

Diploma in “Satellites for All About Atmospheric Phenomena”

COURSE TOPPERS will be awarded with
‘IARSc Young Researcher Fellowship’ or
Pilot projects in Science & Technology



IARSc
KNOWLEDGE 360°

INSTITUTE FOR ADVANCED
RESEARCH IN SCIENCE



Educational Outreach programme is included as a primary thrust area of IARSc, Bangalore.

IARSc launched a National Level 'IARSc Programme on Science, Technology, Research and Applications (IPSTRA)' for Teachers, Young Scientists and Students on Satellite & Radar Data Utilization in the areas of Space and Atmospheric Sciences.

This Outreach Programme will be streamlined in four areas of

1. Atmosphere and Climate,
2. Astronomy and Astrophysics,
3. Planetary Science and Exploration,
4. Solar-Terrestrial Physics.

In the area of 'Atmosphere and Climate', the basic Course, "Satellites for All About Atmospheric Phenomena' is a blend of theory, measurements, data analysis through programming and interpretation of results. The course is designed to describe the complexity of the atmospheric phenomena experienced day-today in terms of measurements from Ground based instruments and from Geostationary/ Low earth orbiting satellites. The atmospheric phenomena include land- sea breezes, thunderstorms, cyclones, depressions, low pressure systems, mountain waves, atmospheric turbulence, boundary layer turbulence, etc.

The Ground based instruments are Automated weather systems, Instrumented micro-meteorological towers, Sodars, Radars, Lidars, Tether sondes, Balloon borne Radio-sondes, etc. To name a few, the Satellites are METEOSAT, KALPANA, INSAT-3D, etc.

PRE REQUISITE

Minimum qualification: PU or 11th & 12th with an aggregate marks of 55%. Students doing/completed Engineering, graduation, post-graduation are preferred and are eligible to make application for the course. This course is open for all age groups.

The candidates are selected based on IARSc selection criteria.

The aspiring candidates need to register for the Course. Followed by registration, the candidates are required to appear for an interview before an expert committee to get selected to join the course. Students will be awarded a Certificate for Successful Completion of the course by IARSc.

EXAMINATION PROCEDURE

There will be Quarterly/Half yearly internal assessments during the course including a Oral presentation by candidates on a related science topic of their choice. The candidates will be evaluated based on their performance at the end of the course.

The successful completion of the course will be based on the evaluation by an experts team during the candidates Oral performance, and the candidates will be suitably graded. The qualifying procedure as set by IARSc needs to be strictly followed by students. Performance in internal assessments will be considered while declaring the grades.

The course toppers will be awarded with 'IARSc Young Researcher Fellowship' or Pilot Projects in the Area of Atmosphere and Climate.

COURSE SYLLABUS

COURSE DETAILS	
1	Basic structure of the Atmosphere
2	Co-ordinate system for Earth-Atmospheric studies
3	Details on Atmospheric measurements using ground based instrumentation: A. Automated Weather Systems B. Micro-meteorological Towers C. Sodars D. Radars E. Thethersondes F. Radiosondes
4	Weather systems of the atmosphere
5	Basics of Earth Observation satellites
6	Description of Satellite measurements
7	Cloud systems
8	Analysis of data from IR channel onboard satellites for cloud systems
9	Results interpretation
10	Satellite Data Applications

FEE STRUCTURE AND REGISTRATION

	TYPE	JOINING TIME (INR)	HALF YEARLY (INR)
1.	Tuition fee	24,000	24,000
2.	Other charges	10,000	10,000

The candidates need to register for the BASIC course by writing to Director, IARSc (kusuma@iarsc.in) for the Application Form. The registration fee to be paid is INR 300.

Registration Fee Payment to be made in the name of 'Institute for Advanced Research in Science'.

You may deposit your Cheques (of any bank) at any Canara Bank branch in India or pay online or transfer funds through Net Banking favouring:

Name: Institute for Advanced Research in Science

Account Number: 2638101009083, IFSC Code: CNRB0002638

Branch: Canara Bank, Malleshwaram 15th cross, Bangalore

COURSE DURATION:

One year. Classes will be conducted on weekends only

COURSE FACULTY:

Course faculty are from
Institute for Advanced Research in Science,
Indian Institute of Science,
Indian Space Research Organization,
Meteorological Organizations, Universities, etc.

CONTACT:

Email: kusuma@iarsc.in &
headaanda@gmail.com

Phone: Office +91 8792 449294

COURSE START DATE:

February 20th 2021

VENUE:

IARSc Bangalore