ABSTRACT

Monkeypox is a skin disease originating from Central and West Africa, with cases increasing globally including in Indonesia since 2022. Early diagnosis of this disease is essential to minimize health impacts. The PCR method currently used has limitations as it is time-consuming and not yet available in all countries. A medical image-based artificial intelligence approach offers a faster and more accurate solution in an effort to classify this disease. This research applies the InceptionResNetV2 architecture by considering the best hyperparameters. Training was performed using 5-fold cross-validation, and the evaluation results showed that the best model was achieved with a combination of batch size 16 hyperparameters and a learning rate of 10^{-4}. The model was tested using precision, recall, and F1-score metrics, which resulted in an optimal accuracy value of 89.50%. Hopefully, this approach can support efforts to efficiently diagnose early monkeypox and accelerate early treatment.

Keywords : *Monkeypox, InceptionResNetV2, Transfer Learning, Hyperparameter, 5-fold Cross Validation.*