

Post Master's or Postdoctoral Research Associate in Geospatial Data and Information Sciences

**Computer Science and Engineering Division
Computer and Computational Sciences Directorate
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNLO9-62-CSED

Project Description:

The Geographic Information Science and Technology (GIST) group is currently seeking highly qualified candidates for one or more postgraduate research positions in the area of geospatial modeling using image analysis and data mining. Primary focus will be on developing spatiotemporal image information mining techniques that will enable analyzing large volumes of geospatial data, especially remote sensing imagery in conjunction with observational (e.g., sensor) and simulation (e.g., climate) data.

The work involves developing new algorithms and/or using existing algorithms in the area of image and video processing, dynamic scene analysis, computer vision, image statistics, pattern recognition, and machine learning. The candidate should show initiative in investigating, creating and developing new spatial algorithms and computational methods for project advancement. The successful candidate will be expected to be innovative and creative in the developing of new research ideas and to participate in the proposals development process for potential funding of research projects.

Qualifications:

- Ph.D. or M.S. in computer science, electrical or computer engineering, mathematics/statistics, geography, natural or social sciences with remote sensing emphasis.
- Strong understanding of GIS and remote sensing principles, and geospatial data modeling, analysis, and visualization techniques.
- Educational background, expertise, and demonstrated research experience in one or more of the following areas:
 - Remote sensing and image processing.
 - Spatial methods in population geography or demography.
- Experience with commercial GIS (ESRI software including ArcView, ArcGIS) and remote sensing (ERDAS Imagine, ENVI, ERMapper).
- Programming skills in a language such as C, C++, Fortran90, Java, VB or various application languages is required. Knowledge of Matlab and/or "R", and parallel computing are highly desirable.
- Candidates should have excellent communications skills, including a record of scientific publications, and a desire to work in an applied research environment.

- Applicants cannot have received the most recent degree more than five years prior to the date of application appointment and must complete all degree requirements before starting their appointment.

Technical Questions:

Contact Budhendra Bhaduri at bhaduribl@ornl.gov . Please reference the position title and number when corresponding about this position.

How to Apply:

Qualified applicants may apply online at https://www2.ornl.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postdoctoral Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). This appointment is open to all qualified U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.