

# Fast Determining Existence of Text Strings in a Large Dataset Using CMAC Mapping

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## Abstract

We propose a scheme, based on Albus' s CMAC, for efficiently determining existence of text strings in a large string dataset. This category of problem is drawing increasing attentions as high-speed Internet prevails. The proposed scheme seeks to achieve the following goals: (1) processing a query string must be efficient in run time regardless of the size of the dataset, and (2) on-line memory requirement must be economic. The latter is particular important for implementations on hand-held devices. Two simulated experiments were conducted on different platforms, i.e., PC and PDA, for evaluating the proposed scheme, and the results show favorable performances for the indicated goals.

Keyword : String Matching, Existence Determining, CMAC, Neural Network