

ABSTRACT

NON-INVASIVE METHOD AND SYSTEM FOR ESTIMATING BLOOD PRESSURE FROM PHOTOPLETHYSMOGRAM USING STATISTICAL POST-PROCESSING

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A system and method for estimating blood pressure (BP) using photoplethysmogram (PPG) has been explained. The PPG is captured from a PPG sensor (102). For preparing training model, a pulse oximeter is used for capturing PPG. For testing, a smartphone camera is used for capturing the PPG signal. A plurality of features are extracted from the preprocessed PPG signal. A BP distribution is then generated using the plurality of features and the training model. The BP distribution is part of a set of BP distributions generated from different subjects. Finally, a post-processing methodology have been used to reject inconsistent data out of the set of BP distributions and BP value is estimated only for the remaining BP distributions and a statistical average is provided as the blood pressure estimate.

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** To be published with Fig. 1*