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Hello,

The following submission has been edited.

Track Name: ICCITconf2023

Paper ID: 312

Paper Title: Enhancing OCR in Bangla Characters through Image Enhancement and CNN

Abstract:

The focus of this write-up is a novel Optical Character Recognition (OCR) system, uniquely constructed to decode text in poorly lit environments. While OCR systems are extensively utilized to recognize text, they often stumble when faced with poor lighting conditions such as dimness or low light. To combat this, we've introduced a technique incorporating image enhancement methods as an initial step before the images are fed into the OCR engine. Along with this, the system incorporates a Convolutional Neural Network (CNN) to draw out information from the text and subsequently classify it. We've innovatively refashioned the CNN to better interpret textual information from monotonous photographs. The OCR system will be evaluated against other OCR systems to test its efficacy using numerous standard OCR datasets. We aspire to attain a degree of precision that surpasses the capabilities of current systems. Potential uses for this innovative system could range from document processing to digital storage, as well as word recognition in dimly lit conditions. The proposed OCR system has the capacity to enhance data processing and document retrieval efficiency and accuracy by simplifying text reading in suboptimal lighting scenarios. Our study seeks to demonstrate that the OCR system we have proposed is adept at tackling the obstacles presented by low-light conditions and significantly improving text recognition accuracy.

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Authors:

- [md.rakib.hossain@bracu.ac.bd](mailto:md.rakib.hossain@bracu.ac.bd) (Primary)
- [md.jubayer.hossain@bracu.ac.bd](mailto:md.jubayer.hossain@bracu.ac.bd)
- [mohammad.bin.hoque@bracu.ac.bd](mailto:mohammad.bin.hoque@bracu.ac.bd)
- [farhan.ahmed@bracu.ac.bd](mailto:farhan.ahmed@bracu.ac.bd)
- [azaz.ahmed@bracu.ac.bd](mailto:azaz.ahmed@bracu.ac.bd)
- [ehsanur.rahman.rhythm@bracu.ac.bd](mailto:ehsanur.rahman.rhythm@bracu.ac.bd)
- [annajiat@gmail.com](mailto:annajiat@gmail.com)

Primary Subject Area: Pattern Recognition/Tracking

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Submission Files: Enhancing OCR in Bangla Characters through Image Enhancement and CNN.pdf (451 Kb, Tue, 05 Sep 2023 16:52:14 GMT)

Submission Questions Response: Not Entered

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