

## **ABSTRACT**

*Heart disease is one of the leading causes of death worldwide, making early detection and monitoring of heart health very important. The Heart Sync application was developed to assist users in monitoring heart rate in real-time by providing additional features such as measurement and analysis of measurement results. The purpose of this report is to analyze system requirements to ensure application development in accordance with specifications and user needs. The analysis methods used include benchmarking against similar applications, process modeling using the Unified Modeling Language (UML), and functional and non-functional analysis. The results of the analysis show that Heart Sync has the advantage of providing offline access. The needs analysis also included key features to be developed such as heart rate measurement, daily reminders, and the option to share results with medical personnel. With this analysis, the development of the Heart Sync application is expected to meet user needs and be able to compete with similar applications in the market.*

**Keyword:** *Needs Analysis, App, Heart Rate, UML*