2 Awards.
- Graduated as second place student from Mechatronics Engineering.
- Published Paper: DEVELOPMENT OF LAND-AIR HYBRID ROBOTS ISBN 978-975-6707-53-1 (e-book)