Mississippi State University
Invitation for Bid MSU2026049, EEG Equipment
Addendum One

March 11, 2026

See below for the following change to the specifications for this bid. The change the portion at the beginning of the specs in italics. **We are also extending the bid opening to Thursday March 19, 2026, at 2:00 p.m.**

The specifications below are largely drawn from the Brain Vision actiCHamp Plus all-in-one amplifier, with the actiCAP slim/snap active electrodes. This brand name and these specifications are intended to serve only as a guide to the level of functionality and quality we are looking for. We will accept any other product that performs at the same quality level.

Each of the two research-ready (or "plug-and-play") packages must include all core equipment necessary for operation, all necessary accessories to facilitate research, spare electrodes, and multiple caps to facilitate rapid setup of multiple research participants. Each of the two packages should include the software and a perpetual license to operate the software on an MSU-owned computer; computers will be procured in a separate solicitation.
Competitive bids must explicitly provide details for each of the required package components. Vendors are welcome to include additional components, above and beyond this minimum requirement list, if those components will facilitate the goal of rapid research setup with multiple research participants.

1. **EEG Data Acquisition System** – including recorder, software, power supply, connection cables, and other necessary accessories.
   Required quantity: 1 system per package; 2 total.
2. **32-Channel Electrode Bundle**– including appropriate electrodes, ground, reference, and other necessary accessories; low-profile electrodes preferred.
   Required quantity: 4 electrode bundles per package; 8 total.
3. **128-Channel High-Precision EEG Caps** – including adult size caps, compatible with provided electrode bundles.
   Required quantity: 8 cap kits per package; 16 total.
4. **Trigger Kit** – including external trigger interface unit, and all appropriate trigger transmission cables.
   Required quantity: 1 trigger kits per package; 2 total.
5. **Bipolar Electrode Kits** – extra compatible electrodes, hat-style and disc-style for on-body recordings of EOG, ECG, and EMG signals. Minimum: 3 electrodes, with

accompanying washers and gel
Required quantity: 1 kit per package; 2 total.

6. **Galvanic Skin Response Sensor Kit** – including appropriate adapters, cables, sensors, and other necessary accessories
   Required quantity: 1 kit per package; 2 total.
7. **EEG Cap Control Interface** – compatible with provided caps and electrode bundles, including all necessary accessories
   Required quantity: 1 control interface per package; 2 total.
8. **Ear Clip Electrodes** – including necessary accessories
   Required quantity: 1 pair of ear clips per package; 2 total.
9. **Other Necessary Equipment** – any and all other equipment required to make this a complete, "research-ready" package.
   Required quantity: As needed
10. **Software** – perpetual license for experimental design and stimulus presentation software, including a period of software support and maintenance.
    Required quantity: 1 perpetual license per package; 2 total.

Additional Required Services

Competitive bids must include costs related to training on the systems, as well as all applicable shipping and handling costs.

1. **Training** – bid must include a minimum of a one-day on-site training / setup session, plus the option for a one-hour remote call for follow-up troubleshooting.
2. **Shipping** – bid must include all shipping, handling, insurance, and any other costs necessary for the equipment to arrive at:
   NSPARC at the Hub
   301 E. Main Street
   Suite 210
   Starkville MS, 39759
   ATTN: Dr. Michael S. Spanbauer

Preferred System Capabilities and Specifications

The MSU NSPARC research team has preferences for the following capabilities and specifications. Vendors should address each of these criteria in their bid. Failure to meet these criteria will not necessarily eliminate a vendor from consideration.

1. **Power Supply and Battery Requirements**
   - Battery powered units must have user-replaceable battery packs, and replacement packs must be available for purchase.
2. **Sampling Rate and Channel Count**

- Support for up to 160 EEG channels and 8 auxiliary channels at a 25 kHz sampling rate

3. **Signal Bandwidth and Coupling**
   - EEG channels should support DC coupling
   - EEG signal bandwidth should span from DC (0 Hz) to at least 7,500 Hz on all EEG channels
4. **Digitization and Input Characteristics**
   - Per-channel digitization with a dedicated analog-to-digital converter (ADC) per channel
   - Resolution: Minimum 24-bit digitization per channel
   - Input impedance: Greater than 1,000 MΩ (DC) on EEG channels
5. **Electrode Application and Gel Injection Workflow**
   - For efficient participant setup and reduced preparation time, system should support a post-placement gel injection workflow. For example:
     - Electrodes are placed in cap holders prior to gel application
     - Conductive gel can be injected and distributed at each electrode site
6. **Active Electrodes**
   - EEG electrodes should include integrated preamplification at the electrode
7. **Impedance Feedback**
   - System should provide real-time, visual impedance feedback at the electrode level (e.g., LED-based or equivalent), to support rapid setup and troubleshooting
8. **Wireless Recording Capability**
   - System should support wireless EEG data acquisition, either natively or via an optional expansion module
   - Wireless capability should allow future upgrade without replacement of the core acquisition system
9. **Electrode Modularity and Field Replaceability**
   - Individual electrodes should be independently removable and replaceable
   - Replacement of a single electrode should be possible by the experimenter, without specialized tools