Character recognition and Period prediction of ancient Kannada Epigraphical scripts

Abstract: Epigraphs are the important source for reshaping the history and the culture of our ancient civilizations. They have a remarkable importance to mankind. In India, the scripts of modern languages have evolved over a period of time and has finally transformed to the present form. Modern epigraphists find it difficult to interpret the scripts of olden days. The characters have changed over the centuries from one form to another. Therefore, for reading ancient scripts the period of that script has to be determined, so as to have knowledge of which character set of ancient days is to be employed for automatic reading. In this paper we demonstrate period identification of various ancient Kannada scripts using advanced recognition algorithms. Proposed algorithm involves various modules including image acquisition, noise removal, segmentation of character sets for feature extraction, classification and recognition of segmented characters. A system is proposed for prediction of the era and it is being done by examining a few characters in Kannada inscription of various periods referred to as test characters. These test characters are sampled from the script automatically and matched with the characters available for different periods using machine intelligence. This classifier is tested on quite number samples of Kannada epigraphical document images belonging to different periods. Issue taken here is to produce a computer perceivable image from a raw epigraphical script and predict the era of ancient script. Prediction of period of ancient scripts is the first step in automatically deciphering epigraphical scripts. Automatic period identification for a given document image, of a script facilitates the selection of the script specific OCR in an environment where scripts of various periods are given as input.

Note: Call for Final year engineering project ask for detailed synopsis for CSE students



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