

Abstract

Introduction to Mission Idea Contest for Nano-satellite Constellation

Rei Kawashima

Nano-satellites have been paid attention as an effective tool for space engineering education, and recently they are expected to become an effective tool for real mission with low cost and short development period. To explore new possibility to use nano-satellite, Mission Idea Contest for Nano-satellite Constellation will be held. In this presentation, what is expected through the contest and how it is implemented will be introduced and discussed.

The objectives of the Contest are to:

- Envision a new sustainable space mission using nano-satellite constellation.
- Explore a new possibility of nano-satellite constellation to solve common problems facing humanity.

Participants will be required to discuss:

1. Technical feasibility
2. Financial feasibility (Business Plan - Who will pay for what?)
3. Benefits to Society and/or Science
4. Project Sustainability (Business Plan - How can the satellites be replaced after the first satellites finish the function? Who will cover the cost for replacement?)
5. Constraints and obstacles

To facilitate participation in the contest from all over the world, regional seminars will be held with initiative of local coordinators. Submission deadline is December 20, 2010, and finalists will be selected in January and invited to Final presentation held in Tokyo in the middle of March, 2011. The winning team of the final stage may have a chance to realize their satellite mission.