Abstract:
Cardiovascular Diseases (CVDs) are a major concern. They are responsible for 35% of deaths and for costs of billions of dollars worldwide. Prevention of CVDs has become a global priority. Comprehensive use of wearable devices operating in the context of Internet-of-Things (IoT) paradigm is the key to monitor, diagnose and treat CVDs. Most of the previous approaches propose wearables only for non-invasive blood pressure and heart rate monitoring. However, in order to improve the quality of the detection and prevention of CVDs, this measurements must be combined with oximeter monitoring (SPO2). In this work we propose BlooXY, a wearable device that operates in the context of IoT to measure the blood pressure, oximetry and heart rate. We show that BlooXY is an efficient aid in the prevention, control and treatment of CVDs.

Stichworte: IoT, wearable, CVD, blood pressure, oximetry.