



**RESEARCH ARTICLE**

# Comparative Study of Image Enhancement Techniques

*Ms. Seema Rajput<sup>1</sup>, Prof. S.R. Suralkar<sup>2</sup>*

<sup>1</sup>SSGBCOET, Bhusawal, Dist. Jalgaon [seema.rajput75@gmail.com](mailto:seema.rajput75@gmail.com)

<sup>2</sup>SSBTCOET, Bhambhori, Dist. Jalgaon [srsuralkar@rediffmail.com](mailto:srsuralkar@rediffmail.com)

---

*Abstract— Fingerprints are the oldest and most widely used form of biometric identification. The performance of any fingerprint recognizer highly depends on the fingerprint image quality. Different types of noises in the fingerprint images pose greater difficulty for recognizers. However, fingerprint images are rarely of perfect quality. They may be degraded and corrupted due to variations in skin and impression conditions. Thus, image enhancement techniques are employed prior to minutiae extraction to obtain a more reliable estimation of minutiae locations. Most Automatic Fingerprint Identification Systems (AFIS) use some form of image enhancement. Therefore, this paper describes various techniques for fingerprint image enhancement.*

*Indexed Terms: - Contrast enhancement, Histogram equalization, PSNR, Spatial Domain method*

---

Full Text : <http://ijcsmc.com/docs/papers/january2013/V2I1201303.pdf>