

## Cyber Security & Digital Forensics Laboratory

### TITLE OF PROJECT – Hashline- File Integrity Monitor

**Abstract:**

File Integrity Monitor (FIM) project aims to develop a comprehensive solution to protect critical systems and aid in post-incident analysis. This project combines cybersecurity and digital forensics to create a powerful tool for monitoring, detecting, and analyzing file system changes on computer systems, ensuring data integrity and aiding in the investigation of security breaches.

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**Objectives:**

1. Real-Time Monitoring
2. Data Integrity Assurance
3. Security Incident Detection
4. Forensic Analysis Support
5. Chain of Custody Maintenance

**Software Requirements:** Python, IDE

**Algorithm:** SHA512

**Machine Learning Algorithm-** Convolutional Neural Network (CNN)  
Support Vector machine (SVM)

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