



VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM



Department of Civil Engineering



### BONAFIDE CERTIFICATE

This is to certify that the Project Report entitled “**PLANNING, ANALYSIS AND DESIGN OF A SCHOOL BUILDING**” is a bonafide record of the work done by **AMAL REJI (VJC19CE007), DEVADHATH MOHAN (VJC19CE026), DONA JOSE (VJC19CE029), JESMIN JOSEPH (VJC19CE046)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 26-05-2023

Place: Vazhakulam



Ms. Meril Jose  
Project Guide  
Assistant Professor  
CE Dept, VJCET

Dr. Neena M Joseph  
Project Coordinator  
Assistant Professor  
CE Dept, VJCET

Dr. Shine George  
HOD  
CE Dept, VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled “**DAM BREAK ANALYSIS OF IDAMALAYAR DAM USING HEC-RAS**” is a bonafide record of the work done by **ANNA MARIA GEORGE (VJC19CE014), ARAVIND RAJEEV (VJC19CE016), DILNA K C (VJC19CE028), HARISANKAR MADHU (VJC19CE042)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram

Date: 26-05-2023

Place: Vazhakulam

Project Guide

Dr. Anoop C K

Professor, CED

VJCET

Project Coordinator

Dr. Neena M Joseph

Professor, CED

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Dr. Shine George

HOD, CED

VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled **“FRUIT SEEDS AS POTENTIAL COAGULANTS IN WATER PURGATION”** is a bonafide record of the work done by **ELIZABATH SHAJAN (VJC19CE033), LEKSHMI AJAYAKUMAR (VJC19CE050), THOMAS KURIAN(VJC19CE075), YEDUKRISHNA C.V (VJC19CE081)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date : 27/05/23

Place: Vazhakulam

**Project Guides**

**Mrs. Finu John &**

**Mrs. Rani Maria Thomas**

**Asst. Professor, CED**

**VJCET**

**Project Coordinator**

**Dr. Neena M Joseph**

**Asst. Professor, CED**

**VJCET**

**Dr. Shine George**

**HOD, CED**

**VJCET**





**VISWAJYOTHI COLLEGE OF ENGINEERING  
AND TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

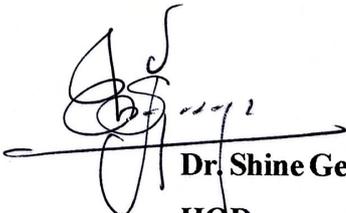
This is to certify that the Project Report entitled “WASTE FOUNDRY SAND AS PARTIAL REPLACEMENT OF FINE AGGREGATE IN CONCRETE” is a bonafide record of the work done by ANGEL MARY JOSHY (VJC19CE004), JASWANTH SADASIVAN (VJC19CE044), VANDHANA P V (VJC19CE077), VARGHESE J PUTHUMANATHOTTY (VJC19CE078) in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram

  
**Project Coordinator**  
**Dr. Neena M Joseph**  
**Assistant Professor**  
**CE Dept. VJCET**

  
**Project Guide**  
**Mr. Lins Paul Kuriakose**  
**Assistant Professor**  
**CE Dept. VJCET**

Date: 26-05-2023  
Place: Vazhakulam



  
**Dr. Shine George**  
**HOD**  
**CE Dept. VJCET**



VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM



Department of Civil Engineering



### BONAFIDE CERTIFICATE

This is to certify that the Project Report entitled “**TORSIONAL RESISTANCE OF POLYPROPYLENE FIBRE REINFORCED CONCRETE BEAMS.**” is a bonafide record of the work done by **AMAL KOSHY GEORGE (VJC19CE006), SARATH MOHANAN (VJC19CE068), SHONE SHAJU (VJC19CE071), VARUN JACOB (VJC19CE079)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 26-04-2023

Place: **Vazhakulam**

**Mrs. Tina Jose**

**Project Guide**

**Assistant Professor**

**CE Dept, VJCET**

**Dr. Neena M Joseph**  
**Project Coordinator**  
**Assistant Professor**  
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**Prof. Dr. Shine George**

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**CE Dept, VJCET**



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled **“MICRO SILICA AS PARTIAL REPLACEMENT OF CEMENT IN CONCRETE”** is a bonafide record of the work done by **ANN MARIYA BABY (VJC19CE015), ARIF ALI (VJC19CE017), MUHAMMED P.A. (VJC19CE054), SANDHRA SIBI (VJC19CE063)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram

Date : 03-05-2023

Place: Vazhakulam

**Project Guide**

**Mr. Lins Paul Kuriakose**

**Asst. Professor, CED**

**VJCET**

**Dr. Shine George**

**HOD, CED**

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**Project Coordinator**

**Dr. Neena M Joseph**

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VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM



Department of Civil Engineering



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled “**BENDABLE CONCRETE: ENGINEERING CEMENTITIOUS COMPOSITE**” is a bonafide record of the work done by **AKHILAMOL SIBI (VJC19CE003), B.GANESHRAJ (VJC19CE022), DONI BIJU (VJC19CE030), RADHIKA RATHEESH (VJC19CE057)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram

Date : 26-05-2023

Place : Vazhakulam

Project Guide *Bijimol*  
Mrs. Bijimol Joseph  
Asst. Professor, CED  
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*Neena M Joseph*  
Project Coordinator  
Dr. Neena M Joseph  
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*Shine George*  
Dr. Shine George  
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VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM



Department of Civil Engineering



### BONAFIDE CERTIFICATE

This is to certify that the Project Report entitled “MYCELIUM BUILDING MATERIALS-A FUTURE SUSTAINABLE CONSTRUCTION MATERIAL” is a bonafide record of the work done by ANIRUDH MANOJ (VJC19CE009), ANKITHA MANOJ (VJC19CE013), ROBIN O.J (VJC19CE059), VAISHNAV C.S (VJC19CE076) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 26-05-2023

Place: Vazhakulam

Dr. Neeña M Joseph  
Project Coordinator  
Assistant Professor  
CE Dept, VJCET



Mrs. Finu John

Project Guide  
Assistant Professor  
CE Dept, VJCET

Dr. Shine George  
HOD  
CE Dept, VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



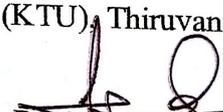
**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

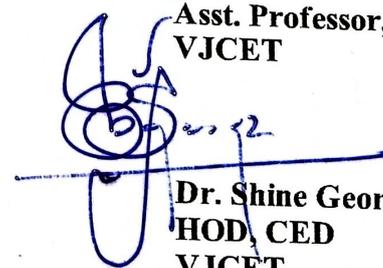
This is to certify that the Project Report entitled “**HOSPITAL WASTEWATER TREATMENT USING ELECTRO-COAGULATION METHOD**” is a bonafide record of the work done by **MUHAMMED JEFIN S (VJC19CE053), ROSE MARIYA VINCENT (VJC19CE061), ROSHNA LISS MATHEW (VJC19CE062), STEPHEN P SANTHOSH (VJC19CE074)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 27<sup>th</sup> May  
2023 Place: Vazhakulam

  
~~Project Guide~~  
**Mr. Lins Paul Kuriakose**  
Asst. Professor, CED  
VJCET

  
**Project Coordinator**  
**Dr. Neena M Joseph**  
Asst. Professor, CED  
VJCET



  
**Dr. Shine George**  
HOD, CED  
VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**



**Department of Civil Engineering**



### **BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled “**THE EFFECTIVE USE OF KADUKKAI ALONG WITH BAGASSE ASH IN CONCRETE**” is a bonafide record of the work done by **ASHLY ASOK (VJC19CE019), DANI BIJU (VJC19CE024), SARA MUJEEB (VJC19CE067), OUSEPPACHAN BASIL (LVJC19CE082)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of **APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.**

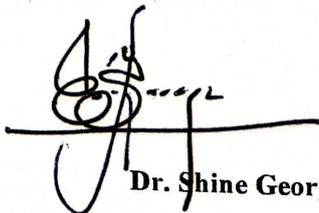
Date: **26-05-2023**

Place: **Vazhakulam**



  
**Dr. Neena M Joseph**  
**Project Coordinator**  
**Assistant Professor**  
**CE Dept, VJCET**

  
**Mr. Appu John**  
**Project Guide**  
**Assistant Professor**  
**CE Dept, VJCET**

  
**Dr. Shine George**  
**HOD**  
**CE Dept, VJCET**



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled “**ADVANCED PILING METHODS INCORPORATING FLY ASH TO IMPROVE DRILLING FLUID PROPERTIES**” is a bonafide record of the work done by **ANJANA BIJU (VJC19CE012), ARUN RAJAN (VJC19CE018), HANSA NOUSHAD (VJC19CE039), JOBIN WILSON (VJC19CE048)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of A P J Abdul Kalam Technological University (KTU).

Date: 19/06/2023  
Place: Vazhakulam

**Mrs. SOUMYA RANI P THOMAS**  
Project Coordinator  
Assistant Professor  
CE Dept., VJCET



**Mrs. AMRUTHA S**  
Project Guide  
Assistant Professor

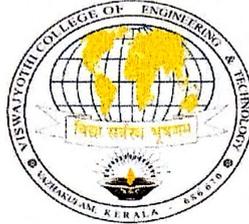
**Dr. SMINE GEORGE**  
HOD  
CE Dept., VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIED CERTIFICATE**

This is to certify that the Project report entitled “EFFECT OF ADDITION OF GGBS IN CEMENT TREATED SUB BASE” is a bonafide record of the work done by AISWARYA RAJU (VJC19CE002), BEN VARGHESE PAUL (VJC19CE021), GOURI PRIYA N NAIR (VJC19CE038), LISHA C (VJC19CE051) in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU).

**Date: 24-04-2023**

**Place: Vazhakulam**

**Project Coordinator  
Soumya Rani P Thomas  
Assistant Professor  
VJCET**

**Mrs. Amrutha S  
Project Guide  
Assistant Professor  
CE Dept, VJCET**

**Dr. Shine George  
HOD, CED  
VJCET**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Civil Engineering**



**BONAFEDE CERTIFICATE**

This is to certify that the project report entitled “**DESIGN AND ANALYSIS OF AN ADMINISTRATIVE BUILDING USING ETABS**” is a Bonafede record of the work done by **HARIPRIYA BIJU(VJC19CE041), JEEVAN JAMES (VJC19CE045), NAVANEETHA S (VJC19CE055), ROBIN THOMAS(VJC19CE060)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: **10-05-2023**

Place: **Vazhakulam**



  
**Mr. Appu John**

**Project guide**

**Assistant Professor**

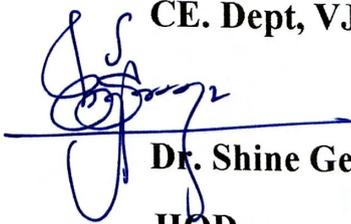
**CE. Dept, VJCET**

  
**Mrs. Soumya Rani P Thomas**

**Assistant Professor**

**Project Coordinator**

**CE. Dept, VJCET**

  
**Dr. Shine George**

**HOD**

**CE. Dept, VJCET**



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “**DESIGN AND COST ANALYSIS OF DRAINAGE AT ALAPUZHA(NH-66)**” is a bonafide record of the work done by **E.GEEVARGHESE(VJC19CE031), GEORGE M JOSE (VJC19CE035), MUHAMMED ANSHIL REZVI(VJC19CE52), VYSAKH AS(VJC19CE080)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of A P J Abdul Kalam Technological University (KTU),Thiruvananthapuram.

Date:16-06-2023

Place: **Vazhakulam**

  
Dr. Neena M Joseph

Mrs. Rani Mariya Thomas

**Project Guide**

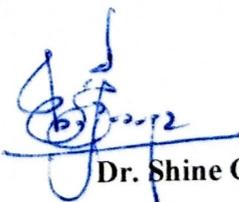
**Assistant Professor**

**CE Dept, VJCET**

  
Mrs. Soumya Rani P Thomas

**Project Coordinator**

**Assistant Professor**

  
Dr. Shine George

**HOD**

**CE Dept, VJCET**



**VISWAJYOTHI COLLEGE OF ENGINEERING  
AND TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled “**SAWDUST ASH AS PARTIAL REPLACEMENT OF SOIL IN MBRICK.**” is a bonafide record of the work done by **ANITHA BENNY (VJC19CE010), ANITTA JOSEPH (VJC19CE011), SHERIN LINA GEORGE (VJC19CE070), SIVAPRIYA S NAIR (VJC19CE072)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of APJ Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 03-05-2023

Place: **Vazhakulam**



**Mrs. Tina Jose**  
**Project Guide**  
**Assistant Professor**  
**CE Dept, VJCET**

**Mrs. Soumya Rani P Thomas**  
**Project Coordinator**  
**Assistant Professor CE Dept, VJCET**

**Prof. Dr. Shine George**  
**HOD**  
**CE Dept, VJCET**



## DEPARTMENT OF CIVIL ENGINEERING



VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, KERALA STATE, PIN 686670



### BONAFIDE CERTIFICATE

**FEBA BIJU (VJC19CE034), JANET JAMES(VJC19CE043), JOYAL RAJU  
KANNETH (VJC19CE049), RIZWANA SALAM(VJC19CE058)**

*Of the Seventh Semester B.Tech. (Civil Engineering) in partial fulfilment of the academic requirements for the award of degree of Bachelor of Technology in Civil Engineering in the year 2022 from Viswajyothi College of Engineering and Technology under the APJ Abdul Kalam Technological University, Trivandrum.*

Date: 26-04-2023

Place: Vazhakulam



Ms. Meril Jose

Project Guide

Assistant Professor

CE Dept, VJCET

Mrs. Soumya Rani Thomas

Project Coordinator

Assistant Professor

CE Dept, VJCET

Prof. Dr. Shine George

HOD

CE Dept, VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**Department of civil engineering**



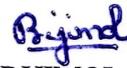
**BONAFIDE CERTIFICATE**

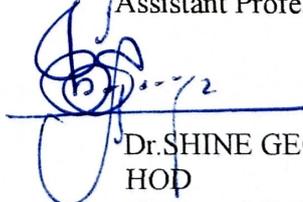
This is to certify that the mini project report entitled “**PARTIAL REPLACEMENT OF CEMENT IN CONCRETE BY A COMBINATION OF WASTE PAPER PULP ASH AND FLY ASH**” is a bonafide record of the work done by **ALAN SUNNY (VJC19CE004), GOKULNATH M (VJC19CE036), GOKUL VIKRAM (VJC19CE037), HARIKRISHNAN T P (VJC19CE040)** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering of A P J Abdul Kalam Technological University (KTU).

Place: Vazhakulam  
Date: 10/05/2023



  
Mrs SOUMYA RANI P THOMAS  
Asst. Professor  
Project Coordinator

  
Mrs. BIJIMOL JOSEPH  
Project Guide  
Assistant Professor

  
Dr. SHINE GEORGE  
HOD  
CE Dept, VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the mini project report entitled “**COMPARATIVE STUDY ON UTILIZATION OF PLASTIC WASTE AND CIGARETTE BUTTS IN BITUMINOUS MIXES**” is a bonafide record of the work done by **DHEERAJ RAJU (VJC19CE027), PARVATHI SURESH (VJC19CE056), SETHULAKSHMI P H (VJC19CE069), SONA MARIYAM SUNNY (VJC19CE073)** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering of A P J Abdul Kalam Technological University (KTU).

Place: Vazhakulam

Date: 19-06-2023

Mrs. SOUMYA RANI P THOMAS

Project Coordinator

Assistant Professor

CE Dept, VJCET

Mrs. SOUMYA RANI P THOMAS

Project Guide

Assistant Professor

CE Dept, VJCET

Dr. SHINE GEORGE

Head of the Department

CE Dept, VJCET



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**Department of Civil Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled “**STABILIZATION OF BLACK COTTON SOIL USING BOTTOM ASH AND CINER STONE DUST**” is a bonafide record of the work done by **ABDUL AZEEZ (VJC19CE001), ATHUL JOBY (VJC19CE020), ELDHO BABU (VJC19CE032), SANJU BIJU (VJC19CE065)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of A P J Abdul Kalam Technological University (KTU).

Date: 20/06/2023  
Place: Vazhakulam

**Mrs. SOUMYA RANI P THOMAS**  
Project Coordinator  
Assistant Professor  
CE Dept., VJCET

**Dr. ANOOP C K**  
Project Guide  
Assistant HOD

**Dr. SHINE GEORGE**  
HOD  
CE Dept., VJCET





VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM

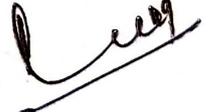
Department of Civil Engineering



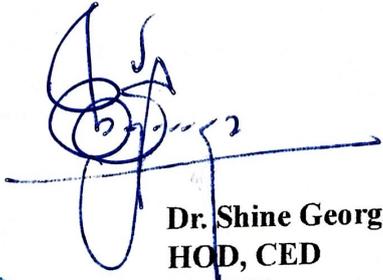
**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled "**PARTIAL REPLACEMENT OF STIRRUPS WITH GEOGRID ON REINFORCED CONCRETE BEAM**" is a bonafide record of the work done by **ALBERT SEBASTIAN (VJC19CE005)**, **DAWN MATHEW VINCE (VJC19CE025)**, **JIBIN JOHNSON (VJC19CE047)**, **SANJU GEORGE KURIEN (VJC19CE066)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Civil Engineering** of A.P.J Abdul Kalam Technological University (KTU), Thiruvananthapuram.

Date: 03-05-2023  
Place: Vazhakulam

Project Guide   
Dr. Neena M Joseph  
Assistant Professor, CED  
VJCET

  
Project Coordinator  
Mrs. Soumya Rani P Thomas  
Assistant Professor, CED  
VJCET

  
Dr. Shine George  
HOD, CED  
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, 686670



**BONAFIDE CERTIFICATE**

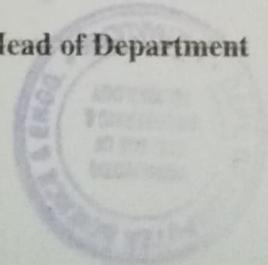
This is to certify that the project report entitled “**VOICE AND GESTURE BASED VIRTUAL DESKTOP ASSISTANT**” is a bonafide work done by **Ms. ANN MARY MATHEW (VJC19CS036)**, **Ms. ANUMOL THANKACHAN (VJC19CS039)**, **Ms. IRENE SUNNY (VJC19CS072)**, **Ms. THARA ROSE ANTONY (VJC19CS121)** in partial fulfillment for the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, 686670



**BONAFIDE CERTIFICATE**

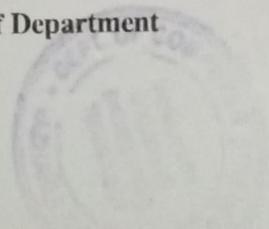
This is to certify that the project preliminary report entitled “ ONLINE TRANSACTION AND CREDIT CARD FRAUD DETECTION SYSTEM ” is a bonafide record of the work done by DEVIKA MANI SANKAR (VJC19CS052), DILNA ELIZABATH ROY (VJC19CS055), JIYA JOHNSON (VJC19CS078), SNEHA MARIA BIJU (VJC19CS115) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering of APJ Abdul Kalam Technological University.

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, 686670



**BONAFIDE CERTIFICATE**

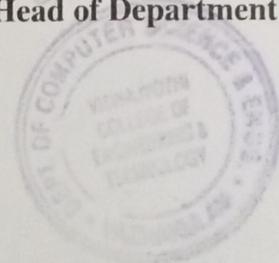
This is to certify that the project report entitled “ **DRIVER DROWSINESS DETECTION SYSTEM** ” is a bonafide record of the work done by Ms. **ALIN MARY ELDHOSE(VJC19CS020)**, Ms. **ANJU MARY THOMAS(VJC19CS032)**, Ms. **AVANTHIKA R(VJC19CS047)**, Ms. **MINNU BENNY (VJC19CS094)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**

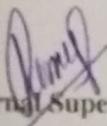


VISWAJYOTHI COLLEGE OF ENGINEERING AND  
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



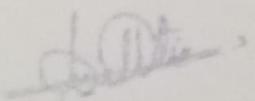
BONAFIDE CERTIFICATE

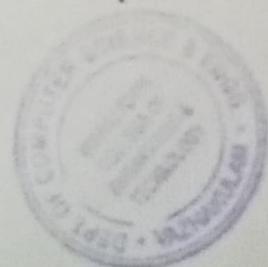
Certified that project work entitled “ Job Forecasting Based On The Patent Information” is a bonafide work done by Mr. Ajin VM, Mr. Anandhu Vasu, Mr. Ben Thomas, Mr. Sooraj Shaji University Register No.VJC19CS009, VJC19CS025, VJC19CS049. VJC19CS116 in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

  
Internal Supervisor

  
External Supervisor

  
Project Coordinator

  
Head of Department



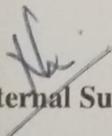
**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

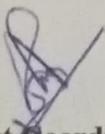


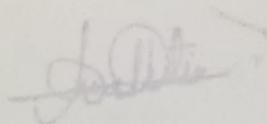
**BONAFIDE CERTIFICATE**

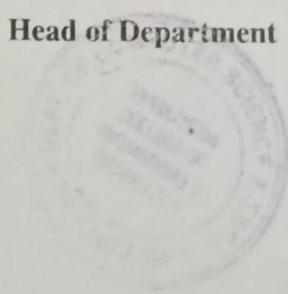
This is to certify that the project report entitled “ **PNEUMONIA DETECTION USING CNN AND DEEP LEARNING** ” is a bonafide record of the work done by ANNA MANOJ (VJC19CS033), ASHNA NAZAR (VJC19CS045), GEORGINA ANN LEONS (VJC19CS066), GEORGIN JOY (VJC19CS067) in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

  
**Internal Supervisor**

  
**External Supervisor**

  
**Project Coordinator**

  
**Head of Department**



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

This is to certify that the project report entitled “ BRAIN TUMOR DETECTION AND DRUG SUGGESTION USING DEEP LEARNING AND IMAGE PROCESSING ” is a bonafide record of the work done by AKHIL M REGI (VJC19CS011), AMAL ABRAHAM (VJC19CS024), ASHIIK PAUL (VJC19CS041), ASHWIN ELDOSE (VJC19CS046) in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, 686670



**BONAFIDE CERTIFICATE**

This is to certify that the project work entitled “**CropiGo - Crop Recommendation System**” is a bonafide work done by **ALAN D ANDOOR (VJC19CS013)**, **MATHEW K SHIBU (VJC19CS088)**, **NELVIN MATHEW (VJC19CS095)** and **ROSHAN SHAJI (VJC19CS107)** in partial fulfillment for the award of the Degree of Bachelor of Technology in Computer Science and Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

This is to certify that the project preliminary report entitled “ AI-POWERED THREAT DETECTOR FOR INTELLIGENT SURVEILLANCE SYSTEM ” is a bonafide record of the work done by ABINO POULOSE ( VJC19CS004 ) , ALBIN THOMAS ( VJC19CS015 ) , ALEN BELJI ( VJC19CS017 ) , ALVIN BENEDICT ( VJC19CS023 ) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering of APJ Abdul Kalam Technological University, during the academic year 2022-2023

*Sabitha Raju*  
24/5/23  
*Sabitha Raju*

Internal Supervisor

*[Signature]*

External Supervisor

*[Signature]*

Project Coordinator

*[Signature]*

Head of Department



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TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**BONAFIDE CERTIFICATE**

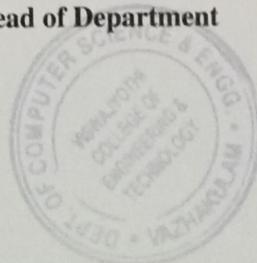
This is to certify that the project report entitled "PERSONAL ASSISTANT FOR THE VISUALLY IMPAIRED" is a bonafide work done by AIRIN SUSAN WILSON ( VJC19CS007),ELIZABETH LOVIN(VJC19CS063),MEERA SUSAN REGI(VJC19CS091), RESHMA JOY(VJC19CS104) in partial fulfillment for the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



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TECHNOLOGY, VAZHAKULAM

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

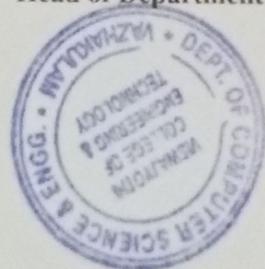
This is to certify that the project report entitled “ **BLOCKCHAIN - BASED MANAGEMENT FOR ORGAN DONATION AND TRANSPLANTATION** ” is a bonafide record of the work done by **Adwaith P.A ( VJC19CS006 )**, **Ashil Krishna P.S ( VJC19CS042 )**, **Mahin Nassar ( LVJC19CS126 )**, **Sharon Jos Johnson ( VJC19CS046 )** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



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VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM, 686670



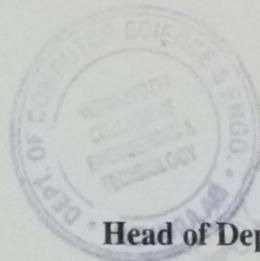
**BONAFIDE CERTIFICATE**

This is to certify that project work entitled “**Enhancing Electoral Transparency: Empowering Voting Systems with Blockchain**” is a bonafide work done by **Ms. Alha Mary Jacob** University Register No.**VJC19CS019**, **Ms. Elizabeth George** University Register No.**VJC19CS062**, **Mr. Ivin Rafi George** University Register No.**VJC19CS073**, **Ms. Mariya Roy** University Register No.**VJC19CS087** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

**Internal Supervisor**

**Project Coordinator**

**External Supervisor**



**Head of Department**

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

Certified that project work entitled “ Early Detection of SLD in Children ” is a bonafide work done by Ms. Ann Maria Dominic (VJC19CS034), Ms. Kalyani Babu (VJC19CS083), Ms. Sandra Skaria (VJC19CS110) and Ms. Veena R (VJC19CS124) in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from API Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



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**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “ **BLOCKCHAIN BASED WHISTLEBLOWING PLATFORM** ” is a bonafide record of the work done by **DIJO DAISON (VJC19CS053), ANANTHA KRISHNAN K.S (VJC19CS027), JEFRIN ELDHOS JOY (VJC19CS076), ALLEN SAJIMON (VJC19CS022)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology** in **Computer Science and Engineering** of APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



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VAZHAKULAM, 686670



**BONAFIDE CERTIFICATE**

Certified that project work entitled “**Diabetic Retinopathy Detection**” is a bonafide work done by **Ms. Anjaly Biju (VJC19CS030)** , **Ms. Grace Maria Babu (VJC19CS068)** , **Ms. Meenakshy Devan (VJC19CS090)** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

A handwritten signature in blue ink, appearing to be 'Anjaly Biju', written over a horizontal line.

**Internal Supervisor**

A handwritten signature in blue ink, appearing to be 'Grace Maria Babu', written over a horizontal line.

**External Supervisor**

A handwritten signature in blue ink, appearing to be 'Meenakshy Devan', written over a horizontal line.

**Project Coordinator**

A handwritten signature in blue ink, appearing to be 'S. J. S.', written over a horizontal line.

**Head of Department**



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**BONAFIDE CERTIFICATE**

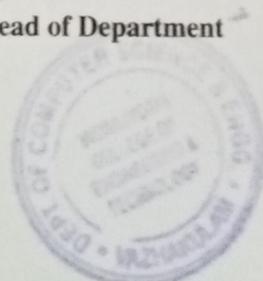
Certified that project work entitled “**Health Insurance Cost Prediction using Machine Learning**” is a bonafide work done by ANN MARY PETER (VJC19CS037), BINDHIYA C PHILIP (VJC19CS051), MARIA MANOJ (VJC19CS086) and PRIYALA BABU (VJC19CS102) in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



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BONAFIDE CERTIFICATE

This is to certify that the project report entitled " AN EFFICIENT STUDENT PERFORMANCE EVALUATION AND RESULT PREDICTION SYSTEM " is a bonafide record of work done by ALBIN BIJU ( VJC19CS014 ), ANIL BIJU ( VJC19CS028 ), DION ABRAHAM JORDY ( VJC19CS056 ), ELDHOSE ROY ( VJC19CS060 ) in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-23.

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department

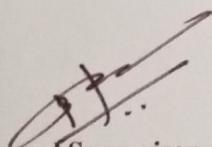


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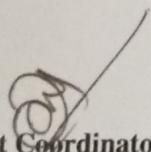


**BONAFIDE CERTIFICATE**

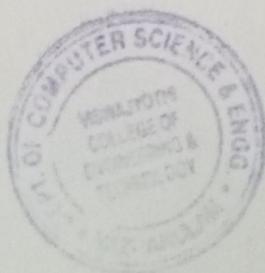
Certified that project work entitled “ **Mical -Blockchain based framework for Vehicle management system** ” is a bonafide work done by **ANN MARY JOSHY(VJC19CS035), EVELIN MARTIN(VJC19CS064), PARVANA PRAKASH N(VJC19CS099)** in partial fulfillment of the award of the **Degree of Bachelor of Technology in Computer Science & Engineering** from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

  
**Internal Supervisor**

  
**External Supervisor**

  
**Project Coordinator**

  
**Head of Department**



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BONAFIDE CERTIFICATE

This is to certify that the project report entitled "B-HEAL: A FRAMEWORK FOR INTEGRATING HEALTH CARE SERVICES" is a bonafide work done by AKASH SHAJI (VJC19CS010), ALAN BABY (VJC19CS012), BASIL PAUL (VJC19CS048), DION PAUL GEORGE (VJC19CS057) in partial fulfillment for the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**BONAFIDE CERTIFICATE**

Certified that project work entitled “ **MOTIF-A REAL TIME MOCK INTERVIEW PLATFORM** ” is a bonafide work done by **ANJALI K R(VJC19CS029),ANJU BABY(VJC19CS031), JULIYA T JAMES(VJC19CS082),KRISHNAJA BINUMON(VJC19CS084)** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



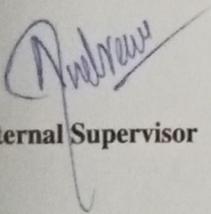
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TECHNOLOGY, VAZHAKULAM**

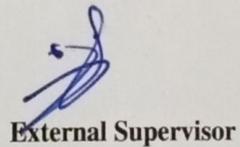
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

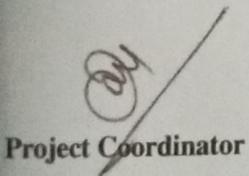


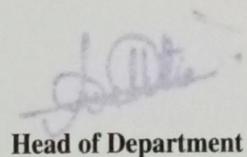
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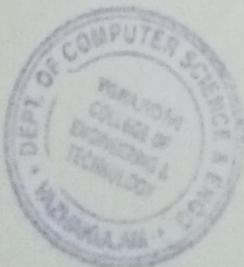
This is to certify that the project work entitled “ A WEB 3.0 REAL ESTATES MANAGEMENT SYSTEM ” is a bonafide work done by ABEL ANIL (VJC19CS001), ADITHYAKRISHNAN(VJC19CS005), ANANTHAKRISHNAN(VJC19CS026), SHAUN BIJU(VJC19CS113) in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

  
**Internal Supervisor**

  
**External Supervisor**

  
**Project Coordinator**

  
**Head of Department**



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**BONAFIDE CERTIFICATE**

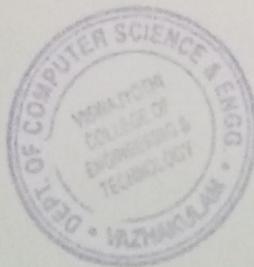
This is to certify that the project report entitled “ ALZHEIMER’S DISEASE DETECTION ” is a bonafide record of the work done by ALEENA GEORGE (VJC19CS016), MINNA ANTU (VJC19CS093), TANIYA TIJO (VJC19CS119) and TESS MARY GEORGE (VJC19CS120) in the partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

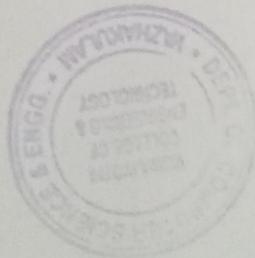


**BONAFIDE CERTIFICATE**

Certified that project work entitled "Road Damage Detection Using YOLO" is a bonafide work done by **Mr. JOSU GEO** University Register No: **VJC19CS081** , **Mr. ELDHO VARGHESE** University Register No: **VJC19CS061**, **Mr. PRIVAL BINDU PRAKASH** University Register No: **VJC19CS101**, in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

Internal Supervisor

External Supervisor



Head of Department

Project Coordinator

VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



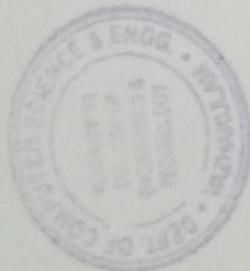
BONAFIDE CERTIFICATE

This is to certify that the project report entitled " SIGN LANGUAGE COMMUNICATION SYSTEM " is a bonafide record of the work done by Ms. ABHIRAMI BLJU (VJC19CS003), Ms.HIBA V SIDHEEK (VJC19CS071), Ms. SHAFNA JAFFER (VJC19CS111), Ms. THERESA MARY SURESH (VJC19CS122) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering of APJ Abdul Kalam Technological University.

*BLJU*  
*16/06/2023*  
*Dr. S. P. Pradeep Kumar*  
Internal Supervisor

*[Signature]*  
External Supervisor

*[Signature]*  
Project Coordinator



*[Signature]*  
Head of Department

VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



BONAFIDE CERTIFICATE

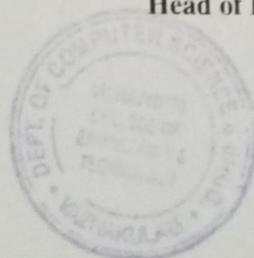
Certified that project work entitled “ Traffic Sign Detection and Voice Alerting System ” is a bonafide work done by **AJAI C HARISH (VJC19CS008)** , **ASHIQUE A M (VJC19CS044)** , **FEMIL FRANCIS (VJC19CS065)** , **HARISANKAR C D (VJC19CS070)** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “ **MEDIOCRE: A BLOCKCHAIN BASED COUNTERFEIT MEDICINE AUTHENTICATION SYSTEM** ” is a bonafide record of the work done by **ANOOPA MEERA BABY (VJC19CS038), JELENA JOJO (VJC19CS077), JOSMY JOHNY (VJC19CS080), SHIFA JOSHY (VJC19CS08114)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**



**Head of Department**

VISWAJYOTHI COLLEGE OF ENGINEERING AND  
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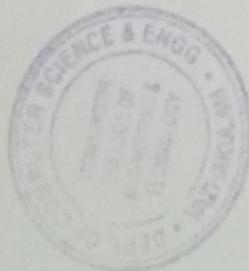
BONAFIDE CERTIFICATE

Certified that project work entitled “ **Universal Application For Electrical Vehicles** ” is a bonafide work done by **Ms.Hanna Thomas** University Register No.**VJC19CS069** , **Ms.Niniya Sugathan** University Register No.**VJC19CS096** , **Ms.Niranjana Roy** University Register No.**VJC19CS097** and **Ms.Sandra Ann Shibu** University Register No.**VJC19CS109** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from API Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023.

Internal Supervisor

External Supervisor

Project Coordinator



Head of Department

**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “ **TEXT EMOTION CAPTURER** ” is a bonafide record of the work done by **BEN VARGHESE (VJC19CS050)** , **JACOB GEORGE (VJC19CS074)** , **MATHUKUTTY MANOJ (VJC19CS089)** , **SOYAL SUNNY (VJC19CS117)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Computer Science and Engineering** of APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**BONAFIDE CERTIFICATE**

Certified that project work entitled “ **SECURED INSURANCE MANAGEMENT SYSTEM** ”  
is a bonafide work done by **ASHIN SHINE(VJC19CS043)**, **EDWIN CHACKO(VJC19CS059)**,  
**JEFIN JAMES(VJC19CS075)** in partial fulfillment of the award of the Degree of **Bachelor**  
of **Technology in Computer Science & Engineering** from APJ Abdul Kalam Technological  
University, Thiruvananthapuram, Kerala during the academic year 2022-2023

Internal Supervisor

External Supervisor

Project Coordinator

Head of Department



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**CERTIFICATE**

This is to certify that the project report entitled “ PLANT PEST DETECTION AND MEASURES” is a bonafide work done by **DIYA ANNA VARGHESE(VJC19CS058)**, **MEHANOOR BASHEER(VJC19CS092)**, **TINCY TOMY(VJC19CS123)**, **VEENA REGIKUMAR(VJC19CS125)** in partial fulfillment for the award of the **Degree of Bachelor of Technology in Computer Science & Engineering** from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**BONAFIDE CERTIFICATE**

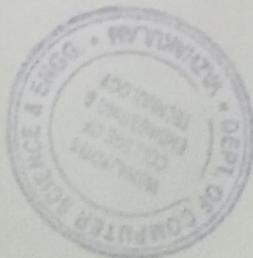
Certified that project work entitled "E-SECURE SAFE KEEPING OF FORENSIC EVIDENCES USING BLOCKCHAIN" is a bonafide work done by ALKA PAULSON(VJC19CS021), NITHARA K BABY(VJC19CS098), REVATHY SATHEESAN(VJC19CS105) in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science and Engineering from APJ Abdul Kalam Technological University.

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**BONAFIDE CERTIFICATE**

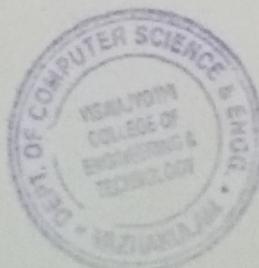
Certified that project work entitled “ **Bullyjammer: Detecting and Preventing of Cyberbullying in Social Media**” is a bonafide work done by **ABHINI M AJI (VJC19CS002)** , **LIYA MATHEW (VJC19CS085)** , **RAJALAKSHMI RAJ (VJC19CS103)** , **SUSAN SHIBU (VJC19CS118)** in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**BONAFIDE CERTIFICATE**

Certified that project work entitled “Scrap Lane:Blockchain and ML Based System To Facilitate Scrapping of Cars ” is a bonafide work done by **Mr.Ashbin Roy** University Register No. (VJC19CS040) ,**Mr.Dilan Joseph** University Register No. (VJC19CS054) ,**Mr.Paul Vincent** University Register No. (VJC19CS100) in partial fulfillment of the award of the Degree of Bachelor of Technology in Computer Science & Engineering from APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala during the academic year 2023-2024

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**



**Head of Department**

VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



**BONAFIDE CERTIFICATE**

Certified that project work entitled " **EMPROVE - AN EMPLOYEE PRODUCTIVITY SYSTEM USING MACHINE LEARNING** " is a bonafide work done by **ALEN GEORGE (VJC19CS018), JOEL RAJU (VJC19CS079), ROSHAN ROY (VJC19CS106), SAN BABY FRANCIS (VJC19CS108)** in partial fulfillment of the award of the Degree of **Bachelor of Technology in Computer Science & Engineering** from **APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala** during the academic year 2022-2023

**Internal Supervisor**

**External Supervisor**

**Project Coordinator**

**Head of Department**



**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**

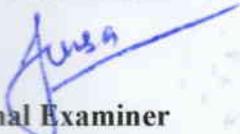


**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "LOGISTIC ROBOT" is a bonafide record of the work done by ANN MARIA VINOD (Reg No: VJC19EC015), ANN MARY JAMES (Reg No: VJC19EC016), DEVIKA SUBASH (Reg No: VJC19EC033) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

  
External Examiner

  
Dr. Naveen Jacob

HOD

ECE Dept.VJCET

  
Mrs. Smitha Cyriac

Project Guide

Assistant Professor

ECE Dept. VJCET

  
Mrs. Merlin Thomas

Project Coordinator

Assistant Professor

ECE Dept. VJCET

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



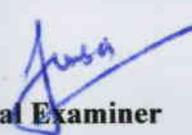
**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "RESTAURANT SERVICE ROBOT" is a bonafide record of the work done by ANITTA MAVIN (Reg.No:VJC19EC014), BIJILA M ELDHO (Reg.No:VJC19EC027), KRISHNA S BIJU (VJC19EC052) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

External Examiner

  
Mrs. Lekshmi MS  
Project Guide  
Assistant Professor  
ECE Dept., VJCET

  
Dr. Naveen Jacob  
HOD  
ECE Dept., VJCET

  
Mrs. Merlin Thomas  
Project Coordinator  
Assistant Professor  
ECE Dept., VJCET

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "PIPELINE INSPECTION ROBOT" is a bonafide record of the work done by ALBIN SABU (Reg No: VJC19EC009), JOE P B (Reg No: VJC19EC046), THOMASKUTTY TALVAR (Reg No: VJC19EC079) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

**Mrs. Cuckoo Anitha Joseph**  
**Project Guide**  
**Assistant Professor**  
**ECE Dept: VJCET**

**Dr. Naveen Jacob**  
**HOD**  
**ECE Dept: VJCET**

**Mrs. Merlin Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**ECE Dept: VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “ **COMPARATIVE ANALYSIS FOR PERFORMANCE EVALUATION OF FULL ADDERS USING REVERSIBLE LOGIC GATES** ” is a bonafide record of the work done by **AJITH GEORGE LOUIS(Reg No:VJC19EC006)**, **AKSHAY SANKAR P (Reg No: VJC19EC007)** , **ASHIK GEORGE(Reg No: VJC19EC021)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

*Mrs. Merlin Thomas*

**Mrs. Merlin Thomas**

**Project Guide**

**Assistant Professor**

**ECE Dept., VJCET**

*Mrs. Merlin Thomas*

**Mrs. Merlin Thomas**

**Project Coordinator**

**Assistant Professor**

**ECE Dept., VJCET**

*Dr. Naveen Jacob*

**Dr. Naveen Jacob**

**HOD**

**ECE Dept: VJCET**

*External Examiner*

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "SMART SPRINKLER FOR FIRE EXTINGUITION" is a bonafide record of the work done by ADORN IYPACHEN (Reg No: VJC19EC004), ARYA MANOHAR (Reg No: VJC19EC020), BASIL BENNY (Reg No: VJC19EC025) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

*Merlin Thomas*

Ms. Merlin Thomas

Project Coordinator

Assistant Professor

ECE Dept., VJCET

Dr. Tony D

*Tony*

Project Guide

Assistant Professor

ECE Dept., VJCET

*Naveen Jacob*

Dr. Naveen Jacob

HOD

ECE Dept: VJCET

*Jines*

External Examiner

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

**This is to certify that the project phase-II report entitled “MAGIC MIRROR AI” is a bonafide record of the work done by EDWIN SIBY (Reg.No.VJC19EC037), ROHAN BUOY (Reg.No.VJC19EC067) and STEBIN JOSE (Reg.No.VJC19EC077) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.**

**Date:** .....

**Place:** Vazhakulam

**Ms. Merlin Thomas**

**Project Coordinator**

**Assistant Professor**

**Dept. of ECE, VJCET**

**Dr. Naveen Jacob**

**Head**

**Dept. of ECE, VJCET**

**Mr. Manu Jose**

**Project Guide**

**Assistant Professor**

**Dept. of ECE, VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "TRASHBOT" is a bonafide record of the work done by DINU JOY (Reg No: VJC19EC035), MARIA REENA ROY (Reg No: VJC19EC054), SANDRA SANTY (Reg No: VJC19EC071) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

**Mrs. V.K. Vanitha Rugmoni**

**Project Guide**

**Assistant Professor**

**ECE Dept., VJCET**

**Mrs. Merlin Thomas**

**Project Coordinator**

**Assistant Professor**

**ECE Dept., VJCET**

**Dr. Naveen Jacob**

**HOD**

**ECE Dept., VJCET**

**External Examiner**



**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “FACE RECOGNITION GLASS” is a bonafide record of the work done by **ANTONY JOSE (Reg No: VJC19EC017)**, **JIBIN JOY (Reg No: VJC19EC045)** and **TONY JOHN (RegNo: VJC19EC080)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

*U. B. @H Rugmoni*

Mrs. Vanitha Rugmoni  
Assistant Professor  
ECE Dept., VJCET  
Project guide

*Merlin Thomas*

Mrs. Merlin Thomas  
Assistant Professor  
ECE Dept., VJCET  
Project Coordinator

*Dr. Naveen Jacob*

Dr. Naveen Jacob  
HOD  
ECE Dept., VJCET

*External Examiner*

External Examiner

**Place:** Vazhakulam

**Date:**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "WAR FIELD SPY ROBOT" is a bonafide record of the work done by APARNA BIJU (Reg No: VJC19EC018), JOYAL JOSE (Reg No: VJC19EC051), ROSEMOL JOHN (Reg No: VJC19EC068) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

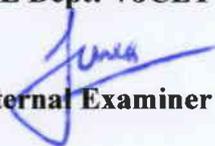
**Date:**

**Place: Vazhakulam**

  
**Mrs. Merlin Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**ECE Dept., VJCET**

  
**Mrs. Niji Mathews**  
**Project Guide**  
**Assistant Professor**  
**ECE Dept., VJCET**

  
**Dr. Naveen Jacob**  
**HOD**  
**ECE Dept: VJCET**

  
**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDECERTIFICATE**

This is to certify that the project report entitled “GLASS CLEANING ROBOT” is a bonafide record of the work done by **ASHLY JOSHY (Reg no: VJC19EC022)**, **ASHNA A A (Reg No: VJC19EC023)** and **BIYANKA MANI (Reg No: VJC19EC030)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

**Ms. Vinija Kurian**  
**Project Guide**  
**Assistant Professor**  
**ECE Dept., VJCET**

**Dr. Naveen Jacob**  
**HOD**  
**ECE Dept., VJCET**

**Ms. Merlin Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**ECE Dept., VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project preliminary report entitled “ SMART WEARABLE FOR VISU-  
ALLY IMPAIRED ” is a bonafide record of the work done by BENSON JOHN (Reg No: VJC19EC026),  
IMRAN KHAN A.M. (Reg No: VJC19EC043), LEON JOHNSON (Reg No: VJC19EC0053), MUHAMMED  
SAFTHAR M.A. (Reg No. VJC19EC059) in partial fulfillment of the requirements for the award of  
the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ  
Abdul Kalam Technological University.

**Mrs. Anurani Philip**

**Project Guide**

**Assistant Professor**

**ECE Dept., VJCET**

**Dr. Naveen Jacob**

**Head Of the Department**

**ECE Dept., VJCET**

**Mrs. Merlin Thomas**

**Project Coordinator**

**Assistant Professor**

**ECE Dept., VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project phase II report entitled “**RAILWAY TRACK CRACK DETECTION ROBOT**” is a bonafide record of the work done by **BINUSREE P A (Reg No: VJC19EC029)**, **FINU JAMES (Reg No: VJC19EC040)**, **MEENU K R (Reg No: VJC19EC056)**, **REVATHY RAJEEVAN (Reg No: VJC19EC065)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

**Ms. Anitta Thomas**  
**Project Guide**  
**Assistant Professor**  
**ECE Dept., VJCET**

**Ms. Merlin Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**ECE Dept., VJCET**

**Dr. Naveen Jacob**  
**HOD**  
**ECE Dept., VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**

**VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “**RF-CONTROLLED ROBOT WITH NIGHT VISION AND THERMAL IMAGING CAMERA FOR SURVEILLANCE**” is a bonafide record of the work done by **BRIJIT SAJU(VJC19EC031),JOYALJHONSON (VJC19EC049), PRANAV PRADEEP (VJC19EC064)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

  
**Mrs. Anu C Kunjachan**

**Project Guide**  
**Assistant Professor**  
**ECE Dept., VJCET**

  
**Dr. Naveen Jacob**

**HOD**  
**ECE Dept, VJCET**



**Mrs. Merlin Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**ECE Dept., VJCET**

  
**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled " UNDERWATER ROV " is a bonafide record of the work done by **DON MATHEW VARGHESE (Reg.No.VJC19EC036)**, **HRISHI VENKITESH M (Reg.No.VJC19EC042)** and **JOSE THANKACHAN (Reg.No.VJC19EC048)** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering** of **APJ Abdul Kalam Technological University, Thiruvananthapuram.**

Date:

Place: Vazhakulam

**MR. MANU JOSE,  
PROJECT GUIDE,  
ASSISTANT PROFESSOR,  
DEPT. OF ECE, VJCET**

**Dr. NAVEEN JACOB  
HOD,  
DEPT. OF ECE,  
VJCET**

**Ms. MANJU THOMAS T,  
PROJECT COORDINATOR  
ASSISTANT PROFESSOR,  
DEPT. OF ECE, VJCET**

**EXTERNAL EXAMINER**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "HOME AUTOMATION, SECURITY AND FERTILIZER SYSTEM USING ESP" is a bonafide record of the work done by **NANDHANA P RAJESH (Reg. No.VJC19EC061), SHINITHA JOSEPH (Reg. No VJC19EC074), SIVAGANGA R NAIR (Reg. No VJC19EC075), SUJITHRA J (Reg. No VJC19EC078)** in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Electronics and Communications Engineering of APJ Abdul Kalam Technological University, Trivandrum.

**Date:**

**Place: Vazhakulam**

**Ms. Ranjini Surendran  
Project Guide,  
Associate Professor,  
Dept of ECE, VJCET**

**Dr. Naveen Jacob  
Head of the Department  
Dept of ECE, VJCET**

**Ms. Manju Thomas  
Project Coordinator  
Assistant Professor  
Dept of ECE, VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

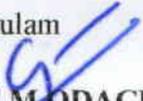


**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "AGRICULTURAL ROBOT" is a bonafide record of the work done by ALEENA ALOCIOUS(Reg No: VJC19EC010) , ALKA PAULOSE(Reg.No:VJC19EC011),ANAMIKA ASOKAN(Reg No: VJC19EC012)in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communications Engineering** of **APJ Abdul Kalam Technological University, Trivandrum.**

Date :

Place : Vazhakulam

  
**DR. CYRIAC MODACKAL**  
**PROJECT GUIDE,**  
**ASSOCIATE PROFESSOR,**  
**DEPT. OF ECE ,VJCET**

  
**DR. NAVEEN JACOB**  
**HOD,**  
**DEPT. OF ECE,VJCET**

  
**MRS. MANJU THOMAS**  
**PROJECT COORDINATOR,**  
**ASSISTANT PROFESSOR,**  
**DEPT. OF ECE ,VJCET**

  
**EXTERNAL SUPERVISOR**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled "IOT BASED BUS TRACKING AND NOTIFICATION SYSTEM" is a bonafide record of the work done by PHILIP BIJU (Reg.No.VJC19EC062), P J HARIKRISHNAN (Reg.No.VJC19EC063), SEBIN JAISON (Reg.No.VJC19EC072) in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Trivandrum.

Date :

Place : Vazhakulam

**Mr. Anish M Jose**  
**Project Guide**  
**Assistant Professor,**  
**Dept. of ECE, VJCET**

**Dr. Naveen Jacob**  
**Head of The Department**  
**Dept. of ECE, VJCET**

**Ms. Manju Thomas**  
**Project Coordinator**  
**Assistant Professor**  
**Dept. of ECE,VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “ **IMPLEMENTATION OF LEACH ALGORITHM IN WIRELESS SENSOR NETWORK**” is a bonafide record of the work done by **APARNA GOPI (Reg No: VJC19EC019) , BINTU ABRAHAM (Reg No: VJC19EC028), SAMARDHI SUNIL INAMDAR (Reg No: VJC19EC070)** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

*Ms. Niji Mathews* 23/5/23  
**Ms. Niji Mathews**  
**Project Guide,**  
**Assistant Professor,**  
**Dept. Of ECE,VJCET**

*Ms. Manju Thomas*  
**Ms. Manju Thomas**  
**Project Coordinator,**  
**Assistant Professor,**  
**Dept. Of ECE,VJCET**

*Dr. Naveen Jacob*  
**Dr. Naveen Jacob**  
**HOD,**  
**Dept. Of ECE,VJCET**

*External Examiner*  
**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**VAZHAKULAM**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION**  
**ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “AUTOMATIC WALL PAINTING ROBOT” is a bonafide record of the work done by **GIYA BABY (Reg. No: VJC19EC041), MINNU THAMPI (Reg. No: VJC19EC058), SRUTHI SATHYAN (Reg. No: VJC19EC076)**, in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering** of **APJ Abdul Kalam Technological University, Thiruvananthapuram.**

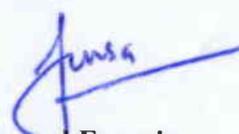
Date :

Place : Vazhakulam

  
**Ms. Ranjini Surendran**  
**Project Guide,**  
**Associate Professor,**  
**Department of ECE,**  
**VJCET**

  
**Ms. Manju Thomas T**  
**Project Coordinator,**  
**Assistant Professor,**  
**Department of ECE,**  
**VJCET**

  
**Dr. Naveen Jacob**  
**Head of the Department,**  
**Department of ECE,**  
**VJCET**

  
**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled " **AUTOMATED ATTENDANCE SYSTEM**" is a bonafide record of the work done by **ABIN BABY (Reg.No.VJC19EC003)**, **AJAI GOPAN (Reg.No.VJC19EC005)** and **ASWIN S KUMAR (Reg.No.VJC19EC024)** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communications Engineering** of **APJ Abdul Kalam Technological University, Trivandrum.**

Date:

Place: Vazhakulam

**Ms. Manju Thomas**

**Project Guide & Coordinator**

**Assistant Professor**

**Dept of ECE, VJCET**

**Dr. Naveen Jacob**

**HOD**

**Dept of ECE, VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled “IOT BASED VEHICLE SPEED CONTROL IN RESTRICTED AREAS” is a bonafide record of the work done by **ABHISHEK GEORGE (Reg No: VJC19EC002)**, **ANANTHAKRISHNAN S NAIR (Reg No: VJC19EC013)**, **JOYAL JOSE (Reg No: VJC19EC050)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

**Date:**

**Place: Vazhakulam**

**Ms. Smitha Cyriac  
Project Guide  
Assistant Professor  
Dept of ECE, VJCET**

**Dr. Naveen Jacob  
HOD  
Dept. of ECE, VJCET**

**Ms. Manju Thomas  
Project coordinator  
Assistant Professor  
Dept of ECE, VJCET**

**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM**

**Department of Electronics and Communication Engineering**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “AUTONOMOUS DELIVERY ROBOT” is a bonafide record of the work done by **JOFIA JOHN (VJC19EC047)**, **MEGHA BIJU (VJC19EC057)**, **NAISIL BIJU (VJC19EC060)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

Date:

Place: Vazhakulam

**Ms. Anitta Thomas**  
**Project Guide,**  
**Assistant Professor,**  
**Dept.of.ECE.,VJCET**

**Ms. Manju Thomas**  
**Project Coordinator,**  
**Assistant Professor,**  
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**Dr. Naveen Jacob**  
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**External Examiner**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “**IMAGE CLASSIFICATION USING NEURAL NETWORK**” is a bonafide record of the work done by **DHILNA BIJU (Reg No: VJC19EC034)**, **MARIA SABU (Reg No: VJC19EC055)**, **SHALU SUSAN BABU (Reg No: VJC19EC073)** in partial fulfillment of the requirements for the award of the Degree of **Bachelor of Technology in Electronics and Communication Engineering** of **APJ Abdul Kalam Technological University, Thiruvananthapuram.**

**Date:**

**Place: Vazhakulam**

  
**Ms. Vinija Kurian**  
**Project Guide,**  
**Assistant Profeseor,**  
**Department of ECE,**  
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**Dr. Naveen Jacob**  
**Head of the Department,**  
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**Ms. Manju Thomas**  
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VAZHAKULAM**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

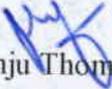


**BONAFIDE CERTIFICATE**

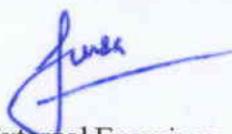
This is to certify that the project report entitled “**THIRD EYE**” is a bonafide record of the work done by **AADITHYA PREMNATH (Reg No: VJC19EC001)**, **ALBIN ROY (Reg. No: VJC19EC008)**, **JOSIN EMMANUEL (Reg No: LVJC19EC082)** in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Electronics and Communication Engineering** of **APJ Abdul Kalam Technological University, Thiruvananthapuram.**

Date :

Place : Vazhakulam

  
Ms. Manju Thomas  
Project Coordinator  
Assistant Professor,  
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Dr. Naveen Jacob  
HOD and Project Guide  
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VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project report entitled “**WILD ANIMAL ALERTING AND FOREST FIRE DETECTING SYSTEM**” is a bonafide record of the work done by **CELIYA SAJU (Reg.No.VJC19EC032), ELEZABETH MARIYA SAJI (Reg.No.VJC19EC038), EMY MARIA TOM (Reg.No.VJC19EC039), RIYA BENNY (Reg.No.VJC19EC066)** in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Electronics and Communication Engineering of APJ Abdul Kalam Technological University, Thiruvananthapuram.

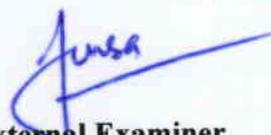
Date:

Place: Vazhakulam

  
**Ms. Rose Maria Jose**  
Project Guide,  
Assistant Professor,  
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**Ms. Manju Thomas**  
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**Dr. Naveen Jacob**  
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**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**



**BONAFIDE CERTIFICATE**

This is to certify that the Design Project entitled “IoT BASED NEONATAL INCUBATOR” is a bonafide record of the work by **ABIN BENNY (VJC19EE003)**, **JANET JOHNSON (VJC19EE017)** and **SHANA P B (VJC19EE027)** in partial fulfillment of the requirements for the award of Degree of **Bachelor of Technology** in Electrical and Electronics Engineering of APJ Abdul Kalam Technological University during academic year 2022-2023.

  
Ms. Mereya Baby

Project Coordinator

  
Ms. Smitha Jacob

Project Guide

  
Dr. Sony Kurian

Head of the Department

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**VAZHAKULAM**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

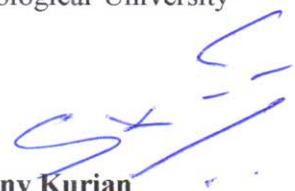


**BONAFIDE CERTIFICATE**

This is to certify that the Project entitled "SUN TRACKING SOLAR PANEL" is a bonafide record of the work by **ALAN K BINOY (VJC19EE005)**, **MEERA R (VJC19EE021)**, **SACHIN SAJI (VJC19EE024)** and **SAYANA FATHIMA (VJC19EE025)** in partial fulfillment of the requirements for the award of degree of **Bachelor of Technology** in **Electrical and Electronics Engineering** of APJ Abdul Kalam Technological University during academic year 2022-2023.

  
Ms. Mereya Baby

**Project Coordinator & Guide**

  
Dr. Sony Kurian

**Head of the Department**

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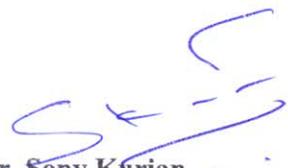
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**BONAFIDE CERTIFICATE**

This is to certify that the report titled “**CEILING MOUNTED AUTONOMOUS FIRE EXTINGUISHER**” is a bonafide record of project presentation done by **DIMAL MICHAEL(VJC19EE011)**, **NAKUL B(VJC19EE022)** ,**VISHAL H(VJC19EE029)** Electrical and Electronics Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Electrical and Electronics Engineering of APJ Abdul Kalam Technological University.

  
Ms. Meraya Baby  
Seminar Coordinator

  
Ms. Jis Jose  
Faculty Advisor

  
Dr. Sony Kurian  
Head of the Department



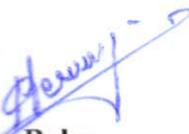
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY  
VAZHAKULAM**



**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**BONAFIDE CERTIFICATE**

This is to certify that the report titled "AUDIO AND TEXT TRANSMISSION USING LIFI TECHNOLOGY" is a bonafide record of project presentation done by **ABHIN MANOJ (VJC19EE002), ALBIN JOSE (VJC19EE006), JISHNU ANIL (VJC19EE018)** Electrical and Electronics Engineering in partial fulfillment for the award of the degree of Bachelor of Technology in Electrical and Electronics Engineering of APJ Abdul Kalam Technological University.

  
**Ms. Mereya Baby**  
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**Ms. Cini.K**  
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**Dr. Sony Kurian**  
Head of the Department



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**BONAFIDE CERTIFICATE**

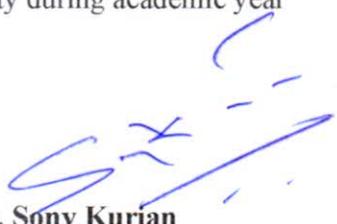
This is to certify that the Design Project entitled “**SOLAR POWERED SMART IRRIGATION SYSTEM USING IoT**” is a bonafide record of the work by **AMUTHA RAAJ (VJC19EE007)**, **NEVIN PAUL SAJU (VJC19EE023)**, **SANDU SAJI (LVJC19EE030)** and **SEETHAL MANOJ MOHAN (VJC19EE026)** in partial fulfillment of the requirements for the award of Degree of **Bachelor of Technology** in Electrical and Electronics Engineering of APJ Abdul Kalam Technological University during academic year 2022-2023.

  
**Ms. Mereya Baby**

**Project Coordinator**

  
**Mr. Dileepkumar P**

**Project Guide**

  
**Dr. Sony Kurian**

**Head of the Department**

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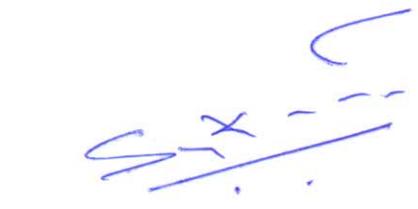
**BONAFIDE CERTIFICATE**

This is to certify that the Main Project entitled “**AUTOMATIC HEADLIGHT SYSTEM WITH SMART ROAD-ACCIDENT DETECTION AND COMMUNICATION**” is a bonafide record of the work by **ABHIJITH M A (VJC19EE001), ANJU V (VJC19EE009) ASWANI CHANDRAN (VJC19EE010) and SYAMKRISHNA J (VJC19EE028)** in partial fulfillment of the requirements for the award of Degree of **Bachelor of Technology in Electrical and Electronics Engineering** of APJ Abdul Kalam Technological University during academic year 2022-2023.

**Ms. Mereya Baby**  
**Project Coordinator**



**Dr. Sony Kurian**  
**Project Guide**



**Dr. Sony Kurian**  
**Head of the Department**

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**BONAFIDE CERTIFICATE**

This is to certify that the Project report entitled “**WIFI CONTROLLED ROBOTIC ARM**” is a bonafide record of the phase 1 work by **EMMANUEL PIOUS (VJC19EE012), FELIX STEPHEN (VJC19EE013), GAYATHRI L KUMAR (VJC19EE014), MARIYA BENNY (VJC19EE020)** in partial fulfilment of the requirements for the award of Degree of **Bachelor of Technology in Electrical and Electronics Engineering** of APJ Abdul Kalam Technological University during academic year 2022-2023.

**Ms. Mereya Baby**  
**Assistant Professor**  
**Project Co-ordinator**

**Mr. Joma M George**  
**Assistant Professor**  
**Project Guide**

**Dr. Sony Kurian**  
**Head of the Department**

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Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "DISEASE PREDICTIOIN USING MACHINE LEARNING" is a bonafide record of the work by ALEN SHAJAN (VJC19IT007), ASWIN KRISHNA R (VJC19IT015), BINTO TOM JOSEPH (VJC19IT022) and NANDHU PRAKASH (VJC19IT043) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

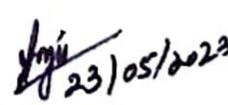
Date: 22/5/23

Place: Vazhakulam

  
Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



  
Mrs. Ann Preetha Jose  
Assistant Professor  
Project Guide  
Dept. of IT, VJCET

  
Dr. Anju Susan George  
Associate Professor and HoD  
Dept. of IT, VJCET

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Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "BLOCKCHAIN-BASED CHARITY DONATION PLATFORM" is a bonafide record of the work by ALFIN DAVIS (VJC19IT008), ALLAN JOHN SCOTT (VJC19IT009), ROSHAN ELDHO ROY (VJC19IT048) and SREEVISAKH MARATHI SURAJ (VJC19IT053) in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Information Technology** of APJ Abdul Kalam Technological University.

Date: 6/6/23

Place: Vazhakulam

Mr. Nidhi R.  
Assistant Professor  
Project Guide  
Dept. of IT, VJCET

Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



Dr. Anju Susan George  
Associate Professor and HoD  
Dept. of IT, VJCET

To

**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**

**Department of Information Technology**



**BONAFIDE CERTIFICATE**

This is to certify that the Main Project Report entitled “**BLOCKCHAIN-BASED CHARITY DONATION PLATFORM**” is a bonafide record of the work by **ALFIN DAVIS (VJC19IT008)**, **ALLAN JOHN SCOTT (VJC19IT009)**, **ROSHAN ELDHO ROY (VJC19IT048)** and **SREEVISAKH MARATHI SURAJ (VJC19IT053)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Information Technology** of APJ Abdul Kalam Technological University.

Date: 6/6/23

Place: Vazhakulam

  
Mr. Nidhi R.

Assistant Professor

Project Guide

Dept. of IT, VJCET

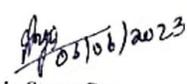
  
Mrs. Juliet A Murali

Assistant Professor

Project Coordinator

Dept. of IT, VJCET



  
Dr. Anju Susan George

Associate Professor and HoD

Dept. of IT, VJCET

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VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled "AI VIRTUAL ASSISTANT WITH GESTURE IDENTIFICATION" is a bonafide record of the work by BENNET JOY (VJC19IT018), KEVIN VINOD (VJC19IT039) and JOHAN MATHEW (VJC19IT037) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 12/06/2023

Place: Vazhakulam

  
Mrs. Anitta K Mathew  
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Project Guide  
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Mrs. Juliet A. Murali  
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Assistant Professor  
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Dr. Anju Susan George  
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Dept. of IT, VJCET  
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VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY



BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "PHISHING WEBSITE DETECTION USING ENSEMBLE MEHTOD" is a bonafide record of the work by ALLEN BENNY (VJC19IT010), ARUN TOMY (VJC19IT014), IVINE JAIMON (VJC19IT030) and JIBIN BENNY (VJC19IT034) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 22-05-2023

Place: Vazhakulam

*Ann Preetha Jose*  
22/5/23

Mrs. Ann Preetha Jose  
Assistant Professor  
Project Guide  
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*Juliet A Murali*

Mrs. Juliet A Murali  
Assistant Professor  
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*Anju Susan George*  
22/05/23

Dr. Anju Susan George  
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**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
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**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled "HOUSING RENTAL SYSTEM BASED ON BLOCKCHAIN TECHNOLOGY" is a bonafide record of the work by ALEN SALU (VJC19IT006), DILIS DENNY (VJC19IT028), MILAN K BIJU (VJC19IT041), THOMAS PAULSON (VJC19IT056) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

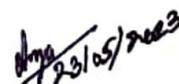
Date: 23/05/2023

Place: Vazhakulam

  
Mrs. Juliet A Murali  
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Assistant Professor  
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Mrs. Josna Jose  
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Assistant Professor  
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Dr. Anju Susan George  
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**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**

**Department of Information Technology**



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled "STUDENT ATTENDANCE SYSTEM USING FACE RECOGNITION" is a bonafide record of the work by **BASIL BIJU (VJC19IT017), BERTIN PETER (VJC19IT021), CYRIAC PAUL BISSY (VJC19IT024) and RICHARD PETER (VJC19IT046)** in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology in Information Technology** of APJ Abdul Kalam Technological University.

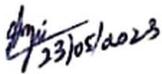
Date: 23/05/23

Place: Vazhakulam

  
**Mrs. Juliet A Murali**  
Project Coordinator  
Assistant Professor  
Dept. of IT, VJCET



  
**Mrs. Shilpa Sugathan**  
Project Guide  
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**Dr. Anju Susan George**  
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# VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "RESPIRATORY SOUND ANALYSIS FOR DETECTION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE" is a bonafide record of the work by ALEENA JOSEPH (VJC19IT004), BENNO BABY (VJC19IT019) and SREELAKSHMI K S (VJC19IT052) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 23/5/2023

Place: Vazhakulam

  
Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



  
Dr. Anju Susan George  
Project Guide  
Associate Professor and HOD  
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VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled "MACHINE LEARNING ENHANCED WEB APP FOR SMART INVESTMENT" is a bonafide record of the work by AKASH S KUMAR (VJC19IT002), DHANEESH KUMAR KD (VJC19IT027), JOBIN P JOSEPH (VJC19IT035) and KEVIN KURIAN (VJC19IT038) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 23/05/23

Place: Vazhakulam

Mrs. Juliet A Murali

Project Guide & Coordinator

Assistant Professor

Dept. of IT, VJCET



Dr. Anju Susan George

Assoc. Professor and HOD

Dept. of IT, VJCET

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# VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled “DEEP LEARNING BASED SMART PARKING” is a bonafide record of the work by ANNA SUSAN JOSE (VJC19IT013), LEONA MARIA JOSE (VJC19IT040), SMRUTHI BABU (VJC19IT051) and SWATHY KRISHNA P KAIMAL (VJC19IT055) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 23/5.....

Place: Vazhakulam

Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



Mrs. Salini Dev P V  
Assistant Professor  
Project Guide  
Dept. of IT, VJCET

Dr. Anju Susan George  
Associate Professor and HoD  
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VAZHAKULAM P.O., MUVATTUPUZHA

# VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "DRIVER DROWSINESS PREDICTION BASED ON MULTIPLE ASPECTS USING IMAGE PROCESSING TECHNIQUES" is a bonafide record of the work by ALEENA WILSON (VJC19IT005), ANJALY SAJI (VJC19IT012), JAFRETTA JAMES (VJC19IT031) and SUSMI SHAJI (VJC19IT054) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

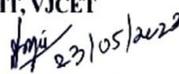
Date: 23-05-2023

Place: Vazhakulam

  
Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



  
Mrs. Josna Jose  
Assistant Professor  
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Dr. Anju Susan George  
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VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY



BONAFIDE CERTIFICATE

This is to certify that the Project Report entitled "CYBERBULLYING DETECTION USING DEEP LEARNING" is a bonafide record of the work by **DANY TOMY (VJC19IT025)**, **DEVON SEBASTIAN(VJC19IT026)**, **JERIL JOSE(VJC19IT032)**, **NAVEEN SIBI(VJC19IT044)** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: .....23/05/2023.....

Place: Vazhakulam

  
Mr. Nidhin R  
Project Guide  
Assistant Professor  
Dept. of IT, VJCET

  
Mrs. Julief A Murali  
Project Coordinator  
Assistant Professor  
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Dr. Anju Susan George  
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY  
INFORMATION TECHNOLOGY DEPT.  
MUVATTUPUZHA CAMPUS  
VAZHAKULAM P.O., MUVATTUPUZHA

**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**

**Department of Information Technology**



**BONAFIDE CERTIFICATE**

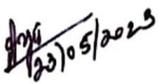
This is to certify that the Main Project Report entitled **"PLANT DISEASE DETECTION AND CLASSIFICATION BY DEEP LEARNING"** is a bonafide record of the work by **ALAN SIBY (VJC19IT003), ATHIRA BABU (VJC19IT016), ROZELLA MARIA FREESA BOBAN (VJC19IT049)** in partial fulfilment of the requirements for the award of the **Degree of Bachelor of Technology in Information Technology** of APJ Abdul Kalam Technological University

Place: Vazhakulam

Date: 22/5/23

Mrs. Juliet A Murali   
Project Guide and Coordinator  
Dept. of IT, VJCET



  
Dr. Anju Susan George  
Associate Professor and HOD  
Dept. of IT, VJCET

**HEAD, INFORMATION TECHNOLOGY DEPT.  
VISWAJYOTHI COLLEGE OF ENGS. & TECHNOLOGY  
VAZHAKULAM P.O., MUVATTUPUZHA**

VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY,VAZHAKULAM  
DEPARTMENT OF INFORMATION TECHNOLOGY



**BONAFIDE CERTIFICATE**

This is to certify that the Project Report entitled "BLOCKCHAIN BASED COUNTERFEIT MEDICINE AUTHENTICATION SYSTEM " is a bonafide Record of the work by BEN RAJ (VJC19IT020), JOE SAJU GEORGE (VJC19IT036), NEVIN SHAJU (VJC19IT045) and SIVAPRASAD P.R(VJC19IT050) in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 01/06/23  
Place: Vazhakulam

Mrs. Jesline Joseph  
Project Guide  
Assistant Professor  
Dept.of IT,VJCT

Mrs.Juliet A Murali  
Project Coordinator  
Assistant Professor  
Dept. of IT, VJCT



Dr. Anju Susan George  
Assoc. Professor and HOD  
Dept. of IT, VJCT

HEAD, INFORMATION TECHNOLOGY DEPT.  
VISWAJYOTHI COLLEGE OF ENGG. & TECHNOLOGY  
VAZHAKULAM P.O., MUVATTUPUZHA

<b>Cc</b>	
<b>Bcc</b>	
<b>Subject</b>	

[https://drive.google.com/drive/folders/1xR3nsVMe3XAF3sX0zfzzjNjqzh0yCPGx?usp=drive\\_link](https://drive.google.com/drive/folders/1xR3nsVMe3XAF3sX0zfzzjNjqzh0yCPGx?usp=drive_link)

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND**  
**TECHNOLOGY, VAZHAKULAM**



**CERTIFICATE**

I certify that the report titled "**A STUDY ON THE QUALITY OF WORK LIFE OF EMPLOYEES IN IT INDUSTRY**" presented by **Ms. Aghila K B, VJC21MBA02**, to APJ Abdul Kalam Technological University, as part of the requirements for the degree of Master of Business Administration, is an authentic and genuine representation of the project work conducted by Ms. Aghila K B under my guidance and supervision. This report has not been submitted in any form to any other university or institute for the purpose of obtaining any degree, diploma, or similar qualification

**Dr. Anish John A**

Assistant Professor



**Mr. Somy P Mathew**

Vice Principal & HOD in charge

*Verified  
Anasthony  
11/7/23*

VISWAJYOTHI SCHOOL OF MANAGEMENT STUDIES  
VAZHAKULAM

DEPARTMENT OF MANAGEMENT STUDIES



CERTIFICATE

This is to certify that the report titled **A Study On Welfare Resources Of Women Employees In WUSC Hospital** being submitted by Mr Vishnu Shiju, VJC21MBA40 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr Vishnu Shiju Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Geremie Pottas  
Faculty Guide



  
Mr. Somy P Mathew  
Vice Principal & HOD in charge

Verified  
Anwarulhossain  
12/07/23

**Department of Management Studies**

**Viswajyothi College Of Engineering And Technology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled **“A PROJECT REPORT ON WORKING CAPITAL MANAGEMENT AT TATA MOTORS”** being submitted by Ms. Thasneem S.B VJC20MBA39 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms. Thasneem S.B ,Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.hew

Ms. Riya Susan Skaria

Faculty Guide



Mr.Somy.P. Mathew

Vice Principal and HOD

Verified  
Anoop Mathew  
12/7/23.

**DEPARTMENT OF MANAGEMENT STUDES**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**

**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON CHANGES IN ONLINE BANKING IN INDIA BEFORE AND AFTER COVID19 WITH SPECIAL REFERENCE TO NATIONALISED BANKS". Being submitted by Ms. RIYA SAJU, VJC21MBA38, to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by Ms. RIYA SAJU under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

Dr. Jose Mamman  
Assistant Professor



Mr. Somy P. Mathew

VICE PRINCIPAL & HOD in Charge

Verified -  
Proo Anthony  
12/7/23

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**  
**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled **“A STUDY ON YOUTH CUSTOMER SATISFACTION OF DECATHLON PRODUCTS WITH SPECIAL REFERENCE TO DECATHLON WHITEFIELD”** being submitted by **Ms. NIKITHA VINCENT, VJC21MBA37** in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Ms. NIKITHA VINCENT** Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
**Ms. Merrin Geordie Pottas**  
**Faculty Guide**



  
**Mr. Somy P Mathew**  
**Vice Principal & HOD in charge**

*Verified*  
*Kooshty*  
*12/7/23*

**VISWAJYOTHI COLLEGE OF ENGINEERING &  
TECHNOLOGY VAZHAKULAM**

**Department Of Management Studies**



**CERTIFICATE**

This is to certify that the report titled **“A Study On Role Of Human Resource Development In Improving Organizational performance With Special Reference To Pddpcs, Kalady”** being submitted by **NANDEEP S VJC21MBA36** in partial fulfillment of the requirements for the award of the degree of **MASTER OF BUSINESS ADMINISTRATION** is a bonafide record of the project work done by **Mr. NANDEEP S** Department Of Management Studies, Viswajyothi College Of Engineering & Technology Vazhakulam.

**Dr. JOSE MAMMAN**

**Faculty Guide**



**Mr. SOMY P MATHEW**

**Vice Prinicipal & Hod In Charge**

*Valued -  
Auro Antony  
22/11/2023*

**VISWAJYOTHI COLLEGE OF ENGINEERING &  
TECHNOLOGY, VAZHAKULAM**

**DEPARTMENT OF MANAGEMENT STUDIES**



**CERTIFICATE**

This is to certify that the report titled "IMPACT OF ABSENTEEISM ON JOB SATISFACTION: A STUDY WITH SPECIAL REFERENCE TO MBMM HOSPITAL" being submitted by Melba Sajan, VJC21MBA35, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Melba Sajan of Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.

Dr. Anjali John

Assistant Professor



Mr. Somy P Mathew

HOD In charge

Verified  
12/7/23

**DEPARTMENT OF MANAGEMENT STUDIES**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled **“A STUDY ON EFFECTIVENESS OF TRAINING AND DEVELOPMENT OF EMPLOYEES WITH REFERENCE TO METROLLA STEELS LIMITED”** being submitted by Ms Mehna Ibrahim, VJC21MBA34 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms Mehna Ibrahim Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Dr. Anish John A

Faculty Guide



  
Mr. Somy P Mathew

Vice Principal & HOD

*Verified.*  
*Anthony*  
*12/7/23*

**VISWAJYOTHI COLLEGE OF ENGINEERING &  
TECHNOLOGY, VAZHAKULAM**

**DEPARTMENT OF MANAGEMENT STUDIES**



**CERTIFICATE**

This is to certify that the report titled “‘A Study on Company’s Promotion Strategies and Its Effect on Dealer Satisfaction Towards Toms Pipes Pvt Ltd” being submitted by, **Mr. Martin Mathew, VJC21MBA33** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by him/her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**Dr. Anish John A**

Assistant Professor

Department of Management Studies



**Mr. Somy P Mathew**

Vice principal & HOD in charge

*Verified  
Anish John A  
12/7/23*

**Department of Management Studies**

**Viswajyothi College of Engineering and Technology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled **A Study on the Financial Performance and Cash Management of Bestonne Granites and Metals Private Limited, Palakkad** being submitted by **Ms. Mariya T S, VJC21MBA32** in partial fulfilment of the requirements for the Award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Ms. Mariya T S**, Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.

Mr. Sebin Joseph  
Faculty Guide



Mr. Somy P Mathew  
Vice Principal and HOD in charge

Verified  
Anthony  
12/17/23

**Department of Management Studies**

**Viswajyothi College Of Engineering And Technology,  
Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled “A Study On The Effectiveness Of Online Learning Among College Students With Special Reference To Muvattupuzha Taluk” being submitted by Ms. Lydia Adams Kurian, VJC21MBA31, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms. Lydia Adams Kurian of Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

**Dr Jose Mamman**  
Faculty guide

**Somy P. Mathew**  
Vice Principal and HOD

Verified  
Anitha  
12/7/23.

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled **“A STUDY ON EFFECTIVENESS OF ADVERTISING AND BRAND PREFERENCE OF EASTERN CURRY POWDER”** being submitted by **Mr Joyal Jose, VJC21MBA30** in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr Joyal Jose Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

**Mr. Sebin Joseph**

Faculty Guide



**Mr. Somy P Mathew**

HOD in charge

Verified  
Joyal Jose  
12/7/23

**DEPARTMENT OF MANAGEMENT STUDES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**  
**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled “**A STUDY ON IMPACT OF EMPLOYEE ENGAGEMENT ON EMPLOYEE JOB SATISFACTION IN ST. GEORGE HOSPITAL VAZHAKULAM**”. Being submitted by **Mr. JOSEPH RAJAN, VJC21MBA29**, to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by **Mr. Joseph Rajan** under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

  
**Ms. Merrin Geordie Pottas**  
Assistant Professor



  
**Mr. Somy P. Mathew**  
Vice principal & HOD in charge

*Verified*  
*Shree Anthony*  
*12/7/23*

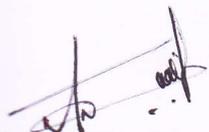
DEPARTMENT OF MANAGEMENT STUDIES

Viswajyothi College Of Engineering And  
Technology, Vazhakulam



CERTIFICATE

This is to certify that the report titled “A Study On Human Resources Management Practices And Its Effects On Employee Commitment in FMCG Industry” being submitted by Mr JOHNS LEO, VJC21MBA28 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr Johns Leo Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
**Dr. Anjali John**  
Faculty Guide



  
**Mr. Somy P Mathew**  
Vice Principal & HOD In Charge

*Verified*  
*Praveen Antony*  
*12/7/23*

**Department of Management Studies**  
**Viswajyothi College of Engineering and Tehnology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled “A study on packaging of product towards consumer buying behaviour in Ernakulam district” being submitted by **Mr. Jewel Jacob, VJC21MBA26** in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr. Jewel Jacob of Department of Management Studies, Viswajyothi College Of Engineering and Technology, Vazhakulam.



*Verified*  
*Mr. Somy P. Mathew*  
*12/7/23.*

**Dr. Jose Mamman**

**Faculty Guide**

**Mr. Somy. P.Mathew**

**Vice Principal and HOD in Charge**

**Department of Management Studies**

**Viswajyothi College of Engineering and Technology**



**CERTIFICATE**

This is to certify that the report titled “**A STUDY ON QUALITY OF WORK LIFE WITH SPECIAL REFERENCE TO MANUFACTURING INDUSTRY**” being submitted by **J KISHAN RAJ, VJC21MBA27**, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Mr. J KISHAN RAJ** of Department of Management Studies, Viswajyothi College of Engineering and Technology

**Ms. RIYA SUSAN SKARIA**  
Assistant Professor



**Mr. SOMY P MATHEW**  
Vice Principal and HoD

Verified.  
Anoop Antony  
12/17/23

**MBA Department, Viswajyothi College of Engineering and  
Technology**



**CERTIFICATE**

*This is to certify that the report titled "A Study On Impact Of Foreign Institutional Investment In Indian Stock Market with special reference to Bank NIFTY Index" being submitted by Harishankar Parameswaran, VJC21MBA25, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Harishankar Parameswaran** of MBA Department, Viswajyothi College of Engineering and Technology*

Dr. Jose Mamman  
Asst. Professor



Mr. Somy P Mathew  
Vice Principal and HoD

*Verified -  
Anas Anthony  
12/1/23*

Department of Management Studies  
Viswajyothi College of Engineering and Technology



**CERTIFICATE**

This is to certify that the report titled "A COMPARATIVE STUDY ON CUSTOMER SATISFACTION TOWARDS BHARTI AIRTEL AND RELIANCE JIO WITH REFERENCE TO ERNAKULAM DISTRICT" being submitted by **GEORGE AUGUSTINE, VJC21MBA24**, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Mr. GEORGE AUGUSTINE** of Department of Management Studies, Viswajyothi College of Engineering and Technology

  
**Ms. Riya Susan Skaria**  
Assistant Professor



  
**Mr. SOMY P MATHEW**  
Vice Principal and HoD in charge

*Verified  
Anoop Antony  
12/7/23*

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM, ERNAKULAM**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON EMPLOYEE WELFARE ACTIVITIES ON EMPLOYEE SATISFACTION IN MARY MATHA CONSTRUCTIONS PVT. LTD" being submitted by Ms. ELSA MARY GIGI, to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by him/her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**Dr. ANJALI JOHN**

Faculty Guide



**Mr. SOMY P MATHEW**

Vice Principal and HOD in charge

Verified  
Anoo Anthony  
12/7/23

**Department of Management Studies**

**Viswajyothi College of Engineering and Technology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled **A Study on the “IMPLEMENTATION OF HR POLICIES AND ITS EFFECTIVENESS” AT “MANTLE SOLUTIONS PVT LTD** being submitted by Mr. Elias Titty Zachariah, VJC21MBA22 in partial fulfilment of the requirements for the Award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr. Elias Titty Zachariah, Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.

Mr. Sebin Joseph

Faculty Guide



Mr. Somy P Mathew

Vice Principal and HOD

*Verified  
Anoop Antony  
12/7/23.*

**Department of Management Studies**

**Viswajyothi College Of Engineering & Technology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON IMPACT OF ORGANISATION CULTURE ON EMPLOYEE RETENTION IN RELIANCE TRENDS" being submitted by Ms. Deepika Rose Bosco VJC21MBA21 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms. Deepika Rose Bosco, Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.

**Ms. Riya Susan Skaria**  
Faculty Guide



**Mr. Somy. P. Mathew**  
Vice Principal and HOD in Charge

Verified:  
Anoop Anthony  
12/7/23

Department of Management Studies

Viswajyothi College Of Engineering And Technology, Vazhakulam



CERTIFICATE

This is to certify that the report titled **A STUDY ON THE IMPACT OF ORGANIZATIONAL SUPPORT ON EMPLOYEE SATISFACTION WITH SPECIAL REFERENCE TO GUARDIAN CONTROLS LIMITED** being submitted by Mr Boney Jaison, VJC21MBA20 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr Boney Jaison Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

Dr. Anjali John

Faculty Guide



Mr. Somy P Mathew

Vice Principal & HOD

Verified  
Anoop Anthony  
11/7/23

**VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**

**DEPARTMENT OF MANAGEMENT STUDIES**



**CERTIFICATE**

This is to certify that the report titled “A STUDY ON BRAND SWITCHING BEHAVIOUR OF CUSTOMERS AMONG SHAMPOO BRANDS” being submitted by **BINIL BENNY, VJC21MBA19**, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **BINIL BENNY**, Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.

**Dr. ANISH JOHN A**

**Assistant Professor**

**Department of Management Studies**



**Mr. SOMY P MATHEW**

**Vice Principal & HOD In charge**

*Verified  
Anoo Anthony  
11/7/23*

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND**  
**TECHNOLOGY, VAZHAKULAM, ERNAKULAM**



**CERTIFICATE**

This is to certify that the report titled “ A STUDY ON THE POTENTIAL IMPACT OF BLOCKCHAIN TECHNOLOGY ON THE STOCK MARKET ” being submitted by **MR. ASHOK SHANKAR** (Register No: VJC21MBA18), to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by him/her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**MR. SEBIN JOSEPH**

(Assistant Professor)

Internal Supervisor



**MR. SOMY P MATHEW**

(Vice Principal & HOD In Charge)

Project Coordinator

Verified  
Anoop Anthony  
123

VISWAJYOTHI SCHOOL OF MANAGEMENT STUDIES  
VAZHAKULAM

DEPARTMENT OF MANAGEMENT STUDIES



CERTIFICATE

This is to certify that the report titled A Study Effectiveness of Training and Development on the Performance of Employees in IT Industry being submitted by Mr Arun Roy, MCOMBA17 in partial fulfillment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr Arun Roy Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Mr. Ryo Suresh Saria  
Faculty Guide



  
Mr. Somy P Mathew

Vice Principal and HOD in Charge

Verified -  
Anoo Anthony  
11/7/23

**DEPARTMENT OF MANAGEMENT STUDES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**  
**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled “A STUDY ON THE EFFECT OF WORK ENVIRONMENT ON JOB SATISFACTION OF EMPLOYEES IN BASIL NATURAL TSR PVT. LTD. Being submitted by Mr. Aravind N M, VJC21MBA16, to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by Mr. Aravind N M under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**Dr. Jose Mamman**  
Assistant Professor



**Mr. Somy P. Mathew**  
Vice Principal & HOD in charge

Verified  
11/7/23

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND**  
**TECHNOLOGY, VAZHAKULAM, ERNAKULAM**



**CERTIFICATE**

This is to certify that the report titled “ A STUDY ON HYBRID WORKING ENVIRONMENT AND STRESS LEVEL MANAGEMENT IN SOFTWARE DEVELOPERS AT INFOPARK,KOCHI ” being submitted by **MR. ANJO MATHEW** (Register No: VJC21MBA15), to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by him/her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**MR. SEBIN JOSEPH**

(Assistant Professor)

Internal Supervisor



**MR. SOMY P MATHEW**

(Vice Principal & HOD In Charge)

Project Coordinator

*Verified  
Anjo Mathew  
11/7/23*

**VISWAJYOTHI COLLEGE OF ENGINEERING &  
TECHNOLOGY, VAZHAKULAM**

**DEPARTMENT OF MANAGEMENT STUDIES**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON WORK-LIFE BALANCE AND ITS IMPACT ON EMPLOYEE MORALE AMONG RETAIL EMPLOYEES WITH SPECIAL REFERENCE TO ERNAKULAM DISTRICT" being submitted by Ms. ANITTA THOMAS, VJC21MBA14 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work carry out by Ms. Anitta Thomas Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Mervin George Pottas  
Faculty Guide



  
Mr. Somy P Mathew

Vice Principal & HOD in charge

Verified -  
Prof. Anthony  
11/9/23

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**  
**VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled “A STUDY ON THE INFLUENCE OF ORGANIZATIONAL PRACTICES ON EMPLOYEE SATISFACTION AT INDUS MOTORS” being submitted by Ms. ANIKA LAIJU, VJC21MBA13 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms. ANIKA LAIJU Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

**Dr. ANJALI JOHN**

**Faculty Guide**



**Mr. Somy P Mathew**

**Vice Principal & HOD in charge**

*Verified.*  
*As per Faculty*  
*11/7/23.*

**VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY, VAZHAKULAM**  
**DEPARTMENT OF MANAGEMENT STUDIES**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON PROMOTION STRATEGIES OF MERCELY'S ICE-CREAM" being submitted by AMAL AJI, VJC21MBA12, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr. AMAL AJI of Department of Management Studies, Viswajyothi College of Engineering and Technology

**DR. ANISH JOHN.A**

**Assistant Professor**

**Department of Management Studies**



**Mr. SOMY P MATHEW**

**Vice principal & HOD in Charge**

*Valued  
Ass Anthony  
11/7/23*

**DEPARTMENT OF MANAGEMENT STUDIES**

**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,  
VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled “**A STUDY ON INFLUENCE OF BRANDING ON CONSUMER BUYING BEHAVIOUR OF DECATHLON SPORT PRODUCTS IN KALAMASSERY**” being submitted by **Mr. ALWIN JOSE, VJC21MBA11** in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work carry out by **Mr. Alwin Jose** Department of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
**Ms. Merwin Geordie Pottas**  
Faculty Guide



  
**Mr. Somy P Mathew**  
Vice Principal & HOD in charge

*Verified*  
*Proo Anthony*  
*11/7/23*

Department of Management Studies

Viswajyothi College Of Engineering And Technology, Vazhakulam



### CERTIFICATE

This is to certify that the report titled "A STUDY ON EFFECTIVENESS OF PERFORMANCE APPRAISAL SYSTEM WITH SPECIAL REFERENCE TO SPECTRUM SOFTTECH SOLUTIONS PVT. LTD. KOCHI" being submitted by Ms Alfiya Nazar, VJC21MBA10 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms Alfiya Nazar Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Ms. Merrin Georgie Pottas

Faculty Guide



  
Mr. Somy. P. Mathew

Vice Principal & HOD

Verified  
4/7/23  


VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY,  
VAZHAKULAM  
DEPARTMENT OF MANAGEMENT STUDIES



CERTIFICATE

This is to certify that the report titled "A STUDY ON CUSTOMER AWARENESS TOWARDS MUTUAL FUNDS AND ITS IMPACT ON INVESTMENTS IN MUTUAL FUNDS" being submitted by Alen David, VJC21MBA09, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Alen David of Department of Management Studies, Viswajyothi College of Engineering and Technology, Vazhakulam.



*Obs*

Ms. Riya Susan Skaria  
Faculty Guide  
Department of Management Studies

*SM*

Mr. Somy P Mathew  
Vice Principal & HOD In Charge

*Verified.  
Anoopullay  
11/7/23.*

**DEPARTMENT OF MANAGEMENT STUDIES  
VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**



**CERTIFICATE**

I certify that the report titled "A Study on Employees Grievance Handling System at Rajagiri Hospital, Aluva," presented by Ms. Aleena Benny, VJC21MBA08, to APJ Abdul Kalam Technological University, as part of the requirements for the degree of Master of Business Administration, is an authentic and genuine representation of the project work conducted by Ms. Aleena Benny under my guidance and supervision. This report has not been submitted in any form to any other university or institute for the purpose of obtaining any degree, diploma, or similar qualification.

**Dr. Anish John A**

Assistant Professor



**Mr. Somy P. Mathew**

Vice Principal & Hod Incharge

*Handwritten signature*  
11/7/23

**Department of Management Studies**  
**Viswajyothi College Of Engineering And Technology, Vazhakulam**

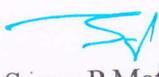


**CERTIFICATE**

This is to certify that the report titled "A Study on the impact of monetary incentives on the performance of employees in the organisation in ernakulam district" being submitted by Ms ALBINA SEBASTIAN, VJC21MBA07 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms ALBINA SEBASTIAN Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Ms. Riya Susan Skaria  
Asst. Professor



  
Mr. Somy P Mathew  
Vice Principal and HOD

Verified  
Anandharam  
11/7/23

**DEPARTMENT OF MANAGEMENT STUDIES  
VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report titled “**A STUDY ON FACTORS INFLUENCING INVESTMENT DECISIONS OF YOUTH WITH REFERENCE TO ERNAKULAM DISTRICT**” being submitted by **MS. ALBETRISE MARIYA DENNY**, Reg No: VJC21MBA06, to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Ms. Albetrise Mariya Denny under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

**MR. SEBIN JOSEPH**  
(Assistant Professor)  
Internal Supervisor



**MR. SOMY P MATHEW**  
(Vice Principal and HOD in charge)  
Project Coordinator

*Verified  
Anoop Antony  
11/7/23.*

**Department of Management Studies**

**Viswajyothi College Of Engineering And Technology, Vazhakulam**



**CERTIFICATE**

This is to certify that the report titled **A STUDY ON FACTORS INFLUENCING CONSUMER SATISFACTION OF RCM PRODUCTS WITH REFERENCE TO ERNAKULAM CITY**” being submitted by Mr. ALAN ALIAS, VJC21MBA05 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr. ALAN ALIAS Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

Dr. JOSE MAMMAN

Faculty Guide



Mr. Somy P Mathew

↓ Head of the Department

*Verified  
Anoop Antony*

**Department of Management Studies**

**Viswajyothi College of Engineering and Technology**



**CERTIFICATE**

This is to certify that the report titled "A STUDY ON WELFARE MEASURES AND ITS IMPACT ON EMPLOYEE'S JOB SATISFACTION WITH SPECIAL REFERENCE TO IT INDUSTRY" being submitted by **AKASH SHAJI, VJC21MBA04**, in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by **Mr. AKASH SHAJI** of Department of Management Studies, Viswajyothi College of Engineering and Technology

**DR. ANISH JOHN.A**

**Assistant Professor**



**Mr. SOMY P MATHEW**

**Vice Principal and HoD in Charge**

*Verified  
Theo Anthony  
11/7/23*

**DEPARTMENT OF MANAGEMENT STUDIES**  
**VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY,**  
**VAZHAKULAM**



This is to certify that the report titled “**A STUDY OF FACTORS AFFECTING BRAND IMAGE ON CONSUMER PURCHASE BEHAVIOUR OF NIPPON DECORATIVE PAINTS IN ERNAKULAM DISTRICT**” being submitted by Mr. AJITH ANTONY, VJC21MBA03 in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration, is a bonafide record of the project work done by Mr. AJITH ANTONY Department Of Management Studies, Viswajyothi College of Engineering and Technology Vazhakulam.

  
Ms. Maria Geraldine Pottas  
Faculty Guide



  
Mr. Somy P Mathew  
Vice Principal  
and  
HOD

*Verified  
11/7/23*

Department of Management Studies

Viswajyothi College Of Engineering And Technology, Vazhakulam



CERTIFICATE

This is to certify that the report titled "A Study On Impact Of Employee Motivation On Their Job Satisfaction With Special Reference Health Care Sector" being submitted by Mr. Abin K J VJC21MBA01, to the APJ Abdul Kalam Technological University In partial fulfillment of the requirements for the award of the Degree of Master of Business Administration is a bonafide record of the project work carried out by him under my Guidance and supervision. This report in any form has not been submitted to any other University or Institute for the award of any degree, diploma or similar title.

Dr. Anjali John

Faculty Guide



Mr. Somy P Mathew

Vice Principal and HOD in charge

Countersigned  
Anoop Antony  
11/7/23

# VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

Department of Information Technology



## BONAFIDE CERTIFICATE

This is to certify that the Main Project Report entitled "RESPIRATORY SOUND ANALYSIS FOR DETECTION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE" is a bonafide record of the work by ALEENA JOSEPH (VJC19IT004), BENNO BABY (VJC19IT019) and SREELAKSHMI K S (VJC19IT052) in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology of APJ Abdul Kalam Technological University.

Date: 23/5/2023

Place: Vazhakulam

  
Mrs. Juliet A Murali  
Assistant Professor  
Project Coordinator  
Dept. of IT, VJCET



  
Dr. Anju Susan George  
Project Guide  
Associate Professor and HOD  
Dept. of IT, VJCET

HEAD, INFORMATION TECHNOLOGY  
VISWAJYOTHI COLLEGE OF ENGG. & TECHNOL  
VAZHAKULAM P.O., MUVATTUPU



**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



### **BONAFIDE CERTIFICATE**

This is to certify that the project entitled "DEVELOPMENT OF AN EVAPORATIVE DRINKING WATER COOLER" submitted by **Alan Reji, Bimal Xaviour, and Jince Jose** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. ARUN K.R  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 22/05/2023





**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



### **BONAFIDE CERTIFICATE**

This is to certify that the project entitled "THERMAL ANALYSIS OF FORCED LIQUID COOLING ON LI-ION BATTERY" submitted by Akash Adithyan, Albert Vincent and Febin K Sidheek for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. NIBIN B  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 23/05/2023





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "FABRICATION OF SPICE DRYER" submitted by **Eldho M. Biju, Jackson Joshi and RenjithKumar** for the award of the Degree of Bachelor of Technology in Mechanical Engineering isa bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

  
Mr. ELDHOSE PAUL  
Project Supervisor

  
Dr. SHUNMUGESH K  
Project Coordinator

  
Dr. SHUNMUGESH K  
HOD MED





# VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY, VAZHAKULAM



## BONAFIDE CERTIFICATE

This is to certify that the project entitled "**DESIGN AND DEVELOPMENT OF LOW-COST PLASTIC BAG SHREDDING MACHINE**" submitted by **Ashwin R Nair, Vivek P V and Athul Paul** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Dr. ARUN K  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "**PORTABLE UNLOADING MACHINE**" submitted by **Alfred Sajan, Alvin Siby and Aravind T Biju** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Dr. ARUN RAPHEL  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED



Place: VAZHAKULAM

Date: 22/05/2023



VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM



### BONAFIDE CERTIFICATE

This is to certify that the project entitled "EFFECT OF NANOPARTICLE ADDITION IN MECHANICAL AND TRIBOLOGICAL PERFORMANCE OF CHITOSAN REINFORCED HYBRID POLYESTER COMPOSITE" submitted by Basil Mathew, Eldho George, and Jacob Santy for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. Unnikrishnan T G  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: VAZHAKULUM  
Date: 23/05/2023





**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



### **BONAFIDE CERTIFICATE**

This is to certify that the project entitled "OPTIMIZATION OF MACHINING PARAMETERS IN TURNING OF C45 STEEL USING ANFIS AND MACHINE LEARNING" submitted by **Albin Tony, Alias M Sunny, Allen Antoo and Shon Shaji** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

  
Dr. SHUNMUGESH K  
Project Supervisor

  
Dr. SHUNMUGESH K  
Project Coordinator

  
Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 22/05/2023





**VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "MAGNETIC GEAR CONVEYOR SYSTEM" submitted by Antony M James, Aravind Shaji and Alen Mathew for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Dr. ARUN RAPHEL  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 22/05/2023





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled “**DEVELOPMENT AND FABRICATION OF GLOVE DONNING SYSTEM**” submitted by **John Pulickakudiyil, Joyal C Benny, Nandaraj P S**, for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. VINOJ K  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "INHOUSE HYDROPONICS SYSTEM WITH CONTROLLED ENVIRONMENT" submitted by **Ahin Cheriyan, Akshai Jose** and **Jude Joseph V M** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mrs. LEEBA VARGHESE  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED





VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM



### BONAFIDE CERTIFICATE

This is to certify that the project entitled “**DESIGN AND FABRICATION OF GAUSS RIFLE WITH MECHANICAL FEEDING SYSTEM**” submitted by **Arun Tony, Jewel Johns Suresh, and Yadhu Krishnan** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. UNNIKRISHNAN T G  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 15/05/2023





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled “**UNDERWATER INSPECTION AND EXPLORATION ROV**” submitted by **JOSE KURUVILLA POONOLIL, KEVIN STALIN, MARTIN JOSEPH** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. NIDHEESH K  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "FABRICATION AND ANALYSIS OF PLA COATED FLAX FIBRE REINFORCED EPOXY COMPOSITE" submitted by **Abraham Paul, Alush T Anil and Jose Babu** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. UNNIKRISHNAN T G  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED





VISWAJYOTHI COLLEGE OF ENGINEERING  
& TECHNOLOGY, VAZHAKULAM



### BONAFIDE CERTIFICATE

This is to certify that the project report entitled "DESIGN AND FABRICATION OF MODIFIED SAVONIUS WIND TURBINE" submitted by **Bashar Mundackal Sali, Digin James and Bineesh T Basheer** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam

Mr. LOVIN VARGHESE  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED

Place: Vazhakulam  
Date: 26/05/2023



**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "**DESIGN OF NEW BLADE PROFILE AND CHEVRON SHIFTING MECHANISM PROPOSAL FOR CF34 ENGINE**" submitted by **Abhinand S Nair, Ashin K Sunny and Basil T E** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. ARUN K R  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator



Dr. SHUNMUGESH K  
HOD ME/D



**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "**DEVELOPMENT AND FABRICATION OF CAPSEES**" submitted by **Ashik Sebeesh, Athil Rasheed and Eldhose Skaria** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

  
23/11/23  
Mr. ANOOP JOY  
Project Supervisor

  
Dr. SHUNMUGESH K  
Project Coordinator

  
Dr. SHUNMUGESH K  
HOD MED





**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled “**DESIGN OF NEW BLADE PROFILE AND CHEVRON SHIFTING MECHANISM PROPOSAL FOR CF34 ENGINE**” submitted by **Abhinand S Nair, Ashin K Sunny** and **Basil T E** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mr. ARUN K R  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator



Dr. SHUNMUGESH K  
HOD MED



**VISWAJYOTHI COLLEGE OF  
ENGINEERING & TECHNOLOGY,  
VAZHAKULAM**



**BONAFIDE CERTIFICATE**

This is to certify that the project entitled "INHOUSE HYDROPONICS SYSTEM WITH CONTROLLED ENVIRONMENT" submitted by Abin Cheriyan, Akshai Jose and **Jude Joseph V M** for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide report of the work carried out under my guidance and supervision at Viswajyothi College of Engineering & Technology, Vazhakulam.

Mrs. LEEBA VARGHESE  
Project Supervisor

Dr. SHUNMUGESH K  
Project Coordinator

Dr. SHUNMUGESH K  
HOD MED



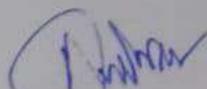
**DEPARTMENT OF COMPUTER SCIENCE AND  
ENGINEERING**

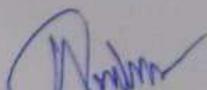
**VISWAJYOTHI COLLEGE OF ENGINEERING AND  
TECHNOLOGY, VAZHAKULAM**



**CERTIFICATE**

This is to certify that the report entitled 'A Security model for preserving the privacy of Medical Big Data in Healthcare cloud using Fog Computing Facility with pairing-based Cryptography' submitted by SHINY STEPHEN to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Technology in Computer Science and Engineering is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

  
Internal Supervisor

  
PG Coordinator



 Dr. Bismah V Shetty  
External Supervisor

  
Head of the Department