

# GPS Tracker System

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**Abstract:** *In recent years, the demand for real-time tracking systems has surged, driven by applications ranging from vehicle tracking to asset management and personal safety. This paper presents the design and implementation of a GPS tracker system utilizing Arduino Nano and a GSM module. The proposed system offers a cost-effective and efficient solution for tracking assets or vehicles remotely.*

*The hardware architecture comprises an Arduino Nano microcontroller, a GPS module for location acquisition, and a GSM module for communication. The Arduino Nano serves as the central processing unit, responsible for collecting GPS data, processing it, and transmitting the location information via SMS or GPRS to a designated recipient. The GPS module provides accurate positioning data, enabling precise tracking of the target object or individual.*

*The software implementation involves developing firmware for the Arduino Nano to handle GPS data parsing, communication with the GSM module, and interfacing with external devices for data transmission. Additionally, a user-friendly interface can be developed to configure tracking parameters and receive location updates seamlessly.*

**Keywords:** IoT (Internet of Things), Arduino nano GSM, GPS, Real-time analytics

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