



The University of Texas at El Paso

Job ID: 4469
Job Title: Post-Doctoral (Electrical & Computer Engineering)
Department: Electrical & Computer Engineering
FLSA Status: Exempt

Summary: Under general supervision of the Principal Investigator and with moderate latitude for the use of initiative and independent judgment, performs complex research work by assisting in the development, implementation, and monitoring of specialized research in the area of hyperspectral remote sensing with a focus on space situational awareness. May train and supervise the work of others.

Statement of Duties and Responsibilities:

Conducts research in the area of hyperspectral remote sensing for space situational awareness. Design, implement, test and validate algorithms and software for hyperspectral image exploitation for identification of non-imaging space objects.

Assists in formulation of research objectives and determine the scope of methodologies of research projects and areas to be evaluated; provides feedback relating to research design, planning, instrumentation, statistical analysis, and reporting; works with researchers on the administration of experiments and interpretation of results for research and teaching.

Supports the design and implementation of a set up for collecting spectral data of typical materials used to build spacecrafts. Create a documented material spectral library to use in the project. Develop and validate protocols for spectral data collection.

Assists with the collection and in gaining access to multi/hyperspectral images, spectral libraries, and simulation tools to generate data sets with reference information to be used for testing, verification and validation of hyperspectral image processing algorithms. Assists with conducting data quality assurance procedures; applies customized products, equipment, formulas, processes, or analytical methods; prepares research data sets and documents data structure and definitions; may develop new software applications or customize existing applications to meet specific scientific project needs.

Collects, compiles, and analyzes research data to include the use of statistical and machine learning methods to analyze data sets; may prepare and provide presentations for project sponsors, professional organizations, governmental entities, industry and the public; communicates research results through conference presentations, scientific publications, or project reports.

Writes technical papers or summary of findings and prepares standards and specifications for processes, facilities, products, or tests.

Develops documented software library of the algorithms developed during the course of the project.

Ensures adherence to laboratory standards and practices to maximize safety and operational effectiveness; compiles and analyzes test information to determine process or equipment operating efficiency or to diagnose malfunctions.

Mentors and support graduate and undergraduate students participating in the project. Trains users on the operation and data management of research equipment.

Participates in proposal writing and coordination for external funds.

Demonstrates proficiency with Microsoft Office software and the ability to learn and use institutional software systems.

Complies with all State and University policies.

Other duties may be assigned as required by the principal investigator and the project sponsors.

Supervisory Responsibilities: May carry out supervisory responsibilities in accordance with the organization's objectives, policies and applicable laws.

Required Qualifications: PhD in Electrical Engineering, Remote Sensing, Signal Processing, or related field. Research experience with multi/hyperspectral remote sensing, image and signal processing. Experience in the development of programs in the Matlab or ENVI environments. Experience in design, testing and validation of algorithms for remote sensing data exploitation. Knowledge of statistical concepts and methods and their application to research analysis. Ability to plan, organize, and oversee research projects, evaluate research data, interpret and publish research findings, and communicate effectively. Have a track record of journal publications.

Application Procedure: Applicants must submit the following: 1) a letter of interest describing their interest in the position and their fit; 2) detailed curriculum vita; 3) name and complete contact information of three references; 4) unofficial transcripts; and 5) copies of two most representative publications.

Review of applications will begin immediately and will continue until the position is filled. Women and individuals from underrepresented groups are encouraged to apply. Applications must be submitted via the UTEP employment website. No applications will be accepted via other means.

For information/inquiries regarding the position, please email ECE_Admin@utep.edu

To apply, please visit www.utep.edu/employment

UTEP is an Equal Opportunity Employer

Interested candidates may apply by visiting www.utep.edu/employment
For information/inquiries regarding the position, please email ECE_Admin@utep.edu