



Funding Opportunity: Air Force Announces Solicitation for Brain-Inspired Computing Center of Excellence (COE)

Lewis-Burke Associates LLC – April 20, 2021

The Air Force Office of Scientific Research (AFOSR) released a Funding Opportunity Announcement (FOA) for a University Center of Excellence (COE) in Brain-Derived Neuromorphic Computing with Intelligent Materials. Through this FOA, a partnership between AFOSR and the Air Force Research Laboratory (AFRL), the Air Force seeks to develop high-efficiency computing systems with cognitive and learning abilities that can meet the ever-growing data demands facing the military. This effort will also provide training and experience in this growing field to the next generation of Air Force and Space Force scientists. Proposals under this FOA must address four research objectives:

1. "Explore and understand bio-realistic algorithms and models to identify key computing elements and neuromorphic dynamics;
2. Discover intelligent materials and devices with intrinsic dynamics to enable bio-realistic algorithms and models;
3. Design innovative circuits based on intelligent materials to realize computing elements required by algorithms and models; and
4. Explore and design scalable, reliable architectures for bio-realistic algorithms and models."

Proposals must address all four research objectives to be considered eligible for funding.

AFOSR is looking for multidisciplinary teams of researchers with a variety of skills to address the program's research objectives, and notes its preferences for proposals with multiple approaches that will provide the Air Force with increased opportunities for information and technology transfer. Proposers are encouraged to reach out to and coordinate AFOSR and AFRL prior to submitting a proposal. AFOSR will host a virtual Proposer's Day on **May 3, 2021**, and proposers can sign up by **April 28, 2021** to give a five minute "elevator pitch" to other attendees to help facilitate teaming. [Pre-registration](#) for the proposer's day is required to attend.

Due Dates: White papers, while not required, are encouraged and may be submitted until **June 1, 2021** at **11:59 PM EDT**. AFOSR expects to respond to submitted white papers with feedback by July 1, 2021. Full proposals must be submitted through www.grants.gov by **August 16, 2021**.

Total Funding and Award Size: AFOSR intends to make one award in the form of a grant of up to \$1 million per year for a base period of three years with the option to extend the COE for an additional two years.

Eligibility: This FOA is open to proposals from local educational agencies, colleges, universities, or other nonprofit institutions dedicated to improving science, mathematics, and engineering. Historically Black

Colleges and Universities and Minority Serving Institutions (HBCUs/MSIs) and Tribal Colleges and Universities are encouraged to submit proposals or participate on proposing teams.

Sources and Additional Information:

- The full AFOSR solicitation can be found [here](#), or at www.grants.gov under Funding Opportunity Number "FOA-AFRL-AFOSR-2021-0005."