



# CAMPUS BUS LOCATOR



# INTRODUCTION

★ In today's fast-paced campus environment, students frequently struggle to catch the campus bus on time, causing extra stress and wasted chances. To address this issue, we introduce the Campus Bus Locator, an innovative tool meant to make students' daily commutes more efficient.

★ Our application tracks campus buses in real time, allowing students to know when they will arrive at their allocated stop. This ensures that they arrive at the stop on time without worrying about missing the bus.

★ A key feature of our application is the alert system. This feature empowers students to notify the bus driver if they are en route to the stop but might need an extra couple of minutes to arrive. The bus driver, upon receiving this alert, will wait for a maximum of 2 minutes. If the student does not arrive within this period, the driver will continue the journey to campus as scheduled. This system is designed to maintain punctuality while providing a small window of flexibility for students, ensuring a smoother and more predictable commute.





# MODULES

◎ **GPS Modules** - To track the real-time location of the buses.

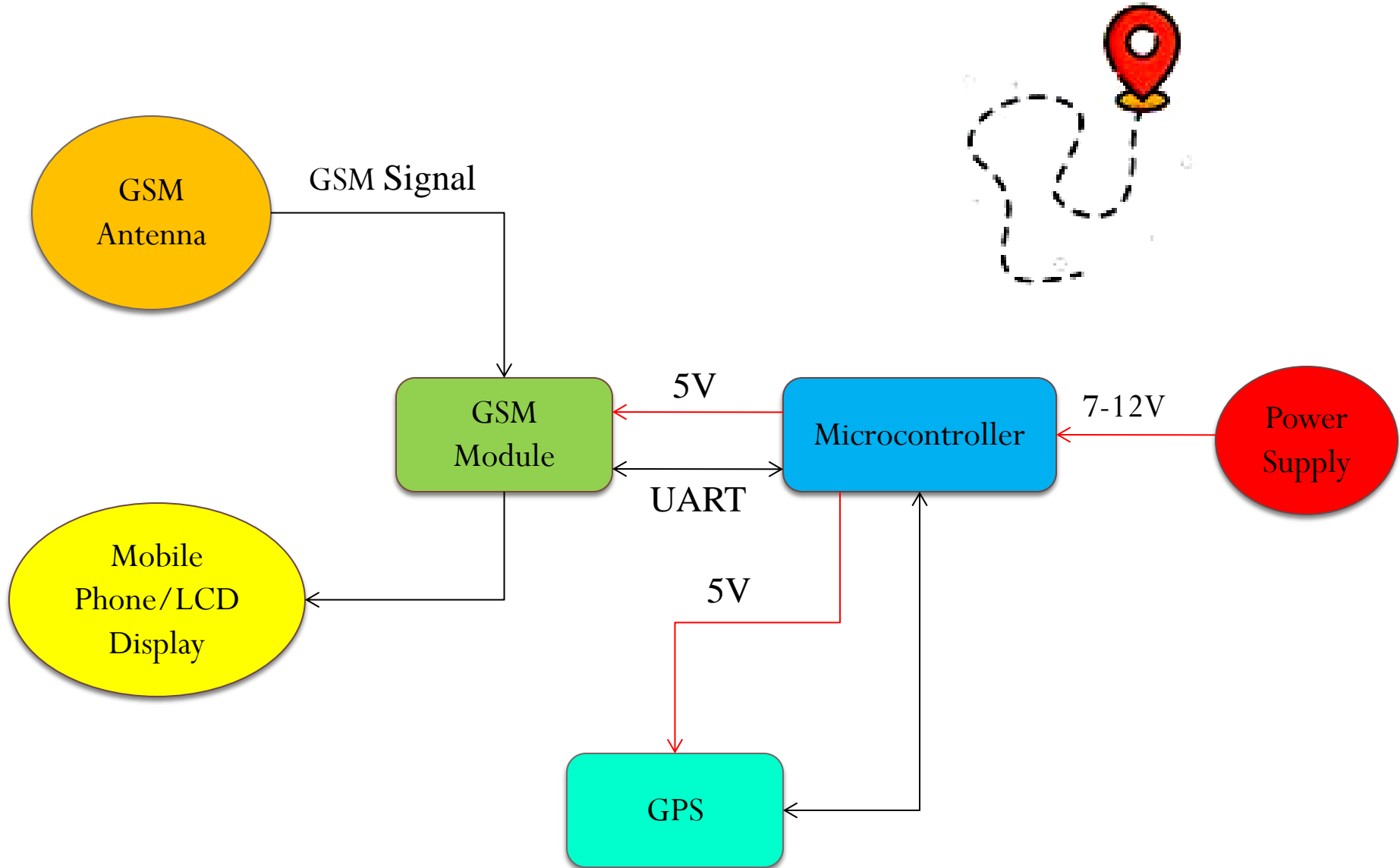
◎ **GSM/4G Modules** - To transmit the location data from the bus to your central server or cloud system in real-time.

◎ **Microcontroller** - To process GPS data and manage communication between the GPS module, GSM module, and your application.

◎ **Power Supply** - To power the GPS, GSM modules, and microcontroller on the bus.



# BLOCK DIAGRAM



# CONCLUSION

In conclusion, the Campus Bus Locator is not just a technological solution but a step towards creating a more organized, efficient, and user-friendly campus transportation system. Its implementation will enhance the overall commute experience for students, contribute to the effective management of transportation resources, and set a precedent for future advancements in campus mobility solutions.

