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A Survey on Deep Learning Method to Identify Lumpy Skin Disease in Cows

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Abstract: *Animal illness is a prevalent problem nowadays. Animals can suffer from many different diseases, so it's important to identify them as soon as possible so that a prompt diagnosis can be made. In cows, the Neethling virus produces lumpy skin disease. The affliction of these illnesses results in long-term harm to the cattle's skin. Abortion, poor development, decreased milk supply, infertility, and, in severe cases, death are all typical effects of the illness. We developed a machine learning architecture that can predict or detect illness. The main goal is to exercise a deep learning method to identify the virus that causes lumpy skin condition. An efficient method for recognizing photos is based on deep learning and is known as DenseNet-121. The effectiveness of utilizing convolutional neural networks is confirmed by this study, it can estimate LSDV in animals based on images/pictures. The provided deep learning model was used to categorize images into two classes: LSDV and Non-LSDV. Early and accurate viral identification can be a potential method for detecting and halting the spread of the infection because there is currently no LSDV vaccination that can treat rather than control the infection. (e.g. by separating the Animals).*

Keywords: Lumpy Skin Disease, Deep Learning, Convolutional Neural Network (CNN), Artificial Neural Network (ANN), DenseNet-121, Image Processing, Classifiers, Extraction, Animals

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