A Neural Network based Facial Expression Recognition using Fisherface

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Abstract

Facial expression plays a significant role for human beings to communicate their emotions. Automatic facial expression analysis is a flourishing area of research in computer science, and it is also still a challenge. This paper discusses the application of a natural network-based facial expression recognition using Fisherface. Back propagation neural network is used as a classifier for classifying the expressions. For face portion segmentation and localization, integral projection method is used. The accuracy of system performance has been evaluated on a public database "Japanese Female Facial Expression (JAFFE)". The experimental results show the effectiveness of our scheme. The best average recognition rate achieves 89.20%.

References

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Index Terms

Computer Science
Pattern Recognition
Keywords
Facial Expression  Fisherface  Neural Network  JAFFE