Abstract

This diploma project provides for the effective organization of a 5G network based on SON technology, the structure and characteristics of the system. The technical part of the paper provides requirements, capabilities, standardization and research programs for 5G, as well as comparative examples with 4G. Using this data, we calculated the maximum speed and spectral efficiency of 5G radio interface data transmission and path loss. The section on life safety provides for the application of measures for labor protection and harmful industrial factors, natural lighting, fire safety systems and air conditioning systems. The economic section shows the cost of telecommunications tools and equipment, developed production and financial plans, and shows the economic efficiency of cash income