

SELPER & CEOS-WGCapD - Remote-Sensing applications to floods, droughts, fires and landslides (*Uso de Percepción Remota en Aplicaciones a Inundaciones, Sequías e Incendios*)

Description:

- This is a training course on the use of satellite data for floods, droughts, wildfires, and landslide applications. Note that the course will be mainly in Spanish with some parts in English.

Expected Outcome:

- Understanding of the use of EO for natural hazards, with some practical experience working with EO data for this application

Organizers:

- The Mexico Chapter of the *Sociedad Latinoamericana en Percepción Remota y Sistemas de Información Espacial (SELPER)*
- **Working Group on Capacity Building and Data Democracy (WGCapD)** of the **Committee on Earth Observation Satellites (CEOS)**.

Co-Organizers:

- European Space Agency (ESA);
- National Aeronautics and Space Administration (NASA)
- Italian Space Agency (ASI);
- *Comisión Nacional de Actividades Espaciales (CONAE)* representing the WGCapD;
- *Universidad Autónoma de Nuevo León (UANL)* through the School of Civil Engineering and the Department of Geomatics representing SELPER.

Some Instructors come from the following **institutions in Latin America:**

- Mexico Campus of CRECTEALC
- CONABIO
- Universidad Nacional Autónoma de México (UNAM)
- Universidad de Guanajuato
- Instituto Alexander Humboldt, Colombia

Instructors: Fabiola Yépez; Maurizio Fea; Martin Phillipsen; Eric Fielding (TBC); Laura Candela; Gabriel Perilla; Inder Tecuapetla; Sergio Camacho; Azucena Pérez-Vega; Alvaro Soldano; Jonathan Solorzano; Isabel Cruz.

Programme:

- Fundamentals of satellite remote sensing.
- From where and how to download satellite data.

- Satellite Earth Observation in detecting droughts, fires, and landslides.
- Use of optical and radar data in floods and droughts applications.
- Mapping of flooded areas using Sentinel-1 data.
- Tools including QGIS, SNAP, and Google Earth Engine.
- SAOCOM satellite data and its potential applications.
- Insights towards disaster management in Latin America.

Targeted Audience:

- Professionals from institutions with disaster management, civil protection, or urban development functions, university researchers and students, individuals from professional societies and associations of the Latin American and Caribbean region.

Prerequisites:

- Applicants should be familiar with the use of satellite images.
- For the practical exercises, participants' laptops should fulfil the following minimum requirements: a two-core processor or better, 8GB of RAM, free hard drive space, a good internet connection.