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Introduction

The Digital Calibration Certificate (DCC) is transforming metrology by ensuring accurate, traceable, and secure calibration records. Traditionally, calibration certificates lacked standardization, but advancements in ISO/IEC 17025, automation, blockchain, and cloud technologies have enabled the widespread adoption of structured digital certificates. Modern DCCs offer machine-readable formats, instant data access, and seamless verification, improving efficiency and security across industries. The shift to digital platforms allows National Metrology Institutes and laboratories to integrate AI, IoT, and automated calibration systems, ensuring precision in an interconnected world. This work introduces an innovative web-based platform for DCC generation and management, utilizing GEMIMEG tools, XSLT stylesheets, and AI-driven analysis. Designed for ease of use, it streamlines certificate issuance while enhancing real-time verification, global accessibility, and interoperability. Future advancements will expand DCC applications across various metrological fields, supporting the digital transformation of measurement science.

