

# **REPORT ON DIGITAL CAMERA**

**AIM:** To study one of the embedded system.

## **CONTENTS:**

- 1.Introduction to Digital camera
2. Purposes of Embedded Systems in Digital camera.
- 3.Block diagram
- 4.Task

### **1.Introduction to digital camera:**

# Digital camera:

A Digital camera is a hardware device that takes photographs and stores the image as data on a memory card.

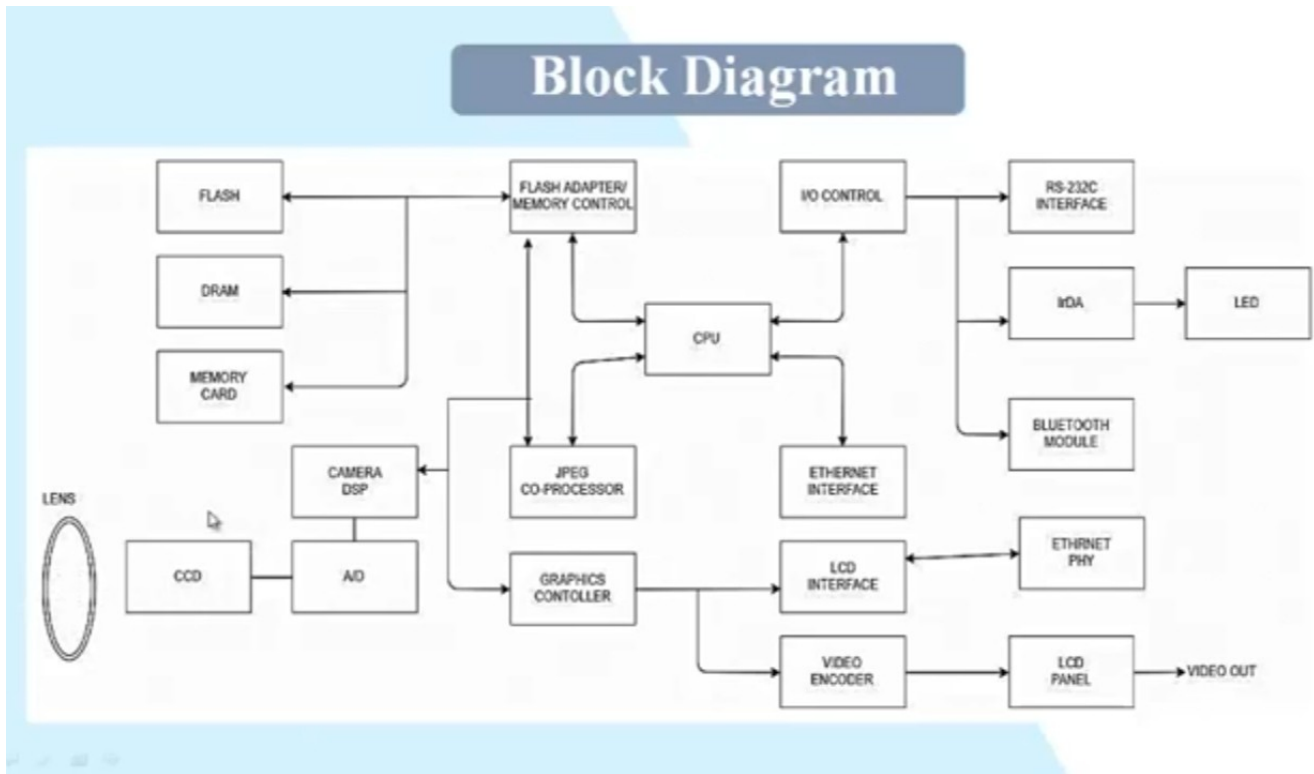
Unlike an analog camera, which exposes film chemicals to light, a digital camera uses digital optical components to register the intensity and colour of light and converts it into pixel data.



### **2.Purposes of Embedded Systems in Digital Camera:**

- 1.Data Collection
- 2.Data Storage
- 3.Data representation

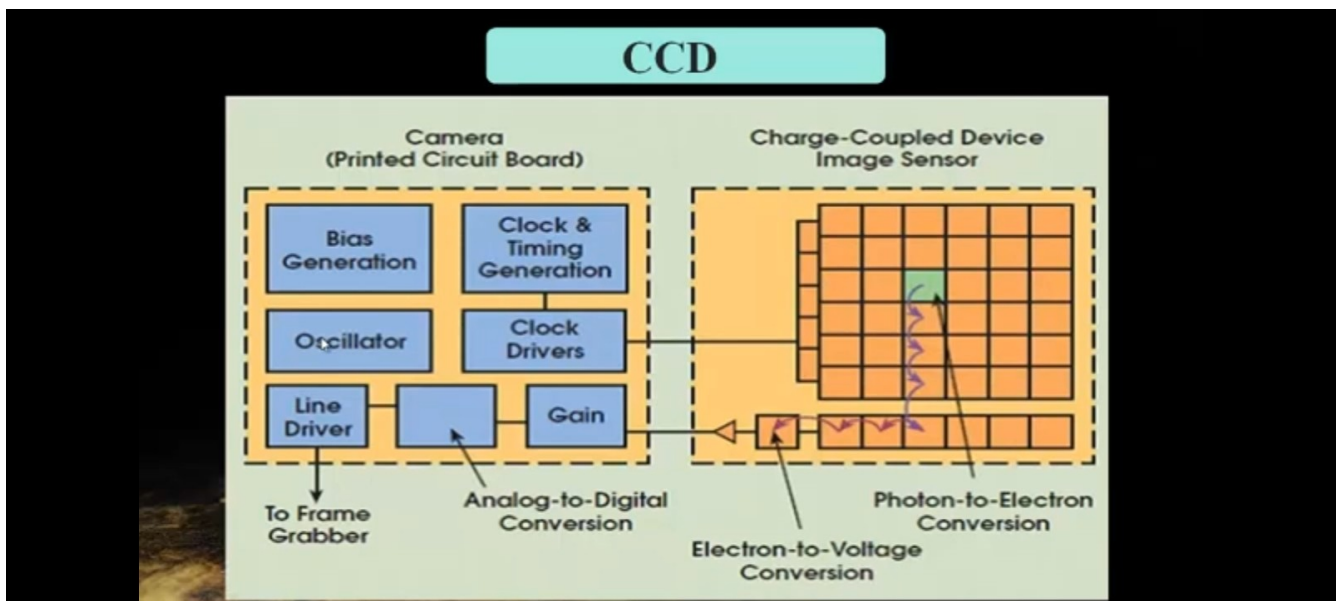
### 3. Block Diagram:



### 4. Components of Digata Camera:

#### 1.CCD-Charge -Coupled Device (Heart of Digital Camera):

A charge-coupled device (CCD) is a device for the movement of electrical charge, usually from within the device to an area where the charge can be manipulated, such as conversion into a digital value.



## **2.DSP-Digital Signal Processing:**

Digital signal processing cameras use a DSP chip to digitize analog video streams.

Analog video streams are generated by charge-coupled device—chips, which DSP chips then convert into a digital video signal.

### **Processing the image and storing in memory:**

- # When shutter pressed
- # Image captured
- # Convert to digital from CCD
- # Compressed and stored in memory

### **Uploading image to PC :**

- # Camera connected to PC
- # Software command to transfer the data serially.