**Title of the Project**

**Submitted in partial fulfillment of the requirements for the IOT (Mini Project) Lab**

**Submitted by**

1. **Name of the student – Roll No.**
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**Department Of Information Technology**

**Vivekanand Education Society’s Institute of Technology**

**University Of Mumbai**

**2017-2018**

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**VIVEKANAND EDUCATION SOCIETY’S INSTITUTE OF TECHNOLOGY (VESIT)**

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**CERTIFICATE**

This is to certify that ***Name of the students (with Roll Nos)*** has satisfactorily carried out the project work entitled ***Title of the project*** under the head - IOT (Mini project) Lab at Semester V of***TE-IT*** in ***Information Technology.***

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**Declaration**

I declare that this written submission represents my ideas in my own words and where others’ ideas or words have been included, I have adequately cited and referenced the original source. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

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**Abstract**

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**List of Abbreviations and Symbols**

2D - Two Dimensional

3D - Three Dimensional

3DMM - Three Dimensional Morphable Model

3D-FRASM - 3D Face Recognition of Sketch using Active Shape Modeling

AAM - Active Appearance Model

ASM - Active Shape Modeling

Acc - Accuracy

**Chapter 1**

**Introduction**

* 1. **Introduction**

One of the most successful applications of image analysis and understanding is face recognition that has received significant attention, especially during the past several years. Over the last few decade lots of work is been done in face detection and recognition. At least two reasons account for this trend: the first is the wide range of commercial and law enforcement applications, and the second is the availability of feasible technologies after 30 years of research. The new techniques include recognition from three-dimensional (3D) scans, recognition from high-resolution still images, recognition from multiple still images, multi-modal face recognition, multi-algorithm, and preprocessing algorithms to correct for illumination and pose variations [1]. Even though current machine recognition systems have reached a certain level of maturity, their success is limited by the conditions imposed by many real applications. For example, recognition of face images acquired in an environment with changes in light and/or pose remains a largely unsolved problem. In other words, the existing systems are still far away from the capability of the human perception system. Face recognition encounter many challenges such as pose variation,

**Chapter 2**

**The proposed system**

**2.1 Introduction**

Our motive is to construct 3D model from single frontal sketch. Construction of 3D model requires detection of feature or landmark points on the face and then morphing it to 3DMM. This chapter gives details about the existing work done in the face recognition for sketch to photo, 3D face modeling, ASM and 3DMM in section 2.1, section 2.2, section 2.3 and section 2.4 respectively.

**Chapter 3**

**Implementation**

**2.1 Introduction**

Our motive is to construct 3D model from single frontal sketch. Construction of 3D model requires detection of feature or landmark points on the face and then morphing it to 3DMM. This chapter gives details about the existing work done in the face recognition for sketch to photo, 3D face modeling, ASM and 3DMM in section 2.1, section 2.2, section 2.3 and section 2.4 respectively.

**Chapter 4**

**Conclusions**

**2.1 Introduction**

Our motive is to construct 3D model from single frontal sketch. Construction of 3D model requires detection of feature or landmark points on the face and then morphing it to 3DMM. This chapter gives details about the existing work done in the face recognition for sketch to photo, 3D face modeling, ASM and 3DMM in section 2.1, section 2.2, section 2.3 and section 2.4 respectively.

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