BINARY MORPHOLOGICAL OPERATIONS

- Dilation Operation

- Erosion Operation

- Opening and Closing Operations

- **Hit or Miss Transformation**

Hit or Miss Transformation

- The hit-or-miss transformation uses two structuring elements simultaneously, one for the object of the given image and the other for the background.

- Based on this idea, a composite structuring element E is required, and it may be defined as a pair of

disjoint structuring elements such as the following one:'

$$E = (E_1, E_2)$$

• The hit-or-miss transformation of an image A with the composite structuring element E is defined as

$$A \otimes E = (A \ominus E_1) - (A \oplus E$$

$$A \otimes E = (A \ominus E_1) \cap (A^c \ominus E_2) = (\bigcap_{e \in B_1}$$

Equation 1 is equivalent to-----(1)

------(2)