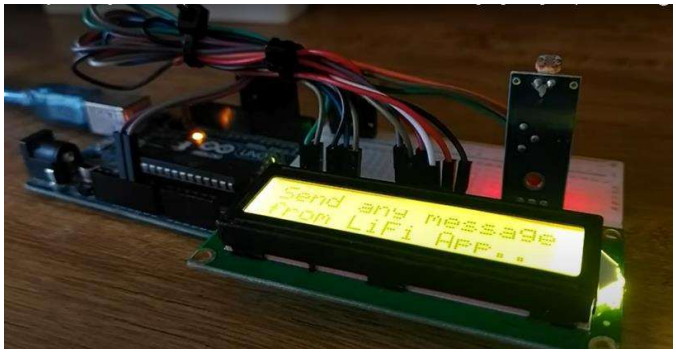
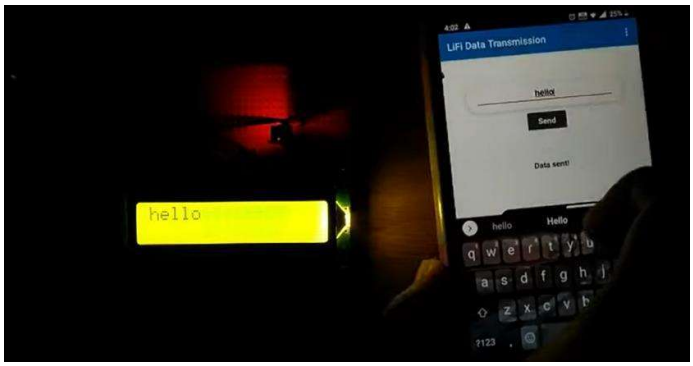
CHAPTER 6

RESULT ANALYSIS AND FUTURE SCOPE

Result:





Future Scope:

1. High-Speed Wireless Communication
   - Future Potential: Li-Fi systems can achieve speeds up to 100 Gbps by utilizing advanced modulation techniques and photodetectors. This makes it a strong candidate for high-speed data transmission in homes, offices, and public spaces.
   - Applications: Internet services in high-density environments such as stadiums, airports, and shopping malls.
2. Integration with IoT (Internet of Things)
   - Future Potential: Li-Fi can enable seamless communication between IoT devices by providing localized, secure, and interference-free connectivity.
   - Applications: Smart homes, industrial automation, and connected vehicles.
3. Enhanced Security in Data Communication
   - Future Potential: Li-Fi's light-based transmission does not penetrate walls, reducing the risk of unauthorized access and making it ideal for secure communication.