Edge detection is a fundamental tool in image processing. Several edge detectors have been proposed in literature for enhancing and detecting edges in images. Image Edge detection significantly reduces the amount of data and filters out useless information, while preserving the important structural properties in an image. In this paper, the application of two-dimensional cellular automata using Moore Neighborhood has been proposed for edge detection. The idea is simple but effective technique for edge detection. Edge basically occurs where there is significant change in intensity. The principle of the algorithm used is to increase the difference between those pixels where intensity values change significantly. So by using this concept, detected edges are wider and clear. The given algorithm can be applied to gray scale and monochrome images.

References

- D. Stern, L. Kurz, Edge detection in correlated noise using Latin squares models,

Index Terms

Computer Science

Pattern Recognition
Keywords
Cellular Automata  Moore Neighborhood