

RESEARCH AND EDUCATION PARTNER SHIP AGREEMENT

between

THE US ARMY RESEARCH LABORATORY (ARL)

and

UNIVERSITY OF PUERTO RICO AT MAYA GUEZ (UPRM)

INTRODUCTION

The US Army Research Laboratory (ARL) supports the establishment and implementation of activities and programs that stimulate science, mathematics, engineering, and technology (SME&T) education. Additionally, ARL encourages students to select and continue their education in the fields of SME&T to increase the technical talent base available to ARL research and development efforts. The US Army Research Laboratory enters into this Agreement with University of Puerto Rico at Mayaguez to effect an education and research partnership.

This education and research partnership agreement is authorized under the following statutes:

10 U.S.C. Section 2194 (which authorizes the Directors of Defense laboratories to enter into educational partnership agreements to encourage and enhance study in scientific disciplines, and to ensure that priorities for the establishment of education agreements are given in accordance with 10 U.S.C. Section 2194(c) and (d);

10 U.S.C. Section 2195 (which authorizes the establishment of cooperative education programs for undergraduate and graduate education).

PROGRAM PURPOSE

The purpose of this partnership is to encourage and enhance education and research opportunities in SME&T disciplines relevant to ARL science and technology programs.

GENERAL SCOPE

The US Army Research Laboratory (ARL), agrees

1. To collaborate with UPRM on SME&T programs of mutual interest, to include identifying areas of priority interest and potential sources of funding.
2. To involve students of the UPRM in research at ARL laboratories and facilities through student intern and cooperative education programs.
3. To identify and develop, in partnership with UPRM, specific areas of research where UPRM students can obtain academic credit for work on research

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projects at ARL laboratories and, where possible, to provide thesis and dissertation topics and committee members for M. S. and Ph.D. candidates.

4. To enhance academic achievement by involving ARL S&T personnel, in particular, as adjunct faculty, in activities such as mentoring students; assisting in the development and teaching of courses in SME&T; review course materials; providing instruction on special subjects in SME&T; and illustrating DoD applications of SME&T principles through visiting lectures and site visits to ARL facilities.
5. To involve the faculty of the UPRM in ARL S&T through participation in programs such as the ARL Summer Faculty/Sabbatical Leave Program and by utilizing the Interagency Personnel Act (IPAs) for assignments to ARL labs and facilities.
6. To enhance the UPRM research infrastructure and capabilities by loaning or considering purchasing research equipment and/or facilitating transfer or surplus equipment to the UPRM.
7. To enhance the UPRM research efforts by facilitating the use of ARL facilities to conduct research of interest to the ARL.

University of Puerto Rico at Mayaguez (UPRM) agrees

1. To participate in ARL SME&T research and education programs through the timely submission of proposals via the ARL BAA process and by providing qualified faculty to participate on advisory and review panels.
2. To understand the research areas of interest to the ARL and identify SME&T areas that are complementary with the expertise of UPRM faculty, including areas of research where UPRM students can obtain academic credit.
3. To promote and facilitate access to undergraduate/graduate students for the purpose of disseminating information regarding student employment opportunities within the ARL.
4. To provide qualified graduate and undergraduate students with incentives to participate in ARL sponsored research and, where possible, provide opportunities for ARL scientists to provide thesis and dissertation topics and participate as committee members.
5. Invite ARL S&T personnel to be adjunct professors. Identify topics appropriate for involvement of ARL S&T personnel in developing, revising, and/or teaching existing and potential SME&T courses. Provide appropriate facilities and equipment for lectures and seminars delivered on-site or through teleconferencing and telecommunications technologies.

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6. Provide faculty incentives to participate in ARL sponsored research and training by developing mechanisms that will allow University officials to consider participation in the program positively with respect to promotions and granting tenure.
7. To maintain proper records and accountability for funds provided to the University in support of this agreement and property loaned to the University.
8. Identify UPRM research efforts that support the ARL mission and can be jointly performed with ARL scientist at ARL and UPRM facilities.

EXPECTED OUTCOMES

1. Advance scientific capabilities and knowledge, as evidenced by the number of publications, citations, collaborations, invited talks, and grant and contract awards.
2. Increase capacity and capability to conduct research in SME&T as indicated by favorable outside peer reviews and the judgment of expert advisory committees.
3. Provide information, expertise, and research opportunities for students to support the enhancement of knowledge and skills in the areas of SME&T through the use of the ARL facilities, human resources, and programs.
4. Expand the science and technology pipeline by including individuals who are under-represented in SME&T.
5. Provide educational experiences that incorporate effective applications of SME&T principles. Develop SME&T instructional materials and curricula that are aligned with State and national education standards and are based on the ARL's mission.
6. Provide professional development experiences for faculty to participate in ARL research and development activities, to apply methods for integrating these activities into their teaching, and to advance the knowledge and skills of the faculty by providing access to ARL information and resources in SME&T.
7. Acquire surplus research instrumentation and equipment that advances UPRM's fundamental research capabilities and enhances the capacity of UPRM to perform research and education that supports the ARL mission.

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8. Use ARL facilities, human resources, and programs to provide exposure and experiences to faculty and students, to support the enhancement of knowledge and skills, and to provide access to ARL information in SME&T.
9. Increase the number of UPRM graduates (both undergraduate and graduate) working at ARL labs.

EVALUATION CRITERIA

This effort will be evaluated using quantitative and qualitative criteria. A successful program will:

Increase the number of refereed journal articles, publications, citations, collaborations, invited talks, grants, and contract awards.

Develop new technologies that will advance research capabilities and reduce costs as indicated by the new scientific and technological advancement that emerges from the research.

Provide UPRM faculty with experience in world-class professional practices in research, using modern technologies and incorporating ARL points of references.

Increase the number of students who earn B.S. and graduate degrees in SME&T and pursue employment opportunities with ARL/DoD.

Motivate students to engage in undergraduate SME&T research at ARL labs that encourages their pursuit of related postgraduate educational and professional activities.

Increase the number of students who enroll in inquiry-based, interdisciplinary, and research based SME&T courses.

Increase the number of students who enroll and complete additional numbers of SME&T courses (beyond the required number of courses).

Increase the number of students who are provided research experiences during the summer and academic year.

Increase the confidence and comfort of students, demonstrated by their application of SME&T concepts in lab-based courses, and increase their understanding of SME&T concepts, demonstrated by performance assessments.

Increase the number of ARL personnel involved in educational support/assistance through mentoring students, developing and teaching SME&T courses, reviewing course materials and illustrating applications of SME&T principles through visiting lectures and site visits by students and faculty to ARL facilities. Increase

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the number of ARL personnel participating on UPRM advisory boards, ad hoc committees, and review panels for designated SME&T efforts.

Augment hiring, promotions and tenure guidelines to reflect emphasis on collaborative research and professional development experiences with ARL scientists.

Provide faculty additional institutional support and incentives to apply for external grants to continue research begun at ARL labs.

Increase the number of ARL research instruments and laboratory equipment provided to UPRM to support ARL/DoD research.

Increase the capacity and capability of UPRM to conduct SME&T research of interest to ARL/DoD.

Increase the number of faculty and students engaged in research at ARL laboratories/facilities.

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PROGRAM ADMINISTRATION

The administration of this Agreement will be the joint responsibility of the designated program managers from UPRM and ARL.

The Program Manager, ARL Minority Outreach Program Office will serve as the Program Manager (PM) on behalf of the ARL. The ARL PM will work with the PM for UPRM to identify the appropriate ARL S&T personnel and UPRM faculty and students for the program. The ARL PM will coordinate program activities with the appropriate elements within the ARL S&T program to comply with the legal and administrative requirements of the Federal Government and the ARL.

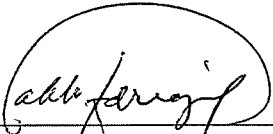
The Director of Sponsored Programs for UPRM will serve as the Program Manager (PM) on behalf of UPRM. The UPRM PM will work with the ARL PM to identify participating faculty, students, and activities for the program. The UPRM PM will coordinate program activities with the appropriate elements within UPRM to comply with the legal and administrative requirements of UPRM.

PERIOD OF AGREEMENT

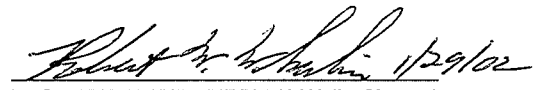
This agreement becomes effective on the latter date of signature by the Chancellor of UPRM and the Director of US Army Research Laboratory, and will remain in effect for five years or until modified or terminated by either participating organization. Modification can be made at any time by mutual agreement of the signatories or their successors. Either participating organization may withdraw from this agreement at any time by providing the partner with a 30-day written notification.

OFFICIAL

OFFICIAL

 1/29/02

PABLO RODRIGUEZ ROSADO (Date)
Acting Chancellor
University of Puerto Rico at Mayaguez

 1/29/02

ROBERT W. WHALIN (Date)
Director
US Army Research Laboratory

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