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(57) Abstract :

NOISE REMOVAL SYSTEM IN THORACIC ELECTRICAL BIOIMPEDANCE SIGNALS USING NORMALIZED CLIPPED LOGARITHMIC ADAPTIVE ARTIFACT CANCELLER • Exemplary embodiments of the present disclosure are directed towards a noise removal system in thoracic electrical bioimpedance signals with a clipped logarithmic adaptive artifact canceller for the removal of artifacts from TEB (Thoracic Bio-impedance) signals; a data acquisition unit to acquire TEB (Thoracic Bio-impedance) where the actual Thoracic Bio-impedance signal component and  $n_1(n)$  is a noise component; a discrete wavelet transform (DWT) based decomposition unit to obtain a feed of signals from an input signal, where the DWT decomposition is able to generate the reference signal from the contaminated Thoracic Bio-impedance (TEB) signal  $D(n)$ ; and NCLMLS-AAC to be used for the extraction of noise components to update the weight coefficients of the filter. FIG 1-2

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