Training Day 13 Daily Dairy

June 26, 2024

- started with considering tehsils of Ludhiana as a region of interest
- calculated lst of 20 years (2001 - 2021) tehsil wise
- calculated monthly mean lst for this period

Tasks Accomplished:

1. Region of Interest:

- Started with considering tehsils of Ludhiana as the region of interest for the study.
- Identified and defined the boundaries of each tehsil in Ludhiana district for detailed analysis.

2. Long-term LST Calculation:

- Calculated Land Surface Temperature (LST) for a 20-year period (2001 - 2021) on a tehsil-wise basis using MODIS data.
- Utilized Google Earth Engine (GEE) for efficient data processing and analysis.

3. Monthly Mean LST:

- Calculated the monthly mean LST for each tehsil over the 20-year period.
- Generated time series data to observe long-term trends and seasonal patterns in LST.

Key Learnings:

- Focusing on tehsils provides a detailed and localized understanding of temperature variations within the Ludhiana district.
- Long-term LST data helps in identifying significant climatic trends and changes over the years.
- Monthly mean LST calculations reveal seasonal variations and long-term trends, critical for climatic and ecological assessments.

Challenges Faced:

- Handling and processing a large dataset spanning 20 years required efficient computational techniques and careful data management.
- Ensuring the accuracy and consistency of LST calculations across different tehsils and time periods.