

in der Programmiersprache Python und durch Einsatz von Computer Vision Algorithmen Bibliothek Open CV verwirklicht wurde. Beim Training fürs Experiment ist es gelungen, 30 Stufen der Kaskade zu erreichen: das hat die erfolgreiche Detektion der Gestalten von Autos erwiesen, die der im Voraus trainierten Gestalt ähnlich sind. Jedoch für die Detektion aller Autos auf den Videostream-Bildern wäre es sinnvoll, die Kaskaden-Klassierer-Basis zu erweitern und dabei die größere Anzahl von verschiedenen Fahrzeugtypen zu beachten.

Es ist offensichtlich, dass die verbesserte entwickelte Software bei der Einführung des intellektuellen Transportsystems für die Erkennung der Fahrzeuganzahl, die an einer roten Ampel stehen, verwendet werden kann.

#### *literaturverzeichnis*

1. Воробьев Э.М. АСУ дорожным движением: монография / Э.М. Воробьев, Д.В. Капский. – Мн.: УП НИИСА, 2005. – 88 с.

2. Оборудование для управления дорожным движением [Электронный ресурс]. – Режим доступа: [http://komkon.ua/ru/products/tr\\_cntr\\_equipmt](http://komkon.ua/ru/products/tr_cntr_equipmt). — Назва з екрану.

3. Кременец Ю.А. Технические средства организации дорожного движения: учебник для вузов / Ю.А. Кременец, М.П. Печерский, М.Б. Афанасьев. – М: ИКЦ «Академкнига», 2005. – 279 с.

4. Разработка и исследование имитационной модели светофорного регулирования на основе нечеткой логики в среде Anylogic: тезисы научно-практической. конф., 21–23 октября 2015 г. / Седьмая всероссийская научно-практическая конференция «ИММОД». – М: ФЭН, 2015. – С. 443-449.

5. Кретов А.Ю. Обзор некоторых адаптивных алгоритмов светофорного регулирования перекрестков. Известия Тульского государственного университета, Технические науки Выпуск 7, часть 2. – Тула: Издательство Тул ГУ, 2013. – 390 с.

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## **PROSPECTS FOR CONSTRUCTION INDUSTRY DEVELOPMENT IN UKRAINE**

The construction industry is one of the most important branches of the economy, which determines the efficiency of the whole national economic system management. The development of the con-

struction industry inevitably causes the country's economic growth and solves many social problems. Globally, the construction industry of Ukraine is significantly behind because there are no necessary financial and organizational transformations. One of the global problems of the construction industry in Ukraine is the formation of non-budget investments. Today there are several possible ways to attract crediting resources for the construction, which are unfortunately not used. Ukraine's construction market is closed to foreign investment because of the difficult political situation.

Nowadays, the major problem of the construction development in Ukraine is the increased cost of works because of the growing prices for basic construction elements. In order to maintain the level of profitability construction companies have to raise the cost of works and services that negatively affects the demand.

Construction unprofitability reduces its investment attractiveness. Last year, as reported by the popular newspaper "The Pridneprovya News", the number of loss-making companies exceeded 55%. It is foreseen that in the near future (10-15 years) the construction of new industrial objects will be conducted in minor amounts. The main focus of construction will be the upgrade and retrofit of industrial objects.

Unfortunately, the government does not pay enough attention to the industrial construction because it increases expenses on the social sphere. As a result, the amount of public investment into capital construction declines.

Dwelling construction is also frozen. The main reason is the crisis in Ukraine, which has affected the country population. For the past 5 years, the construction of social housing has drastically reduced. The main reason is the lack of financing. Therefore, private building began to develop.

Despite all the economic difficulties in recent years, the authorities allocate funds for one of the areas of construction, building materials and their energy efficiency. This is applied not only to dwelling but also to industrial objects such as plants, mills, etc.

According to the president of All-Ukrainian Union of Manufacturers of building materials Ivan Salia, the construction industry should make up 10-12% of the total GDP of the country, at the moment it is 2.5%, so the recovery of the construction volumes and its

increase should be the priority for the authorities. Unfortunately, the government stopped financing the well-established programs of affordable housing and building infrastructure.

The construction industry development promotes the production of building materials and associated equipment, engineering manufacture, metallurgic engineering and metal-working manufacturing, petrochemistry, glass production, transport, energy, etc. The construction like no other sector of the economy contributes to the development of small and medium-sized businesses. Therefore, developing a single industry we can achieve a significant progress in the economy of the country.

Summing up the prospects of the industry development, several words should be said about the supply of building materials to foreign markets. At present, it could be the basis for the stabilization of the building materials market. Yet, the quality of products should be improved. So the producers must think about the competitiveness of their products.

As for the construction industry prospects, they are possible only when the political situation in Ukraine stabilizes.

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## **DECORATIVE AND COLLECTIBLE STONES OF PETRIVSKE AND ARTEMIVSKE DEPOSITS**

The research aims at studying decorative and collectible materials of the Petrivsky and Artemivsky deposits.

There are over 200 useful minerals contained in productive and country rocks of Kryvyi Rih basin, some of which can be used as semi-precious stones. The most promising raw material sources of such kind are the Petrivske and Artemivske deposits located in the northern part of Kryvyi Rih geological structure. They slightly vary as to their geological position, structure, dynamothermal metamorphism level of rocks, metasomatic change manifestation resulting in a particular set of rocks and minerals.