

PROJECT PROPOSAL



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VIGNESH THULASI DASS

INSTUCTOR - Bahare Sanaie-Movahed

SUBJECT – Foundations of GIS

**Groundwater Potential Zones and Drought prone zones**

**Project Questions:**

* Identifying the potential groundwater Zones.
* Also understanding the drought Prone areas.

**Software Used.**

ARCGIS

ERDAS

**Data Requirement**

Landuse data, Retrieved data from the Earth data Nasa website

1. *Earthdata Search*. (2020). *Search.earthdata.nasa.gov*. Retrieved 17 May 2020, from https://search.earthdata.nasa.gov/search?sb=76.41386702656746%2C30.66334799097403%2C77.06425765156746%2C31.337930451988548&m=30.776327349811062!76.43496072292328!7!1!0!0%2C2&qt=2020-02-27T15%3A37%3A00.611Z%2C2020-03-03T02%3A02%3A47.622

I am looking at the at the Punjab state region in India to do this research work on.

**Things to implement**

* Successfully identify Groundwater Potential Zones
* Also Drought prone Area analysis
* Flood Risk map
* Working with Rainfall Data
* Generate Soil Map and identify Soil Properties
* Delineate Watershed
* Drainage Density and Drainage Maps
* Mosaic of Digital Elevation Model
* Area Calculation from Pixels
* Data Interpolation
* Adding Data from Excel to GIS Environment
* Perform GIS data calculations
* Tool used for Site suitability analysis
* Working with CDF file and data Extraction, Map Generation, Calculation,
* Data Reclassification
* Generate Fluctuation maps to identify Good Aquifer.
* Calculation with Raster Data
* Data management in GIS

**Target audience:**

* Groundwater Exploration Engineers
* Irrigation Engineers
* Water Resource Engineers
* Students of WRDM
* Govt Policy Makers
* Ministry of Earth Science