

Oumaima RIMCHA

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Battery System Engineer

Work Experiences

Battery System Engineer.

Fonroche Lighting - Agen - 08/2023.

As part of the development of NiMH and LFP batteries to ensure 365 days lighting through solar street lamps.

Benchmarking of new suppliers and monitoring of current ones, as well as qualification of new products.

- Technical sizing of batteries with application constraints, proposing innovative solutions and overseeing implementation.
- Drafting of technical specifications, supplier management..
- Implementing electrochemical validation plans and analyzing test results (OCV-SOC, C-rate, cycling analysis).
- Collaboration with teams and suppliers on BMS development, ensuring technical convergence on SW/HW strategies.
- Participation in anomaly resolution during validation and production to ensure system robustness.
- Design of safety measures and risk analysis in compliance with international battery regulations.
- Oversight of quality control procedures to maintain standards across the product lifecycle.
- Establishing validation procedures and monitoring compliance throughout the development process.

Thermal Process Engineer.

EXELSIUS - Mouans-sartoux - 06/2022-07/2023.

Optimization and modeling reflow and polymerization ovens.

- Model thermal exchanges in ovens with different technologies (UV/Convection/Infrared) and heating lengths (from 2m to 6m using Octave).
- Optimize the electrical consumption of ovens by making process modifications up to 30%.
- Conducting client visits to provide support for troubleshooting and maintenance.
- Sizing new ovens and contributing to product development.

Thermal Validation Engineer.

SERMA INGENIERIE - Guyancourt - 08/2019 - 05/2022.

As part of a project for the development of hybrid and electric vehicles at Renault within the battery pack division.

- Creating Instrumentation Sheets for Battery Components.
- Preparing Test Requests for Thermal Characterization.
- Monitoring Test Progress and Analyzing Results.
- Conducting Thermal Resistance Calculations.
- Developing Cycle Syntheses for Battery Pack Performance.
- Overseeing Test Planning for Multiple Projects.

R&D Thermodynamics Engineering Intern .

Groupe ATLANTIC - Belfort - 2018(6Months).

Studying, optimizing, and modeling heat exchangers (evaporator and condenser) in a thermodynamic heat pump for a water heater..

Education

IAE Paris - Sorbonne Business School- Paris, France.

Executive MBA, Management et Administration des Entreprises.
2024 – 2026.

University of Perpignan - Perpignan, France.

Master Degree in Energy, materials and solar processes .
2016 – 2018.

University Institute of Technology - Meknès, Morocco.

Bachelor's Degree in Thermal Energy - Renewable Energy and Energy Efficiency.
2012 – 2015.

Skills

Soft Skills .

· Communication Skills, Problem-Solving, Teamwork, Adaptability, Critical Thinking.

Technical Skills .

· Thermal Balance, Fluid Mechanics, Test Validations, Sizing of LFP and NiMH Batteries.

· Project Management and Planning (Certificate : Manage a Project with Waterfall Methodology/Introduction to Agile Project Management).

· Matlab, Python, VBA.
· PVsyst, COMSOL, MS Office.

Language Skills.

· French, English, Arab .

Interests and Activities

· Car driving license.
· Hobbies : Travelling, Running, cycling, Hiking.