



EarthCube Visiting Graduate Student & Early-Career Scientist Program

APPROVED: MAY 7, 2015

To help disseminate EarthCube-enabled technology to domain scientists; increase awareness of EarthCube products; and encourage interactions between the EarthCube Building Blocks and the community, in furtherance of EarthCube's goals and mission, the EC Science Committee is allocating \$10,000 of 2015 funds to support an EarthCube Visiting Graduate Student & Early-Career Scientist Program. In its initial phase, the program will support up to 5 scientists or technologists, and after a trial, 8 month, period the program will be considered for augmentation and annual renewal if it is successful.

The intent of the EarthCube Visiting Graduate Student & Early-Career Scientist Program is to encourage graduate students and early-career scientists who have a demonstrable need, but who presently lack the necessary knowledge and ability to utilize and incorporate building-block and related technologies and capabilities in their own research agendas. Specifically the program will cover the participant's travel costs from their home to the host Building Block (co-)PI's institution, and up to 5 days accommodation and subsistence costs (up to a maximum of \$2,000). It is expected that the host Building Block (co-)PI will provide *gratis* temporary office and meeting space for the participant, instruction and access to software and its supporting documentation (*e.g.*, defining requirements, technical manuals, *etc.*) for the duration of the participant's project, *which it is expected will have been initiated in advance of, and will require additional time to be completed after the 'visit'*. Participants are required to use the EarthCube logo on their project website and in any resulting presentations or posters, and acknowledge EarthCube support for their endeavors in any and all resulting written work.

We offer the following example of the type of end-user who might benefit from this program. A scientist has the ability to acquire high precision data in near-real time, which will contribute substantially to knowledge of a process, and also has the potential to provide advance warning of a hazard to a local population. The proposer already has the ability to enable data streaming and retrospectively ascertain if there is a transient (something that is not part of the object of investigation's persistent state), but lacks the ability to apply the transient detection algorithm or process and visualize the data in real time and, thus, utilize the data in a manner that would benefit both the scientist and decision-makers responsible for alerting the local population to the potential hazard.

PROPOSED BUDGET

5 graduate student/early career scientists or technologists @ \$2,000 Total \$10,000



RECRUITMENT STRATEGY

Starting June 1, the EarthCube Visiting Graduate Student & Early-Career Scientist Program will be advertised in *EOS*, on the Science Committee web page as well as in the EarthCube Monday Update, and a dedicated web page will be created to showcase participant's projects. When the existence of the EarthCube Visiting Graduate Student & Early-Career Scientist Program becomes known to the community, a sustained flow of requests for support can be expected.

PROPOSAL SUBMISSION

Application for support can be made at any time, by email to the co-Chairs of the Science Committee. Prospective participants will provide a:

- 1) One-page **project description** that clearly outlines the science objectives and how their achievability will be enhanced through interaction with the Building Block Team and a clear indication of all the expected outcomes;
- 2) **Current CV** in the National Science Foundation biographical sketch format
http://www.nsf.gov/pubs/policydocs/pappguide/nsf13001/gpg_2.jsp#IIC2f
- 3) **Budget justification**;
- 4) **Project timeline** – including dates of proposed travel, and the anticipated completion date (when outputs might be expected to emerge);
- 4) **Letter of support** from the host (co-)PI that includes a clear statement to the effect that the desired interaction is practicable and the necessary resources will be made available.

PROPOSAL EVALUATION

Proposals will be evaluated by a committee consisting of the two Science Committee co-Chairs, and/or their designees, who will evaluate the proposals scientific merits, and one of the Technology and Architecture Committee's co-Chairs, and/or their designees, who will comment on the proposal's merits from a technical standpoint. Based on these comments, the committee may either approve, decline or ask an applicant to revise and resubmit their proposal.

METRICS FOR EVALUATING EFFECTIVENESS

To evaluate the success of the EarthCube Visiting Graduate Student & Early-Career Scientist Program the Science Committee will ask the participant to provide a one-page summary of the visit experience that should be endorsed by the host (co-)PI, and includes appraisal of whether or not the participant's science objects are more likely to be achieved as a result of the visit. This summary will be made available in an appropriate location on the Earthcube.org website. The ultimate indication of the program's success will be through the subsequent appearance of work that acknowledges EarthCube support for the participant's endeavors.

