

ABSTRACT

With the growing rise of Nanosat networks, particularly CubeSat networks, it has become critical to propose acceptable networking architecture and topology design methodologies that suit the restrictions of CubeSats. The utility of CubeSats is limited due to their size and bulk.

These little satellites have a limited power budget, a small radio range, slow transmission rates, and data storage capacity. Despite these limitations, CubeSats have been used for various research purposes, including gravity mapping and tracking air and maritime navigation.

Forming CubeSat networks, or swarms, in which multiple CubeSats work together to carry out a mission is one means of extending their capability and minimizing their constraints.

Nonetheless, due to range restrictions, the network may still have sporadic connectivity, making data communication difficult in an independent network with no concurrent link between source and destination.