



# Student Report

Presented by:

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UNISEC INDIA was formed in October 2018 and officially acknowledged in the 6<sup>th</sup> UNISEC-Global Meeting, ISU, Strasbourg, France





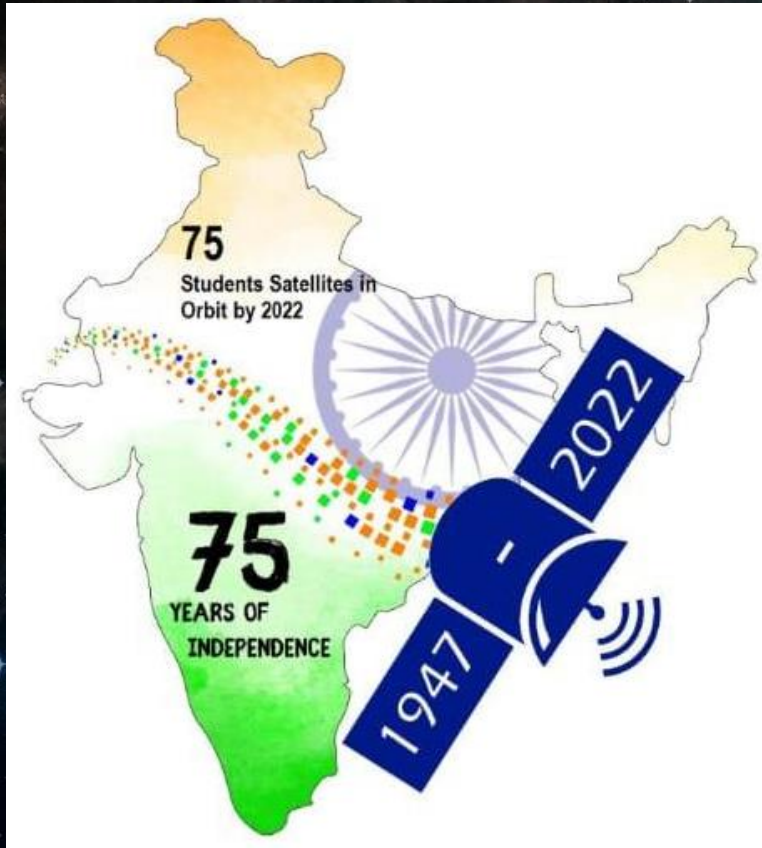
# GOAL

*“By the end of 2030, let's create a world where university students can participate in practical space projects in all countries.”*

*UNISEC-India is Striving hard to achieve the above goal by pursuing small satellite activities in Indian Subcontinent.*



# 75 STUDENTS' SATELLITE MISSION TO LAUNCH 75 STUDENTS' SATELLITES BY 2022





# OUTREACH

- Setting up Institutional Chapters
- Making Resources Available (External/Internal)
  - Training
    - Samara, Russia, Israel, Italy, France
    - Institutional/Regional Workshops & Seminars @ EEIs
  - Funding - Israel, EEIs in India
  - Launch Services - PSLV stage 4, PSLV (lite), etc



# MAJOR ACTIVITIES AND ACHIEVEMENTS

- Organized 3 International Seminars on Small Satellites
- Facilitated 2 Indo-Israel Space Leadership Program - Delegation Visited Israel Space Industries, Technion University and Tel Aviv University
- Established 15+ UNISEC-India Institutional Chapters at EEs and 18+ are in the process of establishment
- Conducted 12+ Workshops and Seminars at UNISEC-India Institutional Chapters at EEs
- Participated in “The International Summer Space School: Future Space Technologies and Experiments in Space” Organized in association with UNISEC-Samara held at Samara National Research University, Samara, Russia during 17-29 June 2019.
- Provided Opportunity for UNISEC-India Students’ team to visit Israel Universities for Interaction
- Serbia CanSat competition
- Facilitated students participation in COSPAR CBWs
- Providing Internship opportunities for students at space industries
- Facilitated Near Space Launches (Balloon Launch) for High school kids



# LIST OF INSTITUTIONS PARTICIPATING IN UNISEC ACTIVITIES

15 Institutions have already established UNISEC Institutional Chapters  
18 More Institutions are in the process of establishing their chapter at their EElS

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|--|--|
| 1. S. V. Engineering College for Women, Tirupati                   | 10. Kathir College of Engineering, Neelambur, Coimbatore     |
| 2. Sri Vidya College of Engineering & Technology, Virudhunagar     | 11. Adithya Institute of Technology, Coimbatore              |
| 3. Saveetha Engineering College, Chennai                           | 12. Mohamed Sathak Engineering College, Kilakarai            |
| 4. Jerusalem College of Engineering, Chennai                       | 13. K.S. Institute of Technology, Bangalore                  |
| 5. Jeppiaar Institute of Technology, Kunnamm, Chennai              | 14. K.S. School of Engineering and Management, Bangalore     |
| 6. Sri Shakthi institute of Engineering and Technology, Coimbatore | 15. Paavai Engineering College, Pachal , Namakkal Dist, TN   |
| 7. Solamalai College of Engineering, Madurai                       | 16. Gopalan College of Engineering and Management, Bengaluru |
| 8. Priyadarshini Engineering College, Vaiyambadi                   | 17. Vardhaman College of Engineering, Shamshabad, Hyderabad  |
| 9. R.L. Jalappa Institute of Technology, Bangalore                 | 18. Karunya University, Coimbatore, Tamilnadua               |



# WORKSHOPS & SEMINARS

- CanSat Workshop & Seminar
- CubeSat Workshop & Seminars
- Seminars on NEW-SPACE
- Pocket CubeSat Workshop & Seminars





# NATIONAL SEMINAR ON “NEW SPACE-AN ERA OF SMALL SATELLITES: OPPORTUNITIES AND CHALLENGES”

Conducted In association with Indian Technology Congress Association (ITCA) and UNISEC India, and established UNISEC India Institutional Chapter at New Horizon College of Engineering (NHCE) , Bangalore on 11<sup>th</sup> April 2019. The Chapter was Inaugurated by *Padmashri* Prof. R. M. Vasagam, Eminent Scientist of Indian Space Research Organization (ISRO).









# ISRO 4<sup>TH</sup> STAGE LAUNCH

- Stabilized platform with on board power supply capable of housing small payloads and Satellites
- Serves as a way by which CubeSats can be sent to LEO (~450 km) at marginal costs.



PSLV 4<sup>th</sup> stage  
Image Courtesy - ISRO

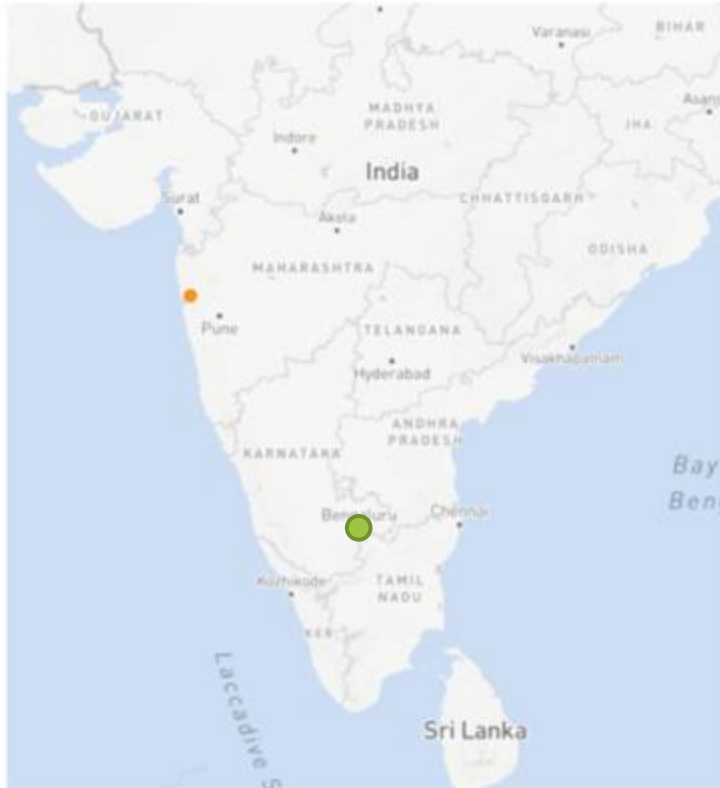


# PROJECTS

- Setting up Open Source global network of satellite ground-stations.
- CanSat Subsystem Development
- Development of a Classroom Satellite for Hands-on Training on CubeSats
- Development of Nanosatellite BUS

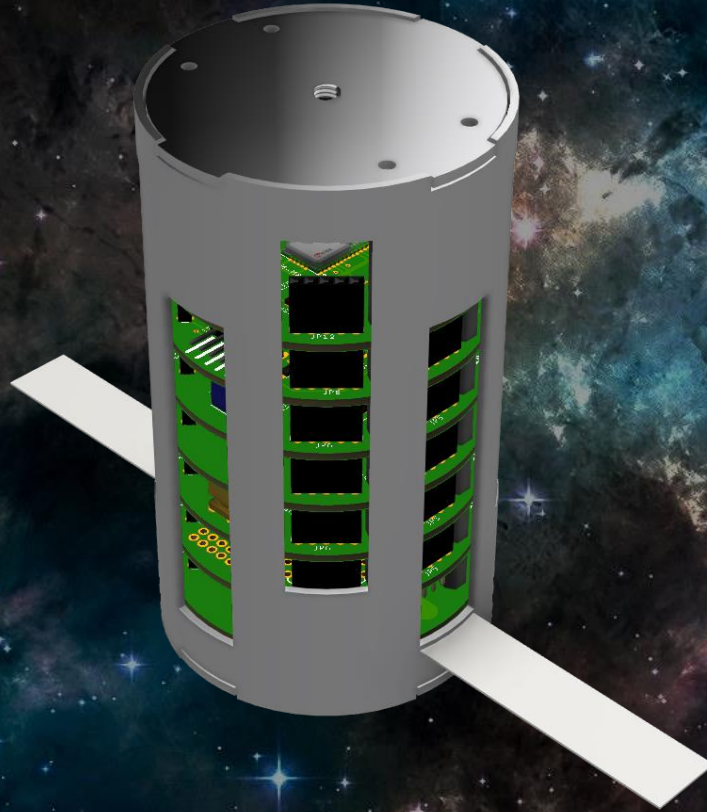


# SATNOGS GROUND STATION

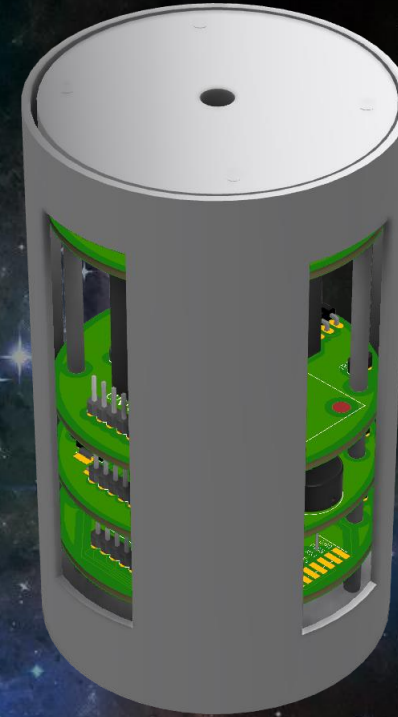




# CANSAT DESIGN AND DEVELOPMENT

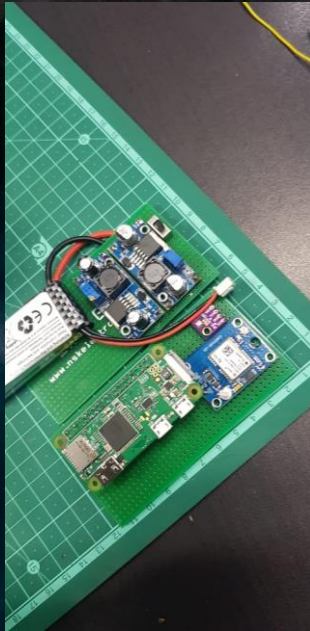
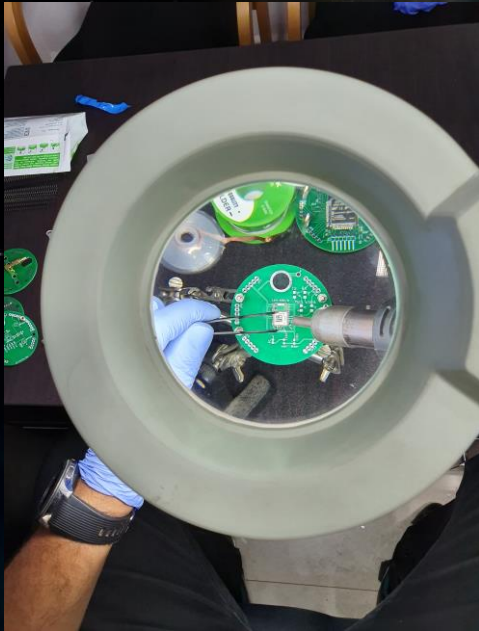
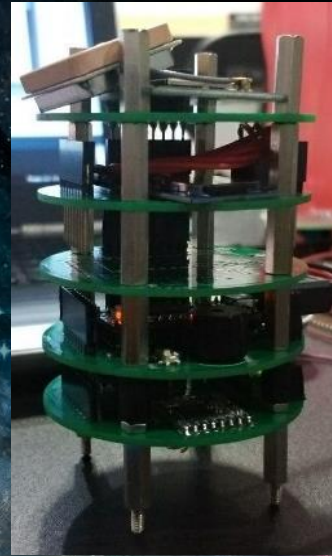


Team EAGLE



Team INDUS













\*Patent Pending





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# PLAN FOR 2020

- 24+ Capacity Building Workshops/Seminars
- Regional and Nationwide CanSat Competitions
- At least 4 PSLV 4<sup>th</sup> Stage Launches
- Making Near Space Launches Accessible to Highschool Students
- Establish More International Collaborations with Organizations and Universities
- Wish to organize 8<sup>th</sup> UNISEC-Global Meeting



# THANK YOU

## Questions?