

GPS- Based Asset Tracking System

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Abstract: *GPS-based asset tracking solutions provide real-time monitoring and control over precious assets with higher security and effectiveness in use. Our proposed system consists of modules such as GPS modules, communication network (GSM/GPRS/LTE/Satellite), cloud-based server, and web or mobile user-friendly interface. The system enables features such as real-time tracking updates, geofencing, history tracking, and movement notification alerts for unauthorized use. Inbuilt sophisticated sensor capability (temperature, humidity, vibration) enhances the asset condition monitoring further. The system uses a robust database to save and process data effectively, enabling trend detection and performance measurement. With a modular and scalable architecture, our solution supports different asset types, offering a cost-effective and reliable means of optimizing asset utilization, minimizing risks, and enhancing decision-making for individuals and organizations*

Keywords: GPS, Asset Tracking, IoT, Arduinonano, GSM, RFID, Geofencing, Real-Time Monitoring, Wireless Communication, Sensor Integration, Security, Automation