

This project is a smart school bus, it is a modern solution that integrates various technologies to ensure the safety and comfort of students during their commutes. With IoT sensors, the bus can monitor temperature and air quality. And with the use of GPS tracking technologies, the location of the bus can be tracked wherever it goes. This allows for prompt detection of any issues that result in cost savings and timely arrival to school. Additionally, the use of RFID tags adds an extra layer of security for students, to ensure that only authorized students are allowed onto the bus.

Moreover, the smart lighting system installed in the bus ensures that students can study or relax in a well-lit environment. The lighting turns on and off automatically based on the time of day and the amount of natural light available, creating a comfortable atmosphere for learning. The Wi-Fi hotspot on the bus also provides students with access to the internet, allowing them to be connected to their parents on their way to school or home. It is also equipped with sensors that monitor the level of carbon dioxide inside the bus to ensure that the air quality is safe for students and drivers. Additionally, the system sends real-time location information and the estimated time of arrival to the parents of the next student's home.

Furthermore, the system provides a mobile app that can be used by both parents and school officials, it shows parents full details about their child, whether they are on the bus or at school, it also has a map that shows the location of the bus their child is riding to help them make sure that he/she is safe.