عنوان مقاله:

Superior Modeling of Hard Rock TBM Performance Using Novel Predictive Analytics Methodologies

محل انتشار:

سومین کنفرانس بین المللی پژوهش های کاربردی در مهندسی سازه و مدیریت ساخت (سال: 1398)

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خلاصه مقاله:

In the past decades, TBM performance analysis takes paramount importance among several project management and underground space technology problems on account of its impact on cost estimation, time planning, efficiency improvement and other relative issues. The main aim of this paper is to propose new superior equations for TBM performance prediction in hard rock conditions. The Gene Expression Programming (GEP), and models through the Imperialistic Competitive Algorithm (ICA), are developed in this study, as novel predictive analytics methodologies. The proposed models of this study improve the accuracy of predictive equations developed through a database of TBM performance in one of the most complex tunneling projects in the world.

کلمات کلیدی:

Performance prediction, Tunnel boring machine (TBM), Predictive modeling, Gene expression programming (GEP), Imperialist competitive algorithm (ICA).

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