

TECHFEST 2023-24

CertiTech

Modernizing Certificate of Insurance Distribution Using Distributed Ledger Technology (DLT)

Every organization faces risk due to industry changes. MMC, a global insurance broker for 150 years, advises businesses of all sizes, placing specialized risk coverages and maintaining an extensive inventory of policy documents. They also produce Certificates of Insurance for corporate employees and vendors.

PROBLEM STATEMENT

Broker Inc. wants to use Distributed Ledger Technology (DLT) to create a strong system for delivering these certificates to policyholders, while making them more secure and transparent for everyone involved. The system should have five main components:

1. **Identify the optimal DLT solution:** Broker Inc. wants to find the best DLT for modernizing certificate distribution. DLTs offer many options, such as block chain and directed acyclic graphs. The challenge is to choose the DLT that best meets Broker Inc.'s needs, evaluating their scalability, security, and performance characteristics.
2. **Certificate Generation and Sharing:** This module will create, sign, and deploy certificates to the DLT platform. It will also control access and modification of documents. For example, only the carrier can generate a document, but others can request changes. Once all parties sign off, the finalized document will be updated on all nodes and be available to download by any entity.
3. **DLT Application:** DLT application is required to open DLT documents. The specific tool you need depends on the DLT platform, but there are many open source available for most platforms.
4. **Tracking Module:** Broker Inc. needs a DLT-based certificate tracking system that provides real-time visibility. The system should track certificates from start to finish, including who gets them, who uses them, and how they are used. It should also provide insights into certificate usage to help Broker Inc. make better decisions and assess risks.
5. **Enabling Remote Certificate Invalidation:** Broker Inc. aims to develop a secure and automated way to revoke certificates in the DLT system, so that outdated or incorrect certificates are no longer considered valid. This will improve the security and responsiveness of the certificate distribution process.

STRUCTURE:

There will be three stages to the competition -

Round 1: Abstract review meet

Shortlisted teams will showcase their work.

Improvements will be suggested by the experts

Round 2: Final review meet

Updated report will be showcased based on which **5 teams** will be shortlisted for the final presentation.

Round 3: Presentation and Working Demonstration

Working demonstration and presentation of the solution

Top 5 teams shortlisted from Stage 2 will present their solution at Techfest 2023-24

ABSTRACT SUBMISSION:

- Prepare a report and send it to certitech@techfest.org
- Subject of the mail: CertiTech_TeamID_TeamLeaderName
- Mention all your team details clearly in the mail.

TEAM SPECIFICATIONS AND ELIGIBILITY

- All students with a valid identity card from their respective educational institutions are eligible to participate in the competition
- A team can have a maximum of 4 members.
- Students from different institutes can be a part of the same team.

GENERAL RULES

1. Every team has to register online on our website for the competition. A Team ID will be allocated to the team on registration which shall be used for future references.
2. A team can register at any point of time before 23th November 2023 and submit the final abstract.
3. The decision of the organizers or judges shall be treated as final and binding on all. Techfest has all the rights to verify the identity and accuracy of the details provided by the participants.
4. No responsibility will be held by Techfest, IIT Bombay for any late, lost or misdirected entries.
5. The idea presented by the teams should be original (not protected by means of patent/copyright/technical publication by anyone else).
6. Note that at any point of time the latest information will be that which is on the website. However, registered participants will be informed through mail about any changes on the website.
7. All modes of official communication will be through the Techfest e-mail.

TIMELINE

Last date for registration	23th November	Participants need to register before this date
Last date for abstract submission	23th November	Submission of First Draft Report
Round 1	22nd November	Experts will review your abstract and guide you for improvements
Round 2	Mid-December	Participants will showcase updated report and 5 teams will be shortlisted
Round 3	27th-29th December	Final Live presentation in front of Judges

CERTIFICATE POLICY

1. Top three teams in the grand finale will be awarded Certificate of Excellence.
2. E-Certificate of participation will be given to the teams scoring more than the critical marks which will be decided later.

PRIZE MONEY

The Prize money will be awarded to the **top 3** Winners via NEFT and will be processed within **30** working days after receiving the Prize Money from Sponsors.

The Winners have to mail the following information (immediately after the announcement of the results) to akshat@techfest.org.

Subject: Competition name, team id - your position (example- MERNifier, MERN-2309234 – 1st position)

Body of mail-

1. Account Holder's Name
2. Account Number
3. Bank name and Branch name
4. IFSC Code
5. Photograph of Bank Passbook as a proof