Abstract

Handwriting recognition has become one of the most fascinating research areas in recent years. Handwriting recognition can be defined as the process of converting human written text into a standard text document form. Optical Characters Recognition (OCR) is one of the active subjects of research since the early days of computer science. There are two main stages in most of OCR systems: features extraction and classification. Artificial Neural Networks and Hidden Markov Models are the most popular classification methods used for OCR systems. Handwriting recognition systems are of extreme significance in human computer based applications and in modelling human behaviour. In this paper a recognition system has been
proposed to recognize characters involving both English alphabets and numerals. This method is capable of detecting characters without extracting any features from written text, by adopting a 3-level segmentation technique. We have achieved about 95% to 98% of recognition accuracies using this approach.

**References**

- "Diagonal Based Feature Extraction For handwriting Alphabets Recognition System Using Neural Network" by J. Pradeep, E. Srinivasan and S. Himavathi.
- "Handwriting Recognition Using Supervised Neural Networks" by B. V. S. Murthy.
- "Offline Handwriting Recognition using Genetic Algorithm" by Rahul KALA, Harsh VAZIRANI, Anupam SHUKLA and Ritu TIWARI.
- "Character Recognition Performance Improvement Using Personal Handwriting Characteristics" by Takahiko KAWATANI.
- "Writer Adaptation for Online Handwriting Recognition System Using Virtual Examples" by Hidetoshi Miyao and Minoru Maruyama.
- "Handwriting Recognition Using Acceleration Based Motion Detection" by Ben Milner.
- "Online Handwritten Circuit Recognition on a Tablet PC" by Otega Ejofodomi, Shani Ross, Ahmed Jendoubi Mohamed Chouikha and Jianchao Zeng.
- "Cursive on-line Handwriting word recognition using a bi-character model for large lexicon applications" by S. Prum, M. Visani, JM. Ogier.
- "Character Recognition Using Neural Networks" by Rokus Arnold, Poth Miklos.
- "Automatic hand writer identification using the feed forward neural Networks" by Constantin Anton, Cosmin Stirbu, Romeo – Vasile Badea.
- "Handwriting Recognition System Using Fast Wavelets Transform" by Mohamed E. Gumah, Etienne Schneider, Abdurazzag Ali Aburas.
- "Prototype Learning Methods for Online Handwriting Recognition" by Raghavendra B. S., Narayanan C. K., Sita G., Ramakrishnan A. G., and Sriganesh M.
- "A Comparision of Two On-Line Handwriting Recognition Methods For Unconstrained Text Entry for Children" by Janet C Read, Stuart MacFarlane.
- "Online Handwritten Character Recognition of Devanagari and Telugu Characters using Support Vector Machines" by H. Swethalakshmi, Anitha Jayaraman, V. Srinivasa Chakravarthy, and Chandra Sekhar.
- "On Line Character Technology and its Applications" by Hiroshi.
A 3-Level Mapped Segmentation based Handwriting Recognition System

Tanaka, Naiomi Iwayama.
- "Graphical Models: Statistical Inference VS. Determination" by Joachim Schenk and Benedikt Hörnler and Artur Braun and Gerhard Rigoll.

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