



## Designing of VLSI Architecture using Machine Learning Algorithms

**Mr. Arpit Yadav**

Researcher AIML, Hyderabad, India

### Abstract:

Machine learning (ML) provides the high end automation of data processing for the wide range of human brain with machine interfacing. Deep machine learning (DML) performs like human brain to achieve automated features extraction, reducing the dimension of the complex data set. Analog signal processing (ASP) need much higher energy efficiency than digital signal processing (DSP), presenting a way for overcoming of these limitations. This paper have reviewed ML techniques which propose analogue memory which can be essential component for learning system. Discussed about unsupervised learning system for different computation node in DML. In addition, also discussed about ultra-low-power circuit to provide similarity measures in analogue signal processing and technique matched with latest development in VLSI, ULSI for CMOS transistor with compact technology. The face recognition studied, based on Hidden Markov Models (HMMs) and discrete wavelet transform (DWT). A sequence of overlapping sub-images is extracted from each face image computing the DWT coefficients for each of them.

### Biography:

Mr. Arpit Deepak Yadav is working as Artificial intelligence and Machine Learning Researcher at tensor Brew, Hyderabad. He is also working as Corporate Trainer in Python, Data Science, Machine Learning, Deep Learning, and Artificial Intelligence. He is currently pursuing Ph. D in Machine Learning from SVVV Indore. He has done PGP in Artificial Intelligence and Machine Learning from Great Lakes, Hyderabad. He has done M.Tech in VLSI Design and B. E in Electronics & Telecommunication Engineering. He is having 10.8 Years of Experience including VLSI Research, Machine Learning, Data Science and Artificial Intelligence. He worked in IT industry but due to interest in Research Field he is mentor-



ing many technocrats.

### Publication of speakers:

- Paper Titled “Modeling of Optimized Neural Network for Classification & Prediction of Benchmark Datasets” is accepted for publish in Journal: Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization (TCIV) Article ID: TCIV 1711457. The DOI of your paper is: 10.1080/21681163.2019.1711457
- Paper Titled “Efficient VLSI Architecture using Machine Learning Algorithms” presented in International conference on Innovation in Engineering Sciences, Management and Technology (ICIESMT-2019) organized by S.B. Jain Institute of Technology, Management and Research, Nagpur on 12th December 2019.
- Paper Titled “A Review on Machine Learning using VLSI Architecture” presented in SHODH Conference Innovation, Invention & Industrialization: Emerging Issues SVVV Indore on 29th March 2019.
- Paper Titled “Extended full bit adder using quantum dot cellular automation” presented in SHODH Conference Innovation, Invention & Industrialization: Emerging Issues SVVV Indore on 29th March 2019.

International Conference on Artificial Intelligence, Automation & Robotics; August 26-27, 2020; Dubai, UAE.

**Citation:** Mr. Arpit Yadav, Researcher AIML, Hyderabad; Artificial Intelligence 2020; August 26-27, 2020; Dubai, UAE.