



Gujarat Technological University

School of Engineering and Technology

“Report of the Online Meeting on Nano-Satellite Development”

Title: Online Meeting on Nano Satellite Development with Space Applications Centre (SAC), ISRO.

Date: 11th August, 2026

Co-ordinated by: Prof (Dr.) Gautam Makwana (Associate Professor, GTU-SET)

No. of Participants: 36

ISRO Nano Satellite Team, GTU School of Engineering and Technology (SET) Team and Students.

Organised By: GTU-School of Engineering and Technology

The following members were present in the meeting:

No	Member's Name, Designation and Affiliation	Position
1	Dr.Madhuri Bhavsar,GTU-SET,Ahmedabad	Director
2	Dr. Rajesh Thakker, GTU, Ahmedabad	Director, RDC
3	Prof. Gautam D. Makwana, Associate Professor, GTU-SET, Ahmedabad	Co-ordinator
4	Dr. Ritisha Bhatt, Assistant Professor , GTU-SET, Ahmedabad	Member
5	Miss Aayushi Garg ,Assistant Professor, GTU-SET, Ahmedabad	Member
6	Mr Naimish Patel,SAC-ISRO, Ahmedabad	Scientist
7	Mr Rajeev kumar,SAC-ISRO, Ahmedabad	Scientist
8	Mr Amit kumar Gupta,SAC-ISRO, Ahmedabad	Scientist
9	Mr Ritesh Kumar Shama,SAC-ISRO, Ahmedabad	Scientist

Highlights of the meeting:

The meeting for the student-led 3U CubeSat project, with ISRO/SAC mentorship, was held in the presence of GTU faculty, students, and ISRO/SAC experts. During the meeting, the project structure, subsystem-wise mentorship, laboratory facilities, and weekly progress-review mechanism were discussed. As planned in the first meeting, separate teams for different satellite subsystems have now been formed, enabling students to work independently on their respective areas while coordinating towards the overall satellite development. A dedicated GTU laboratory will be established, with basic instruments available.

The proposed satellite is a 3U CubeSat of approximately 4 kg with a modular subsystem architecture. The preliminary payload focus is on visible-spectrum imaging for daytime applications and LWIR sensing for nighttime applications, with potential applications such as agriculture mapping and hotspot detection. The payload team will conduct a literature review and prepare a presentation, while the respective subsystem teams will study and review their assigned 3U CubeSat subsystems.

The meeting also discussed the overall development flow, including payload selection, literature review, simulation, component selection, schematic/PCB design, fabrication, quality assurance, assembly, and environmental testing. MATLAB/Simulink was identified for simulation, while PCB/CAD, CST/HFSS, and Multisim were also discussed. Amit Kumar Gupta will lead reliability and quality-assurance activities, and weekly progress will be monitored by the project coordinators. The immediate action items are to complete subsystem-wise literature reviews, prepare team presentations, confirm PCB/CAD tools, allocate detailed responsibilities within each subsystem team, and commence laboratory work from Monday.

