



JOINTLY OFFERING THE PG PROGRAM ON M.Sc. IN AGRICULTURE ANALYTICS

PROGRAM OVERVIEW

Agriculture Analytics is a two year Post Graduate Program, which is jointly organised by DA-IICT, Gandhinagar (<https://www.daiict.ac.in/>), Anand Agriculture University, Anand (<http://www.aau.in/anand-agricultural-university-anand>) and Indian Institute of Remote Sensing, ISRO Dehradun (<https://www.iirs.gov.in/>), premier universities / Institutes in ICT, Agriculture and Space Technology domain, respectively. The

program is aimed at nurturing students, with insights and the know-how to take the sector into the future. The course will introduce students to concepts of data analytics, viz. descriptive, predictive and prescriptive, in agriculture and will empower the students to eliminate speculative farming and usher in the age of predictive agriculture. This is a **multidisciplinary** program of agriculture and data analytics.

PROGRAM CURRICULUM

Semester I

(Fundamental and Remedial courses)

- Python Programming and Database with SQL
- Analytics / Statistical methods
- Earth Observations (EO) Systems

Remedial courses

- Preparatory Mathematics (for biology background students)
- Basics of Agricultural Science (for mathematics background students)

Value Added Course

- Spatial Analysis with ArcGIS® Pro by ESRI India of 30 hrs

Summer Semester

Value Added Courses (Proposed)

ESRI India	Spatial Analysis with ArcGIS® Pro	5 days (30 hrs)
IBM India	Enhanced weather forecast- Temperature, Humidity, Rainfall, Wind etc	5 days (30 hrs)
Amnax	AI in Agri Technology Business	5 days (30 hrs)
SATSURE	Crop Yield Modeling	5 days (30 hrs)
SATSURE	Microwave data processing	2 days (10 hrs)
Analytics Vidhya	Visualisation and Storytelling Tools	2 days (10 hrs)
Invited lectures by academia and industries experts		8 -10 of one hour each

Semester II

(Technology courses & Satellite data processing)

- Big data analytics
- Machine learning
- Programming for Geodata Processing
- Spatial Modeling and Data Assimilation

Semester III

(Domain courses)

- Crops & Soil Analytics
- Weather and Water Analytics
- Agriculture Market Analytics
- Risk Analysis and Modeling

Semester IV (Project / Internship)

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