Abstract

This paper analyzes the Hopfield neural network for storage and recall of fingerprint images. The paper first discusses the storage and recall via hebbian learning rule and then the performance enhancement via the pseudo-inverse learning rule. Performance is measured with respect to storage capacity; recall of distorted or noisy patterns. Here we test the accretive behavior of the Hopfield neural network.

References

5. N. Davey, S.P Hunt, “The Capacity and Attractor Basins of Associative Memory Models”.
23. B. Yegnanarayana, Artificial Neural Networks.

27. M.Brown, J.Austin, “Invariant Pattern Recognition Using Binary Neural Networks”.


33. G. Atithan, “A Comparative Study of Two Learning rules for Associative Memory”,


**Index Terms**

Computer Science Image Processing

**Keywords**

Hopfield Neural Networks, Associative memory, Pattern storage and recall, Finger print images.