ABSTRACT

The work contains 92 pages, 43 sources have been used.

Purpose is to analyze existing time synchronization protocols in wireless sensor networks, examine their features, characteristics and trends.

WSN unique properties have been considered, that make it impossible to use synchronization protocols, which are used in conventional wireless networks; the main approaches that are used as base for the development and implementation of new technologies and algorithms for synchronization. There are also have been provided requirements for the synchronization protocols.

A precision synchronization method based on fast and slow local clocks was proposed and refined.

Key words: wireless sensor networks, synchronization, clock, time, unit, sensor, delay.