Abstract

The objective of this bachelor thesis is to measure ECG signal using experimental textile electrodes. The theoretical part deals with heart anatomy, the placement of the heart within the rib cage, heart's electrical activity and ways of measuring it using electrocardiography as well as alternative ECG systems. The practical part of this thesis deals with the use of an experimental ECG T-shirt and wearable electronic equipment. This part also includes the description of the examination method as well as of the equipment which processes and records the signal. The next part this thesis deals with laboratory testing of the experimental ECG T-shirt on a selected sample of people. It also includes an assessment of the measurement results.

Keywords: Conductive fabric, electrocardiography, electrocardiogram, electrodes