Landmark Detection Using a domain Independent Technique in Cephalograms

S . John

Abstract - The main purpose of this paper is about the relative merits of automated feature detection protocols on cephelometric- related digital radiology images. While the domain dependent techniques such as handcrafted masks are shown to be more accurate than pixel-based domain independent methods, the process for determining these shapes was unwieldy with respect to time taken and subjectivity. This paper discusses the use of a Pulse-Coupled Neural Network (PCNN)technique as a segmentation technique for parts of a radiology image. The results of this investigation showed a significant improvement in detection performance when compared to the handcrafted shapes when applied to several cephalometric landmarks. This encouaging outcome augurs well for a near automated feature detection protocol for such medical- related radiology images .