

Position: Turbomachinery Design Engineer

Location: London – Hackney / Crawley

THE COMPANY

Founded in 2014 in London, Entropea Labs is an innovative sustainable energy and technology Company focused on the development and optimisation of high efficiency and scalable heat to power systems. Entropea Labs technology can convert unused and wasted heat into renewable electricity from a number of heat sources including: Solar heat, biomass, industrial waste heat and Combustion Engines. Entropea Labs aims to be a leader in the conversion of waste heat to electrical energy for various commercial applications.

For more information visit: www.entropea.com

THE OPPORTUNITY

Entropea Labs is seeking an experienced and highly motivated Turbomachinery Design Engineer to help the company deliver various projects and support market deployment.

Duties & Responsibilities

- Analyse and select adequate type of turbines including various types of radial in-flow and out-flow, axial and counter-rotating turbines for the conversion of thermal energy carried by various working fluids to electricity via direct coupling with high-speed generators
- Produce mechanical designs for new turbines (3D CAD preferentially in Solidworks)
- Produce 3D turbine designs coordinate with manufacturing, assembly and testing
- Support coupling of turbine with high speed generators with considerations for bearing loads, rotordynamic constraints, seals selection, materials
- Using Entropea Labs' developed MATLAB codes for thermodynamic cycle modelling and support the development of new ones
- Plan system tests, assist with data collection and post processing
- Take part in project meetings with academic and industrial partners
- Produce technical documentation and progress reports
- Visit clients' sites, perform feasibility studies, produce integration strategies

SKILLS AND EXPERIENCE

Essential:

- 3-5 years of experience with the design of turbines/high speed rotating machines
- Proficient in CFD software (Ansys FLUENT)
- Proficient in CAD packages (Solidworks/AutoCAD)
- Experience in turbine design (from OD to manufacturing)
- Experience with different turbine manufacturing techniques: CNC machining, welding, casting)
- Experience with thermodynamics/fluid mechanics

- Understanding of bearing and seal design
- Able to carry out jobs independently and identify potentially more effective methods
- Proficient in MATLAB
- Project management skills
- Problem solving skills
- Excellent oral and written communication skills (English)

Desirable:

- Experience with assembly of complex mechanical and hydraulic systems
- Organic Ranking Cycles
- PhD/MRes in rotordynamics/turbine design
- Knowledge of balancing techniques
- Knowledge of refrigerants and other lowboiling point organic fluids

Reporting to:

Managing Director, Engineering Manager

Employment status

The successful candidate will become a full-time employee of Entropea Labs

Only candidates with right to work in the UK will be considered. Sponsorship not offered.

Preferred Start Date

October 1st 2018