



Position –Mechanical Engineer / Technician (Intermediate Level) - Subsea Systems

Employment Type – Term Employment, 6-12 months expected with possible extension.

Location – Hayward, California

Reporting to – Lead Mechanical Design Engineer

Application Deadline: Monday, August 17, 2015

Program Overview

Schmidt Ocean Institute (SOI) is a private non-profit operating foundation (www.schmidtocean.org) established in March 2009 to advance oceanographic research, discovery, and knowledge, and catalyze sharing of information about the oceans. SOI is developing a series of advanced undersea robotic research vehicles for use on SOI's research ship Falkor. The vehicles will support scientific research throughout the full range of ocean depths, including operations at hadal depths, thereby providing scientists with access to the deepest parts of the ocean. The vehicles will be outfitted with a suite of sensors and scientific equipment to support collection of a broad range of data and samples.

Purpose / Role

The Mechanical Engineer/Technician's is an intermediate level position. The primary responsibility is to support the lead mechanical engineer in developing systems and designs to be integrated into SOI's advanced undersea robotic research vehicles. This will include a range of tasks from Solidworks detailed design and drafting to hands on prototype assembly and testing of mechanical and electromechanical vehicle systems.

The role may also include commissioning, sea-trials and technical support for at-sea operations of multiple technical and scientific systems related to the goals of the Schmidt Ocean Institute (SOI) and collaborators. The Mechanical Engineer/Technician will work with the Lead Mechanical Design Engineer and technical team to contribute practical and innovative designs for SOI's new subsea vehicle systems.

Skills & Education

Bachelor Degree in Mechanical Engineering or Mechanical Engineering Technician Diploma with 3+ years of experience with development of subsea systems. Proficient in Solidworks design and drafting techniques. To include Requirements Analysis, Design Skills, Presenting Technical Information, Equipment Maintenance, Conceptual Skills, Quality Focus, Control Engineering, Production Planning and Employment Knowledge.

Primary Responsibilities

- Detailed design and drafting using solidworks for mechanical and electromechanical systems and products.



- Liaison with suppliers and manufacturers to source components and manage fabrication of prototypes and finished products.
- Research and analysis of subsea products and systems to satisfy vehicle requirements.
- Project management of intermediate size design projects from initial design to integration.
- Applying principles of mechanics, hydraulics, heat transfer, alloys and composite materials to insure designs meet program requirements.
- Confirm system and product capabilities by designing feasibility and testing methods.
- Develops mechanical and electromechanical products by studying system requirements; researching and testing manufacturing and assembly methods and materials; soliciting observations from operators.
- Prepares product reports by collecting, analysing, and summarizing information and trends.
- Contributes to team effort by accomplishing related results as needed.

Requirements:

Required:

- A minimum of 5 years previous post-graduate experience in a design role preferably of low volume high-value machinery and/or equipment.
- Teamwork: the candidate must be able to communicate well with cross-functional team members, be able to efficiently collaborate with team members to achieve project goals and contribute positively to the engineering community. Sound understanding of engineering principles.
- Competent in use of SolidWorks, SolidWorks Simulation, AutoCAD, PRO-E or similar space frame design and analysis packages
- Good experience in creating detailed manufacturing drawings
- Experience in Design for Manufacturability (DFM), and Design for Assembly (DFA), statistical tolerance analysis techniques, functional dimensioning, and geometric tolerancing (GD&T).
- Excellent written and verbal communication skills (English)
- Valid passport

Preferred:

- Good understanding of pressure vessel design, analysis, and testing
- Proficient in Agile or PDM/PLM Works (or similar), Excel.
- Some experience with electronics packaging, routing, and connectors.
- Working experience and a firm grasp of FEM principles (FEA, CFD).

Compensation:

Schmidt Ocean Institute offers a competitive salary and benefits package.

How to Apply:

Send a letter of interest and a resume / CV to: jobs@schmidtocean.org that clearly outlines how you meet the above requirements. References check will be conducted. Should a candidate make it to the formal interview stage, a design / project portfolio will be an asset.