

1 Overview

Image recognition is an important technique in a range of fields, from security and surveillance, to intelligent document scanning.

Working with the MNIST database of images of handwritten digits (available from ??), KrisNMel is a function which, when given a set number images to test, returns the recognised value of those images. This recognised value is determined by comparison with the train data images.

The KrisNMelpca function uses an improved method (principal component analysis) to identify feature vectors and

2 Methods

Images are stored as digits corresponding to the col

The images from MNIST are stored vectors of length 784 (corresponding to

3 Opening the image

Matlab will not open binary files. In order to access them, the functions LOAD need to be applied to both the test and training labels.[1]

References

- [1] Kenneth J. Arrow, Leonid Hurwicz, and Hirofumi Uzawa. Constraint qualifications in maximization problems. *Naval Research Logistics Quarterly*, 8:175–191, 1961.