

UNNATI – ISRO

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Background

India announced a capacity building programme UNNATI (UNISpace Nanosatellite Assembly & Training by ISRO) on Nanosatellites development through a combination of theoretical coursework and hands-on training on Assembly, Integration and Testing (AIT) in June 2018 (formally inaugurated in 2019) to celebrate the 50th anniversary of the first United Nations conference UNISPACE+50

Key highlights

▪ Objectives

The programme aims at capacity building in satellite technology for participants from countries interested in developing space programme by providing hands-on experience in building and testing of nano satellites. **The primary objectives of the programme are:**

1. To offer a simplified and increased exposure to satellite fabrication technologies, as part of the UNISPACE initiative
 2. To provide theoretical course on satellite technology
 3. To provide intensive course on nano satellite realization, covering mission aspects, design, fabrication, assembly, integration & testing
 4. To provide hands-on training to assemble, integrate and test a low cost modular nano satellite
- U R Rao Satellite Centre (URSC) being the lead centre of ISRO for satellite building has designed the basic structure of this programme with equal emphasis on theoretical and practical exposure.

- **Who Should Attend**

1. **The course is aimed at Engineering/ Science graduates or Postgraduates** who have an aptitude to learn about space technology, design of circuits for various space systems and management of space systems.
2. Each participating country shall nominate a team of 2 members consisting of one Mechanical Engineer and one Electrical/Electronics Engineer.
3. In case a desired engineering candidate is not available, the alternate nominee must have physics background

- **Three modules under the programme:**

1. **Module 1:** Basics of satellite technology and its applications (Duration: 2 weeks) The participants will be introduced to the topics of the satellite technology
2. **Module 2:** Nano satellite missions (Duration: 2 weeks) Nano satellite and laws governing their impact on space debris
3. **Module 3:** Hands-on training on nano satellite assembly, integration and testing (Duration: 4 weeks)

About United Nations Office for Outer Space Affairs (UNOOSA)

- UNOOSA works to promote international cooperation in the peaceful uses and exploration of space.
- Towards the UNISPACE initiative, United Nations Office for Outer Space Affairs (UNOOSA) is working on a system of “UN led international constellation of satellites” for Disaster risk reduction, GNSS, Telecommunication and other initiatives focused at developing countries.
- It also promotes the utilization of space science and technology for sustainable economic and social development.
- The Office assists any United Nations Member State to establish legal and regulatory frameworks to govern space activities.

- It strengthens the capacity of developing countries to use space science technology and applications for development by facilitating the integration of space capabilities into national developmental programmes.
- Through the United Nations Programme on Space Applications, UNOOSA conducts international workshops, training courses and pilot projects on topics that include remote sensing, satellite navigation, satellite meteorology, tele-education and basic space sciences for the benefit of developing nations.
- It also administers the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER).
- **Together with all stakeholders, the shared goal for UNISPACE+50 is to build a comprehensive Space 2030 agenda** that will integrate space activities into sustainable and long-term developmental goals, based on the peaceful exploration and uses of outer space