Training Day 10 Daily Dairy

June 21, 2024

- Calculated combine NDVI(daily) and LST(daily).
- Studied about MODIS:- Daily, 8 day and 16 day.

Tasks Accomplished:

1. Data Processing and Analysis:

- Calculated daily NDVI using MODIS data, applying the NDVI formula across daily images in Google Earth Engine (GEE).
- Calculated daily LST using MODIS thermal bands, converting values to temperature and obtaining daily means.
- Generated time series charts to visualize daily trends for both NDVI and LST.
- Combined the NDVI and LST datasets for a comprehensive analysis.

2. Study on MODIS Data Products:

- Examined different MODIS temporal resolutions:
- Daily MODIS Data: Captures day-to-day changes, suitable for detailed short-term analysis.
- 8-Day MODIS Data: Balances detail and data volume, useful for weekly trend analysis.
- 16-Day MODIS Data: Provides a broader overview, ideal for seasonal pattern observation.

Key Learnings:

- High temporal resolution (daily) is essential for detailed short-term analysis.
- Choosing the right temporal resolution depends on research goals and data management needs.
- Combining NDVI and LST data offers insights into the relationship between vegetation health and surface temperature.

Challenges Faced:

- Managing large daily datasets required efficient processing techniques.
- Interpreting combined NDVI and LST trends involved considering multiple environmental factors.