

ABSTRACT**REAL TIME UNOBTRUSIVE MONITORING OF PHYSIOLOGICAL
SIGNALS**

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This disclosure relates generally to methods and systems for real time unobtrusive monitoring of physiological signals of a subject confined to a bed. Output of single channel continuous wave (CW) radars are dependent upon distance of the subject from the radar. Dual channel IQ radars are more accurate but are costly and availability in the market is a constraint. The present disclosure provides a cheap and easily replicable pseudo IQ radar based system. The pseudo IQ radar comprises two CW radars placed at a calibrated distance from each other such that optimum points of one CW radar spatially overlaps null points of the other CW radar and phase imbalance is suppressed. Three such pseudo IQ radars are positioned in a predetermined configuration around the subject being monitored. A Supervised Complex Signal Demodulation (SCSD) method configured to suppress amplitude and DC imbalance is also provided for evaluating the physiological signals.

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<<To be published with FIG.1>