**A**

**Project Report**

On

*“****Fingerprint Recognition System by Minutiae Extraction & Classification using Self-Organization Maps****”*

Submitted in partial fulfillment of the requirements of University of Mumbai

For the Degree of

**Bachelor of Engineering**

**Submitted By**

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**UNIVERSITY OF MUMBAI**

Academic Year – 2011-12.



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# CERTIFICATE

*This is to certify that*

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*have satisfactorily completed the requirements of the*  **PROJECT B**

titled

*“****Fingerprint Recognition System by Minutiae Extraction & Classification using Self-Organization Maps****”*

*as prescribed by the* **University of Mumbai.**

*This is in partial fulfillment of the requirement towards the award of Bachelor’s Degree in Computer Engineering course affiliated to the University of Mumbai for the academic year 2011-2012.*

**Project guide: Prof.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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We would like to show our gratitude to our Head of the Department, Prof. Nareshkumar Harale & Principal Dr. Santosh K. Narayankhedkar for their support.

We hope that you will appreciate this Report and your valuable suggestions are always welcomed.

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**Abstract**

*The purpose of this project is to design and develop a pattern recognition system with using Artificial Neural Network (ANN) that can recognize the type of image based on the features extracted from the choose image.*

*This system which can fully recognizing the types of the data had been add in the data storage or called as training data. The Graphic User Interface in Neural Network toolbox is used.*

*This is the alternative way to change the common usage of the MATLAB which are use the command insert at command window. From this kind of system, we just need to insert the features data or training data. The recognition done after we insert the test data. The system will recognize whether the output is match with the training data. Then output will produce a kind of graph that describes the feature of the data which is same as the training data.*

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