Abstract

This article deals with the combinations basics of Genetic Algorithm (GA) and Back Propagation Neural Networks (BPNN) and their applications in Pattern Recognition or for Face Recognition problems. Images have a huge information and characteristics quantities. Until today, a complete efficient mechanism to extract these characteristics in an automatic way is yet not possible. Referring to facial images, its detection in an image is a problem that requires a meticulous investigation due to its high complexity. Here we should investigate the aspects of genetic in face recognition. Genetic Algorithms (GA's) are characterized as one search technique inspired by Darwin Evolutionist Theory. Genetic Algorithm is efficient in reducing computation time for a huge heap-space. Face recognition from a very huge Heap-space is a time consuming task hence genetic algorithm based approach is used to recognize the unidentified image within a short span of time. BPNN can be viewed as computing models inspired by the structure and function of the biological neural network. See that the training process does not have a single call to a training function, but the network was trained several times on various input ideal and noisy images, the images which contents face. In this case training a network on different sets of noisy images forced the network to learn how to deal with noise, a common problem in the real world. These models are expected to deal with problem solving in a manner different from conventional computing. A distinction is made between
pattern and data to emphasize the need for developing pattern processing systems to address pattern recognition tasks.

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**Index Terms**

Computer Science  
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**Keywords**

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