

عنوان مقاله:

An overview of the effect of design on the cableway load

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خلاصه مقاله:

In this paper, we examine the optimal design method of a single-cable freight rope to reduce its manufacturing cost. It can be understood that the pitch and height of the middle support, the main tensile force of the load-bearing ropes, is the main factor in increasing the cost of the cable car. A nonlinear optimization method is determined by the above factors, ensuring the minimum cost of a cable bundle with a maximum design capacity of up to ۶۰۰ tons per hour. The purpose of optimization is examined by considering the limitations of design, assembly, deformation, and strength. The criteria for changing the optimal parameters of the intermediate supports and ropes carrying the load and tension were shown in changing the design capacity of a cable road based on the analysis of the calculations performed. The results of this optimization work will significantly reduce the cost of building freight air railway

کلمات کلیدی:

ropeway, optimal design method, cable design, railways

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