

**Office of International Relations**

**Project Title**



B.Tech - CSE

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**Abstract:**

The Internet of Things (IoT) has gained significant attention in recent years, and the use of satellite communication for IoT applications is becoming increasingly popular. However, satellite communication presents unique challenges such as low bandwidth, high latency, and the need for efficient and scalable consensus mechanisms. The proposed project aims to develop a comprehensive system for monitoring and analyzing data from IoT devices connected through satellite communication, using a consensus mechanism to ensure the reliability and security of the data. The system will include the development of an API for posting and accessing data, a consensus mechanism for validating and authenticating the data, and a distributed database for storing the validated data. Additionally, a dashboard will be developed for data visualization and analysis, enabling users to monitor and analyze the data in real-time. The project will focus on addressing the unique challenges presented by satellite communication, such as high latency and limited bandwidth, while maintaining decentralization, security, and transparency. The proposed system will be designed with scalability and modularity in mind, ensuring that it can be adapted to various IoT devices and industries. The project’s aim is to improve the reliability, security, and efficiency of IoT systems connected through satellite communication.

**Keywords:** Internet of Things, Satellite communication, Consensus mechanism, Data analysis, API, Reliability, Security.

**Results:**

