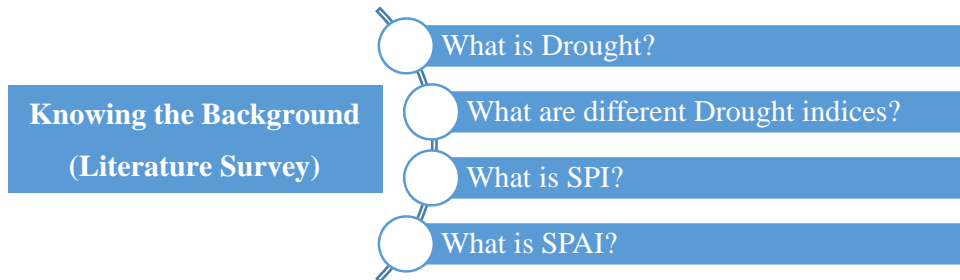# Term Project

Theme of the Term Project: Drought analysis and Prediction

Perform a drought characterization, analysis and prediction for two locations at your locality based on the available historical data.

Following steps will provide more details and help you to complete the term project for an organized way.
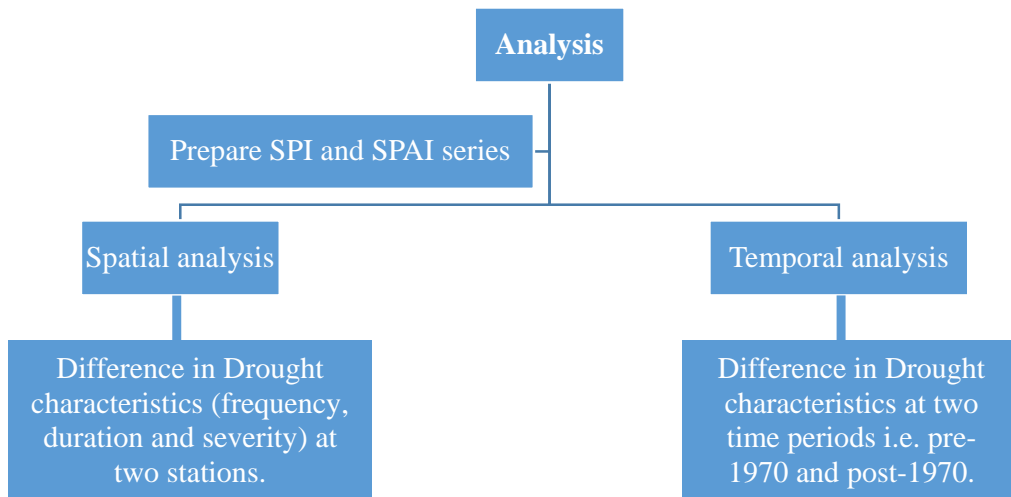
Step – I: Background

Knowing the Background (Literature Survey)	What is Drought?
	What are different Drought indices?
	What is SPI?
	What is SPAI?

Step – II: Data Collection

Identify two locations in your locality and collect required data from data supply portals provided by agencies like IMD (India Meteorological Department), IITM (Indian Institute of Tropical Meteorology) etc.

Step – III: Analysis

Analysis

Prepare SPI and SPAI series

Spatial analysis	Temporal analysis
Difference in Drought characteristics (frequency, duration and severity) at two stations.	Difference in Drought characteristics at two time periods i.e. pre-1970 and post-1970.

Step – IV: Prediction

To predict the drought condition (1971 onwards) by using different modelling approaches like ARIMA, SVR, ANN, Deep Learning etc.