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## Abstract

Neural networks are simplified models of the biological neuron system. A neural network is a massively parallel distributed system made up of highly interconnected neural computing elements that have the ability to learn and thereby acquire knowledge and make it available for use. ANN's, like people, learn by example. This paper gives overview of artificial neural networks, their working, architecture, learning methods, how one can create and train their own

neural network using MATLAB, and their applications.

### Refer

### ences

- G. A. V. Pai and S. Rajasekaran, Neural Networks, Fuzzy Logic, And Genetic Algorithms: Synthesis And Applications, PHI Learning Pvt. Ltd. , 2003.
- Graves, Alex, Mohamed, Abdel-rahman and Hinton, Geoffrey. Speech Recognition with Deep Recurrent Neural Networks. 2013.
- A. Minin, "The Neural Network Analysis," 2006.
- E. Kumar and E. Sharma, "Artificial Neural Networks-A Study," International Journal of Emerging Engineering Research and Technology, vol. 2, no. 2, pp. 143-148, 2014.
  
- O. Eluyode and D. T. Akomolafe, "Comparative study of biological and artificial neural networks," European Journal of Applied Engineering and Scientific Research, vol. 2, no. 1, pp. 36-46, 2013.
- M. S. B. Maind and M. P. Wankar, "Research Paper on Basic of Artificial Neural Network," International Journal on Recent and Innovation Trends in Computing and Communication , vol. 2, no. 1, pp. 96-100, 2014.
- "Mathworks," [Online]. Available: <http://in.mathworks.com/products/matlab/>.
  
- M. A. Kon and L. Plaskota, "Neural Networks, Radial Basis Functions, and Complexity".
- J. Vesanto and E. Alhoniemi, "Clustering of the Self-Organizing Map," IEEE TRANSACTIONS ON NEURAL NETWORKS, vol. 11, no. 3, pp. 586-600, 2000.
- R. H. Refsnæs, "A BRIEF INTRODUCTION TO THE CONJUGATE GRADIENT METHOD," 2009.
- Y. Munakata and J. Pfaffly, "Hebbian learning and development," Developmental Science , vol. 7, no. 2, pp. 141-148, 2004.
- S. N. Sivanandam, S. Sumathi and S. N. Deepa, Introduction to Neural Networks Using MATLAB 6. 0, Mcgraw Hill Education, 2005.
- J. Heaton, Introduction to Neural Networks with Java, Heaton Research, Inc. ; 1 edition, 2008.
- Importance of Artificial Neural Network in Medical Diagnosis disease like acute nephritis disease and heart disease. Khan, Irfan Y. , Zope, P. H. and Suralkar, S. R. 2, Jalgaon : International Journal of Engineering Science and Innovative Technology (IJESIT), 2013, Vol. 2. ISSN: 2319-5967.
- J. K. Basu, D. Bhattacharyya and T. -h. Kim, "Use of Artificial Neural Network in Pattern Recognition," International Journal of Software Engineering and Its Applications, vol. 4, no. 2, pp. 24-34, 2010.
- "NASA," 1 March 2014. [Online]. Available: <http://www.nasa.gov/centers/armstrong/news/FactSheets/FS-055-DFRC.html>.
- P. P. Gaikwad, "SELF MEDICAL DIAGNOSIS USING ARTIFICIAL NEURAL NETWORK," Int. J. Computer Technology & Applications, vol. 3, no. 6, pp. 2006-2013, 2012.

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**Index Terms**

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