



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic>)

### Patent Search

Invention Title	SYSTEM AND METHOD TO IMPROVE PERFORMANCE OF AMPLIFIERS USING BIAS CURRENT
Publication Number	43/2019
Publication Date	25/10/2019
Publication Type	INA
Application Number	201941042648
Application Filing Date	21/10/2019
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	MICRO BIOLOGY
Classification (IPC)	C12Q1/6869

#### Inventor

Name	Address	Country
Dr. VALLABHUNI VIJAY	Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering, Dundigal-500043, Hyderabad	India
C V SAIKUMARREDDY	Department of Electronics and Communication Engineering, IIT Roorkee, Roorkee, 247667	India
CHANDRASHAKER PITTALA	Department of Electronics and Communication Engineering, MLR Institute of technology, Dundigal- 500 043, Hyderabad	India

#### Applicant

Name	Address	Country
INSTITUTE OF AERONAUTICAL ENGINEERING	Dundigal, 500043, Hyderabad	India
Dr. VALLABHUNI VIJAY	Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad	India

#### Abstract:

Exemplary embodiments of the present disclosure are directed towards a system for improving the performance of amplifiers using bias current, comprising: a computing device 102 comprises a simulation module 104 configured to design an architecture of an amplifier using an active comb filter to remove the selected frequencies of various signals, whereby the active comb filter is based on only operational transconductance amplifiers (OTAs) and capacitors that makes it suitable for implementation of monolithic integrated circuits (ICs), the computing device 102 configured to perform simulation using cadence virtuoso analog design environment in CMOS technology to examine the effect of bias current for different ECG performance parameters. FIG. 1

#### Complete Specification

Claims:What is claimed is:

1. A system for improving the performance of amplifiers using bias current, comprising: a computing device 102 comprises a simulation module 104 configured to design an architecture of an amplifier using an active comb filter to remove the selected frequencies of various signals, whereby the active comb filter is based on only operational transconductance amplifiers (OTAs) and capacitors that makes it suitable implementation of monolithic integrated circuits (ICs), the computing device 102 configured to perform simulation using cadence virtuoso analog design environment in CMOS technology to examine the effect of bias current for different ECG performance parameters;
2. The system of claim 1, wherein the computing device 102 comprises simulation module 104 configured to test the workability of the analog circuit for different signals of 60, 180, 300, and 420 Hz as in ECG signal.
3. The system of claim 1, wherein the simulation module 104 configured to control the bias current of this analog circuit by controlling the voltage of the OTA.
4. The system of claim 1, wherein the active comb filter comprises a resistance (R) and an inductance (L) are primarily dependent on the bias current of respectively.
5. The system of claim 1, wherein the operational transconductance amplifiers comprises of NMOS transistors of 0.45 W (μm) and 0.18 I (μm)

[View Application Status](#)

Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>)  
Copyright (<http://ipindia.gov.in/copyright.htm>) Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>)  
Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>) Contact Us (<http://ipindia.gov.in/contact-us.htm>)  
Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019



Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

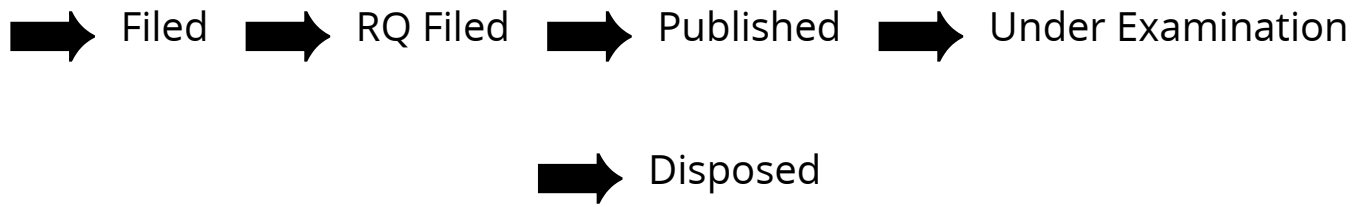
#### Application Details

APPLICATION NUMBER	201941042648
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	21/10/2019
APPLICANT NAME	<b>MTE Industries Pvt Ltd.</b>
TITLE OF INVENTION	SYSTEM AND METHOD TO IMPROVE PERFORMANCE OF AMPLIFIERS USING BIAS CURRENT
FIELD OF INVENTION	ELECTRICAL
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per Record)	patentagent@prometheusip.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	21/10/2019
PUBLICATION DATE (U/S 11A)	25/10/2019

#### Application Status

APPLICATION STATUS	<b>FER Issued, Reply not Filed</b>
--------------------	------------------------------------

[View Documents](#)



In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)

**FORM 1**  
**THE PATENTS ACT, 1970**  
**(39 of 1970)**  
**&**  
**THE PATENTS RULES, 2003**  
**APPLICATION FOR GRANT OF PATENT**  
**[See sections 7,54 & 135 and rule 20(1)]**

**(FOR OFFICE USE ONLY)**

**Application No.:** .....  
**Filing Date:** .....  
**Amount of Fee Paid:** .....  
**CBR No.:** .....  
**Signature:** .....

**1. APPLICANT(S):**

Sr.No.	Name	Nationality	Address	Country	State
1	INSTITUTE OF AERONAUTICAL ENGINEERING	India	Dundigal-500043, Hyderabad, Telangana, India	India	Telangana
2	Dr. VALLABHUNI VIJAY	India	Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering, Dundigal-500043, Hyderabad, Telangana, India.	India	Telangana

**2. INVENTOR(S):**

Sr.No.	Name	Nationality	Address	Country	State
1	Dr. VALLABHUNI VIJAY	India	Department of Electronics and Communication Engineering, Institute of Aeronautical Engineering, Dundigal-500043, Hyderabad, Telangana, India	India	Telangana
2	C V	India	Department of	India	Telangana

	SAIKUMARREDDY		Electronics and Communication Engineering, IIT Roorkee, Roorkee, Uttarakhand-247667, India		
3	CHANDRASHAKER PITTALA	India	Department of Electronics and Communication Engineering, MLR Institute of technology, Dundigal-500043, Hyderabad, Telangana, India.	India	Telangana

**3. TITLE OF THE INVENTION: SYSTEM AND METHOD TO IMPROVE PERFORMANCE OF AMPLIFIERS USING BIAS CURRENT**

**4. ADDRESS FOR CORRESPONDENCE OF APPLICANT / AUTHORISED PATENT AGENT IN INDIA:**

Prometheus Patent Services Pvt Ltd, Plot No. 34B, Sai Dwaraka Sinman, 1st Floor, HUDA Heights, Near Lotus Pond, MLA Colony, Road No. 12, Banjara hills, Hyderabad-500034, Telangana, India.

Telephone No.: 04023606003

Fax No.:

Mobile No: .....

E-mail: patentagent@prometheusip.com

**5. PRIORITY PARTICULARS OF THE APPLICATION(S) FILED IN CONVENTION COUNTRY:**

Sr.No.	Country	Application Number	Filing Date	Name of the Applicant	Title of the Invention
--------	---------	--------------------	-------------	-----------------------	------------------------

**6. PARTICULARS FOR FILING PATENT COOPERATION TREATY (PCT) NATIONAL PHASE APPLICATION:**

International Application Number	International Filing Date as Allotted by the Receiving Office
PCT//	

**7. PARTICULARS FOR FILING DIVISIONAL APPLICATION**

Original (first) Application Number	Date of Filing of Original (first) Application
-------------------------------------	--

**8. PARTICULARS FOR FILING PATENT OF ADDITION:**

Main Application / Patent Number:	Date of Filing of Main Application
-----------------------------------	------------------------------------

**9. DECLARATIONS:**

(i) Declaration by the inventor(s)

I/We ,Dr. VALLABHUNI VIJAY,C V SAIKUMARREDDY ,CHANDRASHAKER PITTALA, is/are the true & first inventor(s) for this invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) of the inventor(s): .....

(c) Name(s): Dr. VALLABHUNI VIJAY,C V SAIKUMARREDDY ,CHANDRASHAKER PITTALA,

**(ii) Declaration by the applicant(s) in the convention country**

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date: -----

(b) Signature(s) : .....

(c) Name(s) of the singnatory: INSTITUTE OF AERONAUTICAL ENGINEERING,Dr. VALLABHUNI VIJAY

**(iii) Declaration by the applicant(s)**


- The Complete specification relationg to the invention is filed with this application.
- I am/We are, in the possession of the above mentioned invention.
- There is no lawful ground of objection to the grant of the Patent to me/us.

10. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION:

Sr.	Document Description	FileName
1	REQUEST FOR EARLY PUBLICATION(FORM-9)	Form 9.pdf
2	REQUEST FOR EXAMINATION (FORM-18)	Form 18.pdf
3	FORM 1	Form 1.pdf
4	COMPLETE SPECIFICATION	Form 2.pdf
5	DRAWINGS	Drawings.pdf
6	STATEMENT OF UNDERTAKING (FORM 3)	Form 3.pdf
7	POWER OF AUTHORITY	POA.pdf
8	DECLARATION OF INVENTORSHIP (FORM 5)	Form 5.pdf

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated hering are correct and I/We request that a patent may be granted to me/us for the said invention.

Dated this(Final Payment Date): 21<sup>st</sup> October, 2019

Signature:  .....

Name: PUTTA GANESH

(IN/PA/2933)

To

The Controller of Patents

The Patent office at CHENNAI