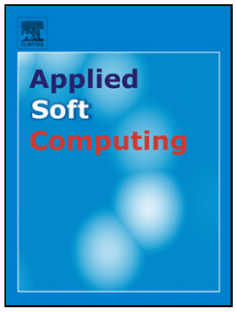

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Development of Associative Memories with Transformed Data

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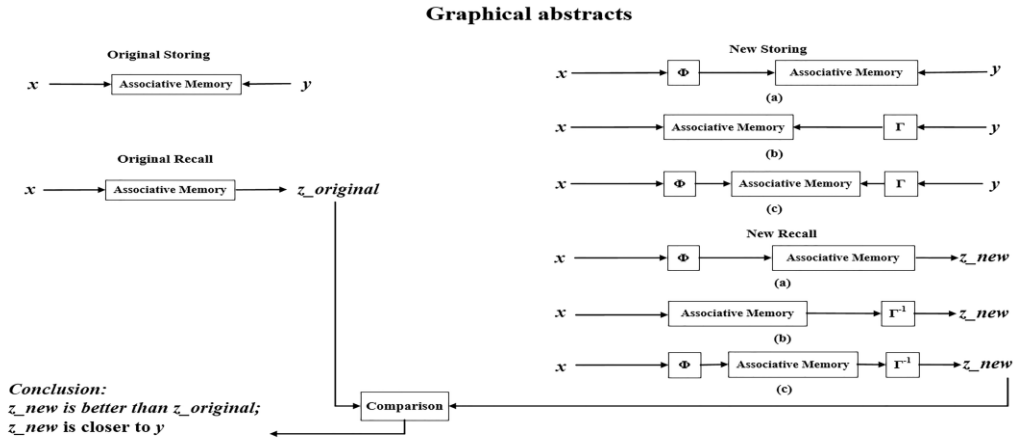
Graphical abstract



Highlights

- This paper arguments the generic architectures by introducing transformations of spaces in which the associated data are defined.
- The enhancements of performance of associative memories is summarized by using nonlinear functions (mappings) of spaces of data to be associated.
- The influence of cutoff points of nonlinear functions is analyzed based on Particle Swarm Optimization.
- The experiments demonstrated that the improvement achieved in this way in the range of 2.3%-41.1% depending upon the number of cutoff points and the type of the associative memory.

Abstract