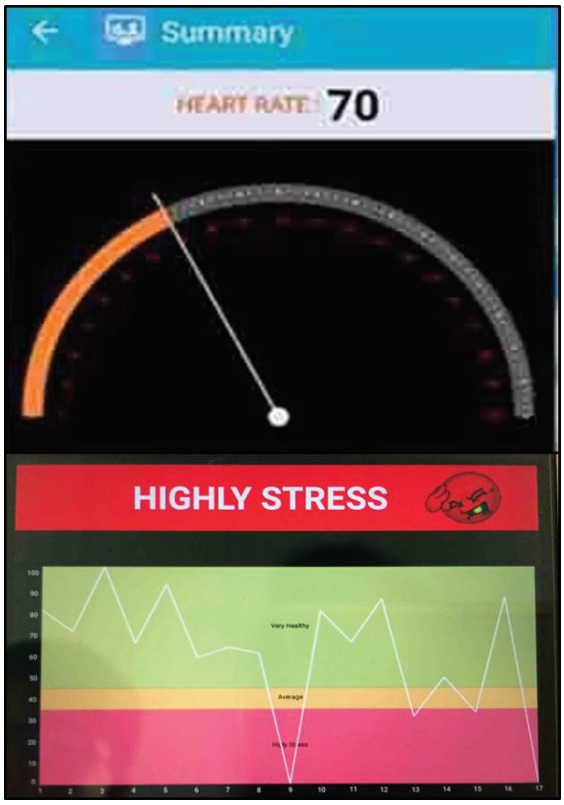
WIRELESS STRESS MONITORING SYSTEM

TECHNOLOGY OVERVIEW

Stress is not uncommon and we always perceive small amount of stress is good and acceptable. However, excessive stress increases the risk of heart attack and cardiovascular diseases in both men and women.The traditional way of stress measurement is the saliva testing - stress hormone (cortisol) which is not easily accessible by public.

Hence, RP has developed a wireless stress monitoring system using the pulse rate variability. The underpinning technology of this system is photophlethysmography (PPG).



The system consists of :
- PPG wearable device which picks up the pulse signals from the user's wrist
- Signals are transmitted to a mobile application for analysis using an algorithm
- The stress level is presented using colour zones, for easy interpretation allowing users to continuously monitor their stress level

POTENTIAL APPLICATIONS

This technology can be used and potentially extended to the following areas:

a. Stress monitoring of working adults and students.
b. Non-invasive blood glucose measurement.
c. Cognitive performance monitoring.

MARKET OPPORTUNITIES

The stress monitoring system can be integrated with wearable devices with heart rate monitoring function.

COMMERCIALISATION

This technology is available for licensing and technology transfer.

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Whether you are looking for new ideas to improve your current business flow, need access to research and technology expertise, or require facilities to bring your innovative ideas to life, we may be the partner for you.

At Republic Polytechnic (RP), we bridge the gap between knowledge and application by facilitating information and technology transfer to industry partners. Taking a holistic approach, our team of experts can assess your business needs, provide consultancy, conduct feasibility studies, and render support to help increase your company's competitiveness.

Facilities and Equipment
RP is home to state-of-the-art facilities and the latest technology, which are on par with industry standards. You can access these facilities by collaborating with RP on joint projects or through facility and equipment rentals.

Research and Development
Transform your ideas into reality. RP's multi-disciplinary applied R&D centres can work with you in many different ways, including exploiting new technologies, developing new products and streamlining processes.

Current Opportunities for Collaboration and Commercialisation

- Innovative Single-tube Multiplex Diagnostic Platform for Dengue and Chikungunya Viruses
- Low Cost Wireless Patient Weight Measurement System for the Physically Impaired and Bedridden
- New Catalysts for Sustainable Liquid Biofuels
- New Chemical Entities with Potential Applications in Photodynamic Therapy
- Thermoelectric Micro-coolers for Electronic and Optoelectronic Applications
- Visual Sentiment Analytics for Social Media Analysis
- Wireless Proximity Sensing for Safety and Security Applications
- Wireless Stress Monitoring System
- Portable Hydrogen Generator and Low Cost Hydrogen Fuel Cell System Development
- All-Solid-State Lithium Ion Thin Film Micro Battery
- Cloud-based Logistics Tracking

For more details, visit **http://www.rp.edu.sg/Industry.aspx**, or email us at **help-otd@rp.edu.sg.**