From:	Louis Whitcomb
To:	me-class2023@lists.johnshopkins.edu; ME-Graduate Students
Subject:	[me-grads] Fwd: FW: Job Announcement - Mechanical Engineer Positions
Date:	Wednesday, September 14, 2022 2:19:37 PM
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MBARI is hiring several MEs... if you know of anyone looking for a position in the ocean research field please let them know. If the person is right, they'll take care of work visas and what not. We also have EE and SE positions, as well as technician openings. Lots of folks retiring after so many years of no one leaving, now we have a bunch of slots. I'm out in a couple years myself. If folks go to the MBARI website I was told the open positions page is up to date. We have a new ship being delivered late next year so our area of operations is expanding as well as a new building starting construction this month.

## **Mechanical Engineer Positions**

The Monterey Bay Aquarium Research Institute (MBARI) is a 200-person non-profit, oceanographic research institute funded yearly (~\$50M) by the David and Lucille Packard Foundation. Founded by David Packard (Hewlett-Packard) in 1987, MBARI has been at the forefront of deep-ocean research, utilizing its location in Moss Landing, CA, at the head of the Monterey Bay submarine canyon, to develop expertise in underwater vehicles, sensor development, communication, and data analysis, in order to better understand our changing ocean. A unique aspect of MBARI, insisted upon by Mr. Packard, was that scientists, engineers, and operation staff work together as equals; this remains a distinguishing feature of working at MBARI. Another unusual feature is that MBARI is known for supporting high-risk, high-reward engineering development programs.

At this time MBARI is seeking to hire several Mechanical Engineers with experience spanning the range from design engineering to first-principles analysis-based contributions. These positions provide opportunities to contribute to a wide range of MBARI projects with EE and SE colleagues in order to engineer solutions that will enable ocean research. The ideal candidate is able to multi-task effectively across projects. These positions have a large degree of autonomy and opportunities for self-direction.

Engineers at MBARI have access to a wide range of cutting-edge technologies and state-ofthe-art facilities, and can be involved in every aspect of ocean instrumentation development-from idea conception, design, manufacture, to deployment and support of novel systems. Among many advanced technologies developed at MBARI, the engineering team has designed and built a robotic microbiology laboratory, autonomous underwater vehicles (AUVs), remotely operated vehicles (ROVs), a wave-energy extraction system, a benthic seafloor explorer, and underwater laser and imaging systems. MBARI maintains a sophisticated manufacturing facility including a CNC enabled machine-shop, manual machines, water-jet cutter, welding facilities, electronics fabrication facilities, and heavy equipment. Most manufacturing is done on-site, but some items are sent to outside shops as needed. If you have the interest and experience to contribute to our work, then we very much welcome your application. Because we are working to fill a range of positions, direct experience with all of the following areas of activity and experience are not required for application. We will consider applicants across a range of experience levels.

As a mechanical engineer, you will:

- 1. Develop complex mechanical systems, starting at the concept level and carrying through to the deployment of the instrument or platform.
- 2. Design custom parts and manage their development through design, fabrication, test, and final system integration.
- 3. Perform engineering analysis to evaluate design trade-offs and determine optimum solutions.
- 4. Document engineering designs, as well as integration and test plans.
- 5. Participate in design reviews, both as a reviewee and reviewer.
- 6. Work collaboratively as part of multi-disciplinary teams.
- 7. Support our operations group and ship with engineering support as needed.

## Desirable Skills and Characteristics of Applicants (not all are required)

- 1. At minimum, a BS in engineering.
- 2. Excellent interpersonal and communication skills.
- 3. Ability to work independently and on multiple projects simultaneously.
- 4. Ability to perform design work using design software, generating solid-models and prints as needed. Solidworks is used at MBARI, training is available if coming from a different platform.
- 5. A core competency in mechanical engineering basics; strength of materials, mechanism design, and electro-mechanical systems and integrations.
- 6. Experience with engineering analysis, perform paper-based order of magnitude evaluations through to sophisticated computer-based simulations when appropriate.
- 7. Track record of bringing designs to completion on time and as scoped.
- 1. Experience with robotic systems.
- 2. Experience with designing for the deep-sea.
- 3. Basic understanding of electrical and software engineering.
- 4. Ability and willingness to go to sea for specified periods of time or assist with instrument deployments.
- 5. Experience working in diverse, multi-disciplinary teams.

We are currently accepting applications for multiple ME positions and welcome a range of applicants with different levels of experience and areas of expertise. This posting will remain open until all are filled. MBARI offers a competitive compensation and benefits package consistent with peer positions at other non-profit and academic institutions.

MBARI is an equal opportunity employer. MBARI considers all applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, age, disability, covered veteran status, or any other characteristic protected by federal, state, or local laws.

## EOE

## MBARI Welcomes Diversity

Norm Steinberg Director of Human Resources

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