

# REPPERGER RESEARCH INTERN PROGRAM

RESEARCH PROJECT #: AFRL-RHW-21-06

## **PERSISTENT, GLOBAL, PROFICIENCY-BASED TEAM TRAINING FOR HUMANS AND MACHINES**

**PROJECT DESCRIPTION:** The Warfighter Effectiveness Research Center is the research arm of the Department of Behavioral Sciences and Leadership at the United States Air Force Academy, facilitating faculty and cadet research that enhance warfighter effectiveness. The WERC conducts a wide range of research and design projects for operational customers including special operations forces, the Air Force Office of Scientific Research, Air Force Research Laboratory, and Army Research Laboratory. These projects are based in the behavioral sciences and connect to a wide range of disciplines and collaborators across government labs, academia, industry, and military operators in order to generate the most innovative and effective solutions.

This research area is focused on the advancement of technologies to create a new training ecosystem to prepare Airmen for future operations. To meet future challenges, we invite applicants who are interested in contributing to ongoing research in the following broad areas:

1. Advance performance measurement and assessment to enable proficiency-based training that ensures every Airmen is prepared for each and every operation.
2. Understand human cognition, learning, and performance to tailor training to individual needs, design training approaches that promote long-term learning, and support training through enhanced fidelity and personalized instruction.
3. Leverage and extend advanced learning technologies to improve provide training when and where it is needed and maximize the efficiency and effectiveness of education and training interventions.

**ACADEMIC LEVEL:** Bachelors, Masters, PhD

**DISCIPLINE NEEDED:** Cognitive Science, Human Factors, Computer Science, Psychology, Mathematics

**RESEARCH LOCATION:** Wright-Patterson AFB Dayton, OH

**RESEARCH ADVISER:** Glenn Gunzelmann, PhD  
Cognitive Psychology, Carnegie Mellon University, 2003

Dr. Glenn Gunzelmann is a Principal Cognitive Scientist with the Human Effectiveness Directorate in the Air Force Research Laboratory (AFRL), where he serves as the Training Core Technical Competency Lead. Glenn contributes to several research efforts focused on cognitive science and computational modeling, and leads research to develop computational theories that account for the impact on cognitive processing of moderators like sleep loss and vigilance to inform risk management and support real-time monitoring.