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Identification and Classification of Pathogenic Bacteria Using the K-Nearest Neighbor Method

Identifikasi Dan Klasifikasi Bakteri Patogen Dengan Metode K-Nearest Neighbour

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Bacteria are a group of living things or organisms that do not have a core covering. In the grouping, some bacteria are pathogenic.
With a microscopic size, many pathogenic bacteria are found around and spread through the food eaten or by touching objects around
them, then cause diseases such as diarrhea, vomiting, and others. As a more effective effort to help the government and society prevent
disease caused by pathogenic bacteria, a system for the identification and classification of pathogenic bacteria K-Nearest Neighbor
was created. This system uses a biological microscope that is attached to a webcam camera above the ocular lens as a tool to see
bacterial objects and assist in bacterial capture. Rough player rotates automatically (auto-focus) in image capture. In the process of
classification and identifying bacteria, the K-Nearest Neighbor method is used,
which is a method with the calculation of the nearest
neighbor or calculation based on the level of similarity to the dataset. In this study, the bacteria vibrio chlorae, staphylococcus
aereus, and streptococcus m. with the highest accuracy is the K = 9 value of 97.77% using the Chebyshev method.

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