PDE-MODEL FOR CONTROL OF COMPOSITE PRODUCTION CONVEYOR LINES

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This report represents mathematical modelling of composite production conveyor lines. The model of control of modular conveyors (Fig.1) in partial derivatives is proposed and reviewed. The problem of optimal control of conveyors with leading and driven lines is formulated [1]. Advantages of application of PDE-model for control of composite conveyors are investigated in detail [2]. An equation of labor object movement in the state of space is considered. The key parameters of the regulation of the composite conveyor lines for reaching optimal control are set out. The dependence of the duration of production on the distribution of objects of labor along a conveyor line at a point in time based on PDE-model is built. The development of control systems of the flow line with regulated speed of movement of labor subjects due to the researched method is certain.

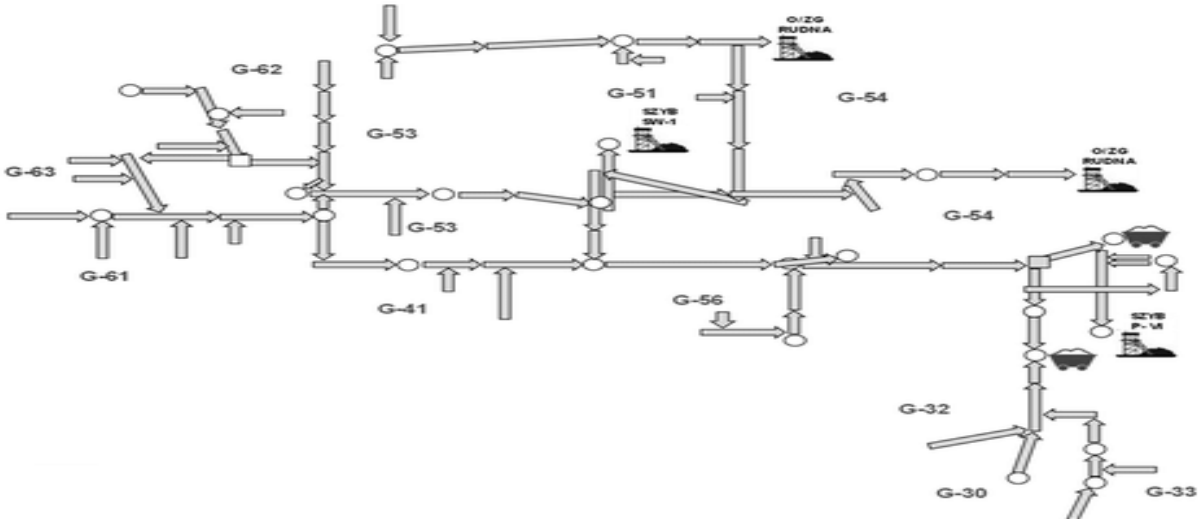

Fig.1. Scheme of a composite production conveyor line [3]

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