Abstract

Human beings can easily categorize a person’s age group from an image of the person’s face and are often able to be quite precise in this estimation. This ability has not been pursued in the computer vision community. To address this, the present paper proposes a novel local texture features on facial images that classify adult and child images based on the Morphological
primitive patterns with grain components (MPP-g) on a Local Directional Pattern (LDP). A LDP feature is obtained by computing the edge response values in all eight directions at each pixel position and generating a code from the relative strength magnitude. The local descriptor LDP is more consistent in the presence of noise, and illumination changes, since edge response magnitude is more stable than pixel intensity. The proposed MPP-g is rotationally and pose invariant when compared to pattern trends that represents a shape. The experimental result on FGnet database images shows the efficacy of the proposed method.

Reference

- J. B. Pittenger and R. E. Shaw. Aging faces as viscal-elastic events: Implications for a

**Index Terms**

Computer Science

Pattern Recognition

**Key words**

Morphological primitive patterns with grain components

Local Directional Pattern

local texture features

edge response values