

Online sessions outline

N	Date	Session description (each 1h max)	Follow up Exercises
1	Jan 11	Introduction to the course; Fundamentals of remote sensing and GIS; GEE platform, catalog and tools overview;	Self-introduction Registration in GEE
2	Jan 14	Working with satellite images (Landsat- 8 and Sentinel-2), metadata overview; Filter data by cloud cover, date and AOI;	Homework(HW): Add Landsat-8 and Sentinel-2 images, filter data by cloud cover, date and AOI
3	Jan 18	Vegetation index calculation (NDVI, EVI) using Landsat-8 and results visualization; Creating graphs	HW: Calculate NDVI/EVI based on Landsat-8, filter and mask data; Create graph of NDVI changes;
4	Jan 21	Working with climate data (precipitation, temperature); Calculate statistics	HW: Search for climate data and visualize it on the map; Calculate statistics (min, max, mean);
5	Jan 25	Working with assets (how to add user's data to GEE cloud, add data to the asset from the script)	HW: Upload user's shape file to the asset in cloud; Calculate buffer and visualize data on the map;
6	Jan 28	Working with elevation data (DEM) and additional information such as slope and aspect	HW: Add DEM data; Calculate slope and aspect, mask and visualize data on the map
7	Feb 1	Introduction to Machine learning classification and random forest algorithm	HW: Prepare data for classification (Landsat-8 data, vegetation index , slope, aspect); Perform classification;
8-9	Feb 4	Projects discussion	Work on individual project, consultations
10	Feb 8	Project presentations and discussions	Individual project