**IDENTITY AUTHENTICATION FOR EXAMINATION SYSTEM**

**AIM:**

The main aim of this project is to differentiate between an authorized person (student) and an impostor before entering the examination hall...

**PURPOSE:**

The purpose of this project is to use the fingerprint identification to authenticate the identity of an individual.

**BLOCK DIAGRAM:**

**AT89S52**

**POWER SUPPLY**

**LCD**

**FINGER PRINT SCANNER**

 **L**

**A**

**T**

**C**

**H**

**IC**

 **M**

**A**

**X**

**2**

**3**

**2**

**BUZZER**

 **PC**

**ENROLLING**

**KEYS**

**Power Supply:**

 **Step Down**

**Transformer**

**Bridge**

**Rectifier**

**Filter**

**Circuit**

**Regulator section**

**DESCRIPTION:**

Due to human body features with no duplicate characteristics, people put eyes turned to biometrics. Computer fingerprint identification automatic identification technology is the earliest and the most practical and the mature technology among the identification technology.

We design such an implementation where we first collect or enroll the finger print of the students who is going to write the examination and store them in eeprom. When student enters the exam hall the system asks for fingerprint and then controller checks for valid person or not. If he is a valid person it allows him otherwise it intimates the invigilator through BUZZER.

**FINGER PRINT SCANNER:**

Optical fingerprint imaging involves capturing a digital image of the print using [visible light](http://en.wikipedia.org/wiki/Visible_light). This type of sensor is, in essence, a specialized [digital camera](http://en.wikipedia.org/wiki/Digital_camera). The top layer of the sensor, where the finger is placed, is known as the touch surface. Beneath this layer is a light-emitting phosphor layer which illuminates the surface of the finger. The light reflected from the finger passes through the phosphor layer to an array of [solid state](http://en.wikipedia.org/wiki/Solid_state_%28electronics%29) pixels (a [charge-coupled device](http://en.wikipedia.org/wiki/Charge-coupled_device)) which captures a visual image of the fingerprint. A scratched or dirty touch surface can cause a bad image of the fingerprint. A disadvantage of this type of sensor is the fact that the imaging capabilities are affected by the quality of skin on the finger. For instance, a dirty or marked finger is difficult to image properly. Also, it is possible for an individual to erode the outer layer of skin on the fingertips to the point where the fingerprint is no longer visible. It can also be easily fooled by an image of a fingerprint if not coupled with a "live finger" detector. However, unlike capacitive sensors, this sensor technology is not susceptible to electrostatic discharge damage.

**SOFTWARE:**

1. Embedded C
2. Keil IDE
3. ISP

**HARDWARE:**

1. Micro Controller (AT89S52)

2. PC

3. Finger print scanner

4. Power supply

5. LCD

6. BUZZER

**RESULT:**

By using this project we can design and implementation of ID authentication system based on Fingerprint Identification.