**Smart Attendance Monitoring System Based On Facial Recognition**

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***Abstract***

**Facial recognition technology is used in smart attendance monitoring systems to automatically identify and confirm people so that their attendance can be marked. Due to its many benefits over more traditional attendance recording techniques like handwritten sign sheets or RFID cards, this kind of technology is getting more popular. Students or employees can just stroll in front of a camera to have their attendance recorded without having to carry any specific identification cards or any electronic gadgets. Smart attendance monitoring systems can also be implemented with the help of CCTV cameras. In order to capture clear and consistent photos of people for face recognition, it is necessary to accurately identify CCTV cameras and maximize their settings. In large businesses, in particular, this can save a lot of time and tension. It can boost security, reduce costs, and increase productivity, but it's important to address privacy concerns and make sure the tools are utilized morally and responsibly. With the help of facial recognition technology, people may be recognized even in poor lighting or crowded environments. Facial recognition based smart attendance monitoring systems have a number of advantages over traditional approaches, but it's essential to use them nicely and perfectly.**

***Keywords***

*Local Binary Pattern (LBP), Convolutional Neural Networks (CNN), Generative adversarial network (GAN), Support Vector Machine (SVM), Face recognition (FR), Machine Learning (ML), Deep Learning (DL), Local Binary Pattern Histogram (LBPH), Principal Component Analysis (PCA) and Linear Discriminant Analysis (LDA)*