

Micro Processor Based System Design



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Abstract:

Object Recognition System

We propose to build a **object recognition** using the ESP32-CAM and Edge Impulse platform. The system captures real-time images and classifies objects using a trained machine learning model deployed on the microcontroller. It demonstrates edge AI capabilities on low-power embedded hardware.

Hardware Components:

ESP32-CAM
FTDI Programmer (USB to Serial adapter)
Jumper wires

Software/Technologies:

Edge Impulse
Arduino IDE
ESP32 Board Manager