

(A Global Network of Space Sciences & Technology)

- Educational Institutions
- Space Agencies
- Industry

# A Report

## "Opportunities in Space & Allied Industries"

- Placement Assistance
   Entrepreneurship
- Projects Internships Quiz Seminars





- Evolution of Indian Space Industry
- ISRO and its Achievements
- Rockets & Satellites
- Remote Sensing
- The Global Space Industry



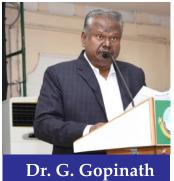




# **ExploreTheSpace**

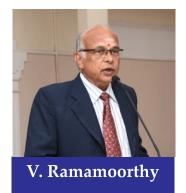
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Dr. Jaydeep Mukherjee

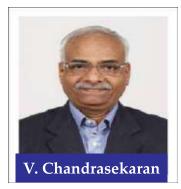
















## **Popular Questions from Participants**

- 1. How can I get a Job in the Satellite Industry?
- 2. What exam should I write to enter in to ISRO?
- 3. I am a B.Sc., Computer Science Graduate... What skill should I develop to get a Job in the Space Industry?
- 4. Another than Science & Technology Graduates can others join the Space Industry?
- 5. How to get an Internship in ISRO?

#### Salient points made by the different Speakers

The privatization of space sector is giving a new thrust to the development of Space and Allied Industries in India. Electronics, Remote sensing, Remote Sensing and its applications, Metal Fabrication, Satellite Television, Small Satellites, Artificial Intelligence and Robotics, Metrology, the various spin-off benefits that happen from Space Research and Development etc, require a growing number of professionals.

Dr. G. Gopinath, Registrar, Bharathidasan University, Trichy

I would like to add that even students who score around 55 % or so in academics / their degree, if they can get a good focus and training in one or two specific skills immediately after their graduation ....say for about six months or one year or so, that can give them a great boost to their career. Attitude and right information are very important here.

V. Ramamoorthy, Scientist, ISRO (Retd.)

Space Industry opportunities, particulary for Computer & IT professionals, in the emerging post-Covid scenario will revolve around the 'ABCD' sectors (Artificial Intelligence, Big Data, Cloud Computing and Data Science). We need data professionals who can manage big size data sets with special tools and techniques. Students in their final year should take their internships seriously and invest some resources in online technology courses.

Dr. G. Sagar, Dean - Usha Rama College of Engg. and Tech., Vijayawada

Students who are interested in a career in Space Industry, need to know the various opportunities before them. ISRO and NASA offer lot of training options and study materials which will be very useful for the students.

S. Balagurunathan, NCERT Awardee & Author





"We explore the outer space to understand earth's environment, for the long-time survival of the human race, ...... we have to think about settling on other planets and the moon and hence the need for space exploration.

Dr. Jaydeep Mukherjee, Director, NASAFSGC, Florida, USA

We have reached an inflexion point in Space Industry and we are going to see a burst of activity both in the upstream and downstream activities. Upstream are satellites and launchers, downstream is satellite applications.

Arup Dasgupta, Scientist, ISRO (Retd.)

Online Education has come to stay and grow leaps and bounds. ..the concept of traditional education has changed dramatically and physical presence in a classroom isn't the only learning option anymore. The growth of the internet and new technologies is driving this change... This calls for new skills and training the human resources.

V. Chandrasekaran, HR Specialist & Advisor, Explore The Space

The developments in the field of Space Sciences and Technology is explosive. The Space Industry is emerging as one of the most lucrative industry globally. It is valued at US\$ 390 billion in 2020 and projected to grow to US\$ 558 billion by 2026.

D. V. Venkatagiri, CEO, Explore The Space

The theory and practice of designing and building structures in Outer Space -Space Architecture - is gaining momentum. It involves many fields of engineering and the core goal is to ensure that humans are able to live and work in Outer Space in the structures that are built for Space.

V. Sumitrra Devi, Architect &

Chief Operating Officer, Explore The Space

#### Glimpses of Explore The Space





Raman - Armstrong Lecture Series on Space - Edition 2 Special Address by Prof. V. Ramamoorthy, Scientist, ISRO (Retd.) - February 2020



Explore The Space participating in a Job Fair organized by Bharathidasan University, Tiruchi, March 2020

### An Illustrative classification of the Space Industry - prepared by Explore The Space

- Space Technology: Robotics, Satellite Technology, Optical Systems, Propulsion & others
- **Test & Measurement:** NDT / Materials Testing, Sensors, Automation, Microscopy Satellites Networking & others
- **Space Situational Awareness:** GNSS Evolution, Earth observation, Space Debris, Space Weather, Protection Systems & others
- **Electronics:** Manufacturing, Electronic Design, Interconnect, Electrical Systems & others
- Mechanical: Precision Machining, Additive manufacturing, Tooling, Components & others
- **Materials:** Surface Technology, Composites & lightweight materials, Surface Coating, Metals & Raw Materials & others

"Explore The Space" is an educational venture and an NGO working to promote awareness on Space Sciences and Technology among Schools and Colleges through seminars, quiz programmes, study tours and research. ETS connects Institutions and Industry through its programmes.

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