

Regional Report of



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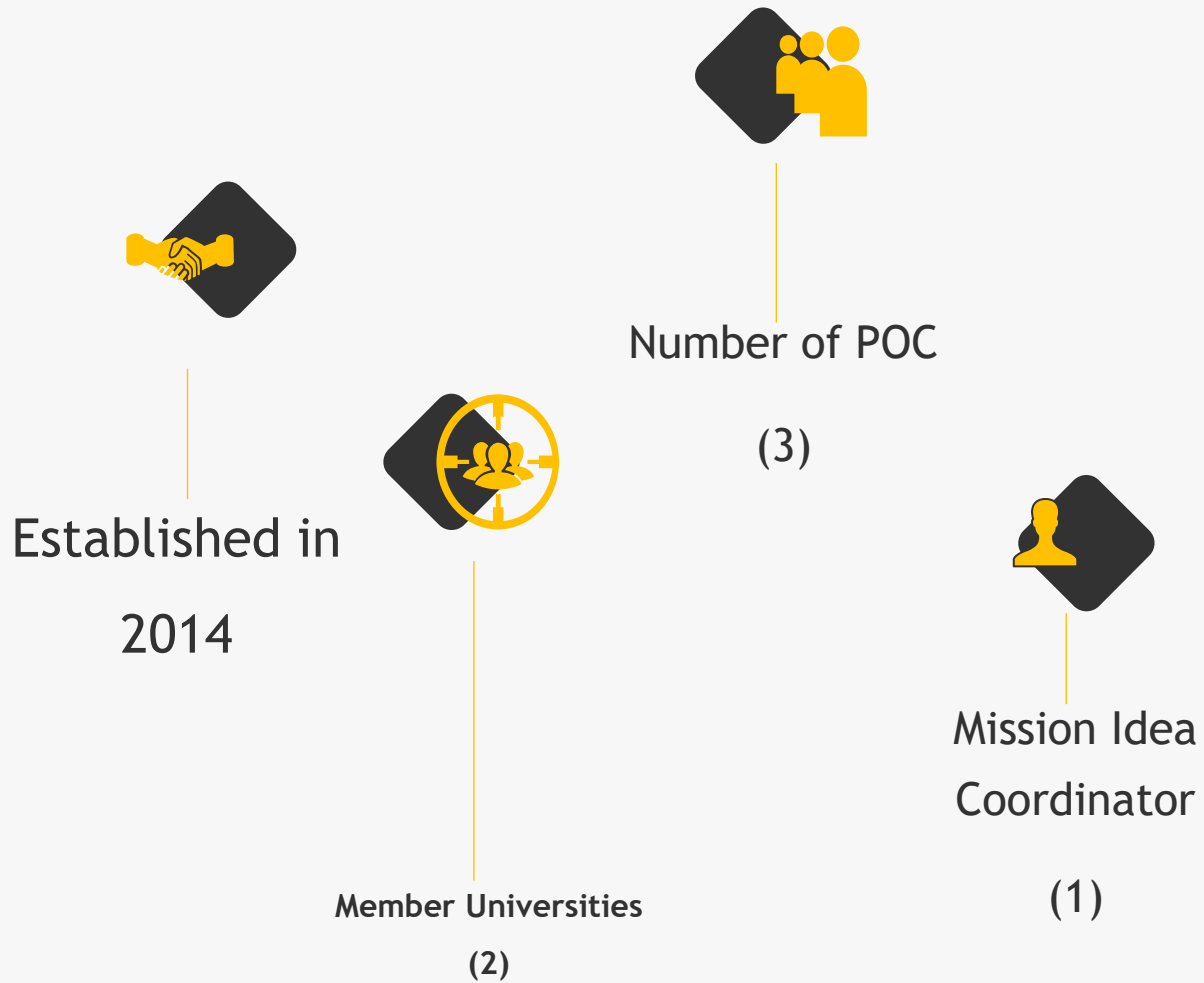
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3rd Virtual UNISEC-Global Meeting



- Bangladesh University of Engineering and Technology
- Brac University





2019





आकाश

SATELLITE EXPEDITION CONTEST

2nd NATIONAL

CANSAT

COMPETITION
2020

International Partner



ORGANIZED BY:



PARTNERED WITH:



CAMPUS MEDIA PARTNER:



3rd Virtual UNISEC-Global Meeting





Important Schedule



A Online Registration Starts

6th November

Workshop on the competition

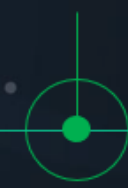
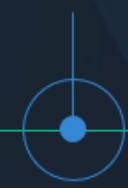
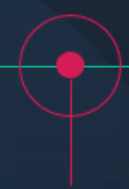
15th November

Finalists Announcement

1st January

Result Announcement

20th January



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12th November

Online Registration End

15th December

Deadline of the Paper Submission Round

15th January

Final Presentation Round



Two Phase

- Try to address new ideas which have not yet been realized or proposed.
- Its contribution towards society or any of the UN Sustainable Development Goals.
- Possibilities of improvement in the future.
- Low cost implementation and short development period.
- Maintenance of all the general guidelines and requirements

Initial Phase

- 🌐 Registration is open for all enthusiasts affiliated with any educational institution.
- 🌐 Participants are instructed to register in teams of maximum four individuals.
- 🌐 Registration will be granted upon payment of a small amount of registration fees.



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After the primary selection is done by the judges, the final selected candidates will present their ideas/proposed model. As the contest is organized based on online platform, the finalist teams will be asked to present their PowerPoint Presentation through online based platform like Google Meet, Zoom or Skype in presence of the judges



Originality (50 Points)

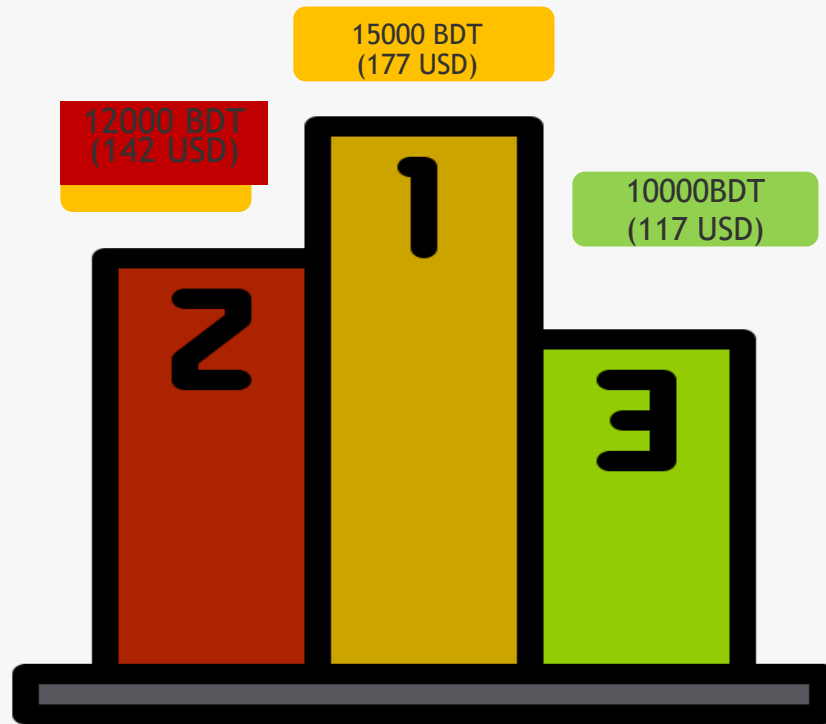
- Novel mission concept not yet realized or proposed, or a new implementation of an existing capability or service.
- Impact on society.
- Aiming for sustainable development goal(s).



Feasibility (50 points)

- Technical (Experimental setup)
- Programmatic (Cost estimate, development schedule, infrastructure requirements).
- Operational (Description of ground segment and communications architecture, e.g., planned use of existing infrastructure).
- Supporting details (Orbit and other information).

Rule Book: tinyurl.com/y69t59hd



Contest Prize Money for Satellite Expedition Contest

Winning team members will be awarded with winning certificates and all participants will be awarded with participation certificates.



The 2nd annual of CanSat competition will be conducted online and will be simulation-based. A workshop addressing the competition will be arranged prior to submission.



Participants are required to prepare a fully integrated 3D design/model of a typical CanSat. Participants may only utilize Autodesk Fusion 360/Eagle in order to fulfill all the video requirements.



Participants are required to prepare a video portraying the 3D simulation/animation of the CanSat, accommodating a bare minimum duration of 5 minutes and a maximum of 10 minutes



Participants are allowed to import component models retrieved from other sources but may not duplicate a full model expressly. They are required to prepare a creative and unique model/design.



Additionally, participants will be required to prepare a report/research paper (no more than 6 pages) based on their model and have it submitted.

Finalists will be required to deliver an online PowerPoint presentation based on their video and report/paper





Work/Video Requirements

Participants are required to prepare their model and their corresponding video by ensuring the requirements mentioned below are fulfilled.

- Team Introduction
- Mechanical Design
- Exploded View Animation
- CanSat Movement/Drone Release
- Stress & Strain Analysis
- Expected Ground Station Design [Data Excluded]
- Hardware Functionalities
- Circuit Schematic Capture [Autodesk Eagle]



2nd NATIONAL
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Initial Phase

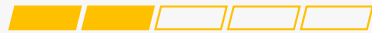
Adhering to the video requirements, teams will prepare a video showcasing their CanSat 3D model.



Submission opens on 18th November and is due on 15th December. Submissions will be evaluated based on the quality of their 3D model and report. Finalists will be announced on 1st January.



Teams are also instructed to prepare a report/research paper in the form of PDF file and have it submitted.



Final Phase

Finalists will be required to prepare a PowerPoint presentation with adequate information focusing on the overview of their model, report and work experience on 17th January.

- Work Mechanism of the 3D model; quality & efficiency.
- Demonstration quality in the video.
- Operation overview within written paper or report.
- Maintenance of all the general guidelines, system and video requirements.

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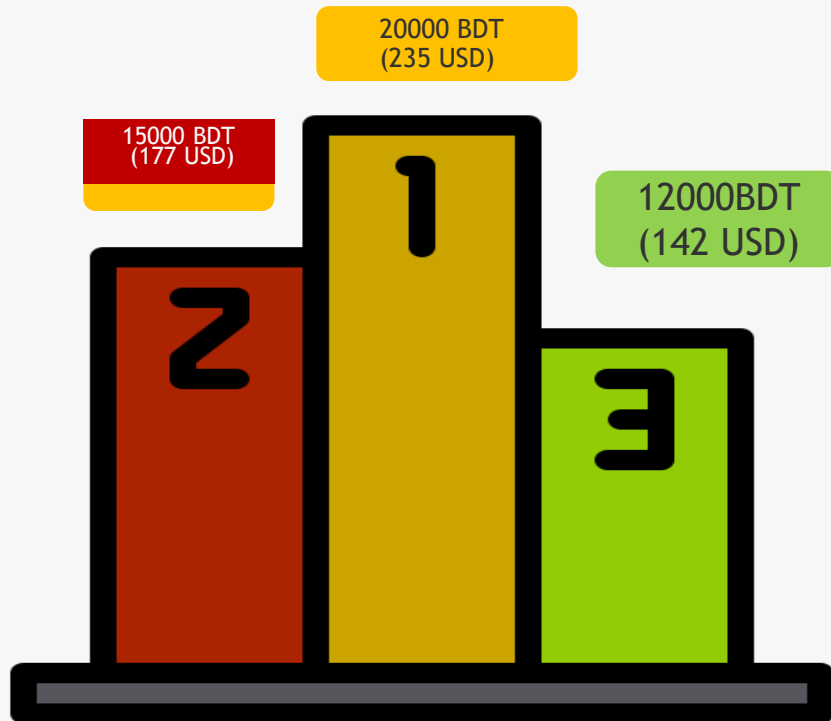
System Design requirements

The following points lists the requirements that need to be fulfilled. Last year the participants are required to generate real-time data. But this year due to pandemic, participants are advised against going outside and conducting practical simulations of the CanSat. Rather, teams are required to prepare 3D animation of their simulations.

- The total mass of the CanSat which also includes the science payload and container shall be 600 grams +/- 10 grams.
- CanSat should fit in a cylindrical envelope of 125 mm diameter x 310 mm length. Measurements are to be followed as strictly as possible.
- The container shall have a fluorescent color such as: pink, red or orange..
- The container shall be solid and fully enclose the science payload. Small holes are to be allowed to access to turn on the science payload are allowed. The end of the container may be open for the deployment of the payload.
- All electronics shall be hard mounted using proper mounts such as standoffs, nuts & screws which should be clearly visible within the 3D model.Circuit Schematic Capture [Autodesk Eagle]

Rulebooks: tinyurl.com/y6rhd3qs

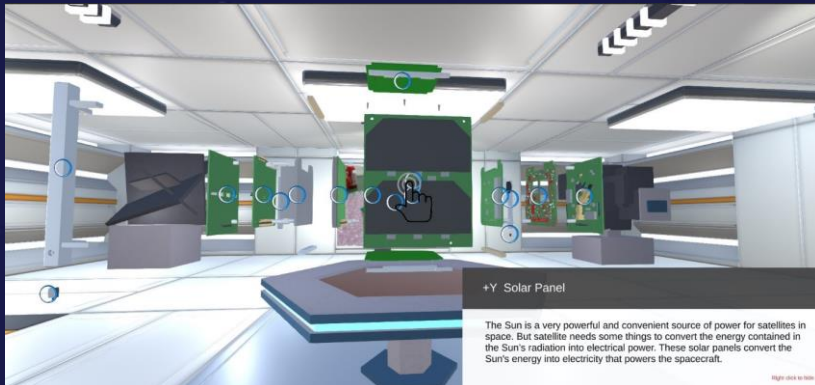
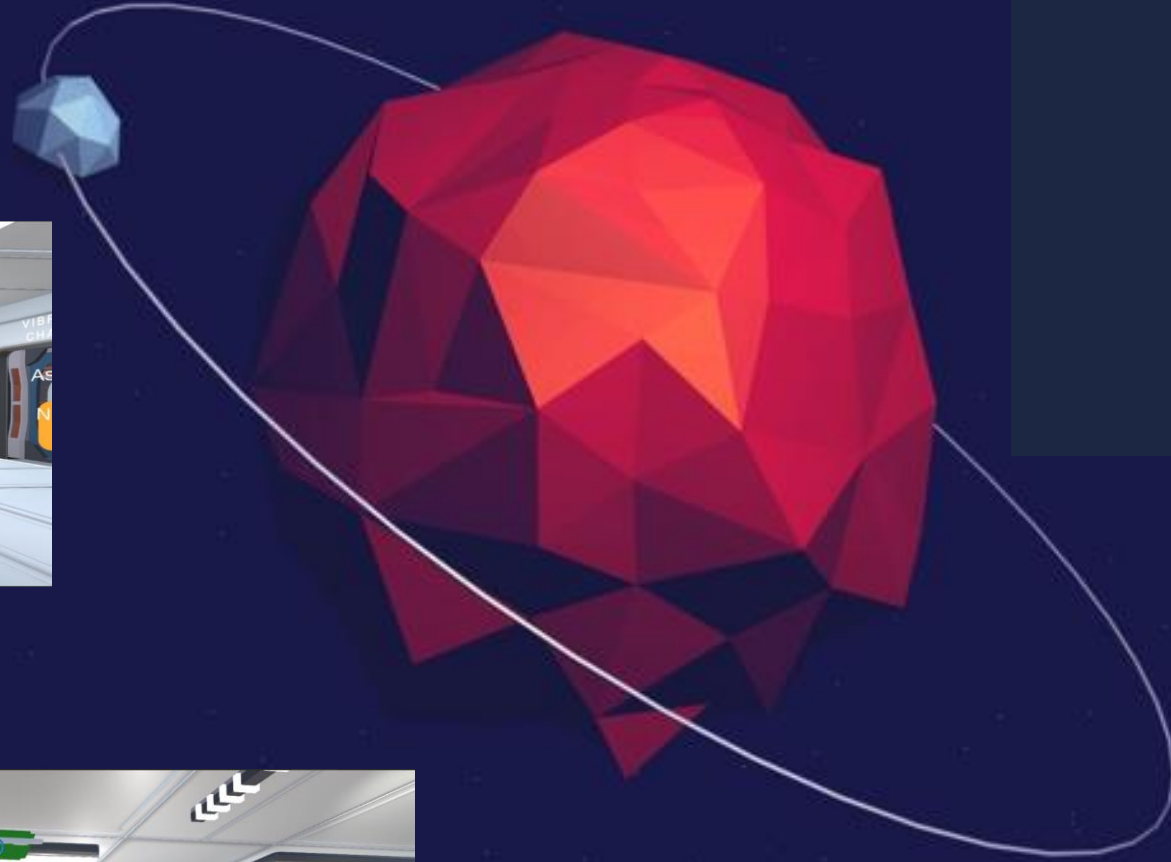




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SATELLITE EDUCATION AND LEARNING BY INTERACTIVE VIRTUAL REALITY GAME



Thank You

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