

## ABSTRACT

The diploma project is executed on 62 pages and contains 24 drawings, 3 tables, 3 graphic part sheets A1 and 1 attachment.

The purpose of this diploma project is the development and research of the electric drive of the hot-rolled machine, the deepening of knowledge in the field of the theory of automated electromechanical systems and the development of professional skills.

In order to achieve this goal, the following main tasks were solved: an analytical review of the hot-rolled machines was carried out, the calculation of power and the choice of the electric motor of the machine, as well as the frequency converter, the system of vector control of the electric drive was investigated and designed.

The calculation and implementation of this diploma project were provided using the following programs: MATLAB, Microsoft Office Word, Microsoft Office Visio.

**INDUCTOR, HOT-ROLLED MACHINE, ASYNCHRONOUS MOTOR,  
FREQUENCY CONVERTOR, VECTOR CONTROL, SYNTHESIS OF THE  
CONTROL SYSTEM, MODELING, AUTOMATION**

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| Затверд. |   | S.Peresada |      |   | Electric drive of the inductor<br>of the hot-rolled machine.<br><i>SUMMARY</i> |      | NTUU «Igor Sikorsky Kyiv<br>Polytechnic Institute», <i>FEA</i> |  |
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