Automated Systems for Organizing and Managing the Energy Supply System

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key words

ASME, control objects, optimization, architecture of system, server, controllers

The use of an automated power supply management system of an enterprise is an integral part of any enterprise, in connection with the optimization of the use of electricity and labor, as well as control over energy supply. The problem of using and installing such systems attracts more and more specialists, that is, more and more personnel are required who are able to build such a system with high quality, while giving all quality guarantees. Currently, some enterprises in Russia have problems with setting up and installing automated control systems, as previously there was a dependence on foreign software manufacturers. One of the replacements for foreign software was the domestic software and hardware complexes NEVA and GC Tekon.

In conclusion, we have shown that the analysis of industrial enterprises using automated control systems made it possible to identify other automation systems, what are used, shortcomings and some ways to solve these shortcomings for current automated systems.

References

1. Barilenko V.I. Complex economic analysis of economic activity, Moscow, *Yurayt*, 2020, 456 P.
2. Malysheva T.V. Resource-saving production systems. Information flow management, *Kompetentnost'*, 2020, no. 4, pp. 24–27.
3. Isaev V.P. Ways to create and develop domestic automated control systems; http://viperson.ru/articles/isaev-vladimir-petrovich-puti-sozdaniya-i-razvitiya-otechestvennyh-asu (acc.: 9.12.2022).
4. Lin'kov A.O. Conceptual foundations for the creation of automated control systems for the energy supply of an industrial enterprise. Automation in industry, *Service in Russia and abroad*, 2019, no. 2(12), pp. 80–88.
5. Tobokov R.V., Ignat'ev I.V. Methodical bases of creation of systems of automated control of power supply industrial enterprise, *Proceedings of Bratsk state university*. *Series: Natural and engineering sciences*, 2020, vol. 1, pp. 41–43.
6. Kudinova A.A. Introduction of an intelligent electricity metering system in industry, *Young scientist*, 2022, no. 50(445), pp. 20–22; https://moluch.ru/archive/445/97664/ (acc.: 15.12.2022).
7. Automated systems for monitoring and accounting of energy carriers at industrial enterprises; https://www.studmed.ru/view/avtomatizirovannye-sistemy-kontrolya-i-ucheta-energonositeley-askue-na-promyshlennyh-predpriyatiyah_e7ecd8607cc.html?page=1 (acc.: 15.12.2022).
8. Terekhova A.A., Dmitrievskiy B.S. Automated control system of electric power system operation modes, *Energy saving and energy efficiency in technical systems: col. of articles*, Tambov, *TSTU*, 2021, pp. 22–23.
9. Lakhov Yu., Osipov N., Solov'ev S., Korshakov V. Automated power management system of the DORP LLC KINEF, *Modern automation technologies, MAT magazine*, 2015, no. 2, 86 P.
10. Goryachko D.G., Artyukh A.O., Shipul' R.A., Burlyuk V.V. ASMAE of industrial enterprises — implementation experience, *Electronics info*, 2021; https://agat.by/upload/statii_files/files/ASKUE%20promyshlennyh%20predprijatij%20-%20opyt%20vnedrenija.pdf (acc.: 19.12.2022).