

Signal and System Project

Project Title: *Measure the dimension of an Object within an 2D image and determining the shape of the object.*

Group Member:

<u>Name</u>	<u>Roll Number</u>
Jap Purohit	AU1940109
Purvam Sheth	AU1940151
Nihar Patel	AU1940119
Raj Gariwala	AU1940118
Mohit Prajapati	AU1940171

Project Description:

Measuring objects within an image or frame can be an important capability for many applications where computer vision is required instead of making physical measurements. This application note will cover a basic step-by-step algorithm for isolating a desired object and measuring its diameter/dimension. It will also try to determine the 2D shape it has. This application can be used in determining the dimension and shape of space objects using the 2D image we are available with.

Programming language to be used:

1. MATLAB for image processing
2. Python to provide user interface.

Description of user interface:

It will majorly allow user to provide the path of the image and at last the result will be showed determining the 2D shape and dimension of the object. The interface will be developed using the Python.

The format of results expected to be obtained:

Input:



Output: The diameter of the object within object. And the shape as circle

