



ENGINEERS WITH
SOCIAL RESPONSIBILITY



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



Academics

Service to Society

AAU
IIRS
DA-IICT

Research & Innovation



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 Agricultural 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 to eliminate speculative farming and usher in the age of predictive agriculture. This is a **multidisciplinary** program of agriculture and data analytics.

PROGRAM CONTENT

The program offerings comprise courses of three broad types: remedial and fundamental courses on agricultural science, preparatory mathematics, analytics and statistical methods, Earth Observation (EO) system and Programming in Python; technology courses on machine learning, big data analysis, geodata processing, spatial modeling using satellite data; and finally, agriculture domain courses on crop, soil, weather, water analytics, market and risk analysis and modeling; and one semester internship with an industry or with a faculty on a real life research problem in data analytics. The program also includes value added courses offered by the industries in agriculture domain and technology areas. The value added courses allow the students for entitlement of

certification by the industry.

As the participants in the program come from varied academic backgrounds, it is important to bring every student on the level playing field. Keeping this in view the fundamental courses are offered in the first semester at DAIICT. In the second semester the students move to IIRS to complete the courses on technology areas. In the third semester, the students will learn from faculties of AAU in areas of crop, soil, weather, agriculture market and risk analysis in agriculture. The value added courses will be offered by the industries during summer semester at DAIICT. Also as part of value addition, invited lectures will be arranged from academia and industries in all three semesters.

PEDAGOGY

- Classroom teaching in the first three semesters in three different areas – fundamentals and remedial courses in the first semester, technology related courses in the second semester and domain courses in the third semester.
- Internship / research for executing grassroots level projects in the final semester.
- Value added courses and workshops on the specific technology topics offered by industries in the summer semesters.
- Guest lectures by academia and industry experts in the first, second and third semesters in the areas of their expertise.

PARTICIPANTS

Agricultural and allied Science, Environmental Science/Engineering, Science (Statistics, Mathematics, Physics) / IT/ Computer Science/ Engineering Graduates or equivalent degrees with inclination to pursue a career as Data Analyst in Agriculture are eligible for this program. Professionals working in agriculture domain and satisfying the above educational qualification are also welcome to apply. Maximum age limit is 45 years.

OUTCOME OF THE PROGRAM

- The graduates will be able to transform data into valuable insights for better decisions.
- The program will help the graduates to make optimal decisions, with respect to cost, time, under conditions of adversity.
- The program will help the graduates to prepare proper visualisation material by summarizing the data
- The graduates from this program will be fulfilling the role of data analyst in agriculture industry.
- The student will develop programming skills in more than one language.

PROGRAM CURRICULUM

Semester I (Fundamental and Refresher Courses)

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

Refresher courses

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

Semester II (Technology courses and Satellite data processing)

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

Summer Semester (Value Added Courses, 84 Hrs.)

Relevant courses such as AI in Agri, Crop Yield Modeling, Spatial Modeling in ArcGIS, Microwave Data Processing, etc. are generally offered by various Organizations such as Amnex Info Tech., ESRI, SAC-ISRO, Satsure Analytics, etc. Additionally, there will be invited lectures by academia/industries experts throughout the program duration.

Semester III (Domain courses)

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

Semester IV (Project / Internship)



ABOUT DA-IICT

DA-IICT, founded in 2000, is a unique university devoted to the cutting-edge interdisciplinary area of Information and Communication Technology (ICT). We design and deliver academic programs in both disciplinary and multidisciplinary domains covering the important aspects of ICT, Computational and Data Science, Humanities and Design. DA-IICT, being a university, is a member of the Association of

Indian Universities (AIU). DA-IICT has been accredited with A grade by NAAC in 2017 and is consistently ranked among the top Engineering Institution in NIRF rankings. DA-IICT was awarded the Best University in Innovation in Gujarat by Govt. of Gujarat in 2017. DA-IICT has been awarded as a 'Center of Excellence' by the Government of Gujarat in 2022.

ABOUT AAU

Anand Agricultural University (AAU) was established in 2004 at Anand with the support of the Government of Gujarat, Act No.(Guj 5 of 2004) dated April 29, 2004. Caved out of the erstwhile Gujarat Agricultural University (GAU), the dream institution of Sardar Vallabhbhai Patel and Dr. K. M. Munshi, the AAU was set up to provide support to the farming community in three facets namely education,

research and extension activities in Agriculture, Horticulture, Engineering, product Processing and Home Science. At present there are seven Colleges, seventeen Research Centers and six Extension Education Institutes are working in nine districts of Gujarat namely Ahmedabad, Anand, Dahod, Kheda, Panchmahal, Vadodara, Mahisagar, Botad and Chhotaudepur.

ABOUT IIRS

The Indian Institute of Remote Sensing (IIRS) - is a constituent unit of Indian Space Research Organisation (ISRO), Department of Space, Govt. of India. Since its establishment in 1966, IIRS is a key player for training and capacity building in geospatial technology and its applications through training, education and research in Southeast Asia. The training, education and capacity building programmes of the Institute are designed to meet the requirements of Professionals at working levels, fresh graduates, researchers, academia, and decision makers. IIRS

is also one of the most sought after Institute for conducting specially designed courses for the officers from Central and State Government Ministries and stakeholder departments for the effective utilization of Earth Observation (EO) data. IIRS is also empanelled under Indian Technical and Economic Cooperation (ITEC) programme of Ministry of External Affairs, Government of India providing short term regular and special courses to international participants from ITEC member countries since 2001.

CAMPUS LIFE

DA-IICT is spread over 50 acres of land in Gandhinagar, Capital City of Gujarat. The DA-IICT campus is carefully planned and designed as an environmentally conscious campus in the country. DA-IICT can be reached in about 30 minutes from Sardar Vallabhai Patel International Airport/ the Gandhinagar Capital Railway Station/ the Central Railway Station located in Ahmedabad.

IIRS is located in Dehradun, the capital city of Uttarakhand. Its campus is at a distance of about 5, 25 and 3 km from railway station, airport, and city centre respectively. Sprawling over an area of about 20 acres, its lush-green campus is not only host to rich flora and fauna but also provides magnificent view of Mussoorie hills and serenity. Life at IIRS offers

quality learning resources along with a wealth of opportunities for social and intellectual engagement. Being a student here is not only about studying – but it's also about learning new skills and getting involved in what's going on outside the classroom.

AAU provides teaching; research and extension education services related to agriculture and allied sciences to develop excellent human resources and innovative technologies for services to the farming community with the main motto of making Gujarat and India agriculturally prosperous. AAU is primarily a residential campus having very good infrastructure e.g. wireless network, library etc.

For applications visit:

<https://www.daiict.ac.in/admissions#tab-2>

Intake: Total Seats: 30

ELIGIBILITY CRITERIA

A Bachelor's degree with an aggregate of 60% or its equivalent, as per the norms set by the Degree granting Institute/University in Agriculture and allied sciences, Environmental Science, Statistics, Mathematics, Physics, Computer Science, Computer Applications, Information Technology OR A Bachelor's degree in Engineering or Technology from a recognized University with an aggregate of 60% or its equivalent, as per the norms set by the Degree granting Institute/University in Computer Science, Information Technology

Candidates appearing in their final year Degree examination and expecting to complete it by July 2024 may also apply. However, their final admission will be subject to the condition that they obtain an aggregate of 60% marks, or its equivalent as per the

norms set by the degree granting institute/university.

All admitted candidates have to submit their degree certificates or proof of completion of Degree, before 30 October 2024 failing which their admission is liable to cancellation.

Professionals working in agriculture domain and satisfying the above educational qualification are also welcome to apply. Maximum age limit is 45 years as on last date of filling the application form.

The decision of the concerned authorities of DA-IICT, AAU and IIRS regarding eligibility of any candidate shall be final.

Age: Maximum age limit is 45 years to this program.

SELECTION PROCESS

There will be three components to the process: (1) an entrance test, (2) an interview and (3) academic credentials.

The candidates are shortlisted for the interview on the basis of an entrance test.

The entrance test to be conducted at selected centers all over the country. The tentative list of centers is: DAIICT Gandhinagar, Ahmedabad, Bhopal, Bengaluru, Chennai, Mumbai, Hyderabad, Patna, Jaipur, Kolkata, New Delhi, Pune, Rajkot, Surat, Udaipur, Bhavnagar, Bhilai, Bhubaneswar,

Chandigarh, Guwahati, Jammu, Kochi, Lucknow, Pant Nagar, Porbandar, Ranchi and Vijayawada.

Interview will be held for the shortlisted candidates based on their performance in the entrance test.

The final merit list for admission will be prepared on the basis of the scores obtained in the (a) entrance test which comprises of 50%, (b) interview which comprises of 30% and (c) academic credentials of 10th, 12th and graduation marks which comprises of 20%.



HOW TO APPLY

Candidates submit an online application by clicking on the link given on the Institute website.

ADMISSION OFFER

Final merit list of the confirmed and wait-listed candidates (based on their performance in the entrance examination, interview & academic credentials) shall be posted in the website of the institute.

IMPORTANT DATES

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| Online application website opens | 14 th March 2024 |
| Last date for submission of online applications | 20 th May 2024 |
| Entrance test | 16 th June 2024 |
| Date of Interview | 24 th /25 th June 2024 |

FEES STRUCTURE*

At the time of counselling an amount of Rs. 1,15,000/- (Rs. 65,000/- towards Tuition Fee for the first semester, Rs. 25,000/- as Caution Deposit (refundable) and Rs. 25,000/- (per semester) as value added course fee payable to service providers) is payable. The Registration Fee is payable at the time of Registration and hostel rent on allotment of Hostel Room.

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|------------------------|--|
| Tuition fee | Rs. 65,000 per Semester |
| Value Added Course fee | Rs. 25,000 per Semester |
| Registration Fee | Rs. 2,500 per Semester |
| Caution Deposit | Rs. 25,000 (Refundable at the end of the program) |
| Hostel Rent | Rs. 27,500 per semester at DA-IICT (Rent will be different at AAU and IIRS) |
| Food | On actuals. There are multiple food options available in the campus (The expense will be approximately Rs. 5,500 per month) |

***Subject to revision every Academic Year from 8 to 10%.**

Education Loan

The Institute will facilitate the students to avail educational loan from selected Banks. The bank officials will be present on campus at the time of registration of admitted students so as to enable the students to obtain details on procedures and terms and conditions of the loan. The students can also avail loan from banks of their choice and in either of the case; the Institute will extend support in completing the loan documentation process.

For Inquiries

Email: pg_admissions@daiict.ac.in | Voice call: 079 69 08 08 08

For more details please visit: www.daiict.ac.in

