ALASKAVIEW 2019 - 2020 ACTIVITIES

AlaskaView developed an open access online introductory course on **Remote Sensing of Wildfires (RSW)** geared toward high school and college freshmen students. The course was launched on **edX.org** (a global nonprofit online education and learning platform) on September 28, 2020. Course About Page.

Goal: Introduce remote sensing science and applications to high school and college freshmen students through wildfire application—a problem that is worsening with climate warming and best addressed using remote sensing.

RSW: Four modules (consisting of video lectures, illustrations, interactive exercises, and quizzes)
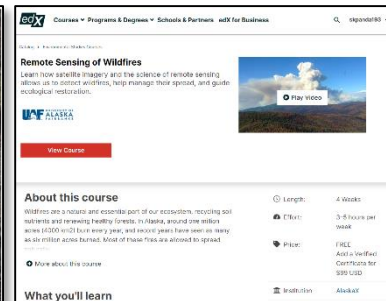1. An overview of wildfires in Alaska
2. An introduction to remote sensing of Earth
3. Remote sensing applications on wildfires
4. Remote sensing resources

Map showing RSW learners.

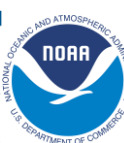*RWS course instructors surveying wildfire burn severity and shooting footage for the course.*

RSW course about page

This activity meets the objective 4 of the USGS/NLI "*developing online educational materials that are immediately actionable by teachers or students with a minimal implementation curve*".

Student support: Two graduate students received summer salary support and contributed to the course development as co-instructors. Also, we offered four AV fellowships (2x$1000; 2x$500) to support and promote geospatial research at University of Alaska Fairbanks. Below are the student project titles:
- Mapping coastal change and community-based observations in western Alaska
- Estimation of turbidity using remotely sensed images for evaluation of fish behavior following forest fire
- Remote sensing the post-glacial high-water mark in southeast Alaska
- Prehistoric archeological site prediction in Alaska's Mt Hayes and Gulkana area

ALASKAVIEW CONSORTIUM MEMBERSHIP

Federal consortium members identified above do not receive funding from AmericaView.

AmericaView Website:
www.AmericaView.org
Christopher McGinty, Executive Director:
chris.mcginty@americaview.org
Lisa Wirth, Program Manager:
lisa.wirth@americaview.org
Brent Yantis, Board Chair:
rodney.yantis@louisiana.edu

BENEFITS TO ALASKAVIEW

As a result of activities and support of AmericaView the State of Alaska have benefited as follows:

Enrollment in RSW: The RWS online course has been benefitting Alaskans and global students alike. The RSW learners include Alaskan K-12 students, university students, state and tribal agencies workforce.

Total enrollment 963 (as of 12/18/2020) from 87 countries. Female: 37.5%; Male: 62.3%.

Learners age statistics: 30% are below 25; 54% are between 26 and 40; 16% are over 41.

Learners education level: 12.5% high school diploma or less; 42.5% college degree; 43.5% advanced degree.

In 2019, the participants of *Alaska Summer Research Academy* (**ASRA**) [middle school] and *Upward Bound College Bound* (**UBCB**) [high school] program benefitted from two remote sensing application workshops focused on wildfires and coastal erosion. Along with introduction to remote sensing students also received hands on training on QGIS, Google My Maps, and GEE operations.

We offered four fellowships to support and promote geospatial research at University of Alaska Fairbanks.

Public Outreach: AKView participated in the 2019 Annual Science Potpourri event organized by University of Alaska Fairbanks' College of Natural Science and Mathematics. Exhibit included: Augmented Reality Sandbox, 3D printers, Landsat board games, NASA posters, USGS Landsat Science booklets.

Consortium Development: Collaborated with UAF eCamups, edX.org, NSF Alaska EPSCoR program, and U.S. Fish and Wildlife Service.
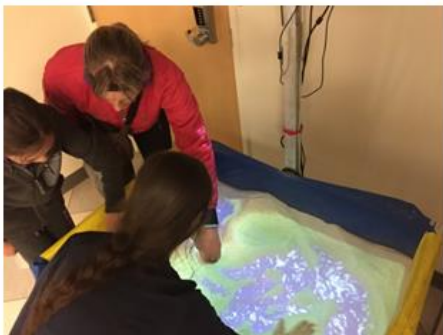

Middle-school student participants of 2019 Alaska Summer Research Academy working on a forest fire burn scar and burn severity mapping from pre- and post-fire Landsat images.

High-school student participants of 2019 Upward Bound College Bound program working on a lab on coastline erosion along Alaska's northern coastline.

Below pictures were taken during 2019 Science Potpourri event held at University of Alaska Fairbanks campus on 13th April 2019.

These activities meet the objectives 2 and 4 of NLRSEORA 2018 grant: "establishing strategic partnerships to develop and deploy remote sensing applications through collaborations involving university research teams and K-12 schools" and "developing materials for an educational and training workshop".

AlaskaView Principal Investigator:

SANTOSH PANDA

UNIVERSITY OF ALASKA FAIRBANKS

907-474-7539

SKPANDA@ALASKA.EDU

http://www.sites.google.com/view/alaskaview

Facebook.com/ArcticRemoteSensing