

## Revolutionizing Traditional Farming Using Big Data/Cloud Computing: A Review on Vertical Farming

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**Abstract :** Due to massive deforestation and an ever-increasing population, the organic content of the soil is depleting at a much faster rate. Due to this, there is a big chance that the entire food production in the world will drop by 40% in the next two decades. Vertical farming can help in aiding food production by leveraging big data and cloud computing to ensure plants are grown naturally by providing the optimum nutrients sunlight by analyzing millions of data points. This paper outlines the most important parameters in vertical farming and how a combination of big data and AI helps in calculating and analyzing these millions of data points. Finally, the paper outlines how different organizations are controlling the indoor environment by leveraging big data in enhancing food quantity and quality.

**Keywords :** big data, IoT, vertical farming, indoor farming

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