# Artificial Heart Neural Networks – An Idea

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**Abstract:** Artificial Neural Networks Field (ANN Field) is an exciting field of research. ANN field took its inspiration from Human Brain. The heart and Brain are very important for the survival of Humans. Research Scientists published many articles by giving importance to Brain. But scientists have not yet explored much on the Heart which is another important part in addition to the Brain. The primary purpose of publishing this article is to show a path to ANN field Research Scientists by introducing the concept of "Heart" into Artificial Neural Networks. In this paper, we coined and defined "Artificial Heart Neuron," which is the basic part of Artificial Heart Neural Networks Field (AHNN Field) in addition to Artificial Neuron. This work takes its inspiration from both Heart and Brain.

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## 1. DEFINITION OF ARTIFICIAL HEART NEURAL NETWORKS FIELD

Artificial Neural Networks are made up of Artificial Neurons. Similarly, all algorithms which are made up of "Artificial Heart Neurons" will come under the "Artificial Heart Neural Networks" Field (AHNN Field). The fifth section of this article explains "Artificial Heart Neuron."


## 2. OPPORTUNITIES IN THE NEW ARTIFICIAL HEART NEURAL NETWORKS FIELD

There are many opportunities for Artificial Intelligence Research Scientists and Students in this new "Artificial Heart Neural Networks" Field (AHNN Field). Some opportunities are listed below:

1. International Institute of Artificial Heart Neural Networks, Italy
2. Indian Institute of Technology Roorkee Artificial Heart Neural Networks, IIT Roorkee
3. Foundation of Artificial Heart Neural Networks, New York, USA.
4. IEEE Artificial Heart Neural Networks Society
5. ELSEVIER journals in Artificial Heart Neural Networks
6. Applied Artificial Heart Neural Networks – A New Subject
7. Advanced Artificial Heart Neural Networks – A New Course
8. Invited Speech on "Artificial Heart Neural Networks" in world-class Artificial Intelligence Conferences
9. A Special Issue on "Artificial Heart Neural Networks" in a Springer published Journal
10. A Seminar on "Artificial Heart Neural Networks" at Technical Festivals in colleges
11. International Association of Artificial Heart Neural Networks
12. Transactions on Artificial Heart Neural Networks
13. International Journal of Artificial Heart Neural Networks
14. International Conference on Artificial Heart Neural Networks
15. www.ArtificialHeartNeuralNetworks.com
16. B.Tech in Artificial Heart Neural Networks Field
17. M.Tech in Artificial Heart Neural Networks
18. Ph.D. in Artificial Heart Neural Networks
19. Post Doc in Artificial Heart Neural Networks
20. IBM the Artificial Heart Neural Networks Labs
21. To become the "Father of Artificial Heart Neural Networks" field.


## 3. ARTIFICIAL NEURAL NETWORKS

Deep Learning is the current trend in Artificial Neural Networks. According to Wikipedia, the definition of Deep Learning is shown below in double-quotes as it is:

"Deep Learning is part of a broader family of machine learning methods based on Artificial Neural Networks with representation learning. Deep Learning architectures such as deep neural networks, Deep belief networks, recurrent neural networks, and convolutional neural networks have been applied to many fields including computer vision, machine vision, etc" [1]. Hence from the definition, it is clear that Deep Learning is related to Brain-Inspired Computing.

## 4. LITERATURE REVIEW

There are many Artificial Neural Networks papers published in the literature. But there is not even a single paper that is based on Artificial Heart Neural Networks. The World's First Artificial Heart Neural Networks method is created in this article. For the sake of completeness, references [2] to [5] show Artificial Neural Networks field articles. You can easily find references for Artificial Neural Networks on websites like deeplearning.net. We just showed four references for Artificial Neural Networks for completeness.

## 5. ARTIFICIAL HEART NEURON

This section explains "Artificial Heart Neuron." Figure 1 shows Artificial Heart Neuron. "Artificial Neuron" and "Artificial Heart Node" are the building blocks of Artificial Heart Neuron. When the input is passed to "Artificial Heart Neuron," it goes to Artificial Neuron. The Artificial Neuron processes the input and sends it to Artificial Heart Node. The Artificial Heart node controls the input it receives and outputs the controlled input to the other Artificial Heart Neurons.

The input vector [ 1, 4, 5, 2] is passed to Artificial Heart Neuron. The input goes to Artificial Neuron present inside Artificial Heart Neuron. Artificial Neuron processes the input vector [ 1, 4, 5, 2] in the same way as it does when Artificial Neuron in Artificial Neural Networks (ANN). It sends the output to Artificial Heart Node. Let's say Artificial Neuron outputs 2.5 to Artificial Heart Node. The Artificial Heart Node receives 2.5 and multiplies it with Heart Controlling Factor and outputs to another Artificial Heart Neuron connected to this Artificial Heart Neuron. If Heart Controlling Factor is 1.2, then 2.5 is multiplied by 1.2, and the output is sent to the connected Artificial Heart Neuron in the next layer.
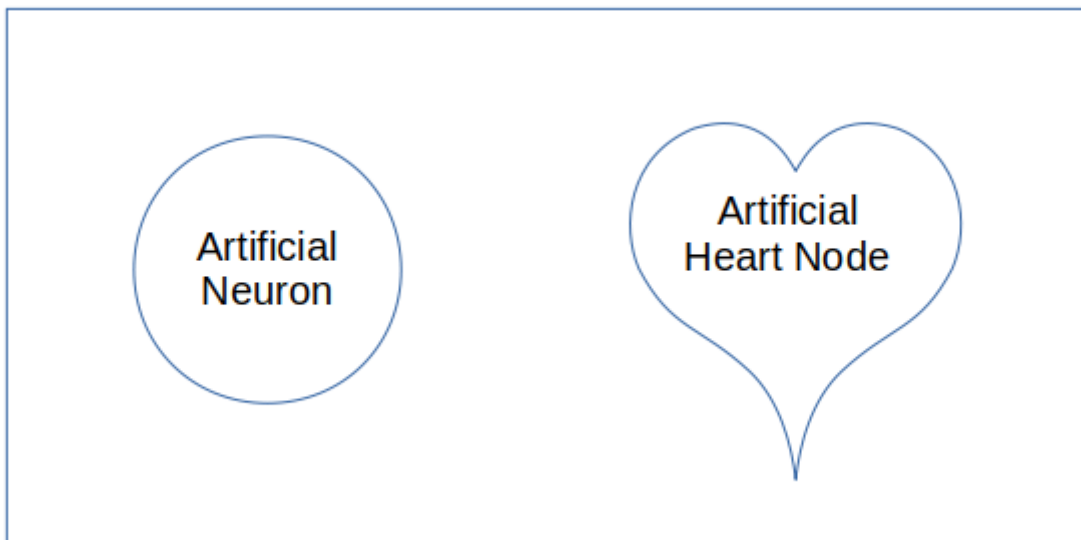


**Figure 1. Artificial Heart Neuron**

## 6. CONCLUSIONS

A new field titled "Artificial Heart Neural Networks (AHNN)" is designed in this article. The concept of "Heart" is introduced into Artificial Neural Networks for the first time in Research Industry History in this article. The purpose of this work is to show a path to Artificial Neural Networks Field Scientists and Students so that they will create more and more complex algorithms from scratch following in this path for getting better results. Many opportunities for Artificial Intelligence field Scientists are shown in this paper. Implementing AHNN algorithms and comparison of results with ANN algorithms will be part of our future work.

**REFERENCES**

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