Secura Instruction Manual

Title: - Secura

Group No.: - B5 (Roll No. 42,46,63,64)

Aim: - The aim is to make a more secure and reliable surveillance camera integrated security system software by the use of Artificial Intelligence Algorithms.

Hardware Requirements: -

- Surveillance Camera
- Windows server 2016 or Windows 10, or later versions of either.
- Intel Core i5-7980XE, or AMD Ryzen 7 2700X or faster.
- 8GB RAM.
- Minimum 900 mb available storage
- Graphics card - NVIDIA GTX 2070 Ti or Quadro P4000.
- SAFR versions earlier than 3.1 are only compatible with NVidia driver versions 418.96 to 431.86.

Software Requirements: -

- Surveillance camera drivers
- Python 3.10 or higher
- IDE
- Libraries/modules
    - Face recognition
    - OpenCV
    - Flask
    - cmake, scikit-learn
    - numpy, pandas, joblib,

Description: -

The Secura is an advance surveillance camera security system integrated with Realtime face recognition system to ensure the security concerns. At first, we need to register the people using the Secura web framework we want to allow in the specific region where the Secura is installed or being used, the unregistered will be by default considered as the ‘anonymous’, highlighting them with ‘Purple’ color

and the registered one will be highlighted with the ‘Green’ followed by the name. using the database pf Secura we can check which is user is present at which camera (indirectly providing location) for and from what time (IST format).

How to use: - The detailed steps to use Secura is given bellow:

- **Step 1:** Run the project normally as we do with any IDE supporting all the software and hardware requirements.

- **Step 2: -** As we are running on ‘Local Host’, after execution we will get the URL for the Secura frame work. Click or copy pate the URL in the Browser. This will launch the website.

- **Step 3: -** Navigate through the website and register yourself with name and unique Id by clicking the ‘Register’ button. After that a new python window will launch taking 10 photos so keep moving the face for the variation and different angles as it later ease the face recognition.

- **Step 4: -** Now, click on the copy button this will copy the images captured while registration to the dataset location. Now using the ‘File Explorer’ reach to ‘\Secured\ImagesAttendance’ here you will get all the images captured. Filter the data- set for better optimization.

- **Step 5: -** At last relaunch the program using IDE and you can see that Secura is now recognizing the registered people.

- **Step 6: -** The database is the simple Excel sheet containing name, date, and timings of the people captured in surveillance cameras. Simply by using ‘Find’ function of Excel we can check who was where and when.

- **Step 7: -** This is It, enjoy the Secura and stay safe!

References: -

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