



## DAILYLIFE

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**REVIEW ON WIRELESS TECHNOLOGY IN Abstract :** Wireless technology has become integral to our daily lives, recast communication and connectivity. Wireless technology has transformed how we interact with the world, from wall-to-wall Wi-Fi networks enabling internet access to the widespread use of mobile devices. It has applications in various domains, including telecommunications, healthcare, transportation, entertainment, etc. With its convenience and flexibility, wireless technology continues to shape and enhance our daily experiences.

### I. INTRODUCTION

In the contemporary world, wireless technology has become an integral part of our daily routines, significantly shaping how we communicate and interact with each other. Wireless devices have permeated every aspect of modern life, making communication faster, more convenient, and accessible to people of all ages and backgrounds.

The ubiquity of smartphones is a prime example of how wireless devices have revolutionized communication. Almost everyone, from youngsters to senior citizens, owns a smartphone, using it not just for calls and messages but also for a wide array of activities such as social media, emails, navigation, and online shopping.

Wireless technology's impact goes beyond personal communication; it has played a pivotal role in transforming the workplace as well. With the rise of remote work and virtual meetings, wireless devices have enabled employees to collaborate seamlessly from different locations, boosting productivity and work-life balance.

In the healthcare sector, wireless technology has brought about remarkable advancements in medical devices and patient care. Wearable devices, such as smartwatches and fitness trackers, monitor vital signs, exercise routines, and even sleep patterns, empowering individuals to take charge of their health proactively.

The entertainment industry has also experienced a paradigm shift due to wireless technology. Streaming services, wireless speakers, and smart TVs allow consumers to access a vast array of entertainment content on demand, giving rise to a new era of personalized and interactive media consumption.

Moreover, the Internet of Things (IoT), which relies heavily on wireless connectivity, has interconnected various devices and appliances in our homes. From smart thermostats and security cameras to voice-controlled virtual assistants, our living spaces have become more efficient and technologically integrated.

The adaptability of wireless technology was especially evident during the pandemic. As traditional businesses faced challenges, e-commerce and delivery services thrived, thanks to the seamless connectivity offered by wireless devices.

While wireless technology has brought numerous benefits, it's crucial to address the issue of digital inclusion to ensure that everyone can leverage its advantages. Bridging the digital divide will enable broader access to education.

## II. EASE OF USE

There is a wireless technology used by all people in our daily lives:-

### E-marketing:-

Wireless technology has revolutionized the way businesses approach marketing. With the rise of smartphones and other mobile devices, marketers can now reach customers anytime, anywhere. This has led to a shift away from traditional advertising channels and towards more targeted, personalized campaigns that take advantage of the vast amount of data available through wireless networks.

By leveraging wireless technology, businesses can now track customer behaviour in real time, allowing them to deliver highly relevant content and offers. Embracing wireless headphones not only elevates the customer experience by offering unparalleled convenience but also amplifies the potential for increased conversions, catering to the rising demand for wireless technology in the market. In addition, wireless technology enables businesses to engage with customers through social media and other digital channels, further expanding their reach and influence.

### Business: -

Wireless technology has revolutionized the way businesses operate, providing increased productivity, mobility, and connectivity. With wireless devices such as laptops, tablets, and smartphones, employees can work from anywhere, at any time, without being tethered to a desk or wired connection.

In addition to the flexibility it provides, wireless technology also enables businesses to streamline their operations. For example, wireless barcode scanners allow warehouse workers to quickly and accurately track inventory, while wireless printers eliminate the need for cables and cords in the office. This not only saves time but also reduces clutter and improves safety.

### Transportation: -

The transportation industry is on the verge of a major transformation thanks to wireless technology. With the development of self-driving cars, we are seeing a shift away from traditional modes of transportation and towards a more efficient and sustainable future. These cars are equipped with sensors and cameras that allow them to navigate roads safely and efficiently, reducing the risk of accidents and improving traffic flow.

In addition to self-driving cars, wireless technology is also being used to create smart traffic management systems. These systems use real-time data to monitor traffic patterns and adjust traffic signals accordingly, reducing congestion and improving overall efficiency. As we continue to develop and refine these technologies, we can expect to see a significant reduction in traffic-related accidents and a more streamlined transportation system overall.

### Wireless Headphones:-

Wireless headphones have gained immense popularity due to their remarkable convenience, allowing users to enjoy unrestricted movement without the hassle of tangled wires. With no cords to tangle or get in the way, they offer a level of convenience that traditional wired headphones simply can't match.

In addition to their convenience, wireless headphones also offer improved sound quality and noise cancellation technology. Popular brands such as Bose, Sony, and Apple have all released highly-rated wireless headphone models that have taken the audio industry by storm.

### Entertainment:-

Wireless technology is just like a friend to all people. People use it for entertainment like watching videos, playing games and so on activities people do on their mobile or laptop daily. Children play games on mobiles for entertainment purposes as well as adults watch reels on Instagram or shorts on YouTube for their entertaining purpose. For entertaining purposes, most people use wireless technology.

### Education:-

During the pandemic days, all colleges, the institute was closed and online teaching took place. At that time, many apps were available on mobile phones, like Zoom, Google Meet etc. These apps are helpful for students and teachers for education purposes. Many students find questions and answers on Google and search for many educational things on web browsers. It is useful for students and easy to understand.

After the pandemic, many online classes were available in Play stores, like Byju's, WhiteHat Education Technology, Epic, Osmo and so on. It is useful for students to learn something new.

### Smart Home:-

We use in our home wireless technology like smart doors, AC and many things we use at home daily. The smart door is an example of wireless technology it helps to show the person who is behind the door as well as biometrics is another function which is help to unlock the door by using known fingerprints. At home, air conditioner is also controlled by the remote. Alexa is the best example of a smart home it only runs on voice. it can play music, on or off lights and so many smart functions

are available in Alexa devices. Many people listen to music on Radio daily it is also a wireless device. We operate televisions by remote sit in one place. Smart home devices are easy to handle for everyone and they save time as well as hard work.

### Health Care:-

In the medical area, patients' health care cards are made smart cards by using the WiFi chip. Therefore patients, all detail comes into the computer directly. Many wireless instruments are available in medicals like a Thermometer for measuring temperature, and Sphygmomanometer for measuring blood pressure and so many digital instruments are available in the medical sector. Nowadays In medical store the stock of medicines are check in mobile phones, finding medicines by using App's. Many medical stores deliver the medicine at homelike Apolo ,Medplus it gives some discount on medicines it arrange online.

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### E-payment:-

Payment is the process of digital payment or online payment. Many people use Gpay, Paytm, and phone pay for online payment. It is secure and helpful for students, businessmen, shopkeepers and so many people who do not handle money in their wallets.

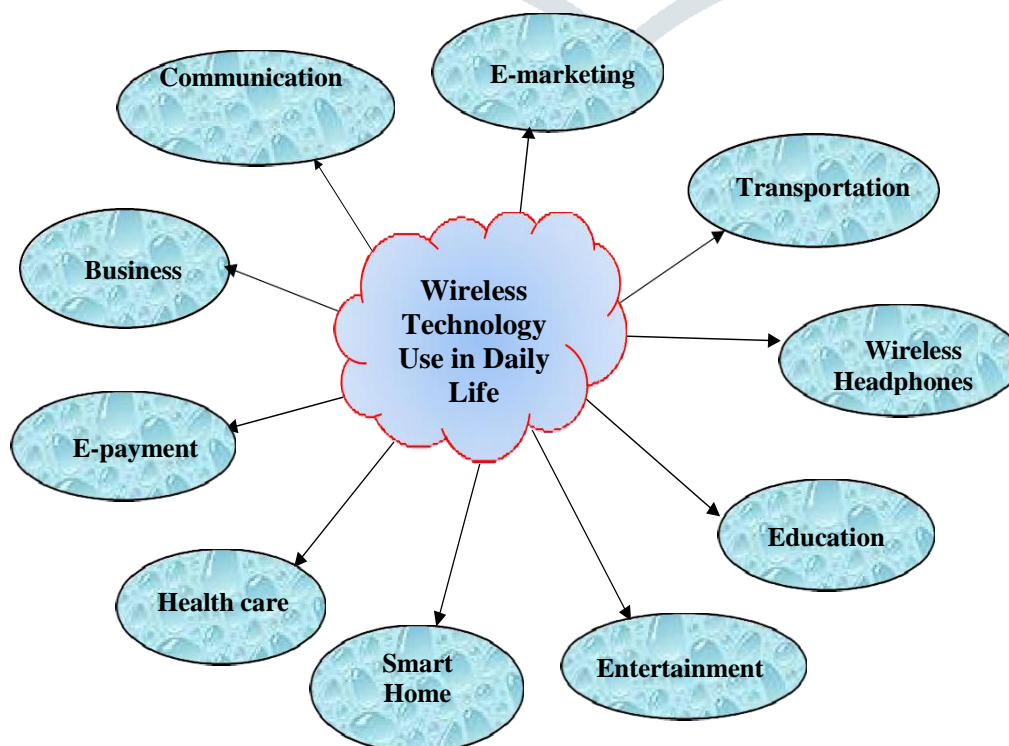
By using E-payment many people transact and debit money in sitting at home very easily. We also can check transaction history and check account balance. By using payment history we can predict past expenses.

### Communication:-

Communication is the need of all people. Many people communicate daily with the help of messages, voice calls, Video calls and voice messages. It is the way of communicating between one person to another person we have to use cell phones, laptops, tablets and PC.

Many people communicate by using Whats-app, Instagram and Telegram. In this application, there are chatting and calling are available that's why people prefer it more. It is a secure and easy-to-handle application. Easily understandable also. Many times network problem causes a bit of a problem like a message to cant forwarded to another person, and video or photos are not downloaded.

### Figures



**Fig 2.1:- daily life uses**

### III. LITERATURE SURVEY

[1] In this research paper, presents an extensive survey of various wireless technologies and their diverse applications. It starts by discussing the fundamentals of wireless communication, including the principles of radio frequency, modulation techniques, and networking protocols. The survey then delves into specific wireless technologies such as Wi-Fi, Bluetooth,

Zigbee, and cellular networks, exploring their unique features and use cases. The authors highlight the importance of wireless technology in various domains, including telecommunications, the Internet of Things (IoT), healthcare, and smart cities. Additionally, the paper examines the challenges faced in wireless communication, such as interference, security, and spectrum management. Overall, this comprehensive survey serves as a valuable resource for understanding the broad landscape of wireless technology and its multifaceted applications.

[2] In this research paper, provides an in-depth analysis of wireless communication systems and their significance in modern-day telecommunications. It begins by elucidating the core concepts of wireless communication, covering radio wave propagation, multiple access techniques, and wireless network architectures. The survey then explores the evolution of wireless technologies, from the early days of analog systems to the contemporary digital era. Notably, the paper discusses the impact of wireless technology on transforming global connectivity and enabling ubiquitous internet access. Furthermore, it investigates the role of wireless communication in emerging fields such as IoT and machine-to-machine (M2M) communication. By examining the advantages and limitations of wireless networks, this paper serves as a valuable reference for understanding the fundamental principles and applications of wireless technology.

[3] In this research paper, the authors provide an up-to-date assessment of the current state of wireless technology and its potential future advancements. The survey covers various wireless communication technologies, including cellular networks, Wi-Fi, satellite communication, and ad-hoc networks. The paper analyzes the trends in wireless technology adoption and investigates the challenges faced by wireless networks, such as spectrum scarcity and network congestion. Additionally, it discusses the latest developments in wireless standards and protocols, with a focus on enhancing data rates, network reliability, and security. The paper concludes by exploring potential directions for future research and development in wireless technology, including the integration of 5G and beyond, advancements in spectrum management, and the role of artificial intelligence in optimizing wireless networks.

[4] The this research paper, examines the transformative impact of 5G technology on the telecommunications industry. The survey outlines the key features of 5G networks, such as ultra-high data rates, low latency, massive connectivity, and network slicing. It explores the diverse applications enabled by 5G, including enhanced mobile broadband, mission-critical communication, massive IoT, and industrial automation. Additionally, the paper discusses the challenges and opportunities in the deployment of 5G infrastructure, including spectrum allocation, network densification, and security considerations. By providing a comprehensive overview of 5G technology, this survey highlights its potential to revolutionize telecommunication and pave the way for future innovations in wireless communication.

[5] The final reference, focuses on the application of Ultra-Wideband (UWB) technology for localization in wireless sensor networks. The survey begins by explaining the principles of UWB communication and its advantages in accurate ranging and localization. It explores various localization techniques used in wireless sensor networks, including Time of Flight (ToF) and Time Difference of Arrival (TDoA) methods. The paper also discusses the challenges in UWB-based localization, such as signal propagation, interference, and synchronization. Moreover, it evaluates the performance of UWB localization systems in different scenarios and proposes potential solutions to enhance accuracy and efficiency. Overall, this survey provides valuable insights into the implementation of localization technology using UWB in wireless sensor networks, with implications for various applications, including asset tracking, indoor navigation, and environmental monitoring.

#### IV. CONCLUSION

In conclusion, the review highlights the significance of wireless technology in transforming our daily lives and reshaping various industries. Wireless technology has revolutionized communication and connectivity, providing us with unprecedented convenience and flexibility. From the widespread use of smartphones to the integration of wireless devices in smart homes and the adoption of wireless headphones, it is evident that wireless technology has become an integral part of our daily routines.

The convenience of wireless technology extends to multiple domains, such as e-marketing, where businesses can reach customers anytime and anywhere, leading to more targeted and personalized campaigns. In the business sector, wireless connectivity enhances productivity and mobility, enabling employees to work remotely and collaborate seamlessly. Moreover, the transportation industry is undergoing a significant transformation with the advent of wireless communication, driving advancements in self-driving cars and smart traffic management systems.

Wireless headphones have gained immense popularity due to their unmatched convenience and improved audio quality. In entertainment and education, wireless technology enables users to access content and learning resources effortlessly, while in healthcare, it facilitates efficient data management and remote patient monitoring. E-payment solutions have also embraced wireless technology, offering secure and efficient digital payment methods.

Overall, the review emphasizes that wireless technology has become an indispensable part of our daily lives, driving innovation, connectivity, and efficiency across various sectors. As we continue to explore new advancements and applications, wireless technology is poised to play an even more transformative role in shaping our future interactions with the world.

**REFERENCES**

- [1] N. Zhang and H. Bao, "Wireless Network Technology and its Applications," 2009 International Conference on Networks Security, Wireless Communications and Trusted Computing, Wuhan, China, 2009, pp. 635-638, doi: 10.1109/NSWCTC.2009.255
- [2] T. Ranjini and R. Yamuna, "Wireless technology," 2011 National Conference on Innovations in Emerging Technology, Erode, India, 2011, pp. 161-164, doi: 10.1109/NCOIET.2011.5738824
- [3] O. O. Khalifa, S. Khan, A. Albagul and M. S. Elshabani, "Wireless Technology: Current Status and Future Directions," 2006 2nd International Conference on Information & Communication Technologies, Damascus, Syria, 2006, pp. 2722-2729, doi: 10.1109/ICTTA.2006.1684842.
- [4] A. K. Jain, R. Acharya, S. Jakhar and T. Mishra, "Fifth Generation (5G) Wireless Technology "Revolution in Telecommunication"," 2018 Second International Conference on Inventive Communication and Computational Technologies (ICICCT), Coimbatore, India, 2018, pp. 1867-1872, doi: 10.1109/ICICCT.2018.8473011.
- [5] C. Xu, Y. Zhao and Y. Zhang, "Localization Technology in Wireless Sensor Networks Based on UWB," 2009 International Conference on Wireless Networks and Information Systems, Shanghai, China, 2009, pp. 35-37, doi: 10.1109/WNIS.2009.35.
- [6] A. H. Khan, M. A. Qadeer, J. A. Ansari and S. Waheed, "4G as a Next Generation Wireless Network," 2009 International Conference on Future Computer and Communication, Kuala Lumpur, Malaysia, 2009, pp. 334-338, doi: 10.1109/ICFCC.2009.108.
- [7] H. Tataria, M. Shafi, A. F. Molisch, M. Dohler, H. Sjöland and F. Tufvesson, "6G Wireless Systems: Vision, Requirements, Challenges, Insights, and Opportunities," in Proceedings of the IEEE, vol. 109, no. 7, pp. 1166-1199, July 2021, doi: 10.1109/JPROC.2021.3061701.
- [8] M. Z. Chowdhury, M. Shahjalal, S. Ahmed and Y. M. Jang, "6G Wireless Communication Systems: Applications, Requirements, Technologies, Challenges, and Research Directions," in IEEE Open Journal of the Communications Society, vol. 1, pp. 957-975, 2020, doi: 10.1109/OJCOMS.2020.3010270.
- [9] O. J. Benjamin, "Trends in wireless technology," IEEE Princeton Section Sarnoff Symposium, Princeton, NJ, USA, 1995, pp. 0\_14-0\_21, doi: 10.1109/SARNOF.1995.636613.
- [10] S. Shorgin, K. Samouylov, I. Gudkova, O. Galinina and S. Andreev, "On the benefits of 5G wireless technology for future mobile cloud computing," 2014 International Science and Technology Conference (Modern Networking Technologies) (MoNeTeC), Moscow, Russia, 2014, pp. 1-4, doi: 10.1109/MoNeTeC.2014.6995601.
- [11] S. S. Kolahi, R. Shukla, A. Kumar and R. Freeth, "Wireless Technology in Educational Institutes," 2008 International Conference on Computer Science and Software Engineering, Wuhan, China, 2008, pp. 499-502, doi: 10.1109/CSSE.2008.697.
- [12] A. Willig, K. Matheus and A. Wolisz, "Wireless Technology in Industrial Networks," in Proceedings of the IEEE, vol. 93, no. 6, pp. 1130-1151, June 2005, doi: 10.1109/JPROC.2005.849717.
- [13] Ş. Yılmaz and S. Toklu, "The future of wireless technology and potential problems and solutions," 2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Turkey, 2017, pp. 827-829, doi: 10.1109/UBMK.2017.8093540.
- [14] M. A. I. Sikder, A. Kodi, W. Rayess, D. DiTomaso, D. Matolak and S. Kaya, "Exploring Wireless Technology for Off-Chip Memory Access," 2016 IEEE 24th Annual Symposium on High-Performance Interconnects (HOTI), Santa Clara, CA, USA, 2016, pp. 92-99, doi: 10.1109/HOTI.2016.026.
- [15] K. Hansen, "Wireless communications devices and technology: future directions," 1998 IEEE Radio Frequency Integrated Circuits (RFIC) Symposium. Digest of Papers (Cat. No.98CH36182), Baltimore, MD, USA, 1998, pp. 1-5, doi: 10.1109/RFIC.1998.682035.