Abstract

Finding the best set of gestures to use for a given computer recognition problem is an essential part of optimizing the recognition performance while being mindful to those who may articulate the gestures. An objective function, called the ellipsoidal distance ratio metric (EDRM), for determining the best gestures from a larger lexicon library is presented, along with a numerical method for incorporating subjective preferences. In particular, we demonstrate an efficient algorithm that chooses the best \( n \) gestures from a lexicon of \( m \) gestures where typically \( n \leq m \) using a weighting of both subjective and objective measures.

Index Terms
Selecting a Small Set of Optimal Gestures from an Extensive Lexicon

Keywords
Best Gestures Variable Selection Optimal Gesture Lexicon