

20181CSE0621

Part-B

20181CSE0621

7-CSE-10

1) Steps in Digital Image Processing:-

① Image Acquisition:-

- A digital image is produced by one or more light sensitive sensors. Depending on the type of sensor the image would be either 2D or 3D.
- The pixel values correspond to the intensity in one or more spectral bands.

② Image Enhancement:-

- Process of manipulating images.
- Suitable for specific applications.

Eg:- Medical Imaging like Xray, Satellite Imaging.

③ Image Restoration:-

- The aim is to improve appearance of an image.
- Achieved by mathematical & probabilistic models.
- It is an objective process.

④ Morphological Processing:

- It includes a broad set of processing operations that process images based on shapes.
- It deals with tools for extracting image components useful in the description & representation of shape.

⑤ Representation & Description:-

- ~~It~~ Converts Representation involves converting to suitable form for computer processing.
- It can include a boundary or complete region.
- Description involves feature selection.

2018ICSE0621

- It includes information of interest & differentiates class to class.

(c) Object Recognition:

- Process that assigns labels such as vehicles, animals etc. based on descriptors.
- Recognition of individual objects.
- Eg: Face detection, Biometrics.