



PES Institute of Technology
(Autonomous Institute under VTU, Belgaum)
100 Feet Ring Road, BSK III Stage, Bengaluru – 560 085

SRN	1PI14EC045	Name of Student	Pradyumna V Mukunda
Name of the Project Batch of 2018	An OCR System for Printed Kannada Text		
Phase	Individual Contribution		
Feasibility	Already had implemented an OCR system for English text using GNU Octave. Tried to extend on that.		
Phase I	Switched from GNU Octave to Python. Installed Python, Numpy, Matplotlib and OpenCV. Experimented with Template Matching and Feature Extraction using OpenCV in Python		
Phase II	Built an OCR System in Python based on the Template Matching method. Accuracy was horrible. Experimented a lot on this without any success.		
Phase III	Abandoned Template Matching in favour of CNNs. Installed TensorFlow and Keras. After some experimentation, was able to successfully build a high accuracy OCR system in Python based on CNNs.		
Phase IV	Extended the CNN-based OCR System to support vattakshara (subscript) characters and special characters (punctuation and numerals). Experimented and tried to achieve 100% accuracy.		

Signature of Student