

**Implementasi Algoritma Naïve Bayes Untuk Klasifikasi Bakteri
Penyebab Infeksi Saluran Pernapasan Akut (ISPA)**

*Implementation of Naïve Bayes Algorithm for Bacterial Classification
Causes of Acute Respiratory Infection (ARI)*

Fabryzal Adam Pramudya
Study Program of Informatics Engineering
Majoring of Information Technology
Program Studi Teknik Informatika
Jurusan Teknologi Informasi

ABSTRACT

Acute Respiratory Infections or better known as ARI is a respiratory tract infection caused by viruses or bacteria. ARI is a big threat to developing countries, such as Indonesia. In 2019 there was an increase in the coverage of pneumonia sufferers by 50% on a national scale. Achievement of performance indicators of infectious disease control and management programs, namely discovery, treatment and treatment success. Diagnostic examination of the disease can be done by looking at clinical complaints/symptoms, culture examination, microscopic examination, radiological and tuberculin tests. On examination the results will be better, but the examination time usually takes too long due to the limited ability of the researchers. a system that can identify the type of bacteria that causes Acute Respiratory Tract Infection (ARI) using Naïve Bayes using 4 parameters of shape feature extraction, namely the number of objects, area, circumference, and shapefactor. The results of the classification system for identification of bacteria that cause ARI found the highest accuracy was 97.368%.

Keywords: *Bacteria, Acute Respiratory Infection, Image Processing, Naïve Bayes*