

Opportunity Title: Novel neurotechnologies for enhancing soldier performance

Opportunity Reference Code: ARL-R-HRED-1799291506

Organization U.S. Army

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How to Apply Applications for the Army Research Lab (ARL) Research Associateship Program (RAP) must be received through the ARL-RAP website.

[You can apply for this project directly at this link.](#)

Description The human dimension is a critical aspect of all Army operations. Warfighters in future battlespaces will be required to operate at higher operational tempo in increasingly complex environments. Non-invasive technologies for neuromodulation will serve an important role in modifying behavior, enhancing capabilities, and promoting recovery from degraded performance states such as fatigue. The Army Research Laboratory is seeking scholars to join an interdisciplinary research team developing and evaluating the operational potential of applied neurotechnologies such as transcranial electrical stimulation, focused ultrasound, and peripheral nerve stimulation. This research differs from prevailing basic research paradigms in that the focus is on achieving control over stimulation rather than merely establishing efficacy; control principles, parameter optimization, replication, and deployability are of paramount concern. Research projects must include considerations of target engagement and dosing, and will ideally result in closed-loop applications and proof of concept demonstrations. The goal of this research is to predict and control neurostimulation outcomes, enabling mutual adaptation in human-agent teams through enhanced brain-computer interfaces.

Qualifications [Please review eligibility for the Army Research Lab \(ARL\) Research Associateship Program \(RAP\) on the program website.](#)

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Bachelor's Degree, Master's Degree, or Doctoral Degree to be received by 8/31/2013 12:00:00 AM.
- **Discipline(s):**
 - **Engineering** (1 )
 - **Life Health and Medical Sciences** (1 )
 - **Other Non-Science & Engineering** (1 )
 - **Social and Behavioral Sciences** (1 )