How the Brain Works

E. E. Escultura

Honorary Research Professor, GVP – Prof. V. Laksshmikantham Institute for Advanced Studies
GVP College of Engineering, JNT University Kakinada. Vishakhapatnam

Abstract

We know that the brain is the control center of the body. That is its primary function. Its secondary function is thought. But how the brain does these two functions is unknown and artificial intelligence has no answer to it. The aim of this paper is to solve the problem of knowing how the brain works. For this purpose, we apply the new methodology of science called qualitative mathematics and modeling (1970) in accordance with the following scheme:

To solve a physical problem, construct the underlying physical theories that provide the solution. The underlying physical theories in this case have been constructed namely, The Grand Unified Theory (2008), and its extensions, The Unified Theory of Evolution (2016) and the new neuroscience title The Physics of Intelligence (2012). A physical theory is an axiomatic system where the axioms are laws of nature. Qualitative mathematics is the mathematic model of rational thought (deductive reasoning). Qualitative modeling is distinguished from the traditional method of computation and measurement that describes national phenomena by mathematical equations because it explains natural phenomena and how nature works. The main contents of the paper are: Formation of concepts (cognition), storage (memory) and recollection of information. It also discusses the infrastructure of the brain for multidisciplinary research.