

EDGE DETECTION IN CARDIAC NUCLEAR IMAGES

NEETHU M. SASI & JAYASREE V. K

Government Model Engineering College, Kerala, India

ABSTRACT

Nuclear imaging with positron emission tomography (PET) and single photon emission tomography (SPECT) enables visualizing the functional details of the organs. Cardiac nuclear imaging plays a critical role in the diagnosis of coronary artery diseases. One of the objectives of image processing is to improve the pictorial information of the image for human interpretation. A major step in image interpretation is to segment the region of interest from its background. A fundamental tool for image segmentation is edge detection. In this paper an attempt is made to study the performance of different edge detection techniques and their effect on cardiac nuclear images. Henceforth, the method which yielded the best results is extended and applied on color cardiac nuclear images.

KEYWORDS: Cardiac Nuclear Imaging, Edge Detection, Segmentation