

# OPT

## OCEAN POWER TECHNOLOGIES

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### POSITION DESCRIPTION

**Job Title:** Systems Engineer

**Reports To:** Systems Engineering Manager

Ocean Power Technologies is a leader in the development and commercialization of innovative ocean wave energy conversion technologies and products branded as PowerBuoy™. Its PowerBuoy systems convert the heaving motion of the waves into reliable and persistent electric power. Its PB3 PowerBuoy is a fully commercial product and current being aggressively commercialized to a variety of markets to include oil and gas, metocean, defense and security as well as communications.

The Systems Engineer is a motivated and creative engineer with a focus on cutting edge multi-disciplined systems engineering technologies and capabilities as they relate to hydrodynamics of floating bodies, signal processing such as time series and spectral analyses.

The Systems Engineer is expected to work in a multidisciplinary team environment with highly qualified professionals. As such, he/she drives business priorities, program execution needs, and a systems view of problem solving while executing detailed engineering activities in their specific field of expertise. Working together with peers and other leaders and contributors in the business, the Systems Engineer's responsibilities include:

#### Responsibilities:

- a. Develop product design specifications and performance requirements
- b. Develop and use appropriate software tools for applications such as projected mechanical and electrical power generation for defined operating conditions, mechanical loading assessment and quantification, system efficiency, reliability, life, mooring analysis and design, overall product and system design optimization, among others.
- c. Produce clear, comprehensive system-level specifications with input from mechanical and electrical teams
- d. Manage task effort and priorities; communicate results clearly to expert and non-expert audiences
- e. Support the design and analysis of components, modules, and systems with a focus on meeting all performance requirements
- f. Contribute to the development of the product design validation approach and experimental setups as needed
- g. Participate in technical marketing and proposal preparation
- h. Accountability for delivering on all priorities, assignments, and program/business expectations

- j. Support and/or coordinate product and technology development reviews in accordance with the company's Engineering development process (Stage Gate Process)
- k. Ensure all technical documentation is generated and reviewed in accordance with company's Engineering process, and Program/Customer contract deliverables/expectations
- l. Support the planning of all development
- m. Promote a safe working environment as well as a stringent focus on understanding, reporting and management of risk

**Requirements:**

- a. A B.S. degree in Naval Architecture, Ocean Engineering, Mechanical Engineering, Electrical Engineering or a related discipline (M.S. preferred)
- b. 3–5 years of hands-on engineering development experience
- c. Preferred experiences include
  - i. Hydrodynamics of floating bodies,
  - ii. Signal processing such as time series analysis and spectral analysis,
  - iii. Complex electro-mechanical systems
  - iv. Heavy electro-mechanical equipment and operations (heavy machinery, large welded structures, dynamics analysis, fatigue assessment, electric power generation, and marine operations)
- d. Leadership, accountability, and ownership
- e. Ability to think outside the box and work with Systems Engineering Manager and executive management to define and implement business growth strategies
- f. Software capabilities needed include MATLAB, Simulink, OrcaFlex, and MS Office. Experience with Object-Oriented Programming and solid modeling software is an asset.

**Position Location:**

The position will be located at OPT's New Jersey headquarters. Relocation assistance will be considered.