

**DIGITAL IMAGE PROCESSING**  
**EXERCISE 3 - Image Enhancement**

---

1. Read a grayscale image and apply the log and gamma transformation functions
2. Read a grayscale image and apply the following piecewise linear transformation functions.
  - a. Contrast stretching
  - b. Intensity-level slicing
  - c. Bit-plane slicing
3. Develop and demonstrate the simple histogram equalization method for image enhancement.
4. Develop and demonstrate the “contrast accumulated histogram equalization” method as discussed in the following research paper.

*Wu, X., Liu, X., Hiramatsu, K., & Kashino, K. (2017, September). Contrast-accumulated histogram equalization for image enhancement. In IEEE Proceedings of the International conference on image processing (ICIP) (pp. 3190-3194).*