

ABSTRACT

The work contains 89 pages, 27 figures, 4 tables and 52 sources have been used.

Goal: Optimized packet forwarding and data flow management and power consumption reduction for sensor nodes in wireless sensor networks with mobile sensors (WSNMS).

In the course of this work, the intellectual methods of management in the BCMSM are considered. A review of mobile sensor networks. An energy-efficient, intelligent control method in the WSNMS, which consumes less energy than existing methods, is developed. An ant algorithm is optimized for optimizing packet sending and data flow management in the WSNMS.

Keywords: mobile sensor network, information flows, ant method, intelligent control methods, hypergraph, sensor network model, autonomous work of the sensor network, semaphore principle, LEACH.