

SNS COLLEGE OF ENGINEERING



Build an Entrepreneurial Mindset Through Our Design Thinking FrameWork

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with & Grade Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

COURSE NAME: 19CS622-Blockchain Technology

III YEAR /VI SEMESTER

Unit 5- Blockchain Applications

Case study : Blockchain in Healthcare



HEALTHCARE





Secure Patient Data Management:

- Blockchain can provide a secure and decentralized platform for storing and managing patient records.
- This ensures that sensitive medical information is protected from unauthorized access while allowing patients to control who can view their data.
- The immutable nature of blockchain also helps prevent data tampering, ensuring the integrity of medical records.

Interoperability of Health Records:

- One of the biggest challenges in healthcare is the lack of interoperability between different systems.
- Blockchain can facilitate seamless sharing of health information across different providers and systems, enabling a more cohesive view of patient history.
- This can improve care coordination and reduce errors in treatment.

Supply Chain Transparency:

- Blockchain can enhance the transparency and traceability of pharmaceuticals and medical supplies.
- By tracking the entire supply chain—from manufacturers to distributors to pharmacies—healthcare
 providers can verify the authenticity of products and reduce the risk of counterfeit medications
 entering the system.
- This can also improve recall processes and inventory management.

Clinical Trials and Research:

- Blockchain can streamline the management of clinical trials by providing a secure and transparent method for recording data.
- It allows researchers to maintain a tamper-proof record of trial results, ensuring data integrity.
- Additionally, it can enhance patient recruitment by securely sharing patient data across institutions, facilitating more efficient trials.

Patient Consent Management:

- Managing patient consent for data sharing and treatment can be complex.
- Blockchain can automate and streamline this process, allowing patients to grant or revoke access to their data in a secure manner.
- Smart contracts can be used to ensure that consent is respected and documented, providing a clear audit trail for compliance purposes.

India

Blockchain facilitates transparency and security at many stages of the healthcare supply chain:

