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The invention relates to the field of neural nets and may be applied for reconstruction and recognition of images. The intelligent processor on base of associative memory for image reconstruction, according to the first variant, consists of the Hopfield associative memory, the Kohonen neural net and the van Neumann memory. According to the second variant, the processor consists of the Hopfield associative memory and a new succession of perceptron espander nets. According to the third variant, the processor consists of the Hopfield associative memory. According to a new succession of perceptron espander nets – Hopfield associative memory. According to the fourth variant, the processor consists of the Hopfield associative memory and a new perceptron compander. The result of the invention consists in the image reconstruction and recognition.

Claims: 4 Fig.: 6