

# UNIVERSITAS INTERNASIONAL BATAM

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*Faculty of Industry Technology  
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## ***DESIGNING ECG (ELECTROCARDIOGRAM) EQUIPMENT BASED ON INTERNET OF THINGS (IoT)***

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### ***ABSTRACT***

*This study aimed to design electrocardiogram (ECG) equipment for the process of checking one's heart health with the internet of things (IoT) feature. The design of this tool used ECG electrodes to detect heartbeat signals from contracting heart muscles. The measurement data can then be transferred to the database via the IoT feature and then stored in the database.*

*The analog signal generated by the electrodes were amplified by AD8232 and forwarded for further processing by the Arduino microcontroller. The process of transferring data to the database was conducted via a Wi-Fi connection. If an analysis of historical data from measurement results are needed, the data was stored in the database can be displayed.*

*The results of the test show that the tool can work according to initial planning and can be expressed so that it can be used to distinguish normal and abnormal heart rate patterns.*

***Keywords : EKG, Arduino, Heartbeat, Internet Of Things, Electrodes***