

**INSTRUMENTAL DESIGN ECG GENERATOR SIGNAL  
BY USING IC 14521 AND IC 14017**

**Wahidun Arif Rijali<sup>1</sup>, Nur Hudha Wijaya<sup>1</sup>, Tatiya Padang Tunggal<sup>2</sup>**  
Program studi elektromedik  
Program vokasi universitas muhammadiyah Yogyakarta  
Jalan lingkar selatan, kasihan, bantul, Yogyakarta  
[wahidunarifrijali@gmail.com](mailto:wahidunarifrijali@gmail.com)

**ABSTRACT**

*ECG or Elektrokardiograf is a tool to find out the electrical activity of the heart in patients. Electrocardiogram (ECG) is a graphic result records electrical potential resulting from by heartbeat, (Mervin J. Goldman, 1990). ECG recording very useful to know presen ceatria hypertrophy, arrhythmia, pericarditis, for example potassium electrolyte disturbances.*

*Tool this be named generator signal ECG. Tool the generator signal ECG functioning for produce the signal Electric heart in adult pasien tsand to check ECG error or no. So that it can Ease technici elektromedis in maintenance medical equipment periodically. The tool utilizes IC 14521 asoscillator or signal generatorand using IC 14 017 as a shift register who has responsibility to remove from pin 1 to pin the other.*

*The benefits of the ECG signal generating deviceso that technici elektromedis easy and not difficult in check ECG without mustusing patients. So this tool as a form clone of the human heart. The tool such as a patient simulator.*

*Based on the results of laboratory tests that have been done with the author concluded that, ECG signal generating deviceto function proper lyso that producea form of mock patient's heart signal that shown monitored ossiloskop in the wave form display P, Q, R, S, T.*

**Keywords:** *metode, IC 14521, IC 14017, result, instrumental design ECG generator signal by using IC 14521 and IC 14017*