

# UNNATI

## UNispace Nanosatellite Assembly & Training by ISRO



**P Kunhikrishnan**  
**U R Rao Satellite Centre (URSC)**  
**Indian Space Research Organization**  
**Government of India**



## PROGRAMME ANNOUNCEMENT

During the Fiftieth 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



Chairman, ISRO

June 18, 2018 at Vienna



Simonetta Di Pippo

Enabling platform to make Nano satellites

# 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 low cost, modular nano satellite

India's contribution to Unispace+50 initiatives

UNISPACE  
+50



UNITED NATIONS  
Office for Outer Space Affairs





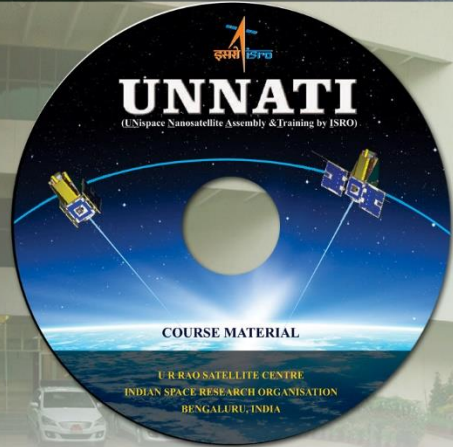
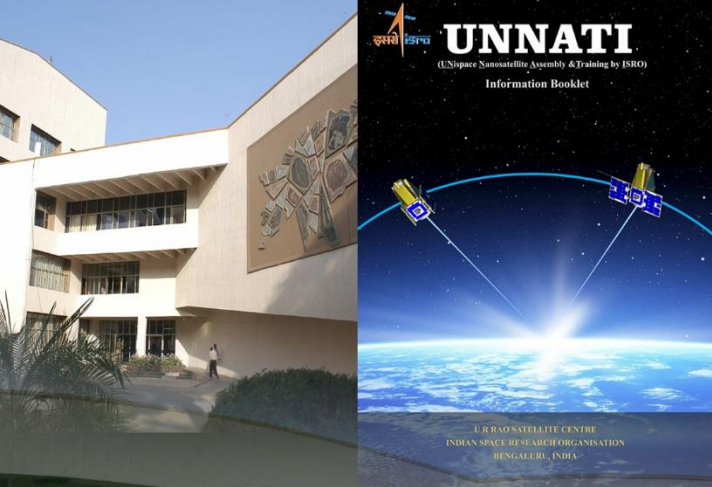
## INAUGURAL SESSION

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,  
Secretary, DOS / Chairman,  
ISRO





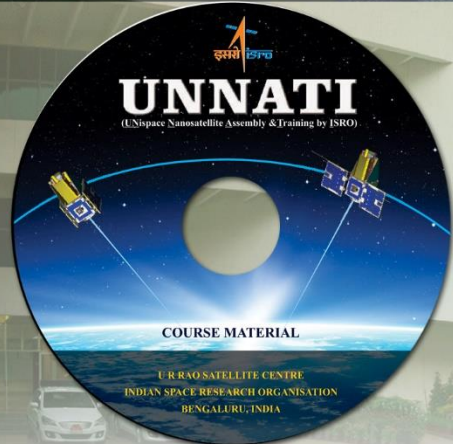
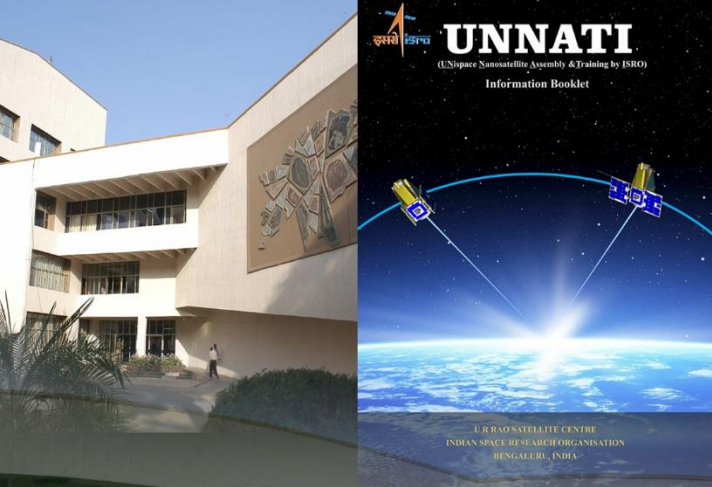


## UNNATI COURSE CONTENTS

- 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
- Emotional Intelligence
- Environmental Testing of Spacecraft & Subsystems
- Space Quiz
- Guest Lectures

and Many More Interesting topics ...





**UNNATI Programme Batch 1**  
**at**  
**URSC - INDIA**

**30 Participants for 17 Countries**





# UNNATI PROGRAMME OPPORTUNITIES 2019-2020

## UNNATI Programme Batch 2

Commencement of Registration	: May 15, 2019
Commencement of course	: October 15, 2019
Completion of course	: December 15, 2019

## UNNATI Programme Batch 3

Commencement of registration	: May 15, 2020
Commencement of course	: October 15, 2020
Completion of course	: December 15, 2020

For any additional information/query contact us : [unnati@isac.gov.in](mailto:unnati@isac.gov.in)

**We welcome participants around the Globe**





# THANK YOU

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