

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 4, May 2024

## **Monkey Pox Detection using Deep learning**

Shweta Koparde<sup>1</sup>, Niket Yadav<sup>2</sup>, Ayush Kejriwal<sup>3</sup>, Prathamesh Adkine<sup>4</sup>

Department of Computer Engineering<sup>1,2,3,4</sup> Ramrao Adik Institute of Technology, Nerul, India<sup>1</sup> Dr. D. Y. Patil Institute of Technology, Pimpri, Pune<sup>2,3,4</sup> kopardeshweta21@gmail.com, ayushkejriwal200@gmail.com, adkineprathamesh@gmail.com

Abstract: Monkeypox is a rare zoonotic disease caused by the Monkeypox virus, which manifests in humans with symptoms similar to those of smallpox. Early detection and accurate diagnosis are crucial for effective management and containment of outbreaks. This research proposes a novel Monkeypox detection system utilizing machine learning techniques to enhance the speed and accuracy of diagnosis. The proposed system integrates various data sources, including clinical records, medical imaging, and demographic information, to develop a comprehensive dataset for model training. Machine learning algorithms, such as convolutional neural networks (CNNs) for image analysis and ensemble methods for combining diverse data modalities, are employed to identify patterns indicative of Monkeypox infection

**Keywords:** Monkeypox, Zoonotic disease, Machine learning, Early detection, Diagnosis, Clinical records, Medical imaging, Convolutional neural networks (CNNs),Ensemble methods

