

INFORMATION TECHNOLOGY FOR CONTINUOUS MONITORING OF HORIZONTAL RIDE QUALITY OF MINE HOISTING VESSELS IN VERTICAL SHAFTS WITH RIGID REINFORCEMENT

Areas of Application

The technology is to be used in digital electronic complexes for continuous monitoring of dynamic interaction of hoisting vessels with rigid reinforcement of mine shafts

Specification

The technology is based on automated processing of data from digital controllers for the measurement of vibration accelerations of mine skips, cages, and counterweights of hoisting plants. The technology includes methodology and software installed on hoist operator's workstation. Hardware technical support is provided by *Alliance-D* (Ukraine)

Advantages

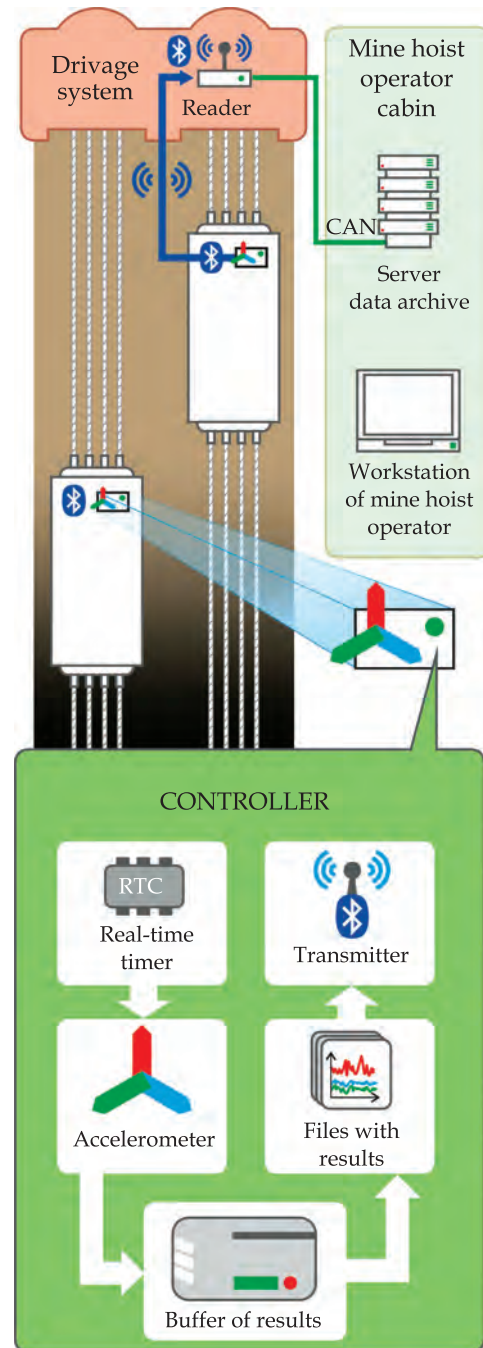
Unlike the similar technologies, this one enables continuous monitoring of the intensity of dynamic interaction of lifting vessels with shaft rigid reinforcement; localization of steps on the joints of conductors and local deviations from vertical orientation of conductors; monitoring of roller guides; localization of shock-cyclic load sections of higher-level conductors; monitoring of vertical oscillations of vessels and dynamic strains in main ropes; and automated generation of recommendations on the localization of reinforcement breaks at early stages of defect emergence

Stage of Development. Suggestions for Commercialization

IRL3, TRL3
The technology and equipment are provided and customized at user's site, upon request

IPR Protection

IPR1, IPR2



Flowchart of technology for continuous monitoring of horizontal ride quality of mine hoisting vessels in vertical shafts with rigid reinforcement

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