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**Batch:** A1

**Experiment No. 6**

**Aim:** Object Detection

**Objective:** Develop a program to detect objects in an Image

**Theory:**

Object Detection is a computer technology related to computer vision, image processing, and deep learning that deals with detecting instances of objects in images and videos

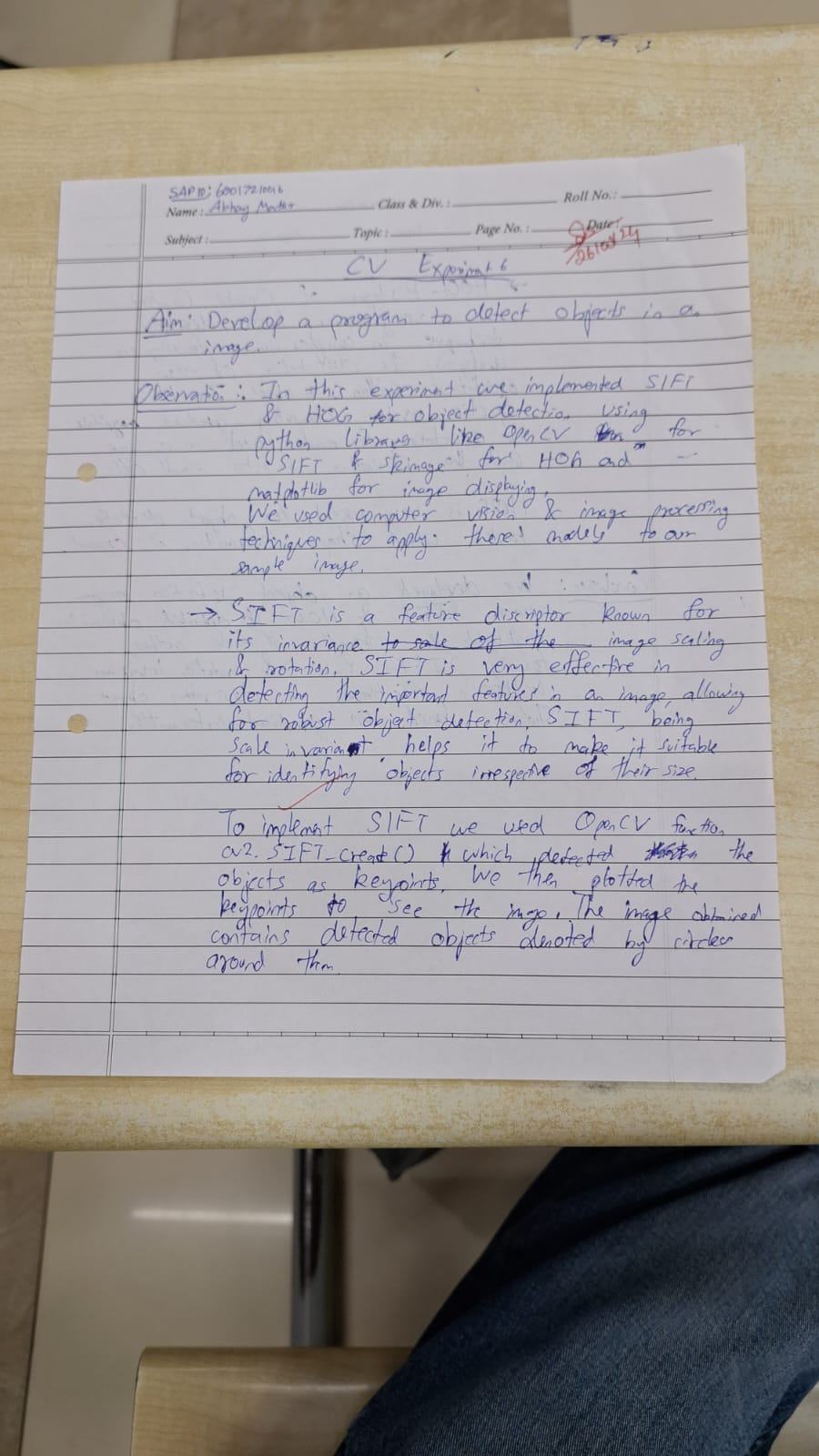
SIFT stands for Scale-Invariant Feature Transform and was first presented in 2004, by **D.Lowe**, University of British Columbia. SIFT is invariance to image scale and rotation

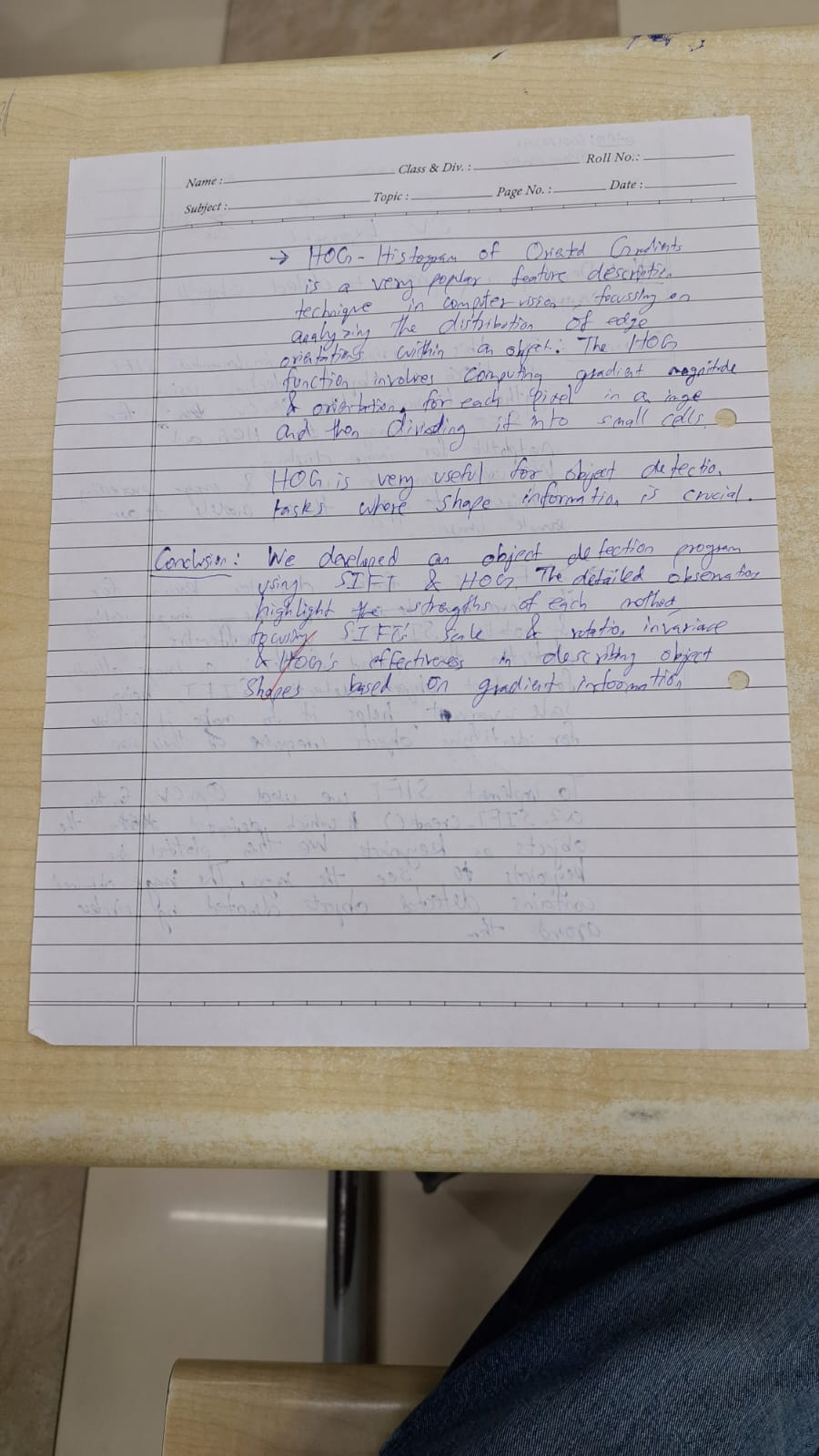
The Histogram of Oriented Gradients (HOG) is a popular feature descriptor technique in computer vision and image processing. It analyzes the distribution of edge orientations within an object to describe its shape and appearance. The HOG method involves computing the gradient magnitude and orientation for each pixel in an image and then dividing the image into small cells.

**Problem Definition**

* Object Detection in an image using SIFT
* Object Detection in an image using HOG

**Observations**

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