Journal of Telecommunications System & Management

Abstract

Deep space communication by using Cubesats

Vahid Rastinasab

Beijing Institude of Technology, Beijing, China

Abstract:

Asteroid mining offers the possibility of revolution supply and availability of many sources vital for human sources; also there are private companies that support asteroid mining for recognition precious metals. Hence, the new missions are defining beyond LEO, therefore light-time communication delay issues, such as time lag and low

Bandwidth will prohibit this type of operation because of huge data and limitation at windows to DSN. Hence, several solutions have been considered such as use higher frequency bands direct to ground, spacecraft autonomy system, swarm small satellites asteroids prospector etc. by this way the communication is the most important subsystem for this issue, based on the previous researches for prospecting of asteroids, Ka or X band is used for direct communication to ground and S or UHF band is used for constellation. In this proposal a communication subsystem for a small-satellite (1U, 2U...) by direct communication to ground and constellation by mother ship and mining robot is investigated.

Biography:

Vahid Rastinasab is curently P.HD student at BIT, China. He is technical leader of Beihang university small satellite project and EMC laboratory assistacne at BUAA, his paper received

2nd prize at international colegitave innovative satellite contest, HIT, China, and he has more than 10 publication at journals and international conferences.

Publication of speakers:

1. Cabero, Marco & Wang, Xinsheng & Avci, Fatih & Rasti Nasab, Vahid & guararipa, maria & Arezki, Faiza & Kerrouche, Kamel. (2018). EcoBeltSat-1 For the Belt and Road Countries.
2. Cabero, Marco & Wang, Xinsheng & Avci, Fatih & Rasti Nasab, Vahid & kamel, kerouche & Arezki, Faiza & guararipa, maria. (2018). EcoBeltSat-1.
3. Rasti Nasab, Vahid. (2019). Simulation and verification two yagi-udi and s-band satellite dish ground station antennas for leo nanosatellites communications

Citation: Vahid Rastinasab, Deep space communication by using Cubesats; Wireless Conference 2020; May 21, 2020; London, UK

J Telecommun Syst Manage
ISSN: 2167-0919

Volume 9 and Issue S(1)