Prof. Susan Ustin’s Center for Spatial Technologies and Remote Sensing (CSTARS) at UC Davis is known for nearly 30 years to be one of strongest environmental remote sensing groups in the United States. CSTARS faculty and staff scientists come from all over the world and various disciplines including GIS, Computer Science, Applied Math, Geography, Botany, Ecology, Soil, Atmospheric and Environmental Sciences. For more information about CSTARS please visit us at: http://cstars.metro.ucdavis.edu/.

Currently, CSTARS is looking for a highly motivated Postdoctoral Scientist / Remote Sensing Applications Developer with excellent Remote Sensing, Algorithm Development, and advanced MATLAB programming skills. The candidate will work closely with the Principal Investigator, Dr. Alex Koltunov, and will be primarily responsible for:

- science/algorithm research and development, software implementation, and performance testing of the GOES Early Fire Detection system (GOES-EFD) being developed by CSTARS. The GOES-EFD system’s primary objective is to maximize timeliness and reliability of initial detection of wildfire incidents at regional level.
- other remote sensing data analysis projects in the lab, as needed.

This is your opportunity for rapid professional growth, recognition, and collaboration with the world leading experts in Environmental Remote Sensing and Wildfire Remote Sensing community.

The ideal candidate will have the following Qualifications and Skills:

**Education/Technical Expertise:**

A. Ph. D. degree (or near completion) in Remote Sensing, GIS, Computer Sciences (e.g. Computer Vision), Physics, Engineering, Applied Math, or a similar field. Exceptional candidates with a M. Sc. degree may be considered for alternative payroll titles, if they demonstrate extensive relevant practical experience and skills.
B. Multi-year advanced level programming experience in MATLAB environment (esp. for image/video analysis, statistical analysis/inference). Please do not apply if you do not have or cannot demonstrate such experience.

C. Demonstrated experience in developing complex, large-scale automated image sequence analysis systems, such as video/thermal infrared surveillance (in academia and/or private sector).

D. Demonstrated experience in developing image-processing and pattern-recognition algorithms for remote sensing. Experience closely related to wildfire or forest disturbance detection from space is a great plus.

E. Formal training and solid theoretical understanding of the following concepts:
   - Environmental Remote Sensing.
   - Change Detection, Anomaly Detection, Target/Object Detection, Clutter Suppression, and their underlying mathematical and statistical principles;
   - Multivariate Statistical Analysis.
   - Machine Learning from examples and Statistical Pattern Recognition, including: Feature Selection/Extraction, Supervised/Unsupervised learning, classifiers and their ensembles;
   - Image Sequence Processing and Analysis: automatic registration, object tracking, time-series modeling.

Inter-Personal Characteristics:

F. Great dedication to the project success; willingness and ability to work flexible hours and occasional overtime to meet project needs; perform well under intense deadline/deliverable schedule; ability to frequently switch between different tasks.

G. Excellent communication skills (both written and spoken) in English language.

H. Ability to work independently and in a multi-disciplinary team.

Additional Desired Qualifications:

I. GIS training/experience and working knowledge of ArcGIS and ENVI software

II. Practical experience with data from these platforms and sensors: GOES Imager/or a similar geostationary sensor, Landsat, WorldView, MODIS, VIIRS.

III. Knowledge of Thermal Physics and Wildfire detection in thermal infrared.

IV. Previous post-doctoral experience.

V. Strong peer-reviewed publication record.

VI. Experience with Subversion (under Windows OS)

Applications should be sent by email and include the following *five* items:

1) Cover Letter which must specifically address the applicant’s qualifications with respect to the above items: A)-H) and I)-VI). We would prefer the applicant to have all the listed skills, however, it is not mandatory.

2) Curriculum Vitae (up to 3 pages) including contact information for at least two references.

3) List of Publications.

4) Statement of Career/Research Interests and Goals (1-2 pages).
5) Up to three representative publications.

Please email your applications materials to:

Dr. Alexander Koltunov, akoltunov1234atucdavis.edu [please replace “1234at” with @, if you are not a robot!]

with the subject line: “Postdoc in Remote Sensing: your family name”

Please note that due to high volume of applications we may not be able to contact every applicant. Selected candidates may be contacted to arrange a telephone or an in-person interview.

The University of California is an Equal Opportunity Affirmative Action Employer.

UC Davis is a smoke and tobacco free campus effective January 1, 2014. Smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes) will be strictly prohibited on any UC Davis owned or leased property, indoors and outdoors, including parking lots and residential space.