

# **Android Application for Real-Time PC and Server Control over Network**

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**Abstract:** *Efficient remote control of computer systems has become an essential need in the current educational and organizational settings. This project reports a mobilebased system for remote monitoring and lab PC control via a Local Area Network (LAN). The system is designed and implemented using React Native for the front-end and Flask as the back-end framework. The system supports real-time PC status detection (ON/OFF), remote shutdown functionality. Every computer in the lab has a light-weight client running which is communicating with the master server, enabling control commands to be sent from the Android application and live updates received. This makes physical presence unnecessary, minimizes manual labour, and maximizes operating efficiency. The system is affordable, easy to scale, and best utilized in environments like colleges where it is frustrating and time-consuming to deal with multiple computers manually. Through its use of mobile and networking technologies, the project promotes a clever and adaptable style of managing the lab.*

**Keywords:** Remote Monitoring System, PC Power Control, Android Application, React Native, Flask Web Framework, Local Area Network (LAN), Real-time Device Management, Client-Server Architecture, Mobile-Based Network Control.

