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Cardio-respiratory and daily activity monitor based on FMCW Doppler radar embedded in a wheelchair

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| IV Results and Discussions | |
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 Contents

I Introduction

Around the world, daily variations in ambient air pollution have been consistently associated with variations in daily mortality, cardiopulmonary and cardiovascular morbidity [1]–[3]. Breathing activity can be independently measured by common hardware, e.g., using a thoracic belt or a nasal thermistor, or through signal processing of electrocardiogram (ECG) [4] and heart rate variability series [5]–[6]. As fundamental problems, these methods seem to interfere with normal respiration, many subjects seem to modify their respiratory pattern unconsciously, once they become aware their respiration is monitored [5].

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