# SENTINEL: INTELLIGENT MULTI CAMERA FACE DETECTION, RECOGNITION AND TRACKING SYSTEM

A PROJECT REPORT

*Submitted by,*


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*Under the guidance of,*

**Mr. SHEIK JAMIL AHMED**

*in partial fulfillment for the award of the degree of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

**At**

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

**PRESIDENCY UNIVERSITY**

**BENGALURU**

**JANUARY 2024**

# PRESIDENCY UNIVERSITY

## SCHOOL OF COMPUTER SCIENCE ENGINEERING

## CERTIFICATE

This is to certify that the Project report **"SENTINEL: INTELLIGENT MULTI CAMERA FACE DETECTION, RECOGNITION AND TRACKING SYSTEM"** being submitted by "ISRAR AHMED", "RISHI RAGAV V", "RAKSHITH M B", "MOHD FAIZAN USMAN SAIT" bearing roll number(s) "20201CAI0107", "20201CAI0128", "20201CAI0117", "20201CAI0090" in partial fulfilment of requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out under my supervision.

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## DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **SENTINEL: INTELLIGENT MULTI CAMERA FACE DETECTION, RECOGNITION AND TRACKING SYSTEM** in partial fulfilment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **Mr. SHEIK JAMIL AHMED, ASSISTANT PROFESSOR, School of Computer Science Engineering, Presidency University, Bengaluru.**

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

**Signature**

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# ABSTRACT

Sentinel is an innovative multi-camera system revolutionizing video surveillance through intelligent face detection, recognition, and tracking. Employing advanced computer vision and deep learning models, the system ensures accurate face detection under challenging conditions, enhancing its reliability in diverse environments. By integrating facial recognition technology with a comprehensive database, Sentinel enables rapid identification and alerts for known individuals of interest. The system's intelligent tracking algorithms allow for seamless monitoring and tracking of individuals across multiple camera feeds, mitigating the limitations of conventional surveillance. Sentinel's scalability ensures compatibility with various surveillance camera systems, promoting widespread adoption. Additionally, the system prioritizes privacy by adhering to ethical data handling practices, securely managing facial data in compliance with privacy regulations. Sentinel's cutting-edge architecture marks a significant leap forward in video surveillance capabilities, offering a comprehensive solution for real-time face detection, recognition, and tracking. Its applicability spans across sectors such as public safety, law enforcement, and critical infrastructure protection, making it a vital tool in bolstering security measures and ensuring efficient surveillance operations.

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