

2009 Summer Workshop for Faculty on Intermediate Level Remotely Operated Vehicle (ROV) Building for Classroom Projects



July 20- 26, 2009

Monterey Peninsula College: Monterey, California

The Marine Advanced Technology Education (MATE) Center's annual Summer Institute for Faculty Development provides educators from high schools, community colleges, and universities from across the country with the skills and experiences they need to incorporate marine science and technology topics into their classrooms. In addition to lecture and hands-on time, there will be field trips to the Monterey Bay Aquarium Research Institute (MBARI) and the Monterey Bay Aquarium.

The MATE ROV Institute will provide a forum for educators, especially those interested in participating in future MATE/ Marine Technology Society's ROV Committee Student ROV Competitions, to:

- (1) Acquire the knowledge and skills needed to implement ROV design and building curriculum in their classrooms.
- (2) Gain exposure to and an understanding of the type of work that ROV technicians do and the technologies they use.
- (3) Learn about the many career opportunities available in the submersible technology field.



During the ROV institute participants will:

- ▼ Build a small-scale, fully functional ROV that can be replicated with students.

- ▼ Use the vehicle to complete a set of pre-determined missions.
- ▼ Acquire the knowledge, skills, and resources to effectively mentor students in designing and building an ROV to participate in future MATE/ MTS ROV Committee competitions.
- ▼ Learn how to use a basic stamp to program their ROVs to use more advanced motor controls and sensors.
- ▼ **Learn how to build, use and incorporate sensors into ROV's.**
- ▼ Visit and interact with undersea engineers, ROV pilots, and marine technicians to understand the work they do and the technologies they use.
- ▼ Make connections with educators with similar interests and share “best practices” in teaching and instruction.

Workshop participants should be:

- ▼ A current faculty member at a college, university, or high school. (If you do not fall into one of these categories, you will need to add a compelling statement to your application as to why you should attend.)
- ▼ Willing to return to your institution and either start an ROV course or club or integrate ROV technology into your current marine science, technology, or engineering courses.
- ▼ Willing to share with the MATE Center what you have accomplished as a result of the workshop. This could be adapting lessons from the workshop to your region, adding tasks/skills to the lessons, or developing new courses and new programs.

Three graduate credits are an option offered for attending the institute through California State University Monterey Bay (participants must cover the cost of registering for the course).

Costs: There is no fee for participating in this institute. In addition, hotel accommodations, lunches and two dinners will be provided by the MATE Center. Participants will be required to provide their own transportation to and from Monterey, CA.

Note: If you live less than 50 miles from Monterey, California, hotel accommodations will not be provided.

For more information on our summer institutes and to find application forms, please visit the MATE web site at

<http://www.marinetech.org/education/workshops.php> or contact Erica Moulton, MATE’s Faculty Development Coordinator at emoulton@marinetech.org or (727) 894-6821.