

Field scouts application; the statement of problem

Farm producers are being focused on precision agriculture these days, since it has been accepted as the only efficient and sustainable farming system. To realize the approach in precision crop farming, it is needed to provide different machinery for site-specific treatment. That is why the concept of small self-propelled scouts is a pressing issue for engineers all over the world.

Current research included the study of farming cycle features and needs in order to find field scouts' market niche.

**Sergii Saviiskyi, Ievgenii Tarabanov,
Daniil Shevchenko, Ivan Demianenko,
group 32 Agroengineering
Adviser: Titova O.A.**

**Advantages and disadvantages
of organic farming.**

Organic farming is defined as a system of management and agricultural production combining a high level of biodiversity with environmental practices that preserve natural resources. It also incorporates rigorous standards for animal welfare. It responds to a growing demand for natural products by consumers, while contributing to the preservation of the environment in the context of sustainable rural development.

**Pedan Anna, group 21 Agronomy
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Export of Ukrainian food products

According to the results of 2017, foreign trade in agrarian and food products between Ukraine and European countries increased by 30.8%, or \$ 1.9 billion, and amounted to \$ 8.1 billion. At the same time, Ukraine exported products to EU countries for \$ 5.8 billion, thus forming a rather serious positive balance in our bilateral trade. The main products of Ukrainian agroexport, which were supplied to the EU market in 2017 are grain cereals – \$ 1.7 billion, oil – \$ 1.4 billion, oil seeds – \$ 1.1 billion.

**Kovalenko Anastasiia, Bodnia Victor,
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Fungi as broad spectrum antibiotics

Antibiotics are known to be one of the major risk factors for fungal infection. The term broad-spectrum antibiotic can refer to an antibiotic that acts on the two major bacterial groups, gram-positive and gram-negative, or any antibiotic that acts against a wide range of disease-causing bacteria. These medications are used when a bacterial infection is suspected but the group of bacteria is unknown or when infection with multiple groups of bacteria is suspected. Although powerful, broad-spectrum antibiotics pose specific risks, particularly the disruption of native, normal bacteria and the development of antimicrobial resistance. An example of a commonly used broad-spectrum antibiotic is ampicillin is given.

**Arhunova Nataliia, group 21 Horticulture and
viticulture, Lisova Anastasiia,
group 21 Agronomy
Adviser: Shevchenko S.P.**

Participants are eager to share their ideas and perspectives on modern science with the opponents and visitors. Their research results are visualized and presented on the posters. The participants are ready to introduce, to discuss, to involve! Every student and instructor is welcome to scrutinize and to question, to dispute and to uphold!

Youth culture in Ukraine: Korea

The project outlines the problem of relevance of multiculturalism in Ukrainian youth society and educational benefits which come from other cultures. The authors address their work to the Ukrainian youth, representing the coexistence of various forms of cultural life, highlighting the problem of preserving one's own and perceiving another cultural identity, as well as a tolerant interaction of representatives of various ethnic groups.

Marchenko Yana, Indik Danylo, Lykova Anastasiia, Chetvertukhina Alësia, group 11 Management
Adviser: Prosina K.M.

Famous engineers of the world - they changed this world

Many people use a lot of technologies and devices without even knowing when and who they were invented by. This research is dedicated to the greatest engineers who have gone before us and paved the path to a modern world that grants us access to so many inventions - inventions that make our lives easier.

Tetervak Illia, group 31 Sectoral engineering
Adviser: Musatova I.M.

The important issues of street light modernization

Our research is focused on street lightning upgrading. Because there is a real problem in modernization of this source. The history of appearance of street lighting and its evolution to modern economical, safe and long service life light source are described by analyzing of street lightning on Bohdan Khmelnytsky Avenue.

Nick Galavura, Oleksiy Golik, 23 Power engineering, electrical engineering and electromechanics
Adviser: Simkina M.A.

Virtual reality

Today virtual reality is usually implemented using computer technology. There is a range of systems that are used for this purpose, such as headsets, omni-directional treadmills and special gloves. These are used to actually stimulate our senses together in order to create the illusion of reality. The poster highlights the concept of virtual reality and emphasizes its entertaining and serious applications.

Beskorovainyi Vladyslav, group 21 Computer science
Adviser: Symonenko S.V.

Analysis of virtual reality features in the entertainment industry

There are numerous focus areas in virtual reality exploring at present. Innovations in virtual entertainment industry can change both user behavior and preferences of consumers before long. In this research different descriptions of virtual reality and examples of its use are analyzed. The pros and cons of virtual reality for users' leisure and health are considered, general recommendations for safe VR use are presented.

Hesheva Hanna group 41 Computer science
Adviser: Zaitseva N.V.

Challenges and benefits of graphic input devices (at the example of graphics tablets)

Digital art has revolutionized the way art can be made, distributed, and viewed. It has greatly expanded the artist's toolbox from the traditional raw materials into the progressive new realm of electronic technologies. Instead of brush and acrylic, artists can now paint with light, sound, and pixels. Instead of paper, artists can collage with found digital imagery or computer-generated graphics. Current research includes the main challenges and benefits of graphics tablets, and extensive description of the process of making illustrations using graphics tablets.

Oleksandr Kurashkin, group 21 Agroengineering
Adviser: Lemeshchenko-Lagoda V. V.

Smart house

The 'smart house' industry is booming these days, attracting interest and investment from companies with their feet in every corner of the tech sector. How does a smart house differ from a regular house? A smart house is equipped with technologies that make our lives more convenient and energy efficient. Today, the growing range of technologies encompasses smart house appliances, mobile devices and house automation systems, many of which are interconnected. There is no need to wait for the future - it is already in smart houses.

Varava Maxim, Skorlupin Olexander, group 21 Computer science
Adviser: Kuleshov S.O.

Artificial intelligence

Artificial intelligence is used to describe the science and engineering of making intelligent machines; it is also used for defining a property of machines or programs, the intelligence that the system demonstrates. AI research uses tools and insights from many fields, including computer science, psychology, philosophy, neuroscience, etc. The poster outlines the concept of artificial intelligence and presents its main features in the modern world.

Katane Oleksandr, group 21 Computer science
Adviser: Symonenko S.V.

Influence of cryptocurrency market on the information technology development
Nowadays, cryptocurrency maintaining has a big influence on most spheres of private and public industry. Nevertheless, its legal position is still discussed. The report analyzes how cryptocurrencies evolve and so increase the number of new IT workplaces. Reasons for further cryptocurrency technology extending in IT sphere are proposed.

Torbunova Anastasiia, group 41 Computer science
Adviser: Zaitseva N.V.