

## **BLUE BRAIN**

**SUBMITTED BY:**

**SRIPRIYAN S**

**VISHWANATH J**

**NAMASIVAYAM M**

**SRIMANNARAYANAN P**

**ABSTRACT:**

Blue brain is the name the world's first virtual brain. The blue brain system is an attempt to reverse engineer the human brain and recreate it at the cellular level inside a computer simulation. The project was founded in May 2005 by Henry Markram.

The IBM is now developing a virtual brain known as blue brain. Within 30 years, we will be able to scan ourselves into computers. It aims to unlock the secrets of brain by using the broad power of supercomputers. The uploading of human brain is possible by the use of small robots known as NANOBOTS. These robots are small enough to travel throughout our circulatory system. They will be able to monitor the activities and structure of our central nervous system. Example of blue brain is short term memory. It is the simple chip that can be installed into the human brain for which the short term memory and volatile memory at the old age can be avoided.

A program to convert the electric impulses from the brain to input signal, which is to be received by the computer and vice versa. Very powerful nanobots to act as the interface between the natural brain and the computer. The blue brain has 8000 processor which map one or two simulated brain neurons to each processor, making the computer a replica of 10000 neurons.

With the blue brain project the things can be remembered without any effect. Decisions can be made without the presence of a person. Even after the death of a man is

intelligence can be used. Due to the blue brain system human beings will become dependent on the computer system. Computer viruses will pose an increasingly critical threat.

**VIRTUAL BRAIN**

Virtual brain is an artificial brain, which does not actually the natural brain, but can act as the brain. It can think like brain, the decisions based on the past experience, and response as the natural brain can. It is possible by using a super computer, with a huge amount of storage capacity, processing power and an interface between the human brain and this artificial one. Through this interface the data stored in the natural brain can be uploaded into the computer. So the brain and the knowledge, intelligence of anyone can be kept and used for ever, even after the death of the person.

**HOW THE NATURAL BRAIN WORKS?**

The human ability to feel, interpret and even see is controlled, in a computer like calculations, by the nervous system. Its working through electric impulses through the body. To understand this system, one has to know the three simple functions.

**SENSORY INPUT**

When our eyes sees something or our hands touch a warm surface, the sensory cells, also known as Neurons, send a message straight to your brain. This action of getting information from your surrounding environment is called sensory input because

we are putting things in your brain by way of your senses.

## **INTERATION**

Integration is best known as the interpretation of things we have felt ,tasted and touched with our sensory cell, also known as neurons, into responses that the body recognizes. This process is all accomplished in the brain where many neurons work together to understand the environment.

## **MOTOR OUTPUT**

Once our brain has interpreted all that we have learned, either by touching , tasting, or using any other sense , then our brain sends a message through neurons to effector cells, muscle or gland cells, which actually work to perform our requests and act upon our environment. The word motor output is easily remembered if one should think that our putting something out into the environment through the use of a motor, like a muscle which does the work for our body.

## **ADVANTAGES**

We can remember things without any effort.

Decision van be made without the presence of a person.

Even after the death of a man his intelligence can be used.

The activity of different animals can be understood. That means by interpretation of the electric impulses from the brain of the animals, their thinking can be understood easily.

It would allow the deaf to hear via direct nerve stimulation, and also be helpful for many psychological diseases. By downloading the contents of brain that was uploaded into the computer, the man can get rid from the madness.

## **DISADVANTAGES**

We become dependent upon the computer system.

Others may use technical knowledge against us.

Computer viruses will pose an increasingly critical threat.

The real threat ,however, is the fear that people will have of new technologies. That fear may culminate in a large resistance. Clear evidence of this type of fear is found today with respect to human cloning.

## **HARDWARE AND SOFTWARE REQUIRMENT**

A super computer.

Memory with a very large storing capacity.

Processor with a very high processing power.

A very wide network.

A program to convert the electric impulses from the brain to input signal, which is to be received by the computer, and vice versa.

Very powerful Nanobots to act as the interface between the natural brain and the computer

## CONCLUSION

In conclusion, we will be able to transfer ourselves into computers at some point. Most arguments against this outcome are seemingly easy to circumvent.

They are either simple minded, or simply require further time for technology to increase. The only serious threats raised are also overcome as we note the combination of biological and digital technologies.