• Automated vehicles: Autonomous vehicles and trucks were introduced, which reduce the number of accidents on the highway.

#### Health care

• AI-enabled Virtual Health Assistants (VHAs) can actively assist patients in a variety of ways. First, VHAs can help dementia patients with their prescribed medications by sending reminders.

• Able to detect and understand emotions in order to interact with the patient.

• Quick analysis of a person's examination reports (eg blood pressure, ECG) helps to warn of any serious illness.

Using machines that are studying can reduce time, financial costs, and labor. From several of the above applications, it is clear that AI can make our lives much easier and more productive.

#### **References:**

How artificial intelligence works and the prospects for its use. (2020). Retrieved from <a href="https://aiconference.com.ua/uk/news/printsipi-raboti-iskusstvennogo-intellekta-i-perspektiva-ego-ispolzovaniya-92238">https://aiconference.com.ua/uk/news/printsipi-raboti-iskusstvennogo-intellekta-i-perspektiva-ego-ispolzovaniya-92238</a>

The emergence and prospects of the development of artificial intelligence. (2021). Retrieved from <u>http://www.dut.edu.ua/ua/news-1-576-8835-poyava-ta-</u>perspektivi-rozvitku-shtuchnogo-intelektu\_kafedra-shtuchnogo-intelektu

# MAIN CAUSES OF GLOBAL WARMING AND WAYS TO SOLVE THEM Yulia Tkach

Faculty of Chemical Technology, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

Currently humanity is facing an environmental problem – global warming. Not everyone understands what this can lead to, but the situation is getting more and more out of control. We watch the seasons change. According to forecasts of leading international research centers for climate research, over the next century the

temperature will rise by 2-5 degrees by Celsius. Such global warming will cause severe climate change and endanger various ecosystems. This problem is very relevant and needs to be addressed immediately (Environmental Education Research, 2007).

Scientists have already begun to work carefully on this issue, analyzing the causes and looking for the ways to solve it.

The most common cause of global warming is human activity, namely the use of fossil fuels and inefficient consumption of energy produced. Every day society uses natural resources, light, heat, transport, polluting the atmosphere. When burning fossil fuels, such as coal, oil, gas, etc., for daily use, a large amount of carbon is released into the air, which combines with oxygen in the air to form  $CO_2$ . Over the past 150 years, the concentration of  $CO_2$  has increased from 280 ppm (parts per million) to more than 400 ppm. Such a rapid increase in the content of  $CO_2$  in the atmosphere occurred on the planet for the first time in hundreds of thousands of years (Southern Oscillation response to global warming, 2007).

Also, one of the main reasons is the greenhouse effect. This is a phenomenon in which the energy of the sun rays, reflected from the surface, can not return to space because it is trapped by molecules of various gases. As a result, air temperatures are higher than they should be, and this leads to irreversible consequences, such as climate change and global warming.

The most noticeable consequences of global warming are not only climate change, such as gradual warming, but also emergencies: severe droughts, floods, storms, hurricanes, extremely hot days, which will occur more and more often. As a result of changes in temperature on the Earth's surface, the global average temperature rises (the average of all annual temperatures on the Earth), which means that days become hotter and hotter (Climate change, 2019).

Warming in the Arctic is twice faster, leading to the rapid melting of ice. This causes the white cover on the surface of the planet to shrink, which can no longer reflect the previous amount of solar radiation. As a result, water in the world's oceans heats up and accelerates the melting of glaciers, releasing carbon dioxide and

accelerating the greenhouse effect.

Thus, global warming accelerates the processes that affect it, and creates new causes. Analyzing all these processes, governments, world organizations, scientists have already begun to work carefully to solve this problem.

The Amnesty International is urging governments to stop using fossil fuels to generate electricity. The best alternatives are the use of renewable energy: solar and wind. Increasing the number of wind power plants and, first of all, lowering the price of solar panels and green energy in general will encourage the population to use it. Over time, the use of fossil fuels will simply become obsolete. It is also necessary to stimulate the development of electrical management and science, which in turn will make a significant contribution to the fight against global warming (e.g., development of adaptive electrical systems, research of geothermal energy of the earth, etc.) (Climate change in Ukraine and the world: causes, consequences and solutions for counteraction ,2020).

Campaigns to change the main mode of transport of a car to a bicycle are also carried out all over the world. A bicycle is an environmentally friendly vehicle that does not pollute the atmosphere by emitting carbon dioxide. To implement this, you need to make quality bike paths that will include a well-lit, smooth, tree-lined floor. A person should be able to get a bike path to any part of their city. It is also necessary to make bicycles as comfortable and affordable as possible. But, unfortunately, there are many people who can not do without a car, for them Elon Musk invented electric cars.

Another step to solve the problem of global warming is the development of public transport infrastructure. Its convenience, accessibility and comfort should encourage people to use it more instead of their own car. Increasing the convenience and comfort of public transport will reduce the use of their own cars, in line with reducing  $CO_2$  emissions, it will solve transport collapses, reduce road congestion, which will reduce congestion in cities, and thus reduce the total time of transport. The best results will also be achieved if public transport is electric or uses green energy. For example, the Norwegian leadership has introduced more than 80 electric buses,

all other vehicles run on biogas, which they produce from garbage (Southern Oscillation response to global warming, 2007).

Thus, global warming is one of the worst phenomena our climate has faced. People need to think seriously about the consequences, because in a few decades the planet may disappear. You need to talk about it and explain it to the people around you. Together we are a force and we will be able to overcome this problem.

### **References:**

- Climate change in Ukraine and the world: causes, consequences and solutions for counteraction. (2020, November 2). Retrieved from: https://ecoaction.org.ua/zmina-klimatu-ua-ta-svit.html
- 2. Climate change. (2019, May) Retrieved from: <u>https://necu.org.ua/climate/</u>
- 3. Environmental Education Research. (2007, January). Retrieved from: https://sci-hub.mksa.top/10.1080/1350462042000291029
- 4. Southern Oscillation response to global warming. (2007, August 7). Retrieved from: <u>https://sci-hub.mksa.top/10.1073/pnas.0710860105</u>
- 5. Norwegian recipe for clean air and environment. (2019, March 20). Retrieved from: <u>https://rubryka.com/blog/norvegiya-chyste-povitrya/</u>

## PROSPECT OF ARTIFICIAL INTELLIGENCE Roman Tkachenko

Faculty of Heat Power Engineering,

National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

The future is always associated with artificial intelligence. One part of humanity is afraid of very fast progress and think that with new discoveries in this industry, we doom ourselves to death. The other part believes that artificial intelligence is the future. Fortunately, we are a part of this event and can be watching for this development.

Famous people in the field of science also speak out about artificial intelligence. Elon Musk considers that this technology will surpass people in five