CPR Feedback Device for Improving CPR Quality Using Accelerometer Signals

Joong Woo Ahn¹, Chiyul Yoon¹ and Hee Chan Kim²*

¹. Interdisciplinary Program, Bioengineering Major, Graduate School, Seoul National University, Seoul 151-742, Korea
². Department of Biomedical Engineering, College of Medicine and Institute of Medical & Biological Engineering, Medical Research Center, Seoul National University, Seoul 110-744, Korea

E-mail : hckim@snu.ac.kr

Chest Compression is an important part of cardio-pulmonary resuscitation. However, many emergency technician feel difficult to perform CPR perfectly due to absence of CPR feedback. Thus, we made a device to check quality of CPR in real time using accelerometer signals. Three dimensional accelerometer signal were calculated to get compression depth and rate. The device can be equipped on wrist like watch and it shows CPR rate and depth in real time. By using the device, the emergency technician will be able to improve quality of CPR during CPR situation. Moreover, CPR quality score was displayed and stored to make emergency technician to check the results. Emergency technician can perform CPR much more accurately with this device.

References