Local and Global Statistics-Based Explicit Active Contour for Weld Defect Extraction in Radiographic Inspection

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Abstract: Welding is a process of utmost importance in the metal industry. With the advances in computer science and artificial intelligence techniques, the opportunity to develop computer aided technique for radiographic inspection in Non Destructive Testing arose. This paper deals with the weld defects detection in radiographic films. A greedy active contour model is used exploiting global and local statistics to drive the model to the boundaries. Moreover, and to decrease the computation cost, the local statistics computation is done only for pixels in a selected band. Results seem to be promising ones.

Keywords : Radiographic inspection, weld defects, Active contours