Abstract

Fabric defect detection and classification plays an important role in inspection of fabric products. Many fabric defects are very small and undistinguishable, which can be detected only by monitoring the variation in the intensity. Currently, in almost all the fabric industries the process of defect detection is done manually using skilled labor. An automated defect detection and identification system would naturally enhance the product quality and result in improved productivity to meet both customer demands and also reduce the costs associated with off-quality. The main objective of this proposed work is to check whether the fabric material is defective or not, if defective, then identify the location and type of the defect. This paper deals with the defect detection process using Multi Resolution Combined Statistical and Spatial Frequency (MRCSF), Markov Random Field Matrix method (MRFM), Gray Level Weighted Matrix (GLWM) and Gray Level Co-occurrence Matrix (GLCM).

References

- Diagnostic Study of Trichy Handloom Cluster under the MSME Clusters
Computer Vision based Defect Detection and Identification in Handloom Silk Fabrics

- R. C. M. Reddy, I. A. S, Member Secretary, Textiles Committee, Ministry of Textiles, &quot;A catalogue on woven fabric defects and visual inspection&quot;, Quality Appraisal and Export Promotion, & Market Research Wings, Textiles Committee, MUMBAI - 400 018.
- Sabeenian R. S. and Palanisamy V., &quot;Texture Based Medical Image Classification of Computed Tomography images using MRCSF&quot;., Published in the International Journal of Medical Engineering and Informatics (IJMEI, Inderscience), Vol. 1, No. 4 pp 459-472
- M. E. Paramasivam and R. S. Sabeenian, &quot;A Soft Core Processor based Implementation of DWT for Identifying Defects in Fabric&quot;, in the proceedings of 2nd National Conference on Signal Processing Communications and VLSI Design (NCSCV


Index Terms
Keywords
Defect Detection In Silk Fabrics  Pattern Recognition