

Building an application with QT (C++) on an embedded Raspberry Pi computer to interface with temperature and humidity sensors

Nguyen Binh Duong

Abstract: This topic focuses on building an application using the Qt library (C++) to create a user-friendly and efficient interface on the Raspberry Pi embedded computer system. The reason for choosing this topic is the need to provide a practical solution for environmental monitoring through temperature and humidity sensors, while leveraging the advantages of the Raspberry Pi in terms of lightweight processing and power efficiency. The project's objective is to build an automation system that can be easily and flexibly deployed in various practical applications such as smart agriculture and infrastructure management. The research methodology includes designing an intuitive user interface, programming code using Qt (C++), and integrating sensors. The expected outcome of the project is to deliver a comprehensive solution for automated environmental monitoring, contributing to the development of IoT technology.

Keywords: Qt (C++), Raspberry Pi, Temperature sensor, Graduation project, Environmental monitoring