Intorduction Of Digital Image Processing

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Images play a vital important role in human perception because vision is the most advanced of our senses. The advantages of imaging machines include that they can operate on images generated by sources, and cover almost the entire EM spectrum compared with humans, who are limited to the vision band of EM spectrum.

A digital image is composed of a finite number of elements including picture elements, image elements, pels, and pixels, each of which has a particular location value. There are no clear boundaries among image processing, but most people agree three types of computerized process in this continuum.

The first type is low-level process, which is characterized by the fact that both its inputs and outputs are images. The second type is mid-level process, which outputs are attributes extracted from images, but its inputs are same as low-level process. The last type is higher-level process, which most purpose is making sense of an ensemble of recognized objects.