**WORKSHOP SCHEDULE - PROPOSED**

| **Date** | **Title** | **Resource person** |
| --- | --- | --- |
| 09.00 - 09.30 AM | Registration | ­- |
| 09.30 - 10.30 AM | Inauguration and welcome address | - |
|  | Workshop goals and participant Introductions | - |
| **10:30 - 11:00 AM** | Tea Break | - |
| **DAY 1 – Morning session (23.06.2025)** | | |
| Keynote speech | Advancing climate data Analytics: New trends and technological breakthroughs |  |
| Lecture 1 | Climate change and Its implications for agriculture |  |
| Lecture 2 | Introduction to climate data types and various sources |  |
| **Afternoon session** | | |
| Part 1 |  |  |
| Part 1 | Demo: Accessing and climate datasets from open platforms |  |
| Part 2 | Hands-on: Downloading historical weather data for a region of interest from various sources |  |
| **DAY 2 – Morning session (24.06.2025)** | | |
| Lecture 1 | Climate data formats and processing and visualization tools |  |
| Lecture 2 | Introduction to Python for data extraction and analysis |  |
| Part 1 | Demo on IMD gridded data extraction |  |
| **Afternoon session** | | |
| Part 1 | Hands on exercise: Extracting IMD gridded rainfall and temperature data |  |
| Part 2 | Demo on Climate Data Operator (CDO) for processing and analysing climate data including extreme weather events |  |
| **DAY 3 – Morning session (25.06.2025)** | | |
| Part 1 | Demo on NetCDF Operator (NCO) toolkit to manipulate and analyse climate data |  |
| Part 2 | Hands on exercise: CDO and NCO |  |
| **Afternoon session** | | |
|  | Demo and hands-on exercise: The Grid Analysis and Display System (GrADS) and Panoply |  |
| **DAY 4 – Morning session (26.06.2025)** | | |
| Lecture 1 | Introduction to R for data analysis |  |
| Part 1 | Working with raster climate data in QGIS and Earth Engine |  |
| Part 2 | Techniques for validating climate data obtained from various sources |  |
| **Afternoon session** | | |
|  | Demo: Python/R for computing indices and trend analysis |  |
|  | Hands on exercise: Python/R for computing indices and trend analysis |  |
| **DAY 5 – Morning session (27.06.2025)** | | |
| Part 1 | Demo: Generating spatial maps for interpreting the results of climate analysis using geo-spatial tools |  |
| Part 2 | Explore the open source tools available for computing agro-climate indices |  |
| **Afternoon session** | | |
|  | Participant presentations on the results of climate data analysis for a region of interest |  |
|  | Participant feedback, closing remarks and certificates distribution |  |