Project Idea

Digital System Project

March 7, 2018

1 Aim

A LED Grid Dispaly and Keyboard system.

2 Working

- **Keyboard**

  - A keyboard will have letters from A-Z ,Numbers from 0-9 ,decimal point ,space and reset.
  - Total there are 39 inputs so we will need 6 bits to represent a character.
  - A 39 to 6 encoder will be used to encode the input
  - This encoded input and another output N (which will be high whenever any letter is pressed) will be feed into the Grid.

- **LED Grid Display**

  - This display will be able to show 10 characters at a time.
  - Each character will require a group of 35 LEDs,there will be 10 such groups hence there will be 350 LEDs on the Grid.
  - The input sequence received from keyboard will be used to glow the LEDs representing the character in the same way as BCD does.
  - Output N received will be used to count ,on which group out of 10 the letter will be displayed.

- **Block Diagram**

Figure 1: Block Diagram

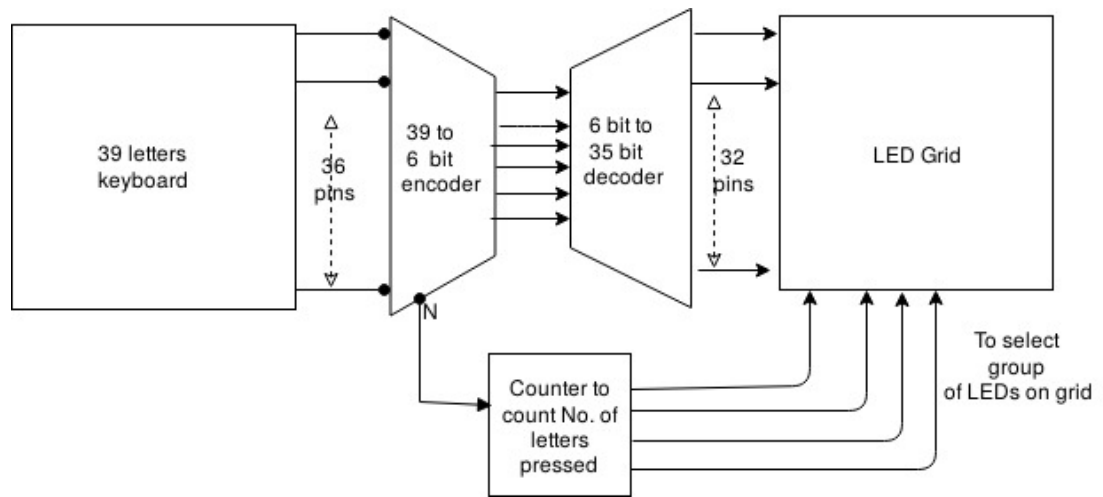# 3 Group Members

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