

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELAGAVI-590 018**



**PROJECT REPORT ON  
“ABNORMAL PATTERN ANALYSIS IN ONLINE  
TRANSCATION”**

Submitted in partial fulfillment for the award of Degree of

**BACHELOR OF ENGINEERING  
IN  
COMPUTER SCIENCE & ENGINEERING**

By

<b>Ms. AISHWARYA</b>	<b>4AL15CS005</b>
<b>Mr. ARJUN V</b>	<b>4AL15CS013</b>
<b>Ms. BHARGAVI RAVI</b>	<b>4AL15CS020</b>
<b>Mr. JEFFIN BOBAN</b>	<b>4AL15CS045</b>

**Under the Guidance of  
Mr. PARIKSHITH NAYAKA S K  
ASSISTANT PROFESSOR**



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY  
MOODBIDRI-574225, KARNATAKA**

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**ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY**  
**MIJAR, MOOBBIDRI D.K. -574225**  
**KARNATAKA**



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**CERTIFICATE**

This is to certify that the Project entitled **"ABNORMAL PATTERN ANALYSIS IN ONLINE TRANSACTION"** has been successfully completed by

Ms. AISHWARYA

4AL15CS005

Mr. ARJUN V

4AL15CS013

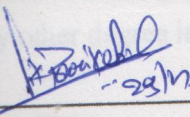
Ms. BHARGAVI RAVI

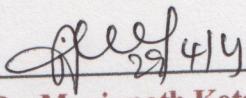
4AL15CS020

Mr. JEFFIN BOBAN


4AL15CS045

the bonafide students of Department of Computer Science & Engineering, Alva's Institute of Engineering and Technology in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

  
**Mr. Parikshith Nayaka S K**  
Project Guide

  
**Dr. Manjunath Kotari**  
Head of the Department

**External Viva**

  
**Dr. Peter Fernandes**  
Principal  
PRINCIPAL

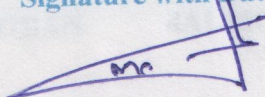
Alva's Institute of Engg. & Technology,  
Mijar, MOOBBIDRI - 574 225, D.K.

Signature with Date

**Name of the Examiners**

1. MAMESH B.
2. Dr. S. M. N. N. Bapth



  
14/6/19  
14/6/19



# TABLE ABSTRACT

The Abnormal pattern analysis in online transaction feature uses the behavior of the user and verifies the location to check for unusual patterns. If any unusual pattern is detected, the system requires re-verification. The system analyzes user credit card data for various characteristics. The drawback of the current Internet banking system was that it was not able to achieve or was not very secure for the users. There were security issues faced in the current Internet banking system. Thus, we implement the Sequential Pattern Matching Algorithm to overcome the security issue being faced in the current system.

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