

**UNispace Nanosatellite Assembly & Training by ISRO
(UNNATI)**



**Presentation by Indian Delegation
to
60th Session of STSC - UNCOPUOS
Vienna, Austria**

Presentation Date (TBC)

PROGRAMME ANNOUNCEMENT

During the 50th anniversary of first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE +50) at Vienna on June 18 2018, India announced a training Programme for international participants on small satellite development.

- Training of 30 candidates per batch
- Consecutively for a period of 3 years starting from January 2019



UNNATI

(UNISpace Nanosatellite Assembly & Training by ISRO)

January - March 2019

PROGRAMME OBJECTIVE

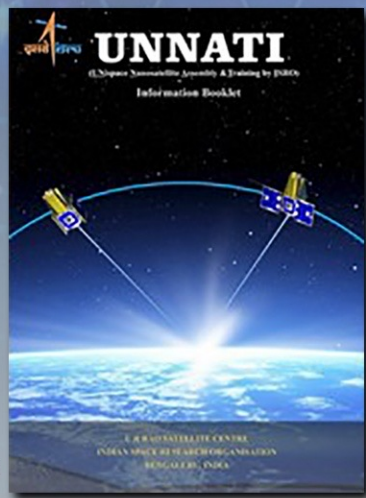
- To offer a simplified and increased exposure to satellite fabrication technologies, as part of the UNISPACE initiative
- To provide theoretical course on satellite technology
- To provide intensive course on nano satellite realisation, covering mission aspects, design, fabrication, assembly, integration & testing
- To provide hands-on training to assemble, integrate and test a nano satellite

India's contribution to Unispace+50 initiatives

UNISPACE
+50



UNITED NATIONS
Office for Outer Space Affairs



UNNATI COURSE CONTENTS

- Theoretical coursework on Basics of Satellite Technology & its application followed by specific module on Nano Satellite mission
- Hands-on experience on Nano Satellites Assembly Integration & Testing



THEORETICAL COURSE CONTENTS



- Introduction to Satellite Technology & Applications
- Celestial Mechanics & Orbit Dynamics
- Mission Overview, analysis & Operations
- Satellite Tracking - Ground segment
- Satellite Mechanical Systems
- Satellite Electrical Systems
- Introduction to Optical Remote sensing payloads and their applications
- Overview of AIT Assembly, Integration and Testing
- Spacecraft Checkout system
- Introduction to Nanosatellite & Applications
- Space debris management and mitigation
- Parts, Process & Material Assurance
- Environmental Testing of Spacecraft & Subsystems
- Space Quiz
- Guest Lectures

and Many More Interesting topics ...



INAUGURAL SESSION

Inaugurated on January 17, 2019 at
UR Rao Satellite Centre (URSC),
Bangalore, India
by
Dr. Jitendra Singh, Honorable Minister
of State (Space) in the presence of Dr.
K. Sivan,
Former Secretary, DOS / Chairman,
ISRO



UNNATI Batch-I

The first batch of the programme was conducted during 15th January – 15th March 2019 covering 30 participants from 17 countries.



- Algeria
- Argentina
- Azerbaijan
- Bhutan
- Brazil
- Chile
- Egypt
- Indonesia
- Kazakhstan
- Malaysia
- Mexico
- Mongolia
- Morocco
- Myanmar
- Oman
- Panama
- Portugal



UNNATI Batch-II

The second batch of the programme was conducted during 15th October- 15th December 2019 covering 30 participants from 16 countries.



- Bahrain
- Bangladesh
- Belarus
- Bolivia
- Brunei
- Colombia
- Kenya
- Mauritius
- Nepal
- Nigeria
- Peru
- Republic of Korea
- Srilanka
- Thailand
- Tunisia
- Vietnam



UNNATI: Batch-III

The third batch of the programme was successfully conducted during 15th October - 15th December 2022 covering 31 participants from 19 countries



- Argentina
- Armenia
- Bhutan
- Chile
- Dominican Republic
- Ecuador
- El Salvador
- Ethiopia
- Fiji
- Mexico
- Nicaragua
- Panama
- Papua New Guinea
- Philippines
- Singapore
- Slovakia
- Sudan
- United Arab Emirates
- Uzbekistan

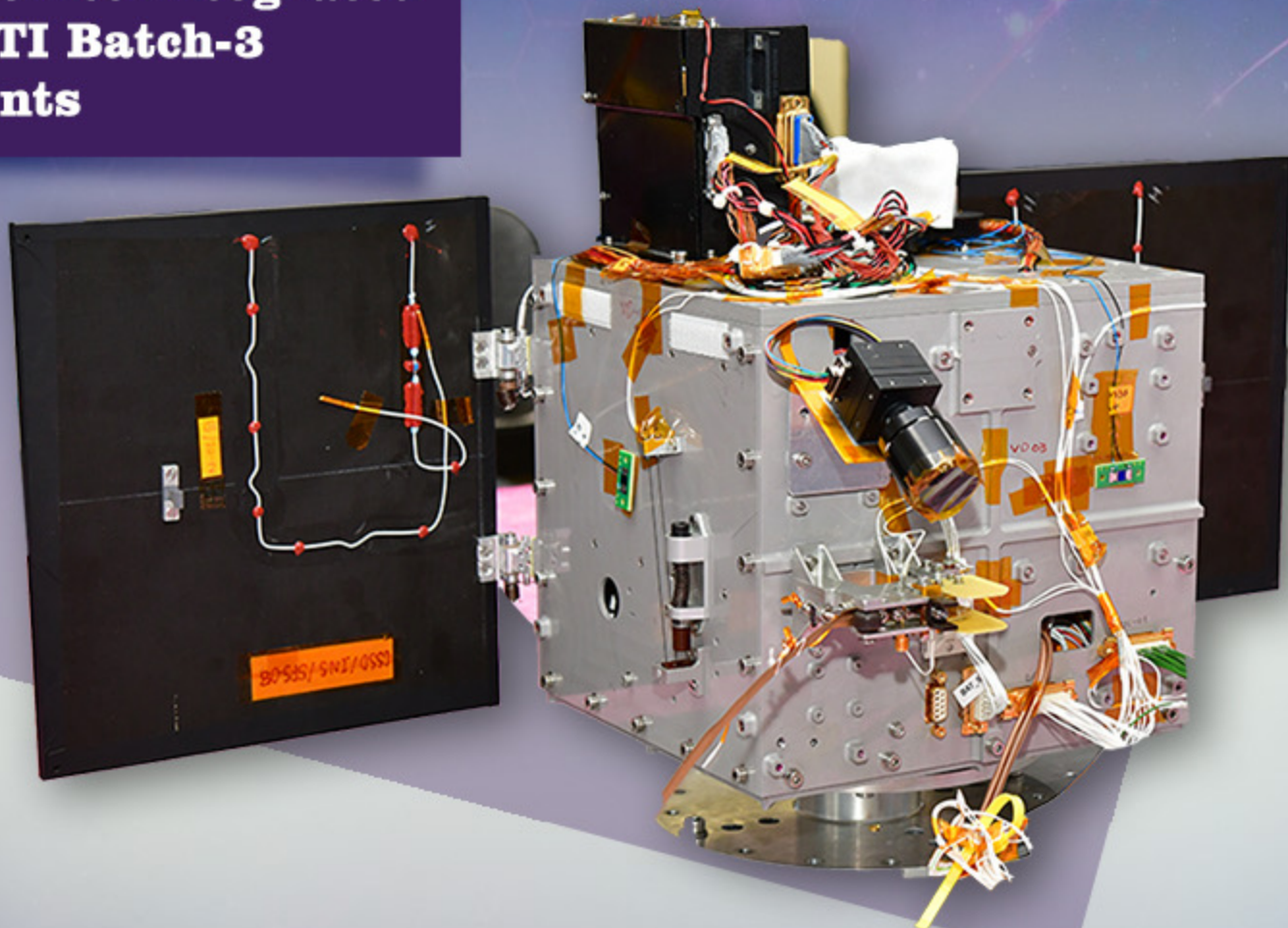


SUMMARY

- As committed by ISRO, India, total 3 batches of programme has been completed successfully covering 91 participants from 47 countries.
- The program concluded on a high note with the participants expressing their appreciation for the efforts put in by URSC team in making the program both knowledge enriching and memorable.
- All participants expressed that this program not only helped them gain technical knowledge but also helped them to get along with people of different background, culture and countries.



**Nano Satellite Integrated
by UNNATI Batch-3
Participants**



Thank You