



Senior Lecturer
Dr. Rosmina Jaafar
 Ph.D, M.IEEE, M.IEM

EXPERTISE

- **Photoplethysmography**
- **Medical Electronics & Instrumentation**

RESEARCH

- **Biomedical Engineering**
- **Biomedical Signal Processing**

PROFESSIONAL AFFILIATIONS

- **IEM – Biomedical (74557)**
- **IEEE – Member (90834410)**
- **IEEE – Member EMBS**
- **Certified Good Clinical Practise (2009)**

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BRIEF RESEARCH/COMMUNITY/CONSULTATION SNAPSHOT

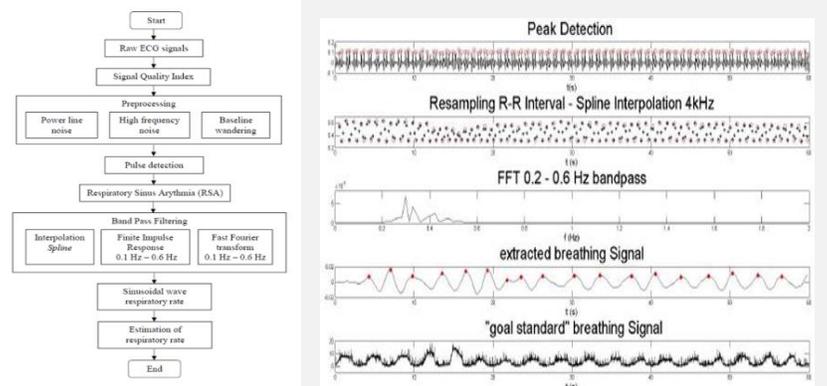


Fig. 1. Respiratory rate estimation with single-lead ECG and PPG acquisition module

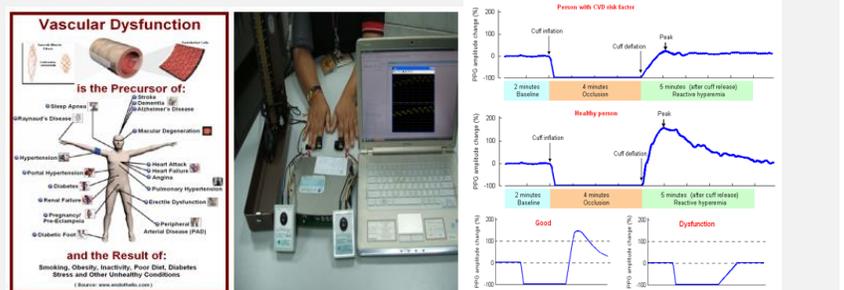


Fig. 2. Endothelial dysfunction assessment by photoplethysmography

SELECTED PUBLICATIONS

1. **"A portable respiratory rate estimation system with a passive single-lead electrocardiogram acquisition module"** (2016) *Technology and Health Care*, 24, pp.591-597.
2. **"Breathing Rate Estimation from a Single-lead Electrocardiogram"** (2015) *International Journal of Applied Engineering Research*, 10(17), pp. 38154-38158.
3. **"The Significance Change of PPG Reflection Index in Left Ventricular Hypertrophy Risk Individual"** (2014) *International Journal of Scientific & Engineering Research*, 5(1), pp.712-717.
4. **"Estimation of Brachial Artery (BA) Diameter in Response to Flow Mediated Dilation (FMD) Through Image Analysis Technique,"** (2012) *Asia-Pacific Symposium on Applied Electromagnetics & Mechanics*, 25-27th July 2012, pp.418-422.
5. **"Noninvasive Blood Pressure (NIBP) Measurement by Oscillometric Principle,"** (2011) *Int. Conf. on Instrumentation, Communication, Information Technology & Biomedical Engineering (ICICI-BME 2011)*, 8-9th Nov 2011, pp.265-269.
6. **"Non-invasive techniques for assessing the endothelial dysfunction: ultrasound versus photoplethysmography,"** (2008) *13th Int. Conf. on Biomedical Engineering*, 3-6th Dec 2008, *IFBME Proceeding 23*, pp.65-68.
7. **"A Statistical Model to Estimate Flow Mediated Dilation Using Recorded Finger Photoplethysmogram,"** (2008) *13th International Conference on Biomedical Engineering*, 3-6th Dec 2008, *IFBME Proceeding 23*, pp.18-21.
8. **"Finger photoplethysmogram pulse amplitude changes induced by flow mediated dilation"** (2008) *Physiological Measurement*, 29(5), pp.625-637.