Skew Detection/Correction and Local Minima/Maxima Techniques for Extracting a New Arabic Benchmark Database

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We propose a set of techniques for extracting a new standard benchmark database for Arabic handwritten scripts. Thresholding, filtering, and skew detection/correction techniques are developed as a pre-processing step of the database. Local minima and maxima using horizontal and vertical histogram are implemented for extracting the script elements of the database. Elements of the database contain pages, paragraphs, lines, and characters. The database divides into two major parts. The first part represents the original elements without modifications; the second part represents the elements after applying the proposed techniques. The final database has collected, extracted, validated, and saved. All techniques are tested for extracting and validating the elements. In this respect, ACDAR proposes a first issue of the Arabic benchmark databases. In addition, the paper confirms establishment a specialized research-oriented center refers to learning, teaching, and collaboration activities. This center is called "Arabic Center for Document Analysis and Recognition (ACDAR)" which is similar to other centers developed for other languages such as English.

Al Hamad, Husam Ahmed, (2015), Skew Detection/Correction and Local Minima/Maxima Techniques for Extracting a New Arabic Benchmark Database, (IJACSA) International Journal of Advanced Computer Science and Applications.