

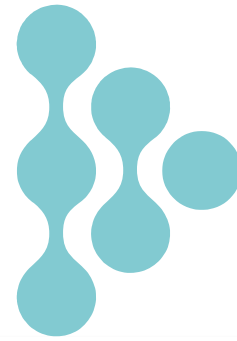


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The mining method of anti-electromagnetic interference for electronic equipment in coal mine by considering network communication technology

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Abstract

It is impossible to analyze the harmonic interference source due to the influence of electromagnetic sensitivity when the original mining method of anti-electromagnetic interference for electronic equipment in coal mine is used., there is a problem of low wireless transmission rate of underground data. Therefore, a kind of mining method of anti-electromagnetic interference for electronic equipment in coal mine considering network communication technology is proposed to prevent electromagnetic interference, provide technical support for coal mine safety production. Firstly, harmonic interference source analysis is carried out, including harmonic analysis, input side interference source analysis and output side interference source analysis. Then the over-voltage of the motor terminal is carried out. The specific steps include using the cable transmission line model with distributed parameters to simulate the voltage of the motor terminal, and analyzing the voltage reflection process. Finally, based on the network communication technology, the supporting equipment of the comprehensive mining face is

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designed to realize the anti-electromagnetic interference mining of the underground electronic equipment. The experiment results show that the wireless transmission rate of underground data of the presented method is higher than that of the two original methods, and the rate is improved.

Keywords

Author Keywords: [Network communication technology](#); [Anti-electromagnetic interference](#); [Mining](#); [Underground electronic equipment in coal mine](#)

Keywords Plus: [SYSTEM](#)

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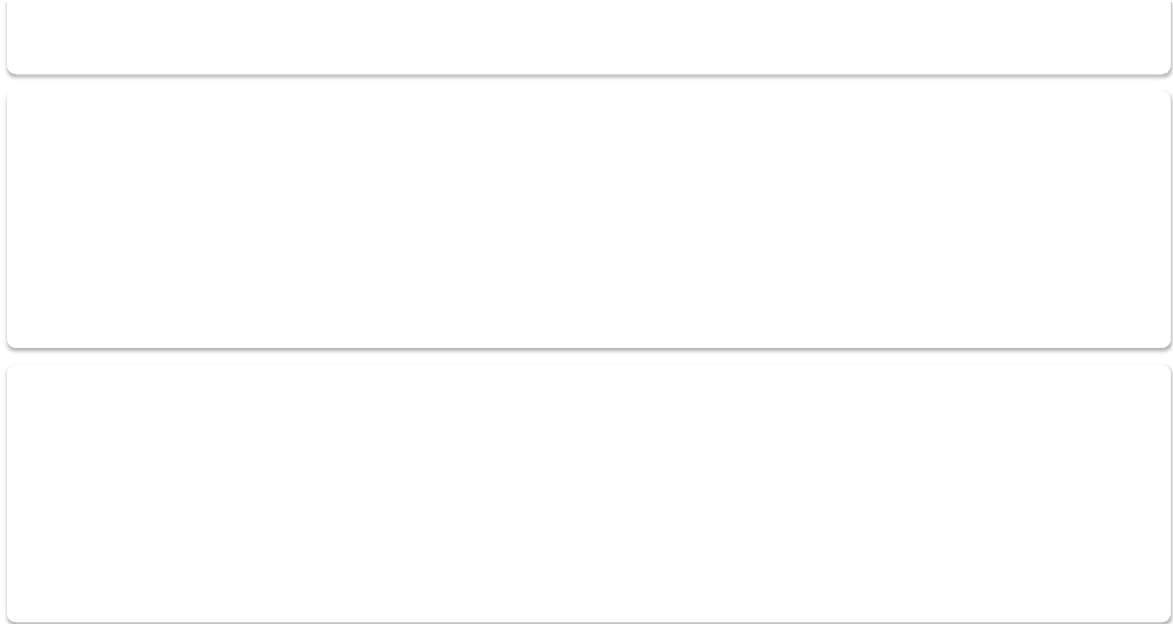
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