

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202041036247 A

(19) INDIA

(22) Date of filing of Application :22/08/2020

(43) Publication Date : 04/09/2020

(54) Title of the invention : PRIVACY PRESERVING STATISTICAL ANALYSIS SYSTEM FOR WIRELESS MEDICAL SENSOR DATA

(51) International classification	:A61B 5/00	(71)Name of Applicant :	1)Kothapalli Rameshchandra
(31) Priority Document No	:NA	Address of Applicant :	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202. Andhra Pradesh India
(32) Priority Date	:NA	2)Rajeshkumar Godi	
(33) Name of priority country	:NA	3)Abdul Rahaman Shaik	
(86) International Application No	:NA	4)B V V Satyanarayana	
Filing Date	:NA	5)Cheepuri V V S Srinivas	
(87) International Publication No	: NA	6)G. Prasanna Kumar	
(61) Patent of Addition to Application Number	:NA	7)Prudhvi Raj Budumuru	
Filing Date	:NA	(72)Name of Inventor :	1)Kothapalli Rameshchandra
(62) Divisional to Application Number	:NA	2)Rajeshkumar Godi	
Filing Date	:NA	3)Abdul Rahaman Shaik	
	:NA	4)B V V Satyanarayana	
	:NA	5)Cheepuri V V S Srinivas	
		6)G. Prasanna Kumar	
		7)Prudhvi Raj Budumuru	

(57) Abstract :

The patient medical data can be observed using Wireless Medical Sensor Network. Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data provides security to the medical sensed data of a patient without disclosing the privacy of the patient. To preserve the privacy, the Statistical Analysis System for Wireless Medical Sensor Data is developed with security in medical data collection, storage, access and statistical data analysis. The medical data collected from the sensors is stored in four data servers which are connected to each other by the secure communication channel by Extended Computational Diffie-Hellman to protect the data from inside and outside attacks on servers. The user either practitioner or researcher can access the medical sensed data stored on the servers by the Certificate Authenticated Key generated by the registration with the digital signature to the patient information retrieval database on the servers and is accessed by the user either practitioner or researcher by Bit mask oriented secure transmission.

No. of Pages : 13 No. of Claims : 3

Home (<http://ipindia.nic.in/index.htm>) About Us (<http://ipindia.nic.in/about-us.htm>) Who's Who (<http://ipindia.nic.in/whos-who-page.htm>)
 Policy & Programs (<http://ipindia.nic.in/policy-pages.htm>) Achievements (<http://ipindia.nic.in/achievements-page.htm>)
 RTI (<http://ipindia.nic.in/right-to-information.htm>) Feedback (<https://ipindiaonline.gov.in/feedback>) Sitemap (<http://ipindia.nic.in/itemap.htm>)
 Contact Us (<http://ipindia.nic.in/contact-us.htm>) Help Line (<http://ipindia.nic.in/helpline-page.htm>)

[Skip to Main Content](#) [Screen Reader Access \(screen-reader-access.htm\)](#)



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



(<http://ipindia.nic.in/inc>)

Patent Search

Invention Title	PRIVACY PRESERVING STATISTICAL ANALYSIS SYSTEM FOR WIRELESS MEDICAL SENSOR DATA
Publication Number	36/2020
Publication Date	04/09/2020
Publication Type	INA
Application Number	202041036247
Application Filing Date	22/08/2020
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIO-MEDICAL ENGINEERING
Classification (IPC)	A61B0005000000, G06F0021620000, H04L0029060000, H04L0009080000, G16H0010600000

Inventor

Name	Address	Country	Nat
Kothapalli Rameshchandra	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Rajeshkumar Godi	Assistant Professor, Department of ECE, CMR College of Engineering & Technology, Hyderabad, Telangana, India. Pin-501401.	India	Indi
Abdul Rahaman Shaik	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
B V V Satyanarayana	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Cheepuri V V S Srinivas	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
G. Prasanna Kumar	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Prudhvi Raj Budumuru	Assistant Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi

Applicant

Name	Address	Country	Nat
Kothapalli Rameshchandra	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Rajeshkumar Godi	Assistant Professor, Department of ECE, CMR College of Engineering & Technology, Hyderabad, Telangana, India. Pin-501401.	India	Indi
Abdul Rahaman Shaik	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
B V V Satyanarayana	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Cheepuri V V S Srinivas	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
G. Prasanna Kumar	Associate Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi
Prudhvi Raj Budumuru	Assistant Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534202.	India	Indi

Abstract:

The patient medical data can be observed using Wireless Medical Sensor Network. Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data provides security to the medical sensed data of a patient without disclosing the privacy of the patient. To preserve the privacy, the Statistical Analysis System for Wireless Medical Sensor Data is developed with security in medical data collection, storage, access and statistical data analysis. The medical data collected from the sensors is stored in four data servers which are connected to each other by the secure communication channel by Extended Computational Diffie-Hellman to protect the data from inside and outside attacks on servers. The user either practitioner or researcher can access the medical sensed data stored on the servers by the Certificate Authenticated Key generated by the registrar with the digital signature to the patient information retrieval database on the servers and is accessed by the user either practitioner or researcher by Bit mask oriented secure transmission.

Complete Specification

Claims:1. Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data comprising of providing privacy to the patient with secure medical sensed data transmission by the wireless Sensor Networks through secure communication channel by the Extended Computational Diffie-Hellman; Secure data storage on the distributed network of four servers which are connected to each other; The practitioner or researcher can access the encrypted data on the servers by the Certificate Authenticated Key (CAK) generated by registration with the Digital Signature; With Certificate Authenticated Key (CAK), the practitioner access the patient information retrieval database of the servers through secured access by the bit mask data transmission.

2. Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data as claimed in claim 1, wherein is the privacy of the patient is preserved by dividing the sensed medical data into four parts, encrypting them with the secret key and storing four parts on four servers respectively.

3. Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data as claimed in claim 1, wherein is the servers can communicate with each other in full manner and send the patient information in encrypted form to the user may be to the practitioner for medical treatment of patient or to the researcher for the statistical analysis of the sensed medical data.

, Description: The entire Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data is explored and the Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data is provided in the following layout that explain the entire view of the implementation of the technology that preserves the privacy of patient the wireless medical sensor data by Privacy Preserving Statistical Analysis System for Wireless Medical Sensor Data referring Figure 1. The medical sensor (201) senses the

[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