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**INTEGRATED SYSTEM OF MONITORING AND CONTROL
FOR HEATING SYSTEM OF INDUSTRIAL COMPANIES BASED
«INTRANET» TECHNOLOGY**

Аннотация: в данной статье рассматривается вопрос экономической эффективности интегрированной системы мониторинга и управления системой отопления производственного предприятия на основе «Intranet» технологии.

Ключевые слова: Intranet, интегрированная система управления, автоматическая система управления, ИСМИУ.

Abstract: in this article economic efficiency of integrated system for monitoring and control the heating system of industrial companies based on the «Intranet» technology was considered.

Keywords: Intranet, integrated system for monitoring and control, automated system for monitoring and control, factory automation control system.

The problem of energy saving and energy efficiency is relevant worldwide. So, at the 63rd session of the General Assembly, «the United Nations», held in New York, energy problems were announced. Over the past few years, there is a systematic work in the field of energy saving and improving energy efficiency in various sectors of the Russian economy [1; 2]. In the industry share of fuel and energy costs are between 15% and 40% of production cost (excluding the cost of raw materials) [3]. If to look

on the data of the Ministry of Energy, heating of industrial premises is from 30% to 60% of energy, depending on the scope of the company [4].

Overspending energy is associated not only with the design feature of the production facilities, but also with the lack of optimal control of heating system (HS) [5]. Thus, the task of creating an optimal conservation management of heating systems in the production is of great importance.

To assess the cost-effectiveness of an integrated monitoring and control system (IMACS) conducted comparative analyzes of investment and operating costs of possible HS of production area in furniture company «SMK». The assets of the company are industrial building 700 m², number of working staff of 10 people. The study examined the heating systems using next energy sources: coal, electricity. With electric heating proposed to use infrared local heating system running IMACS.

Table 1

Operating and investment costs

Name	Investment expenditures, thousand rub.	Operating expenses, thousand rub.	Total:
Coal heating	628.346	498.791	1.127.137
Electrical heating	351.567	341.456	693.023

Compared with coal HS, costs are reduced by half, energy costs by 15% -35%, the life of the process equipment are extended, product quality are improved, comfortable environment are created for workers.

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