

Font style: Time New Roman

Font size: 22

Description: 3 paragraphs of uniform text

Image Processing is a method used to perform operations on an image to enhance it or extract useful information. It is a type of signal processing where the input is an image, such as a photograph or video frame, and the output can be either another image or a set of characteristics related to that image. Image processing has become increasingly important with the growth of digital cameras, medical imaging devices, and computer vision applications. It plays a critical role in areas like surveillance, biometric identification, remote sensing, and industrial inspection.

The applications of image processing are vast and growing rapidly. In healthcare, it's used in MRI and CT scan analysis. In automotive systems, it's essential for autonomous driving. In agriculture, drone-based imaging helps monitor crop health. Image processing continues to evolve with advancements in artificial intelligence, particularly deep learning, which has greatly improved