Abstract

Text extraction in an image is a challenging task in the computer vision. Text extraction plays an important role in providing useful and valuable information. This paper discusses various approaches such as Adaptive Local Connectivity Map (ALCM), Expectation Maximization (EM), Maximization Likelihood (ML), Markov Random Field (MRF), Spiral Run Length Smearing Algorithm (SRLSA), Curvelet transform etc. for extracting text from scanned book covers, journals, multi-color document, handwritten document, ancient document and newspaper document images. Text line segmentation is a major component for document image analysis. Text in documents depend upon various factors such as language, styles, font, sizes, color, background, orientation, fluctuating text lines, crossing or touching text lines. This paper provides performance comparison of several existing methods suggested by researchers in document text extraction on the basis of recall rate, precision rate, processing time, accuracy etc.

References

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- D. Sarkar, R. Ghosh, A Bottom-Up Approach of Line Segmentation from Handwritten

Index Terms

Computer Science

Information Sciences

Keywords

Optical Character Recognition (OCR)  Morphological Component Analysis (MCA)
Undecimated Wavelet Transform (UWT)
Discrete Wavelet Transform (DWT)

Connected Component Analysis (CCA)

Adaptive Local Connectivity Map (ALCM)

Expectation Maximization (EM)

Maximum Likelihood (ML)

Spiral Run Length Smearing Algorithm (SRLSA)

Resolution Enhancement (RE)

Markov Random Field (MRF)

Maximum A-posteriori Probability (MAP)

Block Energy Analysis (BEA)

Support Vector Machine (SVM)

Thin Line Coding (TLC)

Constrained Run Length Algorithm (CRLA).