

(54) Title of the invention : METHOD FOR MANAGING THE UPLINK RADIATION AND ENERGY CONSUMPTION OF 5G MOBILES

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(57) Abstract :

ABSTRACT METHOD FOR MANAGING THE UPLINK RADIATION AND ENERGY CONSUMPTION OF 5G MOBILES A method for managing a Specific Absorption Rate (SAR) value, quality of service (QoS), and energy consumption through a network selection scheme for 5G Network. The method includes the step of monitoring an ongoing QoS and ESAR value through a software module (SM). The software module is configured to sit on a MAC layer of a 5G Network interface. The method includes the step of determining if at least one of the QoS is below a threshold (T) value, and the ESAR value is above a Threshold Range (TR) for estimating an available bandwidth of a current base station on determining that the QoS is below the threshold (T) value, and the ESAR value is above the Threshold Range (TR) through an estimation module. The method includes the step of determining the condition of a current base stationTMs condition (CBC) based on the available bandwidth of the current base station through a determination module. The determination module determines the CBC is good on identifying that the available bandwidth is at least one of equal and more than a required bandwidth of an ongoing application. The method includes the step of avoiding a handoff through a handoff avoidance module on identifying at least one of the CBC is good and the ESAR value is less than the Threshold Range (TR) and staying in the current base station. The method includes the step of scanning to detect base stations present in proximity on determining at least one of the CBC is bad and the ESAR value is greater than TR and estimating the QoS of every detected base station through a scanning module. The method includes the step of filtering potential base stations from the detected base stations to satisfy a QoS requirement through a filtration module. The method includes the step of computing the ESAR value for every filtered base stations through a computation module. The method includes the step of selecting the base station with a minimum ESAR value for the handoff and a computing device connected to the same base station to reduce the intensity of radiation of the computing device on a body of a user and minimizing battery energy of the computing device through a selection module. The most illustrative drawing: FIG. 3.

No. of Pages : 26 No. of Claims : 6



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FORM1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
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				Signature:	
1. APPLICANTS REFERENCE/ IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)					
2. TYPE OF APPLICATION [Please tick () at the appropriate category]					
Ordinary (✓)		Convention ()		PCT-NP ()	
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()
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3B. CATEGORY OF APPLICANT [Please tick () at the appropriate category]			
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	Small Entity ()	Startup ()	Others ()
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5.TITLE OF THE INVENTION:

Method for Managing the Uplink Radiation and Energy Consumption of 5G Mobiles

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		8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION			
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the Convention country)

9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)

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International filing date

10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL(FIRST) APPLICATION

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Date of filing of original (first) application

11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT

Main application/patent No.

Date of filing of main application

12.DECLARATIONS

(i) Declaration by the inventor(s)

(In case the applicant is an assignee: the inventor(s) may sign here in below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above named inventor(s) 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)

(c) Name(s)

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

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein be low or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

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 signatory

(iii) Declaration by the applicant(s)

I/We the applicant(s) hereby declare(s) that:-

I am/We are in possession of the above-mentioned invention.

The provisional/complete specification relating to the invention is filed with this application.

There is no lawful ground of objection(s) to the grant of the Patent to me/us.

I am/we are the true &first inventor(s).

I am/we are the assignee or legal representative of true &first inventor(s).

The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).

I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.

My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.

The application is divided out of my/our application particulars of which is given in Paragraph-10 and prays that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.

The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) Form2

Item	Details	Fee	Remarks
Complete specification	No. of pages – 7 pages		-
No .of Claim(s)	No. of claims and No. of Pages – 4&1	-	-
Abstract	No. of pages – 1	-	-
No. of Drawing(s)	No. of drawings and No. of pages – 2& 2	-	-

#In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13 (4), the number of such pages filed with the provisional specification are required to be mentioned here.

b) Complete specification (in conformation with the international application) / as amended before the International Preliminary Examination Authority (IPEA), as applicable (2copies). (c) Sequence listing in electronic form

(d) Drawings (in conformation with the international application)/ as amended before the International Preliminary Examination Authority (IPEA), as applicable (2copies).

(e)Priority document(s) or is quest to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f)Translation of priority document/Specification/International Search Report/ International Preliminary Report on Patent ability.

(g) Statement and Undertaking on Form 3 (h) Declaration of Inventor ship on Form 5 (i) Power of Authority

(j).....

Total fee Rs. in Cash Date

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

Dated this



NADANA RAVISHANKAR



DIVYA PREETHA ARAVINDAN



E. KUSUMA KUMARI



T. SUBRAMANI



Y. HAROLD ROBINSON



BALAJEE MARAM



MD MOBIN AKHTAR

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The Controller of Patents
The Patent Office, at Chennai.