Abstract

In our daily life human can remember many faces and can recognize them irrespective of illumination, aging, obstructions, variation in views. Most of researchers have worked on the problem of face recognition to develop an automatic face recognition system with capabilities to recognize faces as human beings can do. However, in unconstrained situations where a face may be captured in outdoor environmental conditions, while under changing illumination and pose variations Face Recognition Techniques fails to work. Here, a new face recognition method is implemented based on Gabor filter and Voting based extreme learning machine, it presents an effective algorithm to pose invariant face recognition called as Multi-scale and Multi-orientation face classification using voting based extreme learning machine. In proposed approach, facial features are extracted by applying set of Gabor filters and Local directional Pattern (LDP), then histogram pattern of result is obtained which is subjected to generate distinctive feature vectors and further classified using V-ELM classifier. The application area of Wireless sensor network (WSN) in real time environment are unreliable and inaccessible, leads to degradation of network performance. The major issues of WSN are QoS, power and it is
impossible to access the WSN to change its power capacity. Long -hops transmission i.e. high range communication which provides the QoS with more energy consumption leads to reduction in network lifetime. The paper concentrates on adjustment of power, range and bit rates to attain adaptive topology control (ATC) at physical layer to maintain equivalent QoS. The simulation are carries out by using MIXIM 2.3 framework Omnet++ 4.6. The comparison of QoS for non-ATC and ATC is presented and an improvement of 29 percentage was resulted.

References

15. De Stefano, C., Sansone, C. and Vento M., Comparing generalization and recognition capability of Learning Vector Quantization and Multilayer Perceptron Architectures, Proceedings


Index Terms

Computer Science  Image Processing

Keywords

Gabor filter, Face Recognition, LDP : Local directional Pattern, V-ELM : Voting Based Extreme Learning MachineMIXIM, Power, range and QoS