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PRESS NOTE

CBSE uses BlockChain Technology for Board Exam Results Documents
https://cbse.certchain.nic.in

CBSE in technical collaboration with Centre of Excellence for Block Chain Technology of National Informatics Centre under Ministry of Electronics and Information Technology (MeitY), Govt. of India has come up with a solution using BlockChain Technology named as "Academic {BlockChain} Documents". BlockChain Technology ensures that academic documents are recorded in a secure and tamper proof manner. These academic documents can be accessed online one in a trusted and verifiable manner.

CBSE Academic {BlockChain} Documents (ABCD) has been established using Block Chain Technology to record the certificates in a linked chain structure. The result certificates are kept in a distributed manner at different locations involving multiple stakeholders, protecting it against any attempt of tampering. To begin with, CBSE has made available the digitally signed certificates of Class X and XII for years 2019-2021 and will gradually push the certificates of previous years in the coming months. Upon issuance of new certificates by CBSE, the digitally signed certificates will be sent to the BlockChain based system creating an additional secure link. This network is established with nodes at Bangalore, Pune and Jaipur. Presently, the Certificate Chain is managed by NIC at its data centres.

One of the challenges faced is the verification of the authenticity of certificates produced by the candidates for admissions, jobs, loans etc. The verification of correctness and genuineness of the certificate with the concerned universities or boards requires considerable effort and processing time. Hence most of the times, the institutes/organizations insist on production of the original certificate by the candidates. **Academic {BlockChain} Documents (ABCD)** addresses these challenges regarding verification of documents produced by candidates.

BlockChain Technology records the data in a distributed ledger with ownership of all participating stakeholders. The data is recorded in the chain based on the consensus among the stakeholders and simultaneously replicated at all the locations in the distributed network of BlockChain nodes. This eliminates the dependency on a third party for verification. Data is linked and stored with cryptographic security so that it is **immutable and traceable**. The linking of the blocks in the block chain ensures that they **cannot be tampered with** and the data is **trustable** as it can be verified across the participating stakeholders.

CBSE had earlier developed its own digital academic repository called *'Parinam Manjusha'* in 2016. This repository has been integrated with NEGD's (National e-Governance Division) Digital Locker platform. At present result data of Class X & XII examinees of eighteen (18) years i.e. 2004 to 2021 is available online for downloading of digital academic documents by students and verification by employers and higher education institutions. Approximately 12 crore digital real time generated, digitally signed and PKI based

QR coded academic documents such as Marks Sheets, Migration Certificates and Pass Certificates are available in this repository. Digitization of legacy records of Class X & XII from 1975 onwards is in progress and will be appended to the repository in a years' time.

The Academic BlockChain Document can be used by various educational institutes for verification at the time of admission for higher studies and companies for job offers. It can also be used for the online counselling by the institutes, by integrating their systems with plug-in interfaces. The banks and financial institutions can also use this system for sanctioning of educational loans and merit-based scholarship based on the qualifications of the applicants. One can verify the authenticity of the certificates even after several years of issuance. It will provide the trail of all the insertions or changes made on a particular certificate.

It results in **Transparent, Tamper Proof and Paperless** usage of certificate. It also substantially cuts down the time for verification and reduces paperwork.

How to Use

1. All users viz. students, educational institutions, employers can verify academic documents by visiting https://cbse.certchain.nic.in or CBSE Main website https://cbse.gov.in .
2. Click on "Verify" menu option on top menu bar available on home page.
3. Select the class from the pop up. Input basic details like Roll No, Date of Birth (in case of Class X only), Exam Year, Exam Type and Student Name (partial) and press 'Go' to confirm.
4. Once the details are validated, the marks statement (available presently) of the student is displayed.

Team CBSE