

# Digital Nameplate with Visitor Sensing

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**Abstract:** *The aim of this project is to create a controller-based model that counts the number of people visiting a specific location. A digital nameplate system is employed, offering features such as displaying the family or office name, scrolling through family member names, showing "We are Out" messages, and welcoming guests with a customized message. The system utilizes an Node MCUESP8266, an ultrasonic sensor, LED display board, buzzer, buttons for operation, and other basic electronic components. When a guest approaches the sensor within one meter, the microcontroller detects the trigger and displays the pre-saved welcome message. The system also allows for setting an away message when the family or office is closed.*

**Keywords:** Digitalization, modern technology, scrolling display

## I. INTRODUCTION

The objective of this project is to create a controller-based model for visitor counting at a specific location using a digital nameplate system. This innovative approach overcomes the limitations of traditional nameplates. The system comprises a microcontroller, ultrasonic sensor, LED display board, buzzer, buttons, and basic electronic components. The microcontroller stores the input message, which can include the family or office name, as well as family member names or a company tagline. This message is displayed on a scrolling LED nameplate outside the location. An integrated ultrasonic sensor detects the presence of individuals within one meter. Once a person is detected, the microcontroller triggers a pre-defined welcome message, providing an automated greeting to the guest. Furthermore, the system allows for setting an away message when the family or office is closed.

Nameplates have become increasingly popular for houses and offices, as people seek creative and unique designs for their properties. However, traditional nameplates have limitations in terms of size and the amount of text they can display. To address this, we have developed digital nameplates that elevate the concept to a whole new level. These digital nameplates not only showcase the family or office name but also greet and welcome guests upon their arrival. The digital nameplate offers a range of features, including the ability to display the family or office name digitally, scroll through all family member names, show messages indicating the absence and expected return of occupants, and automatically detect and welcome guests with a personalized message. This innovation brings a dynamic and interactive element to nameplates, enhancing the overall experience for both residents and visitors..

## REFERENCES

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