

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202041027264 A

(19) INDIA

(22) Date of filing of Application :26/06/2020

(43) Publication Date : 10/07/2020

(54) Title of the invention : NOISE REMOVAL SYSTEM IN THORACIC ELECTRICAL BIOIMPEDANCE SIGNALS USING NORMALIZED CLIPPED LOGARITHMIC ADAPTIVE ARTIFACT CANCELLER

(51) International classification	:A61B 5/053	(71)Name of Applicant :
(31) Priority Document No	:NA	1)MD. ZIA UR RAHMAN
(32) Priority Date	:NA	Address of Applicant :Dept. of E.C.E., Koneru Lakshmaiah
(33) Name of priority country	:NA	Education Foundation, K L University, Vaddeswaram, Guntur,
(86) International Application No	:NA	Andhar Pradesh-522502, India. Andhra Pradesh India
Filing Date	:NA	(72)Name of Inventor :
(87) International Publication No	: NA	1)L KOTESWARA RAO
(61) Patent of Addition to Application Number	:NA	2)K RAJU
Filing Date	:NA	3)MD ZIA UR RAHMAN
(62) Divisional to Application Number	:NA	4)GOWRI THUMBUR
Filing Date	:NA	5)M KIRAN KUMAR
		6)K MURALI KRISHNA

(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 $n1(n)$ 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

No. of Pages : 21 No. of Claims : 10