# N.J. Adilova

# MATHEMATICAL ALGORITHMS FOR OPTIMIZING RAIL TRANSPORT





# AI-FARABI KAZAKH NATIONAL UNIVERSITY

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In this paper, the requirements for intra-factory transportation are developed, which allow optimizing the turnover time of cars in the conditions of the ArcelorMittal Temirtau metallurgical plant, a method for optimizing internal transportation of metallurgical products and a simulation model of train processing technology using probabilistic methods are developed.

The monograph by the author Adilova N.J. (chapters 1-5) is intended for scientific and technical workers and specialists working in the field of logistics, and can also be useful for undergraduates and doctoral students in the field of training «Transport services».

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## **DEFENITIONS AND ABBREVIATIONS**

AMT - «ArcelorMittal Temirtau»; JSC - Joint Stock Company; EUD - emergency unloading device; ESTS - external serving transport system; MPC - mining and processing complex; Dmc. - dump cars; SPA - station post attendant; DST - diagnostic scanner tester, used to diagnose malfunctions of various electronic systems in transport; SD - shunting dispatcher; STP - a single technological process; IOD - iron ore department; INTO - shops for the shipment of finished products; ICARM - shops with the highest intensity of consumption of available raw materials; CCh - contact chart; KMP - Karaganda Metallurgical Plant; PFS - press-forging shop; KSD - coke sorting device; SRS - sheet-rolling shop; LS - logistics systems; MLP - main line production; MRN - main railway network; CCM - continuous casting machine; LP - local park; MRS- mainline rolling stock; NC «KTZ» - National Company «Kazakhstan Temir Zholy»; CSCS - continuous steel casting section; Department of TLCCW - Department of transport logistics, commercial and cargo work; OTC - operational-technological communication; RHAP - receiving hopper for agricultural production; PVC - polyvinylchloride; IRT - industrial railway transport; PA - production association; IRTE - industrial railway transport enterprise; PD - Production Department;

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