20 MAR 2002

ABSTRACT

TWO-STAGE LOCAL AND GLOBAL FINGERPRINT MATCHING TECHNIQUE FOR AUTOMATED FINGERPRINT VERIFICATION/IDENTIFICATION

A method for determining a degree of match between a search fingerprint and a reference fingerprint comprises the following steps:

a) Extracting at least one first search feature from a first region of said search fingerprint thereby forming a local search feature vector,

b) Extracting at least one second search feature from a second region of said search fingerprint thereby forming a global search feature vector, whereby said second region comprises said first region,

c) Determining a first similarity degree by comparing said local search feature vector with a local reference feature vector,

d) Determining a second similarity degree by comparing said global search feature vector with a global reference feature vector of said reference fingerprint and using said first similarity degree,

e) Determining said degree of match from said second similarity degree.

Figure 2