



U.S. NATIONAL SCIENCE FOUNDATION
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NSF 24-100

Dear Colleague Letter: Supplemental Funding Requests to Conduct Experimental Research on the NSF-funded Platforms for Advanced Wireless Research (PAWR)

July 19, 2024

Dear Colleagues:

With this Dear Colleague Letter (DCL), the National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) wishes to notify the community of its intention to support **supplemental funding requests for active research awards to conduct experimental research on the NSF-funded Platforms for Advanced Wireless Research (PAWR)**. The supplemental funding request budget may be up to \$60,000, with higher amounts requiring additional justification. The requested amount must be less than one-fifth of the original award. Funded supplements will provide support for periods of up to two years but should not exceed the existing award period.

NSF's PAWR program (<https://advancedwireless.org/>) is currently supporting four advanced wireless research platforms to enable experimental exploration of robust new wireless devices, communication techniques, networks, systems, and services which are revolutionizing the nation's wireless ecosystem, thereby enhancing broadband connectivity, leveraging the emerging Internet of Things (IoT), and sustaining U.S. leadership and economic competitiveness in advanced wireless networks (including 5G/6G networks) and emerging applications and services for decades to come. The [PAWR program website](#) lists the PAWR platforms available for experimenter use.

Active NSF-funded wireless researchers may propose, as part of their supplemental funding requests, experiments that utilize the PAWR platforms, as these platforms become 'generally available' for experimenter use (as indicated on the [PAWR program website](#) for each PAWR platform). PIs of any relevant existing NSF awards are eligible, including NSF's [Communications and Information Foundations](#), [Computer Systems Research](#), [Cyber-Physical Systems](#), [Networking Technology and Systems](#), [Secure and Trustworthy Cyberspace](#), [Smart and Connected Communities](#), [National Radio Dynamic Zones](#), [SWIFT](#),

[Breaking Low Ideas Lab](#), and [Resilient & Intelligent NextG Systems \(RINGS\)](#) programs. Supplemental funding awarded pursuant to this DCL may be used by the project team to support the time of the PI, co-PIs, other senior personnel, postdoctoral researchers, graduate students, or undergraduate students to design and conduct an experiment on a PAWR platform. Proposers are encouraged to become familiar with the experimentation process on the platform first prior to applying for supplements. No explicit collaboration letter or coordination is expected from the platform for which the supplement request is being sought.

All supplemental funding requests will be subject to NSF's merit review process, as described in the NSF [Proposal and Award Policies and Procedures Guide \(PAPPG\)](#). Each supplemental funding request must follow the guidance specified in *PAPPG* Chapter VI.E.5 and must address the following items as part of the summary of the proposed work and the justification of the need for supplemental funds:

- A summary of the active wireless research (or closely related) award, including original research vision, goals, activities, and accomplishments, spanning Intellectual Merit and Broader Impacts.
- A summary of the proposed extension of the active wireless research award to conduct an experiment on a specific PAWR platform. The summary should include a compelling justification for why there is a need for the supplemental funding to conduct experimental wireless research on a PAWR platform and the corresponding potential impact. **A description of the specific capabilities of the platform that will be utilized by the proposed work should be included.**
- A work plan describing the proposed experimental research activities, along with the goals, milestones, and predicted outcomes; how the activities will expand the existing project's research and development activities; how these activities will address the needed capabilities and lead to potential impact; and the appropriateness of the supplemental funding request to the proposed scope and scale of the work. In particular, the plan should present:
 1. A schematic of the topology for experimentation showing e.g., RAN, edge, compute, and network requirements, as well as details on how the experiment will be set up and executed.
 2. Specific software stacks/features that will be used to carry out the proposed experiments. What specific hardware/software capabilities of the platforms will be used? Are these capabilities unique for the platform?
 3. Information on whether Over-the-Air (OTA) experiments will be conducted as part of the supplemental request.
- An evaluation plan outlining tangible metrics and a timeline to set up the experiments and to assess the outcomes of the proposed experimental research activities. Will the experiments produce any datasets? If so, please comment on the plans to validate and release the datasets.

A description of expected spectrum use by the project, including frequencies and whether the operation is in accordance with existing service allocations (see <https://www.itu.int/pub/R-REG-RR> for international allocations and <https://www.ntia.gov/publications/redbook-manual> for U.S domestic allocations), bandwidth, emission type, power levels, polarization, transmitter locations or operating areas, and antenna patterns if available.

The suggested length for this description is four pages; on the top of the first page, please include the following: "In response to the NSF PAWR DCL" followed by the DCL number. Supplemental funding requests must be prepared and submitted through [Research.gov](https://www.research.gov). Supplemental funding requests may be submitted at any time, however the deadline for submission for consideration in a fiscal year (FY) is June 15 of that year. This DCL will remain active until June 15, 2026. Once submitted, the PIs must send an email to nets-pawr@nsf.gov with the subject header starting with "NSF PAWR DCL: Supplement Submitted for Award #:" followed by the award number of your original award. The body of the email message should include the submitted supplemental funding request number.

PIs interested in submitting supplemental funding requests (or with other questions pertaining to this DCL) are strongly encouraged to contact Networking Technology and Systems program directors at nets-pawr@nsf.gov prior to submission.

PIs should take note that some radio frequency spectrum use may require coordination with incumbent users. It is recommended that PIs submit all available information, especially for planned usage not in accordance with current international and domestic allocations. PIs needing further information may contact the NSF ESM unit at esm@nsf.gov.

Sincerely,

Gregory Hager
Assistant Director, CISE