

Guest Lecture on "Blockchain Essentials : From Fundamentals to Real World Implementation"

The department of **Information Science and Engineering** conducted a **Guest Lecture** titled **Blockchain Essentials : From Fundamentals to Real World Implementation** on **26-09-2026** at **9.30 AM**, in **Seminar Hall 1**.

The event on "Blockchain Essentials: From Fundamentals to Real-World Implementation" commenced with a prayer, followed by the welcome address and the introduction of the guest speaker. The session was delivered by Dr. Jubilant J. Kizhakkethotam, Professor and Head, Department of IT, SRM Institute of Science and Technology, Trichy.

The session focused on introducing the fundamentals of blockchain technology and its practical applications in real-world scenarios to the students. The programme was attended by 5th semester , Information Science and Engineering (ISE) students. The session enabled students to gain insights into the practical relevance and real-world implementation of blockchain technology beyond theoretical concepts.

Objectives of the Event

The primary objectives of the event were:

- To introduce students to the fundamental concepts of blockchain technology.
- To explain blockchain networks, types, and their working concepts.
- To familiarize students with real-world applications and use cases of blockchain in different domains.
- To provide an understanding of smart contracts, consensus mechanisms, security, and privacy.
- To discuss the challenges and opportunities associated with blockchain technology
- To create awareness about career opportunities and job roles in the blockchain domain.

Event Overview

The event commenced at 9:30 AM with a welcome address by Ms. Ashika VijayKumar, followed by an engaging session by Dr. Jubilant J. Kizhakkethottam, Professor and Head, Department of IT, SRM Institute of Science and Technology, Trichy. A total of 99 S5 ISE students participated in the session and showed keen interest throughout the programme. The presentation covered the following key areas:

Blockchain Fundamentals: Introduced the basic concepts of blockchain technology, including distributed ledgers, blocks, transactions, and the principles of decentralization and immutability.

- **Blockchain Networks:** Introduced to how blockchain networks operate through interconnected nodes that collectively maintain and validate the distributed ledger. Types of Blockchain: The presentation discussed different types of blockchain networks, including public, private, consortium, and hybrid blockchains, highlighting their characteristics and suitable application scenarios.
- **Applications and Use Cases:** Various real-world applications of blockchain technology were discussed, including applications in finance, supply chain management, healthcare, and other sectors.
- **Smart Contracts:** Explained smart contracts as self-executing programs deployed on blockchain networks that automatically execute predefined conditions and transactions. Also, introduced to the mechanisms used by blockchain networks to achieve agreement among participating nodes, including Proof of Work, Proof of Stake, and other consensus approaches.
- **Security:** Highlighted the security features of blockchain, including cryptographic techniques, data integrity, tamper resistance, and secure transaction validation.
- **Real-World Implementation:** Examples of blockchain implementations were discussed to demonstrate how the technology can be applied to address practical problems and improve transparency, traceability, security, and efficiency.



Figure 1: Event Banner Displayed at the Venue

Day	Time	Session Details
Saturday, September 26 2026	9.30–10.00 am	Welcome Address
	10.00 am–12.30 pm	Session Conducted

Table 1: Schedule of the Event



(a) Prof Anupama giving a token of love to Dr Jubilant J Kizhakkethottam



(b) Student participation during the Technical session

Outcomes and Impact

- Demonstrate a clear understanding of the fundamental concepts and principles of blockchain technology.
- Explain blockchain networks, different types of blockchains, consensus mechanisms, smart contracts, security, and privacy aspects.
- Identify and describe real-world applications and use cases of blockchain technology across various domains.
- Recognize emerging opportunities and career roles in the blockchain domain, including blockchain developer, architect, engineer, and consultant.
- The session enhanced students' awareness of how blockchain concepts can be applied to practical and industry-oriented problems.
- Relate blockchain concepts to practical, industry-oriented problems and identify potential applications for addressing real-world challenges.

Conclusions

The session successfully enhanced students' understanding of blockchain fundamentals, applications, smart contracts, and real-world use cases. It provided valuable exposure to the practical relevance and career opportunities of blockchain technology.

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Figure 3: Welcome speech by Prof. Anupama



Figure 4: Prof Anupama presenting a memento to the guest speaker



Figure 5: Guest speaker Dr Jubilant J Kizhakkethottam interacting with the students



Figure 6: Guest speaker Dr Jubilant J Kizhakkethottam interacting with the students

The programme was successfully conducted with active participation from 99 S5 ISE students. The session provided students with a clear understanding of blockchain technology, its applications, smart contracts, security, and real-world use cases. Overall, the programme achieved its objectives by enhancing students' knowledge and awareness of the practical applications and future scope of blockchain technology.