KARTHIK RAJA R (312319205066)

images, PDF, images, tamil characters etc.

To construct a web application to override the repetitive and redundancy tasks in online text recognition system through providing various user friendly technical facilities so that the traditional tedious process can be replaced with an easy one.

The ultimate aim is to convert printed text, either typed or handwritten, into digital, machine-encoded text with high accuracy using Convolutional recurrent neural network and Optical character recognition (OCR)

within the computer vision. Traditional methods rely on_lexical segmentation, complex feature extraction techniques, and considerable knowledge of linguistics.

Here we present a new approach to handwriting recognition using Convolutional recurrent neural network (CRNN) in combination with Convolutions temporal classification (CTC).

This method has the advantage of not relying on lexical segmentation and manual feature extraction. Furthermore, the applied method is symbol- and character-agnostic, so the model is globally trainable and suitable for multiple languages.

nearly the same accuracy as humans.

Handwritten character recognition is one of the practically important issues in pattern recognition applications. The applications of character recognition include in postal mail sorting, bank check processing, form data entry, etc.

The heart of the problem lies within the ability to develop an efficient algorithm that can recognize handwritten text and which is submitted by users by the way of a scanner, tablet, and other digital devices.

Hulasikishna N.P, Seenia

Francis, "Intelligent Tool For Th

Cursive Handwritten Character e@ system can .

Recognition Using Artificial ML - Application identify cursive The accuracy 's low

Neural Network And handwritten text. and error is high.

Hidden-Markov Model―,

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Ahlawat, S.; Rishi, R. A genetic

algorithm based feature Reduces Time and space

selection for handwritten digit ML - Algorithm computational Complexity was

recognition. Recent Pat. complexity. comparatively high.

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Ptucha, R.; Such, F.; Pillai, S.;

Brokler, F.; Singh, V.;

Hutkowski, P. Intelligent The system identifies The possibility of

character recognition using the text using P is hi,

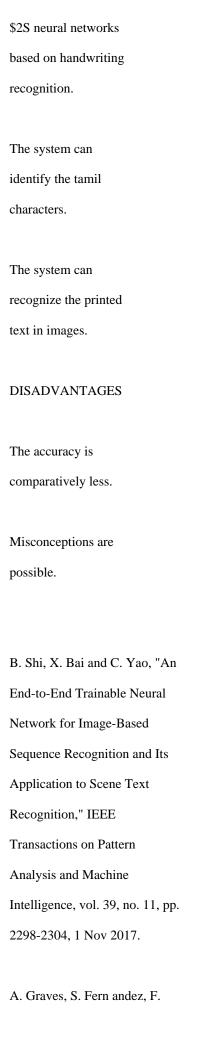
fully convolutional neural patterns. error Is hign.

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Sueiras, J.; Ruiz, V.; Sanchez,

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Handwritten Tamil Character
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System for Handwritten and
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METHODOLOGY
ML - Application
ML - Application
ADVANTAGES
Briefly explains the



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Classification: labelling
unsegmented sequence data
with recurrent neural
networks,― in Proceedings of
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Conference on Machine
Learning. ACM, 2006, pp.
369-376
METHODOLOGY
ML - Algorithm &
Study
ADVANTAGES
The algorithm can be
trained for different
languages.
Briefly explains the
algorithm and it's
working.
DISADVANTAGES
Lack of availability
of data-set of
different
languages.

Gomez, and J. Schmidhuber,

Convolutional! neural network
based early fire detection.
Multimed. Tools Appl. 2019,
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H. Scheidl, S. Fiel and R.
Sablatnig, "Word Beam
Search: A Connectionist
Temporal Classification
Decoding Algorithm,― 2018 16th
International Conference on
Frontiers in Handwriting
Recognition (ICFHR), pp.
253-258, 2018.
METHODOLOGY
ML - Algorithm
ADVANTAGES
Issues and challenges
are discussed
The accuracy is high.
DISADVANTAGES
Time Complexity

Saeed, F.; Paul, A.;

Karthigaikumar, P.; Nayyar, A.

Deep
bidirectional
LSTM
Feature
sequence
Convolutional
feature maps
Convolutional
feature maps
Input image
Preprocessing handwritten images
Handwritten recognition
Optical character recognition
Text to speech conversion
Multilingual translation
Hard Disk: 120 GB
Hald Disk : 120 OB
Monitor : 15― LED
Monton . 1540 LLD
Input Devices : Keyboard, Mouse
Ram: 8 GB
Gpu:4 GB

Operating System : Windows/Linux

Coding Language: Python 3

Web Framework : Flask

Database : Mongodb

Editor : Atom

IDE: Pycharm