Abstract

Face Recognition is rapidly changing and challenging area from last few decades. It has number of intra-subject variations. Aging is one of the major issues among all intra-subject variations of face recognition. So, Age Invariant Face Recognition is one of the very challenging areas as age cause variations on face. The various approaches related to age invariant face recognition and nonlinear dimensionality reduction was studied earlier in detail. In this paper, the implementation of first module, of one of the recent approach named Nonlinear Topological Component Analysis on Age Invariant Face Recognition is discussed in detail. In
this module the facial features are automatically extracted from facial frontal images. The extracted feature points are placed in latent space which is labeled as ?-encoded face. Thus each point in ?-encoded face is plotted to form ?-shape Tetrahedron

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**Index Terms**

Computer Science
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**Keywords**

Nonlinear Topological Component Analysis, \(\alpha\)-encoded Face, \(\alpha\)-shape Tetrahedron.