To the 60-anniversary of the Institute of Electrodynamics NAS of Ukraine

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Turning over pages of history

The history and achievements of the Institute of Electrodynamics of NAS of Ukraine, connected with formation and development of power engineering, electrical engineering, power machine building of Ukraine and prospects of its development, are briefly described for 60 years of its existences.

Conversion of electric energy parameters

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Development of investigations on conversion and stabilization of electromagnetic energy parameters in the Institute of Electrodynamics NAS of Ukraine

A retrospective view of investigations development on conversion and stabilization of electromagnetic energy parameters in the Institute of Electrodynamics of NAS of Ukraine for 60 years is presented.

Electromechanical energy conversion

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Increase of efficiency and reliability of electromechanical energy conversion

A brief review of achievements of one of the most authoritative scientific schools in the country in the field of electromechanics is presented. Development of new ideas, conduction of theoretical and applied studies are connected with a stage-by-stage growth of staff and requirements of economy. The prospects of further investigations in this branch of science are outlined.

Electric power systems and installations

STOGNIY B.S., Academician of NAS of Ukraine Institute of Electrodynamics NAS of Ukraine, Kyiv On the ways of electric systems automation

A retrospective view of creation and development of the department of electric systems automation, its

achievements in development and construction of different kinds of management engineering of electric units and its wide application to practice of power systems of Ukraine operation are presented.

KYRYLENKO O.V., Academician of NAS of Ukraine, BUTKEVICH O.F., Dr. Sc., DENYSJUK S.P., Dr. Sc., LEVITSKY V.G., Cand. Sc., RYBINA O.B., Cand. Sc., Institute of Electrodynamics NAS of Ukraine, Kyiv

Information and intelligent processing of control systems in a power industry: some results for the last years

The problems of intelligent processing of a supervisory operation system and solution of a problem of electromagnetic compatibility for power installations are considered. A review and analysis of the developed systems of operations staff support in a decision making and an instrumental IST-system, as the most characteristic developments of the department for the last years, are made.

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Problems of management of modern electric networks modes

Factors determining a choice of management methods of modern electric networks modes are considered. Systematization of optimization problems is executed, their connection with secure safety is shown. Results of investigations in the field of analysis of steady states of electric networks of different level of hierarchy are given, recommendations for abnormal modes correction and their introduction into a permissible field are made.

AVRAMENKO V.M., Dr. Sc., KRYLOV V.O., Cand. Sc., PRYCHNO V.L., Cand. Sc., CHERNENKO P.O., Cand. Sc., Institute of Electrodynamics NAS of Ukraine, Kyiv

Problems of simulation and management of electrical power systems modes

The review of theoretical and practical results in creation of simulation methods and software of supervisory control automation of electrical power systems obtained by the authors of the department of analysis of electrical power systems modes of the Institute of Electrodynamics of NAS of Ukraine from the beginning of 80th till the present time is presented.