



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



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

### Patent Search

Invention Title	A 6G WIRELESS NETWORK SYSTEM BASED ON THE INTERNET OF THINGS FOR SMART CITIES
Publication Number	20/2023
Publication Date	19/05/2023
Publication Type	INA
Application Number	202321027668
Application Filing Date	14/04/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMMUNICATION
Classification (IPC)	F21V 330000, H04L 122800, H04W 043800, H04W 120600, H04W 841800

#### Inventor

Name	Address	Country
Mr.Faheemuddin Ahmed Samiuddin Ahmed	Assistant Professor AKI's Poona College of Arts, Science and Commerce, Camp Pune Pin:411001 Maharashtra India	India
Dr.Anil Adsule	Principal St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Prof. Dr.Sunil Shete	H.O.D Commerce St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Dr.Franklin Salvi	H.O.D Cost and Works Accounting St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Mr.Narayanasamy Rajendran	Lecturer University of Technology and Applied Sciences - Nizwa, Oman Al Dhakliya Pin: 611 Oman	India
Brahmaiah Battula	Assistant Professor Institute of Aeronautical Engineering Medchal Pin: 500043 Telangana India	India
Dr E K Girisan	Associate Professor Sri Krishna Adithya College of Arts and Science Coimbatore Pin: 641042 Tamil Nadu India	India
Ms.Kanakaprabha. S	Assistant Professor Department of Computer Science and Engineering Rathinam Technical Campus Coimbatore Pin: 641021 Tamilnadu India	India
Dr.G.Ganesh Kumar	Associate Professor Rathinam Technical Campus, Pollachi Main Road, Eachanari, Coimbatore Pin:641021 Tamilnadu India	India
Ms. Ghazala Ansari	Assistant Professor Department of ECE, SRM Institute of Science and technology, Sikri Kalan, Modinagar Ghaziabad Pin: 201204 Uttar Pradesh India	India
Dr. Harikumar Pallathadka	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Imphal Pin: 795140 Manipur India	India

#### Applicant

Name	Address	Country
Mr.Faheemuddin Ahmed Samiuddin Ahmed	Assistant Professor AKI's Poona College of Arts, Science and Commerce, Camp Pune Pin:411001 Maharashtra India	India
Dr.Anil Adsule	Principal St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Prof. Dr.Sunil Shete	H.O.D Commerce St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Dr.Franklin Salvi	H.O.D Cost and Works Accounting St.Vincent College of Commerce, Behind Mira Society , Off Shankar Seth Road , Pune Pin:411037 Maharashtra India	India
Mr.Narayanasamy Rajendran	Lecturer University of Technology and Applied Sciences - Nizwa, Oman Al Dhakliya Pin: 611 Oman	Oman
Brahmaiah Battula	Assistant Professor Institute of Aeronautical Engineering Medchal Pin: 500043 Telangana India	India
Dr E K Girisan	Associate Professor Sri Krishna Adithya College of Arts and Science Coimbatore Pin: 641042 Tamil Nadu India	India
Ms.Kanakaprabha. S	Assistant Professor Department of Computer Science and Engineering Rathinam Technical Campus Coimbatore Pin: 641021 Tamilnadu India	India
Dr.G.Ganesh Kumar	Associate Professor Rathinam Technical Campus, Pollachi Main Road, Eachanari, Coimbatore Pin:641021 Tamilnadu India	India
Ms. Ghazala Ansari	Assistant Professor Department of ECE, SRM Institute of Science and technology, Sikri Kalan, Modinagar Ghaziabad Pin: 201204 Uttar Pradesh India	India
Dr. Harikumar Pallathadka	Director and Professor Manipur International University, Ghari, Imphal, Imphal West, Imphal Pin: 795140 Manipur India	India

#### Abstract:

A 6G WIRELESS NETWORK SYSTEM BASED ON THE INTERNET OF THINGS FOR SMART CITIES Abstract: In the big data environment, we develop personalized information libraries based on big data from three aspects: the overall architecture of the system model, the functional model of the system, and the design of system interface according to the design principles and requirements of the personalized information service system of the university library Service system design. In terms of the functional design of the platform, the service platform is divided into four levels: accurate identification of user needs based on big data, personalized customized services based on intelligence, academic research and discussion space based on integrated media, and fine-grained subject resource aggregation based on knowledge. On this basis, a model of individualized services of university libraries including internal and external personnel, information resources, technology, services, processes, platforms, and environment has been constructed. Artificial intelligence (AI) is one of the emerging trends and applications of computing in libraries. It involves programming computers to do things, which if done by humans, would be said to require intelligence. The ultimate promise of artificial intelligence in libraries is to develop computer systems or machines that think, behave, and in fact rival human intelligence, and this clearly has major implications on librarianship. The application of artificial intelligence in the library has become pervasive. They include expert systems for reference services, book reading and shelf-reading robots, virtual reality for immersive learning among others. Although the incorporation of artificial intelligence in libraries can be perceived to alienate librarians from their users, it will probably help libraries do more rather than taking over librarians. It will enhance their services delivery. Artificial intelligence will greatly improve library operations and services and will upgrade and heighten the relevance of an ever-changing digital society. Sixth-generation wireless, or 6G, will replace 5G as the next iteration of mobile phone technology. 6G networks will be able to utilize more than 5G networks, allowing them to be speedier and more capable of handling large amounts of data. The 6G internet intends to provide connections with a latency of less than one microsecond. This throughput is 1/1000th of a second quicker in terms of latency than the typical one millisecond throughput. Significant advancements in imaging technology, and location awareness are predicted to result from the 6G technology industry. In collaboration with AI, the 6G computing infrastructure will determine the location for computing. Decisions must be made regarding the storage, management, and dissemination of data. Keep in mind that the 6G standard is presently being developed and may never become fully operational. Even though some companies have begun investing in the next-generation wireless standard, industry standards for 6G-enabled network equipment are still several years away. In addition, the simulation results illustrate how much diversity and multiplexing gain are necessary for the IoT system to achieve high data rates and reliable communication in the presence of numerous interferences. By increasing the number of transmitting and receiving antennas and employing advanced encoding and decoding techniques proposed in this paper, this technology can also be applied to extremely large Internet of Things (IoT) systems based on antennas achieved by attaching additional antennas to both the transmitter and receiver.

#### Complete Specification

##### Description:Descriptions:

6G networks will operate at higher electromagnetic spectrum frequencies. According to Dr. Mahyar Shirvanimoghaddam, a senior lecturer at the University of Sydney, the theoretical maximum transmission rate for wireless communications could reach one terabyte per second. However, it is too early to predict what data rates 6G technology will offer. This is a rough estimate for the transmission of small data packets over limited distances. In 2021, the LG company in South Korea introduced this adaptive beamforming method. With 6G's higher speeds than 5G, sample rates will be significantly quicker. Additionally, they will provide you with quicker data rates and a great deal more information. Sub-mm waves, which have wavelengths of less than one millimetre and are used in tandem with frequency selectivity to quantify relative electromagnetic absorption rates, are expected to pave the way for advancements in wireless sensing technology. Mobile edge computing will be a standard feature of 6G networks, but can also be implemented in 5G networks. Prior to the deployment of 6G networks, peripheral computing and core computing will collaborate more as part of an infrastructure for unified communications and computing. When 6G technology is implemented, this strategy may offer a number of benefits. Support for most recent mobile and desktop devices, as well as improved access to AI functions, are among the benefits. The concept of a "smart city" is still in its infancy, but it is predicated on the idea that a wide range of electronic devices and their users can facilitate the seamless movement of information. A "smart city" is one that integrates intelligent technology with interoperable technology. The implementation of this technology in metropolitan areas can improve transportation, resource consumption, waste management, and public health. Population growth, inadequate health management, and environmentally destructive practices are the results of widespread development. These facilities are essential if we are to meet the demands of an expanding population and an urbanising planet. Consequently, smart cities may play a significant role in the development of smart management, which may enhance the health and quality of life of individuals. The majority of individuals believe that it

[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