

Intelligent management of the energy in copper mining, using predictive supervision systems

Lagos C.

Duran C.

Carrasco R.

Constanzo R.

Sepulveda J.M.

In this work it is analyzed the case of Great Mining Chilean Enterprise show at present, due to the sustained increase of the energetic costs that in the last years have generated a decrease of the profitability. As a solution, it is proposed the creation of an intelligent system of management and supervision, that can predict the energetic consumption of electricity in a copper productive process of a concentrator plant. Based on the results found. The interview to experts and the protocols, it is generated a conceptual model for a system of intelligent management in mining (SGEP-M) that has an architecture that integrates the management software that mining uses (PI System) to a supervision system in real time that allows engineering decision making of short, medium and long term. It is proposed the implementation of a process of management and efficiency of electric energy for the SGEP-M system. © 2018 IEEE.

energy management

mining industry

supervision system

Copper

Decision making

Energy management

Intelligent systems

Mineral industry

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Conceptual model

Electric energies

Energetic costs

Engineering decision making

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Management software

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