**Request for Proposals**

**To Participate in the NASA-Sponsored Project**

***"NASA EOS Higher Education Alliance: Mobilization of NASA EOS Data and Information through Web Services and Knowledge Management Technologies for Higher Education Teaching and Research"***

**Issued: May 8, 2006**
**Proposal Due: July 15, 2006 by 4:30 p.m. (EST)**

## Project Background

This is one of the projects selected for funding through the NASA Cooperative Agreement Notice CAN-02-OES-01 issued on September 27, 2002 (see http://research.hq.nasa.gov/code_y/nra/current/CAN-02-OES-01/winners.html). The project represents part of NASA's efforts to create the NASA Earth Science Research, Education and Applications Solutions Network (Earth Science REASoN), a distributed network of data and information providers for earth science research, applications and education (see http://research.hq.nasa.gov/code_y/nra/current/CAN-02-OES-01/index.html). In pursuit of its objectives in Earth science research, applications and education, NASA is generating Earth system data of unprecedented quality and quantity and developing data processing and modeling capabilities to transform these data into easily usable products and valuable information. The purpose of the NASA Earth Science REASoN is to "afford solutions for utilization of NASA assets and capabilities to support science findings and applications directed towards understanding and predicting the future of the Earth and developing policy and resource management decision support systems, and education tools to inspire and train current and future generations of scientists."

This particular project involves the development of a standard-compliant, open, distributed, three-tier Web information and knowledge system called GeoBrain. The system will make peta-bytes of NASA EOS data and information easily accessible to users in the higher education community and allow them to dynamically and cooperatively develop interoperable, Web-executable geospatial service modules and models for extracting customized data and information products. It will deliver a data-enhanced geospatial learning and research environment to the desktops of students and professors. Additional information about the project can be found at the website http://geobrain.laits.gmu.edu .

## What We Are Looking for?

To better meet the needs of the higher education community and facilitate the widespread adoption of GeoBrain technology and NASA data in Earth system science teaching and research, we are looking for education partners who teach courses and

conduct research that could be significantly benefited from the online availability of remotely sensed images and other data products acquired or developed by NASA and from a Web-based data delivery, analysis, and modeling system for easy extraction of such data and information specifically tailored to user's particular needs. The implementation of the entire project will take five years (6/1/2004 – 5/31/2009). Six proposals had been selected for funding as sub-contracts during the first year and second year of this project via a similar call for proposals (see http://geobrain.laits.gmu.edu/partners.htm ). This is the third call for proposals from this project. Three proposals responding to this call will be selected for funding. Each selected proposal will receive $10,000 a year for two years. Related data and software products will be provided to the selected partners free of charge.

The specific responsibilities of the selected partners include

- helping the development team to identify the user needs in the higher education community and define the specific requirements for the web-based EOS data service system,
- testing and evaluating the functionality of GeoBrain and providing feedback to the development team for improving the capability and performance of the system,
- incorporating the use of the GeoBrain system and NASA data products into teaching and research programs,
- promoting the widespread use of the system and related NASA data products in the higher education community,
- designing new or enhancing existing Earth system science courses at undergraduate or graduate levels that take advantage of the data-enhanced learning environment provided by GeoBrain.
- documenting the use of GeoBrain in teaching and research activities, especially those involving undergraduate and/or graduate students.
- participating in the annual project team meeting (2-3 days) held at LAITS/CSISS office in Greenbelt, Maryland.

**Preparation and Submission of Proposals**

Your proposal should include (1) a detailed description of how you will make effective use of NASA data and information in your teaching and research, (2) a summary of your educational background and research experience that are directly relevant to the implementation of this project, (3) a brief description of your facility and equipment, (4) an annual breakdown budget, and (5) a copy of your current curriculum vitae. For instructional use, you may provide a description of the existing and possible new courses in which you can benefit from the dissemination of NASA data and

information through GeoBrain and discuss how you plan to use such data in these courses. For research purpose, you can describe how your ongoing projects could be enhanced and what new projects could be developed as a result of the easy access to NASA data and information. The total length of part 1-3 of your proposal should be no more than 5 pages.

Selection of participants will be made before August 31, 2006. The expected starting date for the participants is October 1, 2006. Please prepare an annual budget for two years starting from October 1, 2006. The total amount of funding cannot exceed $20,000. Please include a brief justification for any unusual items in your budget.

Please send your proposal as E-mail attachments to Meixia Deng at mdeng@gmu.edu with cc to Dr. Wei Luo at t50wxl1@wpo.cso.niu.edu. Both MS Word and PDF files will be acceptable.

Currently funded member institutes of ***NASA EOS Higher Education Alliance*** (NEHEA) are as follows:

- George Mason University (GMU)
- Northern Illinois University (NIU)
- Lehman College, The City University of New York (CUNY)
- The University of Texas at Dallas (UT-Dallas)
- Hunter College, CUNY
- Pennsylvania State University (PSU)
- University of Central Florida (UCF)
- Middle Tennessee State University (MTSU)
- Loma Linda University (LLU)
- Old Dominion University (ODU)

In order for more institutes to involve in NEHEA, proposals from the above institutes are not encouraged.

For inquiry of this RFP, please contact the Principal Investigator of this project:

Professor Liping Di, Director
Center for Spatial Information Science and Systems (CSISS)
George Mason University
6301 Ivy Lane, Suite 620,
Greenbelt, MD 20770
Email: ldi@gmu.edu