Recognition of Weak Facial Expressions Based on Decision Tree Votes

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1. Introduction

Recent advances in facial expressions analysis have allowed the development of good systems, which achieve high levels of robustness and recognition rates [1], [2]. Although much progress has been achieved, there are several remaining challenges yet to be solved. One of the remaining problems corresponds to how to recognize weak or non-peak expression images. Peak expressions images are relatively easy to recognize, because peak expressions exhibit the biggest changes in facial features [3]. However, such expressions are often exaggerated, and rarely seen in normal situations, whilst more subtle changes are seen in usual day-to-day life.

Therefore, the objective of this paper was to develop a system which can be used to recognize non-peak facial expressions. Also this study provided a suggestion to the interesting question of until what point it is possible both for humans and machines to discriminate between small level facial expressions. It