Position opening for PhD in the area of Hyperspectral remote sensing of forest fires

The Geophysical Institute at the University of Alaska Fairbanks is inviting applications for a PhD position in the area of hyperspectral remote sensing of forest fires. Hyperspectral remote sensing is an excellent tool for improved vegetation mapping and quantifying biophysical properties such as biomass, canopy moisture content, and flammability to aid fire risk assessment.

We offer a PhD position to research boreal forest fire using hyperspectral remote sensing. The research will particularly focus on:

1) Improved characterization of Alaska's boreal forest fuel map including amount, flammability, and moisture content
2) Developing algorithms to scale up fuel maps from local experiment sites to the boreal forest domain of Alaska

The successful applicant will join an inter-disciplinary team of scientists with expertise in remote sensing, fire ecology, economics, and climate. We offer an exciting opportunity to be a part of UAFs HyLab team and to actively lead efforts in planning data acquisition campaigns and analysis of airborne hyperspectral data using HySpex sensor and ground based hyperspectral data using PSR+ field spectrometer. The student will develop novel hyperspectral image processing methods to improve boreal land cover map at strategically selected sites and develop algorithms to quantify biomass, canopy moisture content, and live versus dead biomass with the goal to improve fire risk assessment. The student will have opportunities to disseminate the research findings through publications in scientific journals and presentation at international conferences.

Essential qualifications: A Master's degree in Geosciences, Geography, Biology or related Engineering discipline. Experience with remote sensing data analysis and image processing; excellent communication skills in English.

Desired qualification: Experience with hyperspectral data processing, python or Matlab programming, landcover mapping from satellite or airborne images; familiarity with field survey and data collection, RTK GPS, and programs such as ArcGIS, ENVI or ERDAS.

Timeline: To ensure consideration, please apply by **April 1, 2019**. Visit Department of Geosciences Prospective Student page for details on admission requirement and process. Contact Mandi Goddard, Graduate Coordinator, at magoddard@alaska.edu or +1 9074747755 for admission related questions.

For any question about the project please contact Dr. Santosh Panda (skpanda@alaska.edu) or Uma Bhatt (usbhatt@alaska.edu).

This position is funded by Alaska EPSCoR Fire and Ice project.

Note: UAF embraces a culture of respect, diversity, inclusion and caring. Alaska EPSCoR is also committed to promoting diversity. The University of Alaska is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual. Learn more about UA's notice of nondiscrimination.