

project founded in 2007 to research nuclear fusion and develop the world's first nuclear fusion reactor. The construction takes place in southern France.

In conclusion, thermonuclear fusion is the best way to generate energy. This method doesn't emit harmful toxins, has no risk of meltdown, and is much cheaper for users.

References:

1. DeVorkin, D. H. (2021, October 21). Henry Norris Russell. American astronomer. Retrieved from <https://www.britannica.com/biography/Henry-Norris-Russell>
2. Dunning, H. (2021, August 17). Major nuclear fusion milestone reached as 'ignition' triggered in a lab. Retrieved from <https://www.imperial.ac.uk/news/228373/major-nuclear-fusion-milestone-reached-ignition/>
3. Locke, S. (2014, April 16). Nuclear fusion could be the perfect energy source – so why can't we make it work? Retrieved from <https://www.vox.com/2014/4/16/5580192/the-comprehensive-guide-to-fusion-power>
4. The Nobel Prize in Physics 1967. (2021, November 2). NobelPrize.org. Retrieved from <https://www.nobelprize.org/prizes/physics/1967/bethe/facts/>

HOW TO READ HUMAN'S MIND WITH THE HELP OF ARTIFICIAL INTELLIGENCE

Sofiya Turchyn

Faculty of Heat and Power Engineering,

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

In recent years, the IT market has seen a real boom in the field of solutions based on artificial intelligence. And this is not surprising: modern computing and neural network technologies have reached a level that allows AI systems to solve practical problems that are very difficult for humans, and developers can create innovative

applications and services that demonstrate the boundless potential of electronic intelligence.

Scientists have long been able to register the connection between the nervous activity of the brain and speech (Joseph, 2020). True, recognizing signals and translating them into words and expressions is too complex and suffers from inaccuracy when compared with ordinary speech. Meanwhile, the translation of nerve impulses of the brain into speech on the fly could help people with injuries of the limbs and speech apparatus, and this is communication and the ability to use electronics and information.

Mind reading is still the domain of science fiction films and books. However, science and technology do not stand still, and there is every reason to believe that in the future this kind of technology will become a reality. A group of scientists from the University of California at San Francisco managed to move a step forward in this direction, experimentally proving the possibility of recognizing nerve signals in the human brain and translating them into intelligible words using a recurrent neural network and electrodes implanted in the brain (Timmer, 2020).

References:

1. Timmer, J. (n.d.). *DOIs and their discontents*. Retrieved from <https://arstechnica.com/science/2010/03/dois-and-their-discontents-1/>
2. Joseph G. Makin, David A. Moses & Edward F. Chang (n.d.). Machine translation of cortical activity to text with an encoder–decoder framework. *Nature Neuroscience*.
3. Timmer, J. (n.d.). Neural implants plus AI turn sentence-length thoughts to text. Retrieved from <https://arstechnica.com/science/2020/03/brain-activity-recognition-gets-competitive-with-speech-recognition/>