VIRTUAL BRAIN TECHENOLOGY
- A PARAMETRIC VIEW

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ABSTRACT

Today, the Scientists gas created an artificial Brain that can think, response, take decisions and keep anything in the Memory. The main of this Blue Technology is uploading the Human Brain in to Machine, so that man can think; take the decision without any effort. After the death of the body, in the form of a machine a virtual brain will act as a man. So, that even after the death of a person we will not lose the knowledge, intelligence, personalities, feelings and memories of that man that can be used for development of human society. Today, in the form of a machine man made computer will work for development of the nation. Technology is growing faster than every .thing. IBM is now in research to create a virtual Brain which is called as Blue brain, which would be the first Virtual Brain of the world.

Key words: Virtual brain

Introduction:

The blue brain system is and to enable better and faster development of the brain an attempt to reverse engineering methodology applies and recreates it at the cellular level inside the computer simulation. The blue brain technology is a base to conduct the research on the various components of the brain and to enable better and faster development of the brain disease treatments. As a part of the research programme on blue brain several examinations are conducted on living human brain tissues using Micro scopes, and patch clamp electrodes. The research is conducted on the components of human brain on the realistic models of neurons and net work of neurons in the cerebral cortex. By using the Blue brain generated by IBM with in the span of few years we will be able to scan ourselves in the computers. This blue brain can act as a human computer likely to take decisions based on the past experiences, and respond as a natural brain. It is having huge capacity to store the knowledge, processing power etc., In the form of a computer the brain and knowledge and the intelligence of anyone can be kept used forever. In a present society to take and apply by his intelligence it is the need of virtual brain to have with even more intelligent people also confused in memoririzing the names and birth dates of the

people/grammar/History facts etc., Being a creative mission in the form of a virtual brain is the solution for it. In a initial stage the computer is unloaded with the basic concepts attitudes of the people. Blue brain describes both invasive and non invasive techniques. The use of small robots is enough to circulate through spine and brain able to control and monitor the central nervous system. The small robots will work efficiently in scanning of the brain which is better component of the body. The computer is the inform of blue brain will concede the network in strengthening the space for memory. The human Brain will control the monitor all the components of the body including the blood circulation with Electron mechanism.

To understand this system, one has to know the three samples functions that it puts in to action. They are A. Sensory inputs apply by sending a message regarding of a sight by neurons sprightly to our brain. This processing is an act of putting things to the brain. B. Integration is the practice of feelings, tastes ambitions, which are touched by us through sensory cells as against identification. C. Motor output is processes applied after interpretation, either by touching tasting or using senses their brain sends a message through neurons which take part to perform the activities requested or programmed to take the decisions. The Mecetronic comparative simulations of a brain contains as follows. This comparison is conducted between natural human brain and simulated brain. I st Phase: Regarding of natural brain the inputs are received by the sensory cells which produces electronic impulses received by neurons, which transfer these electrical impulses to the brain. In a simulated blue brain the scientists has created artificial neurons by replacing them with the silicon chip.

The electronic impulses from the sensory cells can be received through the artificial neurons. 2nd phase: - Interpretation: The electronic impulses received by the Brain from neurons are interpreted in the brain which is accomplished by the many neurons. Registration is done in the Blue brain by the artificial neurons with different values represents different states of the brain.3rd phase output Based on the states of the neurons the Brain sends the electric impulses representing the responses which is received by sensory cells of our body responded neurons in the brain at that time. Similarly the artificial neurons registered out put signal are given which is received by the sensory cell. 4th Memory Phase: there are common neurons which makes the states permanently. When required, this state is represented by our brain and we can remember the past things. By using second memory it is not possible to store the data permanently, as when the requirements arise, the information be received and used. 5th phase: Decision analysis regarding Human brain the decisions and thinking, mathematical calculations are done in our neural circuitry. In similar way the

simulated Brain the decision making can be done by the stored status and received input can do the mathematical and logical decisions.

The primary machine used by the blue brain technology project is a blue genie super computer built by the IBM. IBM agreed in June 2005 to supply EPPL with a BLUE GENIE as a technological demonstration explores idea through the artificial neurons. PROCESSING STAGE: In the processing stage decision making, logical and arithmetical calculations are done in our Brain neural circuitry. The past experience stored and current inputs are used. Work flow of neuron: The simulation step involves synthesizing virtual cells using the algorithms that are found to describe real neurons. The algorithms and parameters are for age species and disease stage of animal being stimulated. Every single protein is stimulated and there are about a billion of these in one cell. First a network Skelton is built from all the different kinds of synthesized neurons. Then the cells are connected together according to the rules that have been found experimentally. Finally the neurons are functionalised and the stimulation brought to life. The patterns of emerging behaviour are viewed with visualization soft ware.

Deep Dynamical Exascale Entry Platform

Deep (DEEP-Project.eu.) is an exascale super computer to be built by the Europeans unions 7th framework programme. The blue brain project simulations will be ported to the DEEP prototype to help test systems performance. If successful a future exascale version of this a machine could provide, megaflops of performance required for the complete Human Brain simulations by 2020.

Conclusion:

In concluding remarks, we will be able to transfer themselves in to computers at some point. Most agreements 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. While a road ahead is long, already researchers have been gaining insights for their model. Using these blue gene supercomputers up to 100 cortical columns, 1 million neurons and 1 million synapses can be simulated at once. Despite this the sheer complexity we expect that the blue brain project is to get accesses with by the 2025.

References:

1. Blue Brain project Helmsman- Mark ram Henry Henry Mark ram "The Blue Brain Project" Native international conference 2008
2. The Blue Brain Project "Nature reviews and neuro science 7; 153-160 2006 –PMD
3. http:// blue brain project.eptl.ch.
4. Reconstructing the Heart of Mark ram Intelligence, Henry Mark ram lecture, March 2008
5. Indian start-up to help copy your brain in super computer TED Conference 2009