SER5 Uspeh ni naključen Srednja elektro-računalniška šola Maribor

Global Warming

Paper at English

1 Generally

Global warming is increase in the average temperature of air and oceans around the Earth. It is a fact, that average temperature rose by 0,6 °C within 150 years and scientist predict, that it will rise up for next 1,5 to 4,5 °C. Despite obvious facts, that were confirmed by scientists from different countries, some deny existence of global warming. Owners of large corporations are among them mostly, that paid millions of dollars for researches that would disprove the effects of global warming.

2 Causes

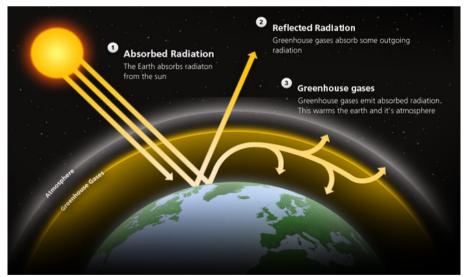
The main reason is the greenhouse effect, that occurs because of the increased amount of greenhouse gases in an atmosphere. Enlargement is a consequence of human activities, that started with industrialization within 18th century. More fossil fuels started to use up (petroleum, coal, natural gas). Also clearing of forests contributed to rise of level of carbon dioxide, Since trees weren't capable of taking it away from the atmosphere.

3 Greenhouse Effect

The greenhouse effect is the natural process by which the atmosphere traps some of the Sun's energy, warming the Earth enough to support life. However, the effect is too strong nowadays and it is threatening natural balance seriously.

3.1 Mechanism

The Sun's energy beats down on Earth constantly. Some sunbeams bounces back to space and other are absorbed by a land, oceans and an atmosphere. Energy (light) that arrives at a ground, it warms up and change to infrared wave (warmth). A floor radiates warmth back to an atmosphere then. The heat reaches greenhouse gases, which characteristic is that they absorb large amounts of warmth and they are spreading(bouncing) it back in lower layers of air, where it is captured.



Picture 1: Greenhouse Effect

3.2 Greenhouse Gases

Greenhouse gases are gases, that absorb enormous amounts of energy, but they drive away small value to space. Some of these gases also cause an ozone hole. Some major gases are: carbon dioxide (CO_2), ammonia (NH_3), water vapour (steam - $H_2O_{(g)}$), methane (CH_4), CFC, HCF, PHC gases, nitrogen oxides, ozone (O_3) and sulfur hexafluoride (SF_6).

3.3 Role in Climate Changes

The greenhouse effect has an important role in global warming and remaining climate changes. The effect is natural and it was present through all history of the earth. The temperature is increasing because the level of carbon dioxide is rising up in an atmosphere, which it is guilty of humankind.

4 Consequences

Warming of a planet will cause many changes especially in nature.

Contraction of glaciers (on continents and arctic poles) will cause a rise of sea level. Until the year 2090 sea level will rise for 1-2 meters. This will cause flooding on numerous ranges.

Oxygen will be eliminated from oceans because of heat. Large areas will occur, where life (for fish and the sea animals) will not be possible.

Numerous ecosystems will be destroyed. Animal and vegetable species will die out, because they aren't able to accommodate themselves to quick changes. The ruin of vegetable ecosystems will cause spreading of deserts.

The number of extreme weather phenomena would increase (heat waves, floods, droughts, tropical cyclones...)

These effects will affect humankind also. Glaciers won't be ensuring drinking water, people will be moving from flooded seasides, extreme weather will be causing fatalities and be destroying buildings...

5 Reducing

Individual's contribution to the reduction of global warming is welcome and important. Everybody can do something for the reduction of emissions of carbon dioxide (ride bicycles, green energy sources...). But it means nothing, if also largest elements of pollution don't cooperate - an economy and industry. Therefore agreements and laws, that supervise and make states and large companies, that they are reducing ellipses of greenhouse gases, are extremely important.

The first agreement on reducing of the ellipsis of greenhouse gases was accepted on the level of the United Nations. In 1992 some state have accepted the United Nations Framework Convention on Climate Change (UNFCCC). Member countries had to pass programs about the reduction of any pollution from industry. Annex to the convention was accepted in 1997 - Kyoto protocol. Kyoto protocol Anticipated legal consequences (fine) for the largest pollutants (developed state). For developing countries (less-developed countries) provided more mildly punishments and help of other states at realization of theirs environmental projects.

6 Sources

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6.1 Picture source

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