ASSOCIATIVE PROCESSOR FOR SORTING OF DATA ARRAY

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Abstract

In this paper, the principles of realization of associative processing of information based on nonconventional encoding and, in particular, logically-temporal code are developed. The methods of organization of page optical memory, neurocomputers, systems of management by databases and calculating machines using nonconventional architecture by processors using optical and optoelectronic element base are developed. The examples of realization of sorting algorithms both on adaptive neuron network, and on associative processor, aimed at application of the newest achievements in domain of creation of optoelectronic laminated structures are given.

Key-words: associative processor, logical integrated circuit, optoelectronic integrated circuit ,data array sorting and optoelectronic processor.

Summary.

The use of the offered optoelectronic associative processor in composition the optical special processor for data retrieval in holographic SM will considerably extend its functional possibilities due to realization of procedure of data array sorting, which is one of the most difficult operations of the associative data retrieval.