## Annotation

This graduation project is building a network based on GPON technology. The technical part discusses the technology, architecture, and the main parameters of the GPON network. The network throughput was calculated, and the number of subscribers that the planned network can service was calculated. In the economic part, the project was technically and economically justified, and the payback period of the GPON network construction project was also calculated. In the section of life safety, industrial lighting is designed.