

Dumbledore: A Vision Based Attendance Analyzer

Ahmed Alsuwaidi

BSc in Computer Science

ABSTRACT

This paper will introduce and discuss the Eigenface method for facial recognition. It will explore the implementation of the method as well as the benefits and drawbacks of the Principle Components Analysis with regards to facial recognition. The paper will also present Weighted Modular Principle Components Analysis as an improvement.



Figure 1. Eigenface used for recognition.



Figure 2. Face divided into sub regions for WMPCA.

A Alsuwaidi, Dumbledore: A Vision Based Attendance Analyzer, *Proc.* 13th School Conf. for Annual Research Projects, V F Ruiz (Ed), pp. xx–yy, University of Reading, 3rd June 2014.