

# Activity Report

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## Overview

### Noshiro Space Event:

Noshiro Space Event is an amateur rocket competition which is held in mid-August every year in Noshiro city, Akita prefecture, Japan. This is the biggest event of its kind in Japan and is attended mainly by students and adults. In this event, for example, students launch “hybrid rockets” which are a new type of rocket launched without the use of explosives. Students also participate in a competition using an autonomous robotic device called “CanSat” in which a satellite is deployed from the rocket and must return to a designated location. UNISEC co-hosts the event with the Noshiro Space Event Council. Several UNISEC member student groups participate every year in the event, resulting in good scores.

## Date and Venue

Announcement Date

- Aug. 15, 2018: Venue setting, land-launch rehearsal
- Aug. 16, 2018: Competition halted due to inclement weather
- Aug. 17, 2018: Venue restored, CANSAT competition, land-launch rehearsal
- Aug. 18, 2018: Opening ceremony, CANSAT competition, land-launch

Event Date

- Aug. 19, 2018: Opening for public, CANSAT competition, Type S launch demonstration
- Aug. 20, 2018: Seashore cleanup, venue removal, safety training, launcher training, model rocket competition for middle school students
- Aug. 21, 2018: large-sized model rocket launch, sea-launch rehearsal
- Aug. 22, 2018: Sea-launch, sea-launch rehearsal
- Aug. 23, 2018: Sea-launch, cleanup
- Aug. 24, 2018: Cleanup

Venue

Old sites of the 3<sup>rd</sup> slag depository & the swimming beach, Noshiro City

## Participation

Total number of participants 556

Category of Participants  Students  Engineers/Instructors  Both

International Participants  No  Yes

If yes, how many international participants were attended the activity?

## Participants Group Photo



CANSAT  
Competition



Event Venue



Event Preparation



Technology  
Exchange Meeting



Social Gathering



Commendation



CANSAT  
Competition



CANSAT  
Competition



CANSAT  
Competition



CANSAT  
Competition



CANSAT  
Competition

## Results and Conclusion

The results of the 14<sup>th</sup> Noshiro Space Event are as follows:

1) Technology Exchange Meetings were held on Aug. 17 for CANSAT first and Aug. 19 for rockets.

2) As the weather got better, the opening ceremony was held on Aug. 18<sup>th</sup>. In the evening of the same day, a social gathering took place, and commendations for civic poster exhibit and CANSAT mission were awarded. Also, a social gathering for a sea-based launch was held on Aug. 23<sup>rd</sup>.

3) The competition on Aug. 19<sup>th</sup> was open to the public. So far, the competition has been held only at the venue but was simultaneously held at the Noshiro Energium Park. Contents for experience performed by 16 student groups were enjoyed by civilians, and T-shirt contests were carried out.

4) CANSAT competition did not take place on the first day due to rain but was finally carried out in parallel with restoration works. The schedule became irregular using a spare day, but all of 34 teams could complete the competition. CANSAT competition is intended for each group to drop a self-developed miniaturized satellite CANSAT from the air and complete a specific mission. The competition has three kinds of awards, that is, runback, flyback, and mission. For each award, the following are the list of winners.

- Type S Mission: 1<sup>st</sup> Ares Takadama Laboratory, University of Electro-Communications, 2<sup>nd</sup> SHARXS MARS-GEAR, Shibaura Institute of Technology, 3<sup>rd</sup> Wolfe'z, Keio University

- CNA Runback Award: 1<sup>st</sup> NUSTEL Freedom, Nagoya University (12.1 m), 2<sup>nd</sup> Nippon Bunri University (16.5 m), 3<sup>rd</sup> REL, University of Aizu (28.2 m), 4<sup>th</sup> SuperNOVA, Aichi Institute of Technology (39.7 m)

- IA Flyback Award: 1<sup>st</sup> The Wright Staff, University of Tokyo (157 m)

5) Hybrid rocket joint launch test was carried out between Aug. 17 and 19. For the public launch, a demonstration launch was carried out under the sponsorship of Type-S Co.,Ltd. Between Aug. 22 and 24, sea-based launches were carried out. This year, a total of nine rockets were launched by six

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groups, specifically three rockets from land and six from sea. Participating groups came from CORE, CREATE from Tokyo Institute of Technology, PLANET-Q(PQ) from Kyushu University, Tsukuba University Space Technology Project (STEP), Tokai University Challenge Center Student Rocket Project (TSRP), FROM THE EARTH from Tohoku University. When it comes to MHI awards, the grand prize was awarded to Tokai University Challenge Center Student Rocket Project (TSRP), and special prizes to Tsukuba University Space Technology Project (STEP) and FROM THE EARTH from Tohoku University.