

**Abstract**

In this thesis the OFDM technology which is used in fiber-optical networks will be investigated. OFDM (English Orthogonal frequency-division multiplexing with orthogonal frequency division of channels) is the digital scheme of modulation which uses a large number of close located orthogonal subbearing. In the section safety of activity the assessment of illumination and possible extreme cases will be considered.

In the section safety of activity will be considered process of an exchange of air in the operator room and possible extreme cases.

In economic part costs of the equipment, of payment of work of staff are calculated. The analysis of term of payback and economic efficiency of the wireless OFDM technology is carried out.