

**UNIVERSITY OF RHODE ISLAND
FACULTY SENATE**

COUNCIL FOR RESEARCH

REPORT ON URI CENTER OF EXCELLENCE IN UNDERSEA TECHNOLOGY

On March 3, 2008 the Council for Research reviewed a proposal submitted by Professor Malcolm L. Spaulding, Ocean Engineering to change the status of the University of Rhode Island, Center of Excellence in Undersea Technology from temporary to continuing status.

The Council for Research voted to approve continuing status for the University of Rhode Island, Center of Excellence in Undersea Technology.

In accordance with the University Manual legislation governing Centers, Institutes, Bureaus, and Partnerships, Section 8.9.22, Continuing Authorization for Centers, the Council for Research recommends that the Faculty Senate approve continuing status for the University of Rhode Island, Center of Excellence in Undersea Technology.

Following is the proposal in the format required by the Board of Governors for Higher Education

University of Rhode Island, Center of Excellence in Undersea Technology.

TITLE: University of Rhode Island, Center of Excellence in Undersea Technology

A. GENERAL INFORMATION

- 1. Name of Institution:** University of Rhode Island
- 2. Administrative Unit:** University of Rhode Island
- 3. Title of Proposed Organizational Unit:** University of Rhode Island, Center of Excellence in Undersea Technology
- 4. Intended Date of Organization Change:** January 1, 2009 or earlier
- 5. Intended Location of Organizational Unit:** Sheets Laboratory, Ocean Engineering, University of Rhode Island, Narragansett Bay Campus, Narragansett, RI
- 6. Institutional Review and Approval Process**

College of Engineering	Date Approved February 12, 2008
Graduate School of Oceanography	February 25, 2008
Council of Research	March 3, 2008
Faculty Senate	April 24, 2008
President of the University	
- 7. Summary of Proposed Organizational Change**

The URI Center of Excellence in Undersea Technology was given temporary authorization to operate as a Center by the Provost in February 2006. The proposed organizational change would establish the Center of Excellence in Undersea Technology as a permanent University Center.

8. Signature of the President

Robert L. Carothers, President

9. Name of Person (s) to contact during review:

Name: Malcolm L. Spaulding
Title: Director, Center of Excellence in Undersea Technology and Professor, Ocean Engineering
Telephone: 401-874-6666
Email: Spaulding@oce.uri.edu

B. RATIONALE

The Center of Excellence in Undersea Technology was established under the temporary authorization procedure provided in the University Manual in February 2006. The center was awarded a contract, in the form of a cooperative agreement, in January 2007 by the Naval Underwater Warfare Center (NUWC), Division

Newport to operate a center of excellence in undersea technology. The award, based on a competitive procurement, was for an initial year with options for 4 additional yearly renewals. The contract was extended in late 2007 to 4 years, with a tentative end date of January 2010. This request is to seek approval for permanent authorization for the URI Center of Excellence in Undersea Technology. This designation is required if URI is to continue to fulfill the requirements of the existing cooperative agreement with NUWC.

C. INSTITUTIONAL ROLE

NUWC and URI entered into a Cooperative Agreement for the formation and operation of a Center of Excellence in Undersea Technology (COEUT) on January 16, 2007. The agreement is for 1 yr, with options for 4 renewable years. The vision for the center is to become a preeminent national center focused on the education and training and the research, development, test and evaluation of undersea technologies and associated products for the national defense and security. The Center's mission is to establish cooperative research, product development, technology transfer, and science and technology training and educational alliances between NUWC and other center partners.

The center is structured and operated as a consortium based organization and includes both industrial and academic partners. Participation in the center's programs and activities is open to all (academia and industry) who pledge to work toward achieving the Center's vision and mission statements. Center academic partners to date come from the following institutions: URI (Ocean, Chemical, Mechanical, and Electrical/Computer Engineering, Chemistry, Graduate School of Oceanography, Computer Science), University of Massachusetts- Dartmouth and Boston, Providence College, Woods Hole Oceanographic Institution, MIT, Navy Postgraduate School, University of Southern California, North Carolina A & T State University (Historically Black College), University of Delaware, and Virginia Polytechnic Institute. Industrial partners include: Alion Science and Technology Center, Applied Research Associates (ARA), Applied Science Associates, Inc (ASA)*, Alternative Systems Concepts, Inc. (ASC), BTech Acoustics, LLC, General Dynamics Electric Boat, Electro Standards Laboratories, EmINENT Microsystems Inc., Exploration Technologies Group, FarSounder, Inc*, Mercury Systems, MIKEL, Inc., Ocean State Technology Corp., OceanServer Technology, Inc., Purvis Systems, Inc., Raytheon, Integrated Defense Systems, Rite-Solutions, Inc., SAIC, SubChem Systems, Inc.*, Teledyne RD Instruments, Inc, United Technologies Research Center (UTRC), and WetLabs. (*URI spin offs). There are a total of 123 individuals that currently subscribe to the center's email server list (coeut@oce.uri.edu).

The center works collaboratively with its partners to identify opportunities and support the joint development and execution of funded research projects in areas of naval interest and with the potential for dual use. In the educational area, the

center's primary focus has been on the development and implementation of a unique inter-departmental coordinated Master of Science programs with a focus in Systems Engineering. The program is offered on site at CCRI-Newport and organized through the College of Continuing Education Special Programs Office. Details on the program are available at the Center's web site (www.coeut.org).

D. INTER-INSTITUTIONAL CONSIDERATIONS

No other institution of higher education in Rhode Island has research and educational programs in undersea technology. There is no duplication of effort in this area in the state.

The center actively involves researchers and educators from other institutions who have an interest in the center's focus areas.

E. RESOURCES

Space

The Center will continue to operate out of existing office and laboratory space, primarily on the Narragansett Bay campus, and will take advantage of the facilities and equipment available through its institutional partners; primarily the URI Department of Ocean Engineering and Graduate School of Oceanography (GSO), on an as needed basis. The center has access to NUWC facilities and personnel via the existing Cooperative Agreement with NUWC.

Financial Support

Support for the center to date has come from core funding provided by NUWC (\$150K per year), allocated on a yearly basis, plus a number of additional research or education efforts. URI has cost shared a portion of the center's operation in the form of release time for the Director and Associate Director of the Center. (approximately \$70K annually, including overhead and fringe benefits). The core funds received from NUWC are allocated to partially support the center's operation (\$50K) (1/2 time, Scientific Research Grant Assistant and travel and operating funds) with the remaining (\$100K) devoted to a technical project. In the first year of operation, URI selected the technical project. During the second year of operation, NUWC has provided a list of Strategic Focus areas. For each of the focus areas the Center will assemble a team of researchers to develop collaborative proposals or white papers.

The Center received approximately \$1.1 M in funded research and educational programs in its first year of operation. Of this amount URI has cost shared

approximately 27%, via support for release time and in the award of the final year of projects from URI's Partnership of Ocean Instrumentation Partnership (POI).

It is anticipated that NUWC will continue to provide annual support of approximately \$150K per year for the next four years. One third of this will be allocated to partially cover center operational expenses and the remainder on strategic research initiatives. This will be matched by \$75K from URI to cover release time for the Director and Associate Director. The additional income of the center is projected to be on the order of \$0.75M per year increasing to \$1M per year by the fourth year from a combination of educational and research activities.

F. EVALUATION

The center currently prepares quarterly progress reports as part of the cooperative agreement between URI and NUWC. The center's activities are reviewed periodically with senior management at NUWC and internally with the Deans of the College of Engineering and the Graduate School of Oceanography. An in depth review is held by NUWC's Chief Technology Officer and Chief Development Officer on an annual basis.

In addition the center has established a strategic planning committee with representatives from all major center constituents (NUWC, academia and industry). The committee also provides review of the center's performance. The strategic planning committee is currently reviewing strategies to provide additional oversight and review of the center's performance. This is likely to be in the form of a board of advisors comprised of representatives from the key center constituents.

Further information on the Center of Excellence in Undersea Technology is available at the center web site: www.coeut.org.