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(57) Abstract :
[036] The present invention relates to a novel deep learning technique to identify chronic kidney disease (CKD) through effective feature selection and classification. The invention introduces a technique to predict chronic kidney disease. There are five steps to achieving it. First, in the pre-processing stage, remove missing values and normalize the data while reducing noise. Then, employ the EfficientNet V2 approach to extract the features. The Binary Dandelion Algorithm (BDA) must be used to choose the necessary features once features have been extracted to speed up classification evaluation. Then, using the HMLSTM approach, determine whether the person has CKD. We employed the Lion Swarm Optimization Algorithm (LSOA) to increase forecast accuracy. The dataset on chronic renal illness provides the data we need for the experiment. The evaluation performance of the proposed method achieved 99.92% accuracy with less computation time compared to other existing techniques. The proposed method overcome the previous literature issues using feature selection technique and optimization algorithm. In the future, we will develop a hybrid technique with an optimization algorithm to increase the accuracy of disease identification before the condition reveals itself in humans.

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