

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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KANNADA CHARACTER RECOGNITION

AMELIORATION FOR HANDWRITTEN TEXTS

**A
PROJECT REPORT**

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Communication) of 'Visvesvaraya Technological University'.

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ABSTRACT

Handwritten Kannada, although exhibiting similar inherent characteristics compared with its kin, printed Kannada text, poses a myriad of challenges due to dubious patterns. Hence the prevailing method of two stage segmentation results in a below par accuracy, unsatisfactory for the objective of segmentation. This paper proposes two stage segmentation with rotate and split techniques and a single stage connected component analysis. The proposed method endeavors to achieve an acceptable level of segmentation via the connected component technique. Horizontal and vertical projections are implemented at the line and word segmentation levels. Further segmentation of letters is being enabled through connected component analysis. Separation of base characters and conjuncts are realized by setting thresholds based on their relative placing. Empirical observations pertaining to well aligned samples for time and segmentation accuracy mount to 19 seconds and 93% respectively on an average. The samples, all being restricted to A4 standard.