

Blockchains are design-safe and an example of a distributed computing system with high fault tolerance. Therefore, a decentralized consensus was achieved with the help of a blockade. The blocking time is the average time it takes for the network to generate one additional block in the flowchart. Some block chains create a new block as often as every five seconds. By the time the block is complete, the attached data becomes checked. This is practically the case when a cash transaction occurs, so a shorter lock time means fast transactions.

The Bitcoin, created in 2009, was the first decentralized cryptography. Since then, many other crypto foreigners have been created. They are often called altcoins as a blend of alternative coins.

Bitcoin is a crypto currency and payment system around the world. This is the first decentralized digital currency, as the system operates without a central bank or a single administrator. The network is peer-to-peer, and transactions occur between users directly, without the intermediary. The bitcoin was invented by an unknown person or a group of people called Satoshi Nakamoto and released as an open source software in 2009.

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## **COAL INDUSTRY OF UKRAINE: CURRENT STATE AND PROSPECTS OF DEVELOPMENT**

The Ukrainian economy is experiencing crisis times, conditioned both internal and external factors. The reforms introduced by the Government provide for changes in all spheres of social life. In particular, economic reforms are aimed at the energy sector and industrial development.

Ukraine takes the first place in Europe in the quantity and quality terms of mineral deposits and one of the leading places for coal mining, iron ore extraction and of manganese ores extraction, ores of non-ferrous and rare metals etc. Therefore, the mining industry development is the priority directions of the economy effective functioning.

The coal industry of Ukraine consists of private and state sectors. Among the first one, the largest players are the DTEK Group (DTEK Pavlogradugol, DTEK Dobropillyugol, etc.), PJSC Krasnodonugol (part of the Metinvest Group), PJSC Shakhtoupravlenie Pokrovske and others. Among the state sectors the largest enterprises are the state enterprises "Lvivvugillya", "Selidivugollya", "Krasnoarmeyskvugillya", Lisichanskugol ", etc.

One of the reasons inhibiting the development of the coal industry is the situation prevailing in the eastern regions of the country, as the most mining mines are located in this territory.

As the result there is a negative dynamic in the mining industry – a reduction of 5.8%. In 2017 the coal production decreased by 14.6%, including energy coal (by

14.8%) (share in coal mining – 80.5%) and coke production by 13.4% (19.5%) [ 1].

According to the expectations of the Ministry of Economic Development and Ukrainian Trade in the first quarter of 2018, the energy complex will operate in conditions of gradual diversification of supply sources of raw materials energy [1].

The Government has taken the first steps towards a comprehensive solution to the problem issues of the coal industry functioning, the systematic measures implementation to use its potential for increasing the volume of coal production, growth the efficiency of coal mining enterprises, while solving the environmental and social problems of mining regions and creating favorable investment conditions. The concept of reforming and developing the coal industry for the period up to 2020 (the order of the Cabinet of Ministers) was approved for privatization of mines Ukraine dated May 24, 2017, No. 733) [2].

Consequently, take into account the current state of the coal industry, we can summarize that there are the following directions such as: state support for prospective mines, liquidation optimization of loss-making state coal mining enterprises, improving the state development programs, investing the new technologies, renewal of fixed assets, attracting foreign direct investment, increasing investment to the enterprises attractiveness of the economy state sector for coal production. The improving and developing each of them will help to increase the mining industry amelioration of our country.

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## **APPLICATION OF ARTIFICIAL INTELLIGENCE IN DIFFERENT SPHERES OF HUMAN ACTIVITY**

Every day artificial intelligence (AI) become more and more real. Today there are many articles in scientific journals about its development and many films or books about evolved AI. Many people believe that this technology is specific, but that is incorrect. The term “artificial intelligence” implies a bunch of technologies for creating intellectual machines, which could make decisions and research the world in the common way, similar to the human brain but much faster, to some degree.

Nowadays there are some intellectual systems designed to the narrow area of application. For example, there are programs that make use of AI for creating voice recognition systems, game intellectual systems, text correction systems, etc. Here some fields of use AI: finance and economics, health care, industry, customer support services and searching services, entertainment, transportation, science, etc.

In finance and economics, AI allows the owner to buy shares when they are the most profitable and sell them when they begin to collapse, so it is well-defined. In addition, in economics, AI can predict exchange rates, share prices for next several days and analyze incomes and expenses for some period.

At health care AI can help doctors in their professional activity, it can include: