

## ABSTRACT

According to Michael. Abraham, Influenza has three types, namely (A, B, and C) which are subtyped based on their surface, there is a protein called neuraminidase (N) and there is also a hemagglutinin (H) in types A and B, for hemagglutinin-esterase fusion in type C. Influenza A has two subtypes and currently, the subtypes are more dominant circulating to humans, including (H1/N1) and (H3/N2). In the last ten years, wearables have become increasingly popular for monitoring heart rate (HR). But heart rate (HR) cannot be interpreted without proper context. A heart rate (HR) of 70 bpm can be considered high for an athlete while sleeping, or low for someone who generally doesn't train after a long walk.

In this final project, the author uses the Multi-layer Perceptron (MLP) algorithm, which is ANN (Artificial Neural Network) on the perceptron. In the form of ANN (Artificial Neural Network) feedforward using one or more hidden layers. The data used in this study is a wearable device as a watch.

From the research that has been done using the Multi-Layer Perceptron algorithm, the researchers got accuracy for patient 1, which is 66%, and for patient 2, it is 81%. So it can be concluded that this system is running according to its purpose.

**Keywords:** *Influenza, Heart rate, Deteksi influenza, TimeSeries Heart rate, Multi-Layer perceptron.*