How to install and run attached R scripts

At first make sure that you have installed proper JAVA version in your system and set it as environment variable in your operating system. Once this condition is met, necessary packages can be installed with command: ,,*install.packages*". All required packages to be installed are loaded at first after launching the script with command ,,*library*". In order to speed up installation, they can be installed with command:

install.packages(c("name of the package", dependencies=TRUE))

BFAST01_Change_Detection_BATCH. R

- implements Bfast01 function for Landsat Time Series
- daily and monthly datasets are created for analysis

Data_Frame_LUCAS_GEE_Creation_AND_Filter_ALL_IDS_LANDSAT. R

- script creates datasets for further analysis for each spectral band individually in .csv file format exported from Google Earth Engine

E20_Data_Frame_LUCAS_GEE_Creation_NDVI.R

- script creates datasets for further analysis for each spectral band individually in .csv file format as an input to analysis with Extended Isolation Forest Algorithm (Isolation_Forests_Predictions_ALL_IDS_NDVI.R) exported from Google Earth Engine

Isolation_Forests_Predictions_ALL_IDS_NDVI.R

- script implements breakponit analysis of NDVI raw time series data as an input with help of Extended Isolation Forest Algorithm and H2O library

Mann_Kendall_Test_LANDSAT_BANDS_ORIGINAL_VERSION.R

- implementation of original version of Mann-Kendall test for original Landsat bands

Spectral Curves Plot.R

- script plots spectral behaviour of original Landsat bands for all tested LUCAS samples