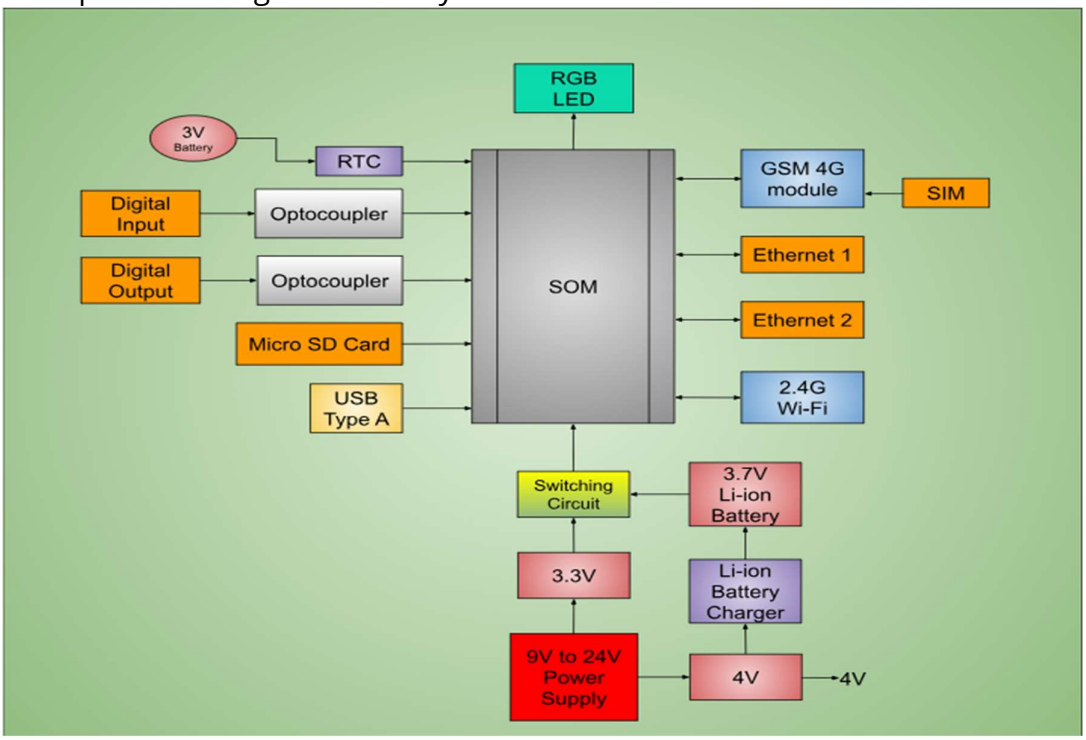
Low Cost IoT Gateway – A case study

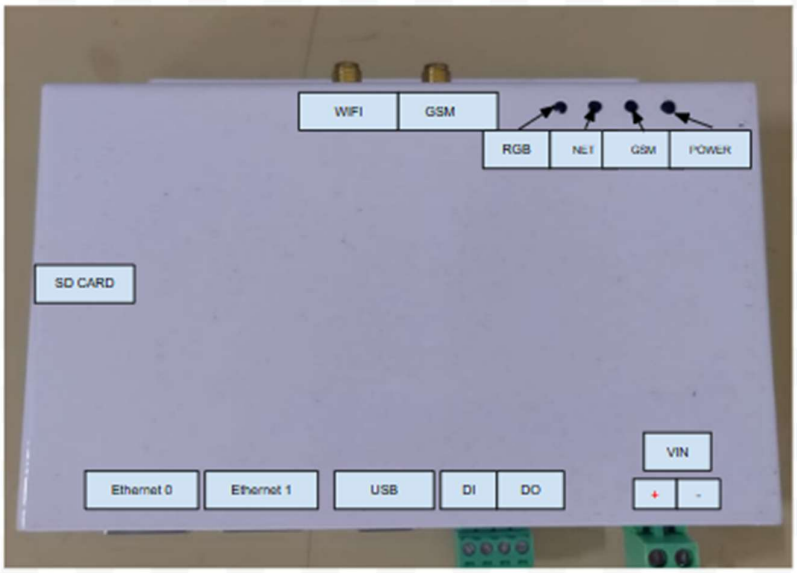
An IoT gateway serves as a critical bridge between edge devices and cloud services in an Internet of Things ecosystem. It aggregates data from various sensors and interfaces, enabling seamless communication and control. By handling protocol conversion, data filtering, and edge processing, it reduces latency and improves overall system performance. Most gateways also feature local storage options, real-time clock support, and digital I/O for enhanced flexibility.

The Low Cost Data Logger is a compact and efficient IoT gateway designed by Aashaya Group of companies to seamlessly collect, process, and transmit sensor data in real-time.
A simple block diagram of the system is shown below.



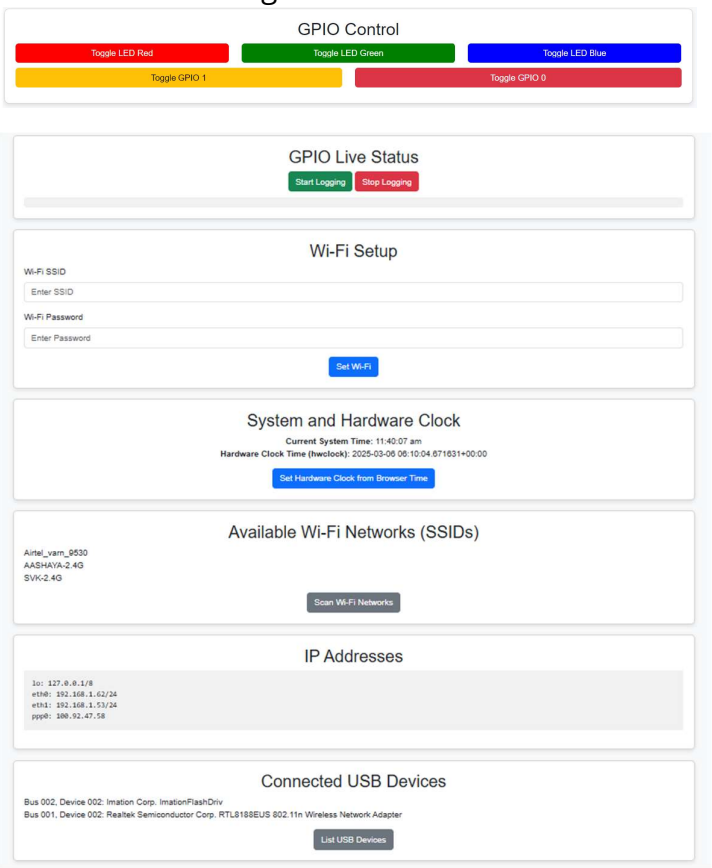
It supports multiple interfaces including Ethernet, Wi-Fi, GSM, USB, UART, and SDIO, making it ideal for versatile connectivity in industrial and remote environments. Equipped with digital input/output via optocouplers, it ensures robust electrical isolation. The gateway features a web-based interface for easy parameter monitoring and configuration. Onboard RTC with battery backup, RGB status LEDs, and MicroSD support add to its reliability and usability. Designed for testing and development, this device helps users validate setups before field deployment. With its low power design and flexible voltage input, it offers a cost-effective solution for data acquisition and remote monitoring applications.

AASHAYA GROUP OF COMPANIES



Low Cost IoT Gateway

Web interface image is shown below



For any further queries, please contact us at 99010-23235

1729A, 9th Main Road, Hebbal 2nd Stage, Mysore 570017