**VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE**

**COMPUTER ENGINEERING DEPARTMENT**

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**Synopsis**

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**Group number:** BE Comp/PRJ/18-19/19

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**Title :** Interactive video learning Using Affective Computing in AI.

**Objective :**

This project fulfils the need to enhance human-computer interaction by way of affective state recognition. It can be based on watching video clips via facial emotion expression, body movement detection etc. In the Domain of learning, it aims to provide a virtual assistant who is there with the learner while watching videos.

**Abstract :**

Most of the people prefer learning through online videos rather than learning offline, but there is no interaction in online learning with user. We don’t know whether user is engaged and enjoying watching the videos or getting bored or confused. It is necessary to provide guidance to the user at that point of time as a virtual teacher who is there with each learner anywhere and anytime.

So this project analyses the affective states of people while learning.

It aims at recognizing the learner's mood and emotions during the learning process. It gives suggestions accordingly in order to increase user’s concentration and efficiency of learner during learning process.

**Briefs about Contents:**

1. **Introduction :**

This project is the implementation of human-machine interaction while user is learning through video. It aims to recognize the level of user engagement in learning process, learner’s mood and emotion and respond accordingly. It investigates the relationship between emotions and engagement in e-learning environment and provides solutions to user’s problems while user is watching video.

1. **Technical Details :**

* Videos for analysis.
* Web camera for capturing facial emotions.
* Face emotion Recognition APIs for analyzing emotions, Microsoft Azure API
* Data sets to train the system, DAISEE dataset

1. **Working :**

System will recognize facial emotions of users watching the video.

System will perform corresponding action after analysing the user’s respective affective state.

In case of any user query, system will provide the corresponding solution in text or speech format.

1. **Applications:**

* E-learning.
* Learning through online videos.

**References/Bibliography:**

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* Affective Computing in online learning,

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