Researchers at the University of South Florida have developed an Android-based application to help patients with Congestive Heart Failure (CHF) improve their self-care and reduce costly hospital readmissions.

According to a report by the Centers for Disease Control and Prevention statistics, CHF is the leading cause of death in the U.S. The same report says that about 670,000 people are diagnosed with CHF every year and the disease is responsible for $35 billion in annual medical expenses. Medical experts and researchers suggest that these numbers can be greatly reduced with consistent monitoring and tracking of patient’s symptoms in order to detect health decline in due time. Unfortunately, patients often times lack the motivation to not only exercise, but also regularly monitor their own health conditions. There is a need for a real-time monitoring system with automated features to help patients keep track of their health conditions.

USF Inventors have developed the novel HeartMapp application that includes a Bioharness BT external sensor. The system is based on proven medical research and includes five modules to: 1) assess the condition of the patient on a daily basis and provide instant feedback; 2) continuously monitor the vital signs in real time; 3) perform breathing and walking exercises; 4) educate the user about CHF; and 5) provide real-time and historical data in easy-to-read graphs. In addition, HeartMapp provides physicians with a web interface to access historical and real-time information about their patient’s condition for early identification and treatment.

ADVANTAGES:
- Real-time monitoring of vital signs
- Reduce costly readmission costs to hospitals
- Breathing and walking exercises
- Prolonged engagement to improve knowledge and self-care

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