Recognition of Cursive Arabic Handwritten Text Using Embedded Training Based on Hidden Markov Models (HMMs)

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Abstract : In this paper, we present a system for offline recognition cursive Arabic handwritten text based on Hidden Markov Models (HMMs). The system is analytical without explicit segmentation used embedded training to perform and enhance the character models. Extraction features preceded by baseline estimation are statistical and geometric to integrate both the peculiarities of the text and the pixel distribution characteristics in the word image. These features are modelled using hidden Markov models and trained by embedded training. The experiments on images of the benchmark IFN/ENIT database show that the proposed system improves recognition.

Keywords : recognition, handwriting, Arabic text, HMMs, embedded training
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