

Opportunity Title: EACE Rehabilitation Technology Development Fellowship **Opportunity Reference Code:** EACE-2020-0004

Organization U.S. Department of Defense (DOD)

Reference Code EACE-2020-0004

How to Apply Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. <u>Click here for detailed information about acceptable</u> <u>transcripts</u>.
- 1 Recommendation Required

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to <u>STEM-</u> <u>WORKFORCE@orise.orau.gov</u>. Please list the reference code of this opportunity in the subject line of the email.

All documents must be in English or include an official English translation.

Description The Extremity Trauma and Amputation Center of Excellence (EACE) is the leading advocate for research and treatment of Department of Defense (DoD) and Department of Veterans Affairs (VA) patients with extremity trauma and amputation. The EACE leads efforts to enhance collaboration between the DoD and the VA extremity trauma and amputation care providers and conduct scientific research to minimize the effects of traumatic injuries and improve clinical outcomes (https://www.health.mil/About-MHS/OASDHA/HSPO/EACE). This research fellowship will be housed jointly between the Naval Medical Center San Diego (NMCSD) and the University of California - San Diego's (UCSD) Active, Responsive, Multifunctional, and Ordered-materials Research (ARMOR) laboratory (https://armor.eng.ucsd.edu/)

The selected candidate will collaborate among a diverse group of researchers and clinicians, and will have the opportunity to contribute to technology development that will improve the clinical care of patients with musculoskeletal trauma.

The primary research program to be undertaken involves skills in computer optimization, additive manufacturing, and multifunctional design of smart sensing materials. The candidate will conduct fundamental research, advance innovative ideas and technologies, and prototype new sensing and actuation systems. The candidate will also be involved with hands-on experimental testing, as well as numerical simulations. The research will span a broad spectrum of technology readiness levels, with both civilian and military applications.

Appointment Length

This appointment is a twelve month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

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Participant Benefits

Participants will receive a stipend to be determined by **EACE**. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through
 ORISE.
- Relocation Allowance
- Training and Travel Allowance

Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications Minimum Educational Requirements: PhD from an accredited University in Engineering, Computer Science,

Robotics, Mechatronics, or a closely related field.

Desired Skills: Computer optimization, materials design and manufacturing, mechanics, multi-physics numerical simulations, 3D printing, electrical circuitry, sensor technologies, medical imaging and optics, and experience with human subjects testing. Candidates with background in both materials engineering and tomographic methods are preferred.

Physical Capabilities: Ability to work in a variety of settings including: laboratory, machine shop, hospital, computer desk

Eligibility • Citizenship: U.S. Citizen Only

Requirements

Citizensnip: 0.5. Citizen Only

- Degree: Currently pursuing a Master's Degree or Doctoral Degree to be received by 12/31/2019 11:59:00 PM.
- Discipline(s):
 - Chemistry and Materials Sciences (12.)
 - Communications and Graphics Design (2.)
 - Computer, Information, and Data Sciences (16)
 - Earth and Geosciences (21 (19)
 - Engineering (27. (27.)
 - Environmental and Marine Sciences (14 (*)
 - Life Health and Medical Sciences (45)
 - Mathematics and Statistics (10)
 - Other Non-Science & Engineering (2.)
 - Physics (<u>16</u>)
 - Science & Engineering-related (1.)
 - Social and Behavioral Sciences (27 (19)