CVBLnet Video Competition

Introduction:

Face recognition, identification and verification have long been a topic for research. The field has slowly but steadily evolved and matured because of the state-of-the-art contributions by researchers worldwide. As the field evolved with time, the nature of research and its needs have changed. With the advent of deep learning architectures, we are need of an exhaustive biometric database. Feeling the need for a biometric database, we have collected an exhaustive biometric database called CVBL database, which has been named after the laboratory that collected the data. The laboratory that collected the database is called Computer Vision and Biometric Lab (CVBL).

About CVBLnet Video Competition:

The CVBLnet competition will be held to motivate the development of new, robust, efficient and end-to-end deep learning architectures for identification and verification using the biometric traits available in the CVBL video database.

Protocol for the CVBLnet Video competition:

The participants can use one of the following protocols to participate in the CVBL competition:

1. Developing a deep learning model using CVBL video dataset that can learn to recognize face in a way that is invariant to change in pose, expression, background, occlusion and other such real-world challenges.
2. Developing a deep learning architecture to recognize people after training on sitting videos and testing on walking videos.

About the CVBL database

The database is an exhaustive database with the following biometric traits available for each subject in the database: video, audio, gait, fingerprint, iris, thermal and its corresponding visual images. The data has been collected for 255 subjects in total. These data have been captured in 3 phases.

In phase 1, we captured the data for 125 subjects. In phase 2, we captured the data for 35 more subjects. In the third phase, we captured 95 more subjects.

About the CVBL Video database

The CVBL video database contains videos with at least 5 videos of each subject. The video has been captured at 30 frames per second. The minimum duration of each video is 40 seconds and maximum duration is 1 minute. For each subject, 5 videos have been captured. In some cases, maximum 7 videos are present for a subject. Hence the number of video is generally constant to 5 for most of the subjects. The spatial resolution of the video is 320 by 480.

The videos contain subjects talking and expressing themselves freely with random pose, expressions and occlusion. Only the videos captured in the third phase contain voice as well as gait. Thus, there are 95 subjects which have video data while talking in sitting position and in walking position as well. These 95 videos also contain voice. Videos captured in the phase 1 and 2 don't have videos featuring gait. Voice is also missing in the videos of phase 1 and phase 2.

Eligibility and Registration:

The eligibility to participate in the CVBLnet video competition is that the participants must be registered in the CICT 2019 conference which is being held in Indian Institute of Information Technology, Prayagraj, India.

The participants must, therefore, register in CICT 2019 conference to participate in the CVBLnet competition.

Platform:

The participants will be required to develop the deep learning models using the Pytorch deep learning library (https://pytorch.org/).

Rewards:

Following rewards are proposed:

- Cash prize for top 3.
- Top 5* papers will be sent to IEEE Xplore.

* Final decision of the jury would be bounding in this regard.