

## ABSTRACT

### ***DESIGN OF BIOPOTENTIAL AMPLIFIER ELECTROCARDIOGRAPHY (ECG) BASED ON IC AD620***

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*The electrical activity of heart is the basis of electrocardiography (ECG) in monitoring heart condition. ECG circuit consists of biopotential amplifier using IC AD620, bandpass filters, notch filter and non-inverting amplifier. Biopotential amplifier circuit of an ECG instrumentation become a major component in this research. All the characteristics of this circuit is tested using a signal generator and the output of the ECG component was observed using an oscilloscope. The results of the research are biopotential amplifier capable to amplify weak bioelectric signals up to 23 times, bandpass filter type Sallen-Key passing signal frequency from 0,05 Hz to 110 Hz. Notch filter Wien-Bridge type capable of suppressing noise interference 50 Hz electric network of -29,95 dB. Non-inverting amplifier capable amplifies the signal up to 28 times. ECG circuits tested using an oscilloscope to read the ECG signals on leads I, II and III.*

**Keyword :** *Bandpass filter, Electrocardiography (ECG), IC AD620, Notch filter.*