**IOT BASED WEB CONTROLLED DIGITAL NOTICE BOARD FOR SMART CITIES**

**ABSTRACT**

In today’s fast-paced world, effective communication is essential, whether you’re managing a bustling office or overseeing a bustling school campus. A digital notice board is an electronic display system that allows users to share information, announcements, and multimedia content in a visually appealing and dynamic manner. The system is often used in educational institutions, businesses, public spaces, and other environments to disseminate information quickly and efficiently. This abstract discusses the concept, implementation, and benefits of a digital notice board. The focus is on key features, typical use cases, and potential advantages over traditional physical notice boards. Digital notice boards leverage modern technology to deliver interactive and engaging content, offering greater flexibility and scalability. Enter the digital notice board, a dynamic tool that not only keeps your audience informed but also contributes to a sustainable, eco-friendly approach. In this, we’ll explore the myriad benefits of incorporating digital notice boards into your communication strategy, emphasizing their environmental advantages and superior efficiency compared to traditional signage. To design a simple, easy to install, user friendly system, which can receive and display notice in a particular manner with respect to date and time which will help the user to easily keep the track of notice board every day and each time he uses the system. It attracts more audience than a normal notice board.

**Components**

1. MCU

2. LED Board

3. P10 Module

4. Connecting wires

5. C++ software

**Program**

#include <QApplication>

#include <QMainWindow>

#include <QVBoxLayout>

#include <QLabel>

#include <QPushButton>

#include <QTextEdit>

#include <QFile>

#include <QFileDialog>

#include <QTextStream>

class NoticeBoard : public QMainWindow {

Q\_OBJECT

public:

NoticeBoard(QWidget \*parent = nullptr) : QMainWindow(parent) {

// Main widget and layout

QWidget \*centralWidget = new QWidget(this);

QVBoxLayout \*layout = new QVBoxLayout(centralWidget);

// Notice display

noticeLabel = new QLabel("Welcome to the Digital Notice Board!", this);

layout->addWidget(noticeLabel);

// Text area for updating the content

QTextEdit \*noticeTextEdit = new QTextEdit(this);

layout->addWidget(noticeTextEdit);

// Update button

QPushButton \*updateButton = new QPushButton("Update Notice", this);

layout->addWidget(updateButton);

// Connect button to update the notice

connect(updateButton, &QPushButton::clicked, [=]() {

noticeLabel->setText(noticeTextEdit->toPlainText());

});

setCentralWidget(centralWidget);

setWindowTitle("Digital Notice Board");

}

private:

QLabel \*noticeLabel;

};

int main(int argc, char \*argv[]) {

QApplication app(argc, argv);

NoticeBoard window;

window.show();

return app.exec();

}