## **ABSTRACT**

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Expert System for Diagnosing Panleukopenia in Cats Using Android-Based Certainty Factor Algorithm

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Keywords: Android, *Flutter*, Firebase, Panleukopenia, Diagnosis, Certainty Factor.

(xiv + 67 + attachments)

Expert System for Diagnosing Panleukopenia in Cats is an application to diagnose panleukopenia in cats based on an expert's (veterinarian) assessment. This application is made using the *Dart* programming language, *Flutter* as a framework, Firebase Cloud Firestore as a database, and Visual Studio Code. The method used in this research is the SDLC method with the steps of analysis, design, application development, and testing. Making this application aims to help all users in early detection of panleukopenia in pet cats without having to see a veterinarian in order to save time and materials. Test results on several smartphones with different specifications show that the application can run smoothly on smartphones based on Android version 10 to version 13 with a minimum of 3 GB of RAM, the application can be installed and run smoothly with the display size of the layout that fits on each smartphone. The black box test results show that all menus in the application can run according to their function and there are no errors. The results of user trials with 100 respondents obtained the final value of user satisfaction by applying the SUS method to applications of 83.72. This means that the expert system for diagnosing panleukopenia in cats is useful for facilitating users who can be categorized as very good.

Bibliography (2019 – 2023)