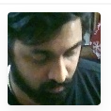
A logo of a cloud

Description automatically generated



A close-up of a computer screen

Description automatically generated

1 – ROOM NO

PERFORM FACE ENCODINGS AND RECOGNISE FACES WITH OPENCV AND DL

REAL-TIME FIREBASE

A logo of a cloud

Description automatically generated

REAL-TIME FIREBASE

ALGORITHM DESIGNED TO IDENTIFY **ROOM EXITS** USING FACE DISTANCES AND FRAME COMPARISONS

PERFORMED ALL REQUIRED CALCULATIONS TO FINALISE **FALL DETECTIONS AND BED EXITS** AND SEND RESULTS TO FIREBASE

A screenshot of a phone

Description automatically generatedA black webcam with a lens

Description automatically generatedA close-up of a circuit board

Description automatically generatedA black webcam with a lens

Description automatically generatedA close-up of a circuit board

Description automatically generated

**Frame No**

**Face Enc**

**Distance**

**Room No**

**Detected Faces**

843 – FRAME NO

DETECTS FACE’S EXITING ROOM WITHIN 140 CM RANGE, CALCULATES FACE’S DISTANCE FROM CAMERA

CROPS THE FACES AND SENDS BASE64 ENCODED IMAGES AND DISTANCE

CAMERA C2, ON DOOR

DETECTS POSE, BASED ON IT WE CALCULATE CENTER OF GRAVITIES (UPPER, LOWER, WHOLE BODY) AND WE CALCULATE BED EXITS AND FALL DETECTIONS BASED ON POSE.

INTIALLY DETECTS BED WITH CUSTOM DESIGNED BED DETECTION MODEL ON PI

CAMERA C1, ON SIDE WALL OF ROOM