Program Description: The NASA Climate Change Research Initiative – CCRI is a year long STEM engagement opportunity for STEM educators to work directly with NASA scientists, lead research teams and develop STEM curriculum for their current classes. The current position is to fulfill the spring and summer sessions of CCRI. Educators participating in this opportunity will become associate researchers at the NASA Goddard Institute for Space Studies (GISS) and STEM education experts who will integrate NASA education resources and content into their classroom while improving STEM education within their community.

During the fall and spring term of CCRI the research team will consist of NASA Principal Investigators who will lead graduate student research assistants and high school STEM educators to become immersed in a NASA science research area of study related to climate change. During the spring semester the graduate student research assistant and high school STEM educator will continue to perform NASA research. Additionally, the high school STEM educator will develop an Applied Research STEM Curriculum Portfolio, which will integrate components of their research into a comprehensive unit plan that utilizes NASA education resources while aligning instruction of NASA Science and STEM curriculum to the Common Core and Next Generation Science Standards. The teacher will then implement the STEM curriculum into their classrooms and also provide community outreach STEM engagement events related to their NASA research study. The spring term will not conflict with the educators’ primary schedule, roles or responsibilities at their school site.

During the summer session the primary research team will add an undergraduate intern and high school intern to the CCRI research team where the STEM educator will lead and work collaboratively on a full time basis to complete the research project, create a power point presentation and a scientific poster that will be presented at the NASA Goddard Institute for Space Studies and other regional symposiums. The final symposium may have participants from other government agencies, such as the National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), the United States Department of Education (USDE) and the United States Department of Defense (DoD) and many others.

Application Deadline: January 8th, 2020. Applications are considered upon receipt.

Program Dates:

Fall: 10/7/19 -12/13/19: Complete
Spring: 02/03/20 – 04/10/20: (5 hours per week for 10 weeks)
Summer: 07/06/20 - 08/14/20: (40 hours per week for 6 weeks)

STEM Teacher Stipend: $6,525

Requirements: Teachers applying for this position must be full time, in service credentialed teachers with a subject matter competency related to the research project.

To apply for the CCRI STEM Educator position, e-mail, mail, fax or deliver a cover letter, resume, transcripts and letters of recommendation from a current supervisor (Principal, Assistant Principal, Department Chair, etc) to:
STEM Teacher Recruitment Notice & Project Description
Climate Change Research Initiative (CCRI)
NASA Goddard Institute for Space Studies

Rosalba Giarratano
NASA Goddard Institute for Space Studies
545 West 112th Street | New York, NY 10025
rosalba.n.giarratano@nasa.gov
Fax: 212-678-5552

If emailing the application package, please redact all sensitive PII information. The cover letter should include the projects being applied to and a description of how the project being applied to aligns with the teachers current teaching position.

Applications are considered upon receipt. For questions regarding this opportunity, please contact Matthew Pearce at matthew.d.pearce@nasa.gov

Earth Observation Applications for Resiliency – Assessing Climate Change Impacts in Urban, Agricultural, and Natural Environments

**Mentor:** Dr. Christian Braneon

**Duty Location:** NASA Goddard Institute for Space Studies

**Project Description:** The history of Earth observation began in the 1840s, during the era of geographical exploration, when pictures were taken from cameras secured to the tethered balloons for the purpose of topographic mapping. It took another 100 years for earth observations to evolve to a platform based in space called satellites. Remote sensing is the science of obtaining information without physically being in contact with it. This process involves detection and measurement of radiation at different wavelengths reflected or emitted from distant objects or materials, by which they may be identified and categorized.

Through various remote sensing platforms such as satellites and aircraft, supplemented by surface and subsurface measurements as well as modeling and mapping, practical information about Earth’s physical, chemical, and biological systems can be obtained. We seek to help urban stakeholders, agricultural leaders, and conservationists respond to the challenges presented by a changing climate by transforming a wealth of NASA Earth observation data (e.g. Landsat, MODIS) into actionable information.

**Preferred Major Course of Study:** Applied Math, Computer Science, Data Science, Environmental Sciences, Climate Science, Earth Science and Engineering are encouraged to apply.

**Preferred Computer / Technology Skills:** Previous work with Excel and GIS software.