# Job description

## Job title

Principal Electrochemical Engineer for Electrolyzer Stacks

## About NovaMea

NovaMea SA is an EPFL Startup located in an innovation park in Renens (VD), Switzerland. The company aims to develop, produce, and sell electrochemical energy storage and conversion technologies and devices. The company currently focuses on anion exchange membrane water electrolyzers which can be used for the production of green hydrogen. NovaMea's technologies and products are superior to competitors in terms of cost, scalability, compatibility with renewable energies. The company expects to make a significant contribution to the construction of a zero-emission energy system.

## Job summary

The Principal Electrochemical Engineer will provide design and engineering leadership for the development of advanced anion exchange membrane water electrolyzers for green hydrogen production, in accord with requirements of high performance, long life, and low cost. In this capacity, the person will be responsible for the design and manufacture of electrolyzer stacks as well as the test of electrolyzers using NovaMea's proprietary membranes and electrodes. The person will also coordinate with internal or external engineers for the electrical control as well as the balance of plant of the electrolyzers.

## Duties and Responsibilities

- Lead research and development projects related to anion exchange membrane electrolyzers
- Develop and design components and assemblies for electrochemical cell stacks to meet functional requirements while minimizing cost. Order and inspect components for compliance with specifications.
- Lead major design and test tasks in support of product development
- Lead the application of sound engineering principles to the design and analysis of complex components and assemblies
- Perform engineering calculations to support design concepts, including stress analysis for mechanical robustness, CFD for uniform fluid distribution, and tolerance models.
- Lead the detailed review of technical specifications and technical drawings
- Use PTC Creo to create detailed drawings, assemblies, and bills of materials.
- Perform research and testing to extend electrochemical cell stack functionality, identify novel approaches for cost reduction or increased reliability.
- Use equipment and hand tools to assemble and test cell stacks and associated systems. Prepare test plans, technical reports, drawings, and assembly processes.
- Coordinate and contribute to system/product development initiatives, such as electrical control, balance of plant, and product design
- Lead and/or monitor collaborative or supplier development initiatives

*The above list of duties and responsibilities is indicative. Other duties or responsibilities may be assigned after discussion.*

## Qualifications and skills

1. A master's or above degree in Electrochemical Engineering or related fields.
2. Prior experience in fuel cells or electrolyzers is preferred
3. Solid grounding in engineering fundamentals: heat & mass transfer, thermodynamics, fluid dynamics.
4. Experiences with common engineering design software (e.g., 3D CAD; FEA; etc)
5. Familiarity with manufacturing processes including molding, machining, forming, and joining methods
6. Ability to create and utilize mathematical models
7. Experience in test planning, laboratory experimentation, and data analysis
8. Collaborative leadership style in motivating, developing and empowering diverse teams
9. Fluency in English, both spoken and written
10. Authorization to work in Switzerland

## Benefits

1. Contributes to the development and implementation of a new cutting-edge green technology
2. Builds-up agile and decisive, value-driven, and business-focused leadership

## Applications

Please send your CV and application letter to Ms. Lou Denisart, Operational Manager, NovaMea SA, E-mail: novamea.jobs@gmail.com.

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