Brain Storage (A review)

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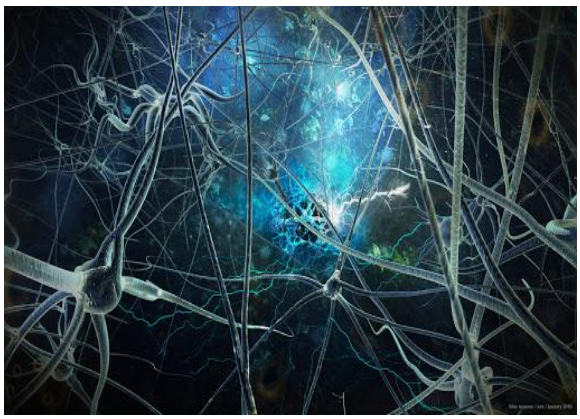
Abstract: **As days are passing day by day technology is going in increasing and hence there is a need of research and development each and every time. Before 30 years ago we even didn't know that mobile phones will get so advanced and handheld with all the features of a small computer in it. So what we are trying is to convince people about our technology and its benefits.**

INTRODUCTION

In this era of new technologies and development there is vast growth for apparent devices which are making our life more and more easy. But as we are making our life easier we are making our grasping and acquiring capacity poor and poorer. For this problem we have just came up with a solution which will help humans to store the data in there brain and retrieve it whenever needed. This technology will be named as brain storage and the device which is going to help in this technology is named as an A-device. This device will help us to store retrieve data, and inform on our body movements like a secondary brain and will help us to know what is good and what is bad for health. In total we are making a machine which will make human more and more informative and innovative. The main and basic building block of human body are neurons which helps to transform and retrieve in other words help us to communicate us with our body and our brain, and hence for storing information in human brain hippocampus is needed.

(a) Brain and Hippocampus:[1] the**hippocampus**is a major component of the brains of humans and other vertebrates. Humans and other mammals have two hippocampi, one in each side of the brain. It belongs to the limbic system and plays important roles in the coalitionof information from short-term memory to longtermmemory and spatial navigation. The hippocampus is located under the cerebral cortexand in mammalit is located in the medial temporal lobe, underneath the cortical surface. It contains two main interlocking parts: Ammon's hornand the dentate gyrus. This was the basic information about the hippocampus so moving further, there are many devices or technological advancements are developed for different purposes, such as mind controller which works on the principleof **EEG**(Electroencephalography).



(b) EEG: EEG is basically known as**Electroencephalography. EEG** is typically a non-interfering method to record electrical activity of the brain along the scalp. EEG measures voltage fluctuations resulting from ionic current within the neurons of the brain. In clinical contexts, EEG refers to the recording of the brain's spontaneous electrical activity over a period of time, as recorded from multiple electrodes placed on the scalp. Diagnostic applications generally focus on the spectral content of EEG, that is, the type of neural oscillations that can be observed in EEG signals.

(c) Mechanism: Billions of electron maintain electrical charge of brain. Membrane transport proteins that pump ionsacross their membranes which charges neuron electrically. Extracellular milieu constantly exchange ions with neurons. As the wave of ions reaches the electrodes on the scalp, they can push or pull electrons on the metal on the electrodes. As metal allows the flow of electrons through it, the difference

in voltages between two electrodes can be easily measured by voltmeter. This recording of voltages over time gives us EEG. Since the electric potential generated by an individual neuron is very small or negligible therefore EEG activity reflects the synchronous activity of millions of neurons that are having similar spatial orientation. EEG activity on scalp shows oscillation at various frequencies. Several oscillations have characteristic frequency ranges, different states of brain functioning and spatial distribution. Over a network of neuron oscillations represent synchronized activity.

(d) Devices running on EEG: Emotiv EPOC / EPOC+

(e) The A-Device: This is a device which helps in the storage of data and information in our brain with the help of neurons and EEG. The neurons has a spatial arrangement or a defined pattern for the reading or retrieving data from the brain by the means of hippocampus. All the memories or the emotions are stored in hippocampus, as a page of each memory is maintained in it which can be retrieved by pictorial representation of each part. For example if we by heart any answer while writing it in an exam the pictorial representation of the book comes in front of our mind and thus this explains the fact that human brain captures each memory and a special orientation of the circumstances.

CONSTRUCTION AND WORKING

The A-Device consists of series of registers and set of Algorithms assigned to it. The device follow the principle of EEG and neuron reading for its working. The device is powered by a lithium ion cell which can be replaced and can be charged through sunlight due to heat absorbers sensors are feeded into it. The device is made small and the device will be placed beside the ear for the easier communication between the hippocampus and the device. A human brain can feed thousands of bytes of data and hence whenever an individual will to store the data into his/her brain they can use this device .the device consists of an operating system which will control the device , this device will help in the informing the body misinterpretation and diseases that will lead the body into danger. For keeping the information of an individual the device will link with the DNA and will accept the order of that person only which will help in keeping the information private and secure.

ADVANTAGES

1. Remembrance of all the data.
2. Health diagnose device.
3. More and more deep development
4. Information storage of all the data around the world.

CONCLUSION

it is concluded from the above information that the device will increase and accelerate the brain usage and help humans for more technological development. This device will also help human race to know the secrets and reality beyond imagination and the accessibility of knowledge.

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