

Summary

The correlation method of locations acoustic signals have been researched in this master work.

Master work consists of 82 pages, which includes 57 figures, 1 table, 49 references, 2 attachments.

Keywords: mutual correlation function, acoustic wave, shot recording, the signals source.

Main object of this master work is the spreading process of acoustic waves from a shot. The subject of research is the methods and means of increasing the sensitivity of determining the coordinates from impulse noise sources.

Master work consists of an introduction, eight chapters and a conclusion.

Main goals and objectives of development have been described in introduction. The first section devoted to the basic methods of determining the coordinates of signal sources, to considering the existing devices and the development of the block diagram. The second section describes the relevance of research. The third section is devoted to the methods and approaches to detection and recognition of different types audio. The fourth section is devoted to device settlement. The fifth section is devoted to the development of structural and functional diagrams, time diagrams and operation algorithm. In the sixth section performed simulation of calculation delay using mutual correlation function. The seventh section is devoted to the selection of components. The eighth chapter is devoted to errors calculation.

Results of research and the basic opportunities for further research have been presented in conclusion.