FUTURE MATE COMPETITIONS

Raising the Bar:

Will Your Students Be Ready?

Who? Instructors and mentors leading MATE ROV competition teams

What? A one-hour ***required*** professional development workshop. Instructors and mentors will receive a certificate of participation. You will also have the opportunity to win one of the circuit boards presented during the workshop (see **How** below for more details).

Where? UCB 127 (this is where team check-in will take place on Wednesday, June 23rd)

When? 11am – 12pm, Thursday, June 24th (this is immediately following the opening ceremonies, while your teams are setting up their work stations)

Why? The ocean engineering and technology field is rapidly evolving, particularly in certain disciplines. For example, computer science is one area that is playing an increasingly important role in the ocean workplace. From networking shipboard hardware to programming autonomous vehicles, computer science knowledge and skills are highly sought after by employers. The ability to program computer hardware for data acquisition and processing is also becoming an important on-the-job skill.

A major objective of the MATE Center is to ensure that education programs are aware of current trends in the ocean workplace and to prepare students for the careers that lie ahead. Given that, MATE ROV competition scenarios will continue to revolve around real events and how they connect with the knowledge and skills required in the workplace.

This workshop is designed to help you better prepare your students for future MATE ROV competitions and, ultimately, employment in a progressively more challenging and competitive workforce.

We know that student achievement begins with YOU. By giving you the tools, we believe that we are helping to give your students the keys for success in their education and careers.

How? Scott Fraser, Electrical Technology Chair at Long Beach City College (LBCC), will present and demonstrate accessible *and* affordable technologies that you can use to challenge your students' learning. These technologies include **Parallax Basic Stamp, PWM control of H-Bridges, sampling of analog and digital sensors, topside versus onboard ROV processing, circuit board development, and soldering skills. There will be a single board ROV controller used as an example and information about parts and circuit boards will be made available.** Scott will also give examples of how you could have used these technologies to solve this year's competition mission tasks.

In addition to the Electrical Technology Department Chair, Scott is the lead instructor for the MATE Center's intermediate-level Summer Institutes for Faculty Development. You are in good hands!

Note: The MATE Center is not advocating for or requiring your team to use any of these technologies. Rather, the goal is to present options that will expand your list of resources *and* help you to expand your students' knowledge and skills.