

DYNAMIC HANDWRITING VERIFICATION AND HANDWRITING-BASED USER AUTHENTICATION

ABSTRACT

5 Handwriting verification methods and related computer systems, and
handwriting-based user authentication methods and related computer systems are
disclosed. A handwriting verification method comprises obtaining a handwriting test
sample containing a plurality of available parameters, extracting geometric parameters,
deriving geometric features comprising an x-position value and a y-position value for
10 each of a plurality of feature points in the test sample, performing feature matching
between geometric features of the test sample and a reference sample, determining a
handwriting verification result based at least in part on the feature matching, and
outputting the handwriting verification result. The geometric features may further
comprise values derived from the geometric parameters, such as direction and curvature
15 values. The handwriting verification result can be further based on a count of unlinked
feature points. Handwriting-based user authentication methods can employ such
handwriting verification methods, or other handwriting verification methods.

FIG. 1A