KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
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Website: www.kscst.org.in/spp.html or https://kscst.karnataka.gov.in/en

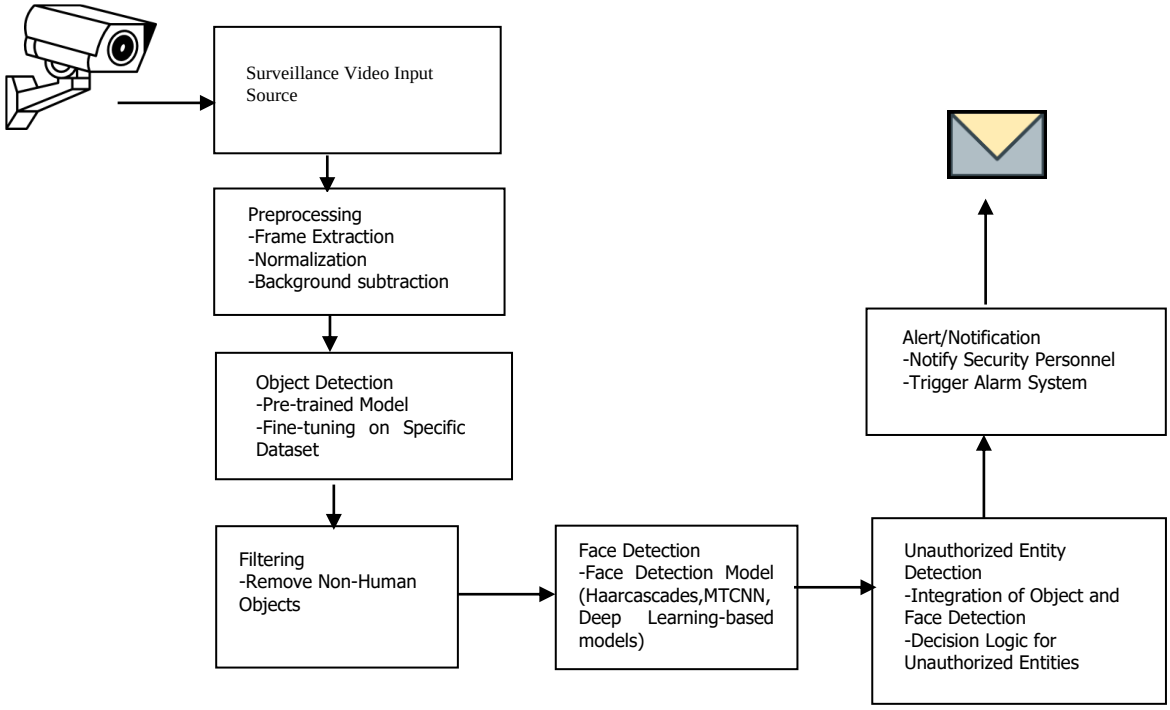
FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE

47th SERIES OF STUDENT PROJECT PROGRAMME

1.	**Name of the College: Navkis College OF Engineering**
2.	**Project Title: "Detection of Unauthorized Human Entity in Surveillance Video"**
3.	**Branch: Computer Science and Engineering**
4.	**Theme (as per KSCST poster): Pattern Recognition and Image Processing (The project proposals shall mandatorily be from one of the broad themes / areas. Visit website www.kscst.org.in/spp.html)**
5.	**Name(s) of project guide(s):** **1. Name: Dr. Sathisha M S** **Email id: sathishams1983@gmail.com** **Contact No.:9886102846**
6.	**Name of Team Members (Strictly not more than four students in a batch):** **Name: DARSHAN H M** **USN No.:4YG20CS012** **Email id: hmdarshan2002@gmail.com** **Mobile No:9148324561**  **Name: PRASHANTH GOWDA A S** **USN No.:4YG20CS030** **Email id: 18prashanthatt@gmail.com** **Mobile No.:9740744095** 

	Name: SRUJITH G L **USN No.:4YG20CS038** **Email id: srujithgowda3@gmail.com** **Mobile No.:8296315936**  **Name: VENU H K** **USN No.:4YG20CS044** **Email id: venuhkhsn@gmail.com** **Mobile No.:8310299491** 
7.	**Team Leader of the Project:** **Name: Prashanth gowda A S** **USN No.:4YG20CS030** **Email id: 18prashanthatt@gmail.com** **Mobile No.:9740744095**
8.	**Processing Fee Details:** **1000/-** has been paid through IMPS Transaction reference number: **4597861162090**
9.	**Date of commencement of the Project:** 5/10/2023
10.	**Probable date of completion of the project:** 10/05/2024
11.	**Scope / Objectives of the project:** • The primary goal of our project is to develop a robust and efficient Unauthorized human detection system that can adapt to diverse environmental conditions and scenarios. • Create a system that can integrate with existing video camera surveillance infrastructure, allowing for seamless deployment in current security setups. • Train a machine learning model using the annotated dataset to classify entities as authorized or unauthorized based on extracted features. • Develop an intuitive user friendly for surveillance personnel to visualize detection results and manage alerts effectively. • Design and implement an alerting system to notify surveillance personnel when unauthorized human entities are detected.

12. **Methodology:**



- Data Collection
- Data Preprocessing
- Feature Extraction
- Real-Time Classification
- Machine Learning Model Training
- Object Detection
- Alerting Mechanism

13. **Expected Outcome of the project:**

- Robust Human Detection.
- Accurate and Timely Detection.
- Effective Feature Extraction.
- User-Friendly Interface.
- Functional Alerting System.

14. **Is the project proposed relevant to the Industry / Society or Institution?**

Yes / No: **No**

15. **Can the product or process developed in the project be taken up for filing a Patent?**

Yes / No: No

Prior Art search done?

Yes/No: No

16. **Budget details :**

Budget	Amount
a) Materials / Consumables (Please specify)	8500.00
b) Labor (Describe)	1000.00
c) Travel (Describe)	550.00
e) Miscellaneous (Please specify) patch cords	400.00
Total	10450.00

17. **Any other technical details (Please specify):**

1. Deep Learning

Detecting unauthorized human presence using deep learning involves the development and deployment of computer vision models that can analyze visual data to identify individuals who are not authorized to be in each area. Here are some key considerations and steps involved in this process:

1. Data Collection
2. Model Selection
3. Training
4. Data Augmentation
5. Fine-tuning
6. Deployment
7. Integration with Security Systems
8. Evaluation and Monitoring
9. Privacy and Ethical Considerations

2. Image Processing:

The use of image processing for intruder detection has gained significant attention in recent years for its potential to enhance security and surveillance systems. The proposed intruder detection system utilizes image processing

	techniques to detect and track intruders in a video stream.
	SPP Coordinator: **Name: Siddika Sabahath Anjum** **Email id: ssa@navkisce.ac.in** **Contact No.: 9741463837**

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Contact No.: 9886102846

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Email id: mynaan@gmail.com
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