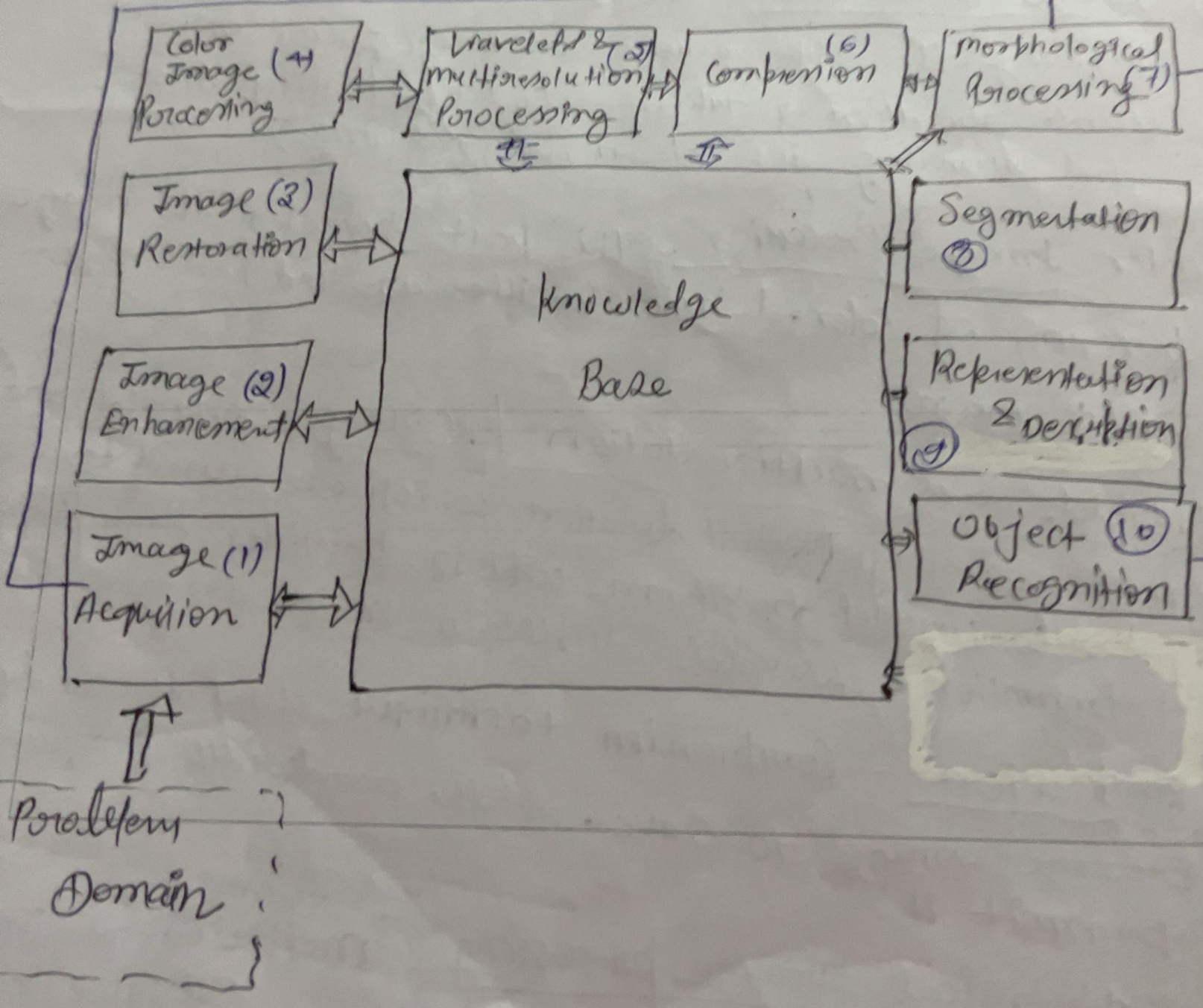
unit - I

Steps in Image Processing

fundamental Steps of Digital Image Processing — output of these steps are generally defined as pre processing



1) Image Aquision -

Image acquisition refers to action of retrieving an image from particular source. Without an image no processing is possible. The image that is acquired is completely unprocessed

2) Image Enhancement - Image enhancement means adjusting digital images so that result are more suitable for display or further image analysis. Image enhancement means brightness, contrast and removal of noise.

3) Image Restoration - Image Restoration defines improving the appearance of an image. In the other words operation of taking corrupt/noisy image and estimating the clean, original image.

4) Color Image Processing - This part handles the image processing of colored images either as indexed images RGB images.

5) Wavelets and multiresolution processing - Wavelets are small waves of limited duration which are used to calculate wavelet transform which provides time frequency information. Wavelets displays in various degree of resolution

6) Compression - Compression technique used to reduce storage image to save or the bandwidth require to transmit it

7) Morphological Image processing - (erosion, dilation) Morphological Image Processing set of operation that process digital image based on their shapes. Output of morphological

procesing generally are image attributes.

8) Segmentation – It is the proces of partitioning a digital image into multiple segments. It involves dividing an image in region or image, each of which corresponds to specific object or feature in the image.

9) Representation & Description — Representation deals with converting the data into suitable form of computer processing. It is basically involves –

→ Boundary representation – It is used when the focus on external shape
→ Regional representation – It is used when the focus on internal properties like texture.

10) Object Recognition – It is the proces that assigns a label to an object based on description (Identification, color, shape & size) and specify with label.