

Секція:

Інженерія продукції

UKD 621.326

Stein D.

Akademia Górniczo-Hutnicza im. Stanisława Staszica w Krakowie

PROBLEMY I ZADANIA SIECI PRZEMYSŁOWYCH

Kierownik naukowy: dr hab. inż. prof. nadzw. Kubiński W.

Stein D.

AGH University of Science and Technology

PROBLEMS AND TASKS OF INDUSTRIAL NETWORKS

Supervisor: dr hab. inż. prof. nadzw. Kubiński W.

Słowa kluczowe: Sieci przemysłowe, komunikacja

Keywords: Industrial networks, communication

Production lines are very advanced systems composed of many different elements. Their functioning, efficiency and security depend on the communication of all the subsystems which are the parts of the production line. Industrial networks allow fast transmission of necessary large data to ensure production continuity.

I will present the history of networks used in production lines from the first industrial networks standards like ModBus to the new ones, for example Industrial Ethernet. Moreover, I will show you not only their types, the advantages and disadvantages of used solutions, but also the tools that help organising them.

New communication standards also bring new problems to solve, such as security. We can connect more than one production line with the bigger network of lines but we must carry more about security of networks because many systems are connected with the Internet.

We use better standards for production lines to make them faster, more safe and more efficient. I will also mention the problems in their development and future of Industrial Communications systems.