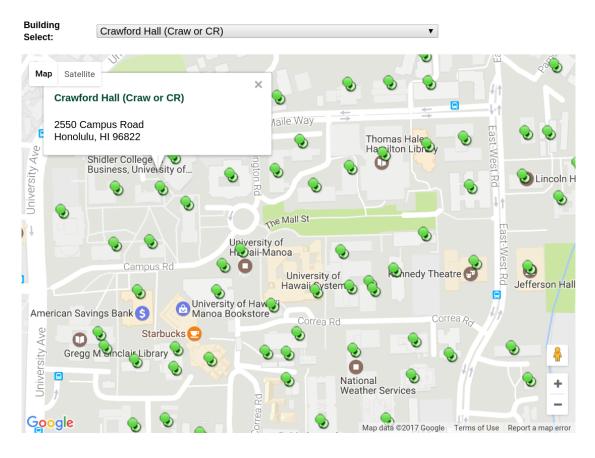
CEE691 Seminar Series in Spring 2017

The Department of Civil and Environmental Engineering University of Hawaii at Manoa

Relating To The High Technology Development Corporation

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Makai Ocean Engineering, Inc. (http://www.makai.com)

Abstract Makai Ocean Engineering, Inc. STRONGLY SUPPORTS HB595 HD1 that makes an appropriation to HTDC to continue providing grants to businesses with a federal small business innovation research (SBIR) phase II or III awards. Makai Ocean Engineering, Inc. is a locally-owned and operated technology company based in Hawaii for over 44 years and an active participant in the Small Business Innovation Research (SBIR) grant program. The SBIR program consists of three phases that encourages early stage investment and innovation in technology. Phase 1 provides a very small amount of money that is barely enough for proof of concept research. However, it is the Phase 2 and 3 funding stages that really provide a "bridge" for companies to survive the "valley of death" between the idea and research stages of development, through prototyping to commercialization. According to HTDC, for every dollar invested through this program, Hawaii companies have attracted 20 federal dollars in return to the state, plus commercialization funding. The Hawaii SBIR program supports projects with vetted technology backed with federal funds. The state matching funds are critical to winning later phase awards and getting some of the technologies to market. The Phase 2 and 3 SBIR matching grants assist companies with a more difficult, but also more commercially-promising stage of development than Phase 1. Carefully selected Phase 2 and 3 matching grants represent more of a "sure bet" in terms of a successful and highly leveraged investment in economic development for the State, and growing our tech sector. For example, Makai's subsea cable laying software began as a Phase 1 SBIR (matched by State for \$20k in the year 2000) and then went on to Phase 2 and 3 and became the world's #1 commercial cable laying software, with over \$30 million in commercial revenues and high tech jobs for Hawaii over the last 17 years. This is a direct multiplier of more than 1,500X for the State's investment, not counting the indirect benefits of retaining some of the world's best engineers in Hawaii and the additional technologies they have generated during this time. Imagine a return like that on an investment more substantial than \$20k. Makai is currently working on a Phase 2 SBIR program focused on autonomous underwater vehicles, which could easily surpass the \$30 million cable laying software in terms of revenue to the state. Our federal customer noted that the work we had performed on the underwater vehicle under the HTDC Hawaii State matching grant program was a key reason we were selected for an additional \$2.1 million award in late 2016. In addition, Makai and Referentia were two local companies recently honored with a national award, the SBIR Tibbetts Award at the Whitehouse in January, 2017. This award recognizes the very best SBIR companies in the country whose technologies have made a strong economic impact in terms of high paying jobs, and displaying success in actually commercializing federal R&D. We need this HTDC administered program to make possible more national success stories by local companies. See the Governor's press release about awards here: http://governor.hawaii.gov/newsroom/latest-news/dbedt-news-release-htdc-small-business-grantees-honored-with-national-tibbetts-award-at-the-white-house/ This is why we STRONGLY SUPPORT HB595 HD1, which would provide the state matching funds for Phases 2 and 3 of the federal SBIR program to enable companies to commercialize new technologies more effectively. Not only would this expansion of funding enable our tech industry to compete and win more Federal monies for technology development, it would provide highly-skilled professional jobs for our keiki here at home. Thank you for the opportunity to offer these comments.



Tuesday, April 11th 2:30 p.m. – 3:20 p.m.

 $\frac{\text{Crawford Hall}}{\text{Room } 105}$