

Koval Vadim Petrovich, Ivasechko Roman Romanovich, Kozak Katerina Mykolajvna. **ENERGETIC EFFICIENCY OF FLAT SOLAR PANELS POSITION SYSTEM.....2**

The principles of arrival of solar energy at the solar panel are established. This panel is permanently installed and positioned by the position system perpendicularly to the solar radiation. The dependency of energy arrival at the flat receiving terminal from the radiation arrival angle and protective glass optical properties during the day is studied. The calculations of the dynamics of changes in energy value arriving during the day at the flat surface of the solar panel in the city of Ternopil were made due to the type of permanent or automatic position systems against the position of the sun. The algorithm of calculating the relative energy consumption in permanently installed solar panels compared to the orientation of their position system was offered. It enabled to find such descent angle that proves the smallest alterations in the relative energy consumption during the year.

Keywords: solar panel, energy, positioning system.

Bolotskikh Nikolay Stepanovich. **WATER DECREASE BY PRODUCTION OF EMERGENCY RECOVERY OPERATIONS ON WATER DISPOSAL NETWORKS IN THE CONDITIONS OF DENSE CITY BUILDING.....11**

The new universal station of vacuum waterdepression PUVV-5MEA with automated control system and experience of its application is described.

Key words: waterdepression, station, automated control system.

Bobukh Anatoliy Alekseevich, Kovalyov Dmytriy Aleksandrovich, Dzevochko Alexander Mikhajlovich, Klimov Andrii Aleksandrovich, Podustov Mikhail Alekseevic. **ADAPTIVE ALGORITHM OF DUAL-MODE CONTROL BY NON-STATIONARY OBJECTS OF INDUSTRY AND MUNICIPAL ECONOMY.....17**

The adaptive algorithm of dual-mode control, providing the increase of antijammingness at the arbitrary law of distribution of hindrances and fast-acting at a control by non-stationary objects, is worked out in the article. The worked out algorithm it is expedient to use for development of computer-integrated control system the technological objects of industry and municipal economy.

Keywords: adaptive algorithm, computer-integrated control system, technological object, microprocessor comptroller.

Nemirovskiy Ilyya Abramovich, Ovsyannikova Irina Mikhaylovna. **PRICE FORECAST FOR ENERGY AND HEAT.....26**

The tightness with respect to tariffs for thermal energy for domestic consumers and tariffs for natural gas and electricity to heat generating companies are identified. In addition, analysis of data on tariffs for natural gas and electricity for the past 12 years are analyzed. Also, according to our data, the possibility of the level of prices for these energy resources for the next 8 years, until 2020 are shown. On the basis of this shows the level of prices for thermal energy for domestic consumers until 2020 are shown too.

Key words energy resources, energy, forecast, rate.

Sapryka Alexander Viktorovich, Cherenkov Aleksander Danilovich. **ANALYSIS OF THE WORK OF CONTEMPORARY ENERGY-SAVING LAMPS.....32**

Work of modern energy-saving low-pressure lamps. The use of modern light sources will improve the quality of lighting, increase the level of the average illuminance on the object, as well as significantly reduce the power consumption, which will optimize the performance of the lighting industry.

Keywords: energy saving, lighting systems, modernization, fluorescent lamps.

Power engineering

Podkopay Viktoria Nikolaevna, Ganzha Anton Nikolayevich. **SIMULATION OF THERMAL STATE AND EXPERT EVALUATION OF HEAT LOSSES OF HEATING MAINS PIPELINE BASED ON THE ACTUAL CONDITIONS OF THEIR INSULATION.....35**

An analytical solution of the mathematical model for determining the actual heat loss through the insulation of pipelines with a damage of the insulating layer is proposed. The algorithm for determining the resulting heat flow for the entire pipeline with damaged insulation is constructed, taking into account the share of damages and their quantity. This allows to spend the expert evaluation of heat loss. The zones of influence the damaged area on the value of heat loss are found, the coefficients of increase of heat flow are set.

Mysak Stepan Josifovych. **THE METHODOLOGY OF THE DETERMINING OF "THE BALL BOOT AND THE SPECIFIC FUEL GRINDING MILL BALLS MSC 370/850 (SH-50A) COAL-FIRED THERMAL POWER BOILERS.....41**

The method of determining "the ball boot and specific consumption of grinding balls mill type MSC 370/850 (SH-50A) pulverized coal boiler units of 300 MW" is analyzed. The corrected coefficients to "specific fuel balls" which take into account the changes in the fuel quality, the wear-off of the metal of the grinding balls and various other factors, are determined.

Key words: "ball mill drum, grinding balls, ball load, the specific fuel balls."

Economy, organization and management

Mekhovich Sergey Anatolevich . **THE MODERN VIEW OF THE NATURE OF THE REGIONAL INTER-SECTORAL LINKAGES.....49**

Based on the analysis of scientific concepts formation of cooperative ties between industry formed the modern view of the nature of the regional inter-sectoral linkages and developed their classification on the basis of the use of cluster technology.

Key words : regional inter – industry linkages , integration processes, technology platforms, public –private partnerships, technological reengineering technology transfer.

Scientific and technical progress and efficiency of production

Kundenko Nikolay Petrovich. **METHODS OF MEASUREMENT ELECTROPHYSICAL CHARACTERISTICS OF BIOLOGICAL OBJECTS.....59**

The analysis of the use of resonant systems for the measurement of electrical properties of substances with large losses in the shortwave part of the millimeter and submillimeter ranges by using adequate this wavelength range.

Keywords: object, resonator, methods, range, losses, quality factor, electromagnetic waves.

НКРЭКУ СНИЗИЛА ДЛЯ «ЭНЕРГОРЫНКА» НА ФЕВРАЛЬ ЦЕНУ ЗАКУПКИ ИМПОРТИРУЕМОЙ ИЗ РОССИИ ЭЛЕКТРОЭНЕРГИИ НА 2,35% ДО 830 ГРИВЕН/МВт·ЧАС

Национальная комиссия, осуществляющая государственное регулирование в сферах энергетики и коммунальных услуг, снизила для государственного предприятия "Энергорынок" на февраль цену закупки импортируемой из России компанией "Укринтерэнерго" электроэнергии на 2,35%, или на 20 гривен/МВт·час до 830 гривен/МВт·час (без НДС) по сравнению с январем.

Об этом говорится в постановлении регулятора №102 от 31 января.

Цена закупки установлена на период с 1 по 28 февраля 2015 года.

Как сообщало агентство, НКРЭКУ установила для государственного предприятия "Энергорынок" на январь цену закупки импортируемой из России компанией "Укринтерэнерго" электроэнергии в размере 850 грн/МВт·час (без НДС).

Дополнительная информация на эту тему – Интерфакс-Украина, 05.02.2015 «Украина в январе импортировала из РФ около 380 млн кВтч электроэнергии». Украина в январе 2015 года импортировала из России около 380 млн кВт·ч электроэнергии, сообщил министр энергетики и угольной промышленности Украины Владимир Демчишин на пресс-конференции в Киеве. По словам В.Демчишина, действующий контракт предусматривает поставки до 1 млрд кВт·ч электроэнергии ежемесячно, но Украина намерена приобретать исключительно необходимые объемы.

В конце декабря 2014 года ОАО "Интер РАО" и ГПВД "Укринтерэнерго" заключили договор на экспорт электроэнергии из ЕЭС России в объединенную энергетическую систему Украины. Годовой контракт вступил в силу с 30 декабря 2014 года и предусматривает равномерный график поставок объемом до 1,5 ГВт.

Украина в 2014 году импортировала 178 млн кВт·ч электроэнергии из России, что в 4,6 раза больше, чем в 2013 году, в том числе в декабре импорт э/э из РФ составил 93,2 млн кВт·ч.

Интерфакс-Украина, 05.02.2015