



**Department of Civil Engineering**

**Certificate**

*This is to certify that the project work entitled **Slope Stability Analysis of Madikeri district and Landslide Mitigation** is a bonafide work carried out by*

Anil Kumar T	IKG16CV006
Chethana C R	IKG18CV007
Lavanya S	IKG18CV011
Narasimha Shenoy K P	IKG18CV014

*in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Internal Guide  
**Dr. Arekal Vijay**  
Professor,  
Dept. of Civil Engg.  
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Associate Professor,  
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Head of the Dept.  
**Dr. Vijaylakshmi Akella**  
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KSSEM, Bangalore  
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Bangalore-560002

Principal/Director,  
**Dr. Rama Narasimha**  
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Bangalore - 560 109

University Examiners:

28/07/22

Name and Signature of Examiner-1

Name and Signature of Examiner-2



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled “**SMART IRRIGATION SYSTEM USING IoT IN DRIP IRRIGATION**” is a bonafide work carried out by

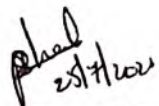
<b>RAVI V</b>	<b>1KG18CV020</b>
<b>T M ROHIT YADAV</b>	<b>1KG18CV029</b>
<b>VARUN C J</b>	<b>1KG18CV032</b>
<b>ABHINANDAN BHAGAT</b>	<b>1KG18CV033</b>

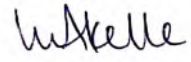
in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18CVP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

  
**Mr. Shashi Prasad N**  
Assistant Professor  
Dept. of Civil Engg.

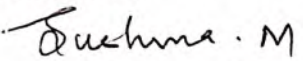
  
**Dr. Vijayalakshmi Akella**  
Professor & Head  
Head of the Department  
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**Dr. K. Rama Narasimha**  
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**Dr. K. RAMA NARASIMHA**  
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**Examiners**

  
28/07/22  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2





**Department of Civil Engineering**

**Certificate**

This is to certify that the project work entitled **Generating Alternative Energy Provide Uninterrupted power supply to Rural Villages** is a bonafide work carried out by

<b>AKASH K MURTHY</b>	<b>1KG17CV003</b>
<b>PRABIN SINGH</b>	<b>1KG18CV016</b>
<b>PRAJWAL M</b>	<b>1KG18CV017</b>
<b>CHAITRA J</b>	<b>1KG18CV034</b>

in partial fulfilment for the award of **Bachelor of Engineering in CIVIL Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during the internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*W Akella*

Internal Guide

**Dr. Vijayalakshmi Akella**

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University Examiners:

*Sushma - M*

*28/07/2022*

Name and Signature of Examiner-1

*W Akella*

*28/7/2022*

Name and Signature of Examiner-2

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No. 15, Mallasandra, off Kanakapura Road, Bangalore-560109

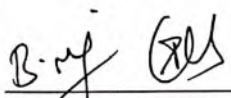


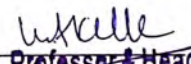
**Department of Civil Engineering**  
**CERTIFICATE**

This is to certify that the project work entitled **Experimental Study on Geo polymer And Normal Block Masonry with and Without Horizontal Reinforcement** is a bonafide work carried out by

B. NAVEEN	1KG18CV004
CHANDRASHEKAR.C	1KG19CV401
LOKNATH.S	1KG19CV402
RAKESH.D	1KG19CV406

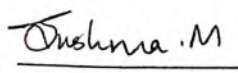
in partial fulfilment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belgaum**, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of **project work (18CVP83)** prescribed for the degree.

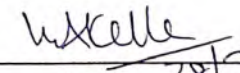
  
Internal guide  
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Name and Signature of Examiner-1

  
Name and Signature of Examiner-2





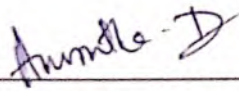
**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF CIVIL ENGINEERING**

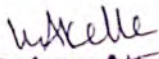
**CERTIFICATE**


This is to certify that the project work entitled "CASE STUDY ON BULLET TRAIN TRACK FROM MUMBAI-AHMEDABAD" is a bonafide work carried out by

BHAGATH HK	1KG17CV006
DINESH KRISHNAN	1KG17CV009
SANDEEP PATRE	1KG18CV023
SHREYAS PRASANNA	1KG18CV026

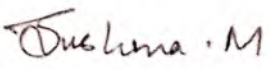
in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18CVP83)** prescribed for the degree.

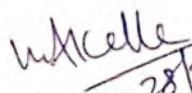
  
\_\_\_\_\_  
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\_\_\_\_\_  
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**Examiners**

  
**Dushama M**  
**28/7/22**  
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**DK S. Gupta**  
**28/7/2022**  
\_\_\_\_\_  
Name and Signature of Examiner-2

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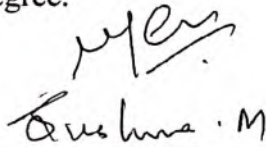
**Department of Civil Engineering**

## CERTIFICATE

This is to certify that the project work entitled is a bonafide work carried out by

<b>K YASWANTH</b>	<b>1KG17CV015</b>
<b>MADHUNANDAN S</b>	<b>1KG18CV012</b>
<b>MOUNESH KUMAR N</b>	<b>1KG19CV403</b>

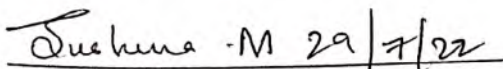
in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

  
Sushma M

Name and Signature of  
Internal Guide

**Mr. Naveen M P**  
**Mrs. Sushma M**  
Assistant professor  
Dept. of civil Engg

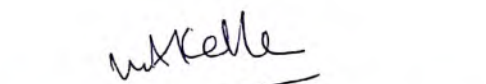
**Examiners:**

  
Sushma M 29/7/22  
Name and Signature of Examiner-1

  
Head of the Department  
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KSSEM

  
Name and Signature of Examiner-2



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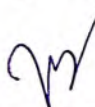
**Department of Civil Engineering**

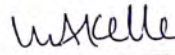
## Certificate

*This is to certify that the project work entitled Design of Pile foundation for High Rise Structure and Numerical Validation is a bonafide work carried out by*

Aishwarya M	1KG18CV001
Reemashree Das	1KG18CV021
Sunitha T U	1KG18CV027
Tejaswini Shivaram	1KG18CV030

*in partial fulfilment for the award of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

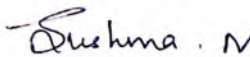
  
Internal Guide  
**Dr. Arekal Vijay**  
Professor  
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**Dr. Vijayalakshmi Akella**  
Head of the Department,  
Civil Engg. KSSEM

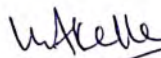
  
Principal/ Director  
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Principal Director  
K S School of Engineering and Management  
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University Examiners:

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Bangalore-560 062.

  
28/07/2022

Name and Signature of Examiner-1

  
28/7/2022

Name and Signature of Examiner-2



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **SUSTAINABILITY OF TRADITIONAL VERNACULAR MUD HOUSES USING AUTODESK ECOTECT** a bonafide work carried out by

<b>Anup</b>	<b>1KG18CV003</b>
<b>Sachin Sangappa Kagal</b>	<b>1KG18CV022</b>
<b>Chaitanya K N</b>	<b>1KG19CV400</b>
<b>Pradeep Kumar S T</b>	<b>1KG19CV405</b>

in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18CVP83)** prescribed for the degree.

*Sushma . M*  
*M E*

**Internal Guide**

**Mrs. Sushma M**  
**Mr. Naveena M P**  
Assistant Professor  
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*W Akella*

**Head of Department**  
**Dept. of Civil Engineering**  
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**K.S. School of Engineering & Management**  
**Bangalore-560 062.**

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*K. Rama Narasimha*

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Principal/Director  
**K S School of Engineering and Management**  
**Bengaluru - 560 109**

**Dr. K. Rama Narasimha**  
KSSEM

**Examiners**

*Sushma . M*  
*28/07/22*

Name and Signature of Examiner-1

*W Akella*

Name and Signature of Examiner-2





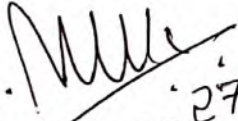


**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**CERTIFICATE**

This is to certify that the project work entitled "UTILIZATION OF WASTE PLASTIC IN BITUMINOUS PAVEMENTS WITH LOCAL AGGREGATES BY DRY BLENDING" is a Bonafide work carried out by

VARSHA A	1KG18CV031
AISHWARYA S	1KG18CV002
NIRMITHA S	1KG18CV015

in partial fulfillment for the award of Bachelor of Engineering in Civil Engineering of Viswesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to Project Work (18CVP83) prescribed for the degree.

  
27/7/2022  
Internal Guide

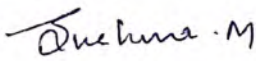
Mr Veerendra Kumar M  
Associate Professor  
Dept. of Civil

  
Head of the Department  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
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Dr V Jayashankara  
Head of the Department  
Dept. of Civil

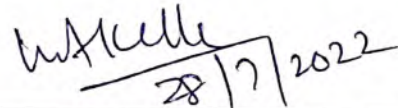
  
Principal

Dr K.RamaNarasimha  
KSSEM  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

Examiners

  
28/07/2022

Name and Signature of Examiner-1

  
28/7/2022

Name and Signature of Examiner-2



**KSSEM**  
K.S. GROUP OF INSTITUTIONS

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **TO MANUFACTURE AND STUDY THE STRENGTH PROPERTIES OF DIFFERENT BLOCKS USING STRAW** is a bonafide work carried out by

**ARUNAGOUDA SHIVANAGOUDA KADUR**  
**MARY AISHWARYA B**  
**SANTHOSH CHANDRASHEKARA HARAVI**  
**SWATHI K**

**1KG16CV060**  
**1KG18CV013**  
**1KG18CV025**  
**1KG18CV028**

in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18CVP83)** prescribed for the degree.

Internal Guide

**Manjunath B**

**Prashanth M**

Assistant Professor  
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Professor & Head

Dept. of Civil Engineering

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Principal  
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**Examiners**

Name and Signature of Examiner-1

Name and Signature of Examiner-2







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K.S. Group of Institutions and Management

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
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CERTIFICATE**

This is to certify that the project work entitled **PARAMETRIC STUDY OF AIR QUALITY INDEX AT SALIENT POINTS IN BENGALURU** is a bonafide work carried out by

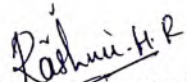
**UZAIR IFTEKHAR      1KG15CV054**  
**MADHUSUDHAN R      1KG16CV028**  
**SANJAY S              1KG16CV048**

in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (15CVP85)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

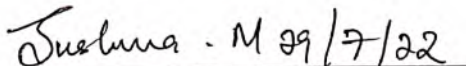
**Principal**

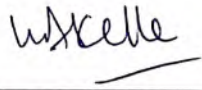
  
**Dr. Rashmi H R**  
Associate Professor  
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Head of Department  
Dept. of Civil  
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**Examiners**

  
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Name and Signature of Examiner-2

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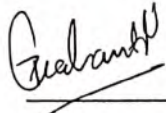
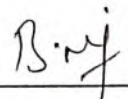
**Department of Civil Engineering**

## Certificate

*This is to certify that the project work entitled "STRENGTH CHARACTERISTICS OF CONCRETE PRISM WRAPPED WITH CARBON FIBER" is a bonafide work carried out by*

<b>SANJAY M V</b>	<b>1KG16CV047</b>
<b>RAHUL K</b>	<b>1KG17CV029</b>
<b>NIRANJAN K</b>	<b>1KG18CV411</b>
<b>SUKHVEER K ACHARYA</b>	<b>1KG18CV413</b>

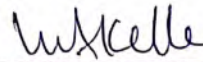
*in partial fulfilment for the award of "Bachelor of engineering in civil engineering" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

**Mr. Prashanth M**  
**Mr. Manjunath B**

Assistant Professors  
Dept. of Civil Eng.  
KSSEM, Bengaluru



Head of the Department

Dept. of Civil Engineering

K.S. Group of Institutions

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**Dr. Vijayalakshmi Akella**

Professor and Head  
Dept. of Civil Eng.  
KSSEM, Bengaluru



**Dr. K. RAMA NARASIMHA**

Principal/Director

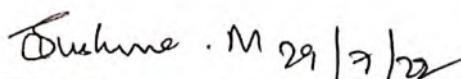
K S School of Engineering and Management

Bengaluru - 560 109

**Dr. K Rama Narasimha**

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KSSEM, Bengaluru

University Examiners:



Name and Signature of Examiner-1



Name and Signature of Examiner-2





**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



**KSSEM**  
K.S. School of Engineering and Management

**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "SEISMIC ANALYSIS OF MULTI STORED BUILDING WITH SHEAR WALLS AT DIFFERENT LOCATION" is a bonafide work carried out by*

**NAVEEN J**

**1KG20CSE03**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide

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Assistant Professor  
Dept. of Civil Engg.  
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**Dr. K Rama Narasimha**  
Principal  
KSSEM, Bengaluru

University Examiners: Head of the Department

**SHASHI PRASAD N**

  
6/10/2022

Name and Signature of Examiner-1

**KAVYASHREE. RR**

  
6/10/22

Name and Signature of Examiner-2



K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109



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Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "TO INVESTIGATE THE ELASTIC CONSTANT AND FIND ULTIMATE STRENGTH OF ACACIA WOOD FOR DIFFERENT GRAIN ANGLES" is a bonafide work carried out by

NEERAJ N

1KG20CSE04

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Sushma M*

Name and Signature of  
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*K. Rama Narasimha*

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University Examiners:

*Prof. Sushma M.*

*Sushma M 24/12/22*

Name and Signature of Examiner-1

*Dr. K N Nishwanth*  
*24/12/2022*

Name and Signature of Examiner-2



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K.S. School of Engineering and Management

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## Certificate

This is to certify that the project work entitled "Evaluation of seismic performance of dajji diwari timber wall frame using Ansys" is a bonafide work carried out by

**ATHAR NAYEEM**

**1KG20CSE08**

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Sushma M. 16/12/22

**Sushma M.**  
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Dept. of Civil Engg.  
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Utkelle

**Dr. Utkelle**  
Professor and Head  
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Dr. K. Rama Narasimha

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AUJASHREE E.R. 16/12/22

Name and Signature of Examiner-1

SUSHMA M

Sushma M 16/12/22

Name and Signature of Examiner-2



Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "EVALUATION OF SEISMIC CAPACITY OF BUILDING STRUCTURES RESTING ON SLOPING GROUND BY PUSH-OVER ANALYSIS" is a bonafide work carried out by

**ZAIBA FATHIMA**

**1KG20CSE07**

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*Naveena M P*

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*Naveena M P*

Name and Signature of Examiner-1

*K. Rama Narasimha*  
6/10/2022

Name and Signature of Examiner-2





**KSSEM**

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## Certificate

*This is to certify that the project work entitled "STUDY ON CHARACTERISTICS OF CEMENT MORTAR AND CONCRETE WITH GEOPOLYMER FINE AGGREGATE AS A REPLACEMENT OF M-SAND" is a bonafide work carried out by*

**RAMYA M 1KG17CSE11**

*in partial fulfillment for the award of "Master of Technology in Structural Engineering" of Visvesvaraya Technological University, Belgaum, during the year 2015-16. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Naveena M.P.

Name and Signature of  
Internal Guide

**Mr. Naveena M. P**

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12-10-19

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**KSSEM**

**Department of Civil Engineering**

## *Certificate*

*This is to certify that the project work entitled "STUDIES ON EFFECT OF NATURAL ADMIXTURE ON PROPERTIES OF CEMENT CONCRETE" is a bonafide work carried out by*

**VASUKI B M**

**1KG20CSE05**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Amrutha*

Name and Signature of  
Internal Guide

**Mrs. Amrutha Dhiraj**  
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**Dr. K. Rama Narasimha**  
Principal  
KSSEM, Bengaluru

**Dr. K. RAMA NARASIMHA**  
Principal/Director

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*Ravindra R*  
- 26/09/22

Name and Signature of Examiner-1

*(Dr. Ravindra R)*

*Amrutha D*  
26/9/2022

Name and Signature of Examiner-2



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## Certificate

This is to certify that the project work entitled "SEISMIC ANALYSIS OF RC STRUCTURES WITH AND WITHOUT BASE ISOLATION" is a bonafide work carried out by

VEENA R

1KG20CSE06

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

Name and Signature of  
Internal Guide

**Prashanth M**  
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Professor & Head  
Head of the Department  
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K.S. Group of Institutions

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Principal/ Director

**Principal / Director**

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Name and Signature of Examiner-1

Name and Signature of Examiner-2

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Department of Civil Engineering

## Certificate

This is to certify that the project work entitled "PUSHOVER ANALYSIS ON G+7 REINFORCED CONCRETE BUILDING USING E-TABS" is a bonafide work carried out by

**ZESHAN AJAZ**

**1KG20CSE12**

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*B. B. B.*

**Manjunath B.**

Assistant Professor

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*W. Akella*

**Dr. Vijayalakshmi Akella**

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Professor and Head

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University Examiners:

*Manjunath B.*

*B. B. B.*

Name and Signature of Examiner-1

*Sushma C.K.*

*Sushma C.K.*

*14/12/22*

Name and Signature of Examiner-2



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K.S. School of Engineering and Management

**Department of Civil Engineering**

## Certificate

This is to certify that the project work entitled "COMPARATIVE STUDY OF CONVENTIONAL SLAB SYSTEM AND FLAT SLAB SYSTEM WITH AND WITHOUT SHEAR WALL USING ETABS" is a bonafide work carried out by

**JAGADEESHAN Y**

**1KG20CSE01**

in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.

*[Signature]*

Name and Signature of  
Internal Guide

*[Signature]*

Head of the Department

*[Signature]*

Principal/ Director

**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

**Dr. Vijayalakshmi Akella**  
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University Examiners:

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K.S. School of Engineering & Management  
Bangalore-560 002

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Bengaluru - 560 109

*[Signature]*

Name and Signature of Examiner-1

*[Signature]* 12/11/2022

Name and Signature of Examiner-2





**KSSEM**

Department of Civil Engineering

## Certificate

*This is to certify that the project work entitled "COMPARITIVE ANALYSIS OF TRANSMISSION TOWER FOR DIFFERENT WIND ZONES USING E-TABS" is a bonafide work carried out by*

**DEEPAK GOWDA B T**

**1KG20CSE09**

*in partial fulfilment for the award of "MASTER OF TECHNOLOGY" of Visvesvaraya Technological University, Belgaum, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Name and Signature of  
Internal Guide  
**Prashanth M**  
Assistant Professor  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

Head of the Department  
**Dr. Vijayalakshmi Akella**  
Professor and Head  
Dept. of Civil Engg.  
KSSEM, Bengaluru.

Principal/Director  
**Dr. K RAMA NARASIMHA**  
Principal/Director  
K.S. School of Engineering and Management  
Principal  
Bengaluru - 560 109  
KSSEM, Bengaluru

University Examiners:

Name and Signature of Examiner-1

Professor & Head  
Dept. of Civil Engineering  
K.S. Group of Institutions  
K.S. School of Engineering & Management  
Bangalore-560 002

Name and Signature of Examiner-2



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## Department of Computer Science & Engineering



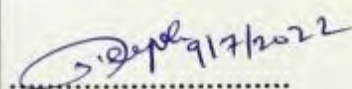
**KSSEM**  
K. S. School of Engineering and Management

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Scheduling Department Activities and Timetable" is a bonafide work carried out by:

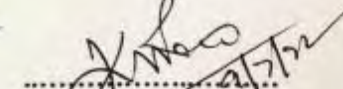
Adithi M C	1KG18CS003
Aishwarya S	1KG18CS005
Brundha P	1KG18CS020
Chinmye H H	1KG18CS025

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....

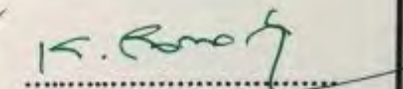
Signature of the Guide

[Mr. Deepak M D]

  
.....

Signature of the HOD

[Dr. K Venkata Rao]

  
.....

Signature of the Principal

[Dr. K Rama Narasimha]

HOD  
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# K. S. School of Engineering and Management

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## Department of Computer Science & Engineering




**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Emotion Recognition of students during project review" is a bonafide work carried out by:

C Amruta Gayatri	1KG18CS021
Durgi Sobha	1KG19CS402
Dhanushree D.B	1KG18CS030
Bhaskyam Keerthikumar	1KG18CS018

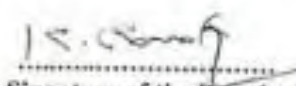
in partial fulfillment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

[Mrs. R S Geethanjali]

  
Signature of the HOD

[Dr. K Venkata Rao]

  
Signature of the Principal

[Dr. K Rama Narasimha]

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Bangalore-560062

Dr. K. RAMA NARASIMHA  
Principal/Director  
K. S. School of Engineering and Management  
Bengaluru - 560 109



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## Department of Computer Science & Engineering



**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "**Mood Recognition and Timepoint Identification of Faculty in Classroom**" is a bonafide work carried out by:

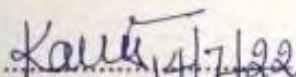
**Meghana A S**

**1KG18CS055**

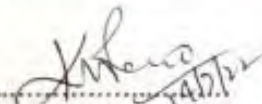
**Meghana K V**

**1KG18CS056**

in partial fulfilment for VIII semester B.E.. Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

[Mrs. Kavitha K S]

  
Signature of the HOD

[Dr. K Venkata Rao]  
HOD

  
Signature of the Principal

[Dr. K Rama Narasimha]

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K. S. School of Engineering & Management  
Bengaluru-560 062

Dr. K. RAMA NARASIMHA  
Principal/Director  
K. S. School of Engineering and Manag  
Bengaluru - 560 109

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## Department of Computer Science & Engineering



**KSSEM**  
K. S. School of Engineering and Management

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Message Forwarding Using Hand Gesture" is a bonafide work carried out by:

Chandana R K	1KG18CS023
Goutham R P	1KG18CS038
Guru Prasad K A	1KG18CS039
Jayanth N	1KG18CS042

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

*Chandana V.S. 9/7/22*  
Signature of the Guide  
[Mrs. Chandana V S]

*[Signature]*  
Signature of the HOD  
[Dr. K Venkata Rao]  
HOD  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062

*K. Rama Narasimha 9/7/22*  
Signature of the Principal  
Dr. K. RAMA NARASIMHA  
Principal  
K S School of Engineering and Management  
Bengaluru - 560 109



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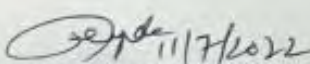
**KSSEM**

**CERTIFICATE**

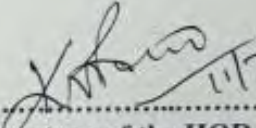
Certified that the Project Work Phase-II (18CSP83) entitled "**Location Detection Using Surrounding**" is a bonafide work carried out by:

<b>N. Jaswanth sai</b>	<b>1KG18CS062</b>
<b>Prajwal N</b>	<b>1KG18CS080</b>
<b>Praveen P.S</b>	<b>1KG18CS082</b>
<b>Sanjay Subramanya Bhat</b>	<b>1KG18CS097</b>

in partial fulfillment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
**Signature of the Guide**

[Mr. Deepak M.D]

  
.....  
**Signature of the HOD**

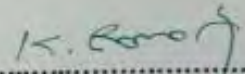
[Dr. K Venkata Rao]

**HOD**

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**K.S. School of Engineering & Management**

**Bangalore - 560109**

  
.....  
**Signature of the Principal**

[Dr. K Rama Narasimha]

**Dr. K. RAMA NARASIMHA**

**Principal/Director**

**K.S. School of Engineering and Management**

**Bengaluru - 560 109**

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## Department of Computer Science & Engineering



**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Student Marks Prediction Using Machine Learning Techniques" is a bonafide work carried out by:

A Harika	1KG18CS001
Akshatha K A	1KG18CS006
Anirudh A	1KG18CS011
Eesha B S	1KG18CS034

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

.....  
Signature of the Guide

Mrs. Sandhya A Kulkarni  
Assistant Professor  
K.S.S.E.M, Bengaluru

.....  
Signature of the HOD

Dr. K Venkata Rao  
Professor, Head of Department.,  
K.S.S.E.M, Bengaluru

.....  
Signature of the Principal

Dr. K. Ravi Narasimha  
Principal and Director  
K.S.S.E.M., Bengaluru

HOD

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062



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#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

Department of Computer Science & Engineering



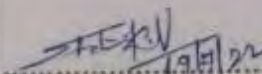
**KSSEM**

### CERTIFICATE

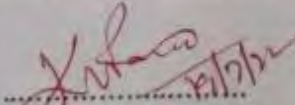
Certified that the Project Work Phase-II (18CSP83) entitled "Audio de-noising of a classroom lecture" is a bonafide work carried out by:

Deepak T N	1KG18CS027
Dravid B	1KG18CS032
Jayanth J	1KG18CS041
Bharath P	1KG19CS401

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

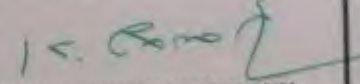
  
Signature of the Guide

[Mrs. Shalini K V]

  
Signature of the HOD

[Dr. K Venkata Rao]  
HOD

Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062

  
Signature of the Principal

[Dr. K Rama Narasimha]  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

**K. S. School of Engineering and Management**  
#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

**Department of Computer Science & Engineering**



**KSSEM**

**CERTIFICATE**

Certified that the Project Work Phase-II (18CSP83) entitled "**Development of Mobile Application for College Information using Android**" is a bonafide work carried out by:

<b>Pawan R</b>	<b>1KG18CS073</b>
<b>Purushotham Reddy J</b>	<b>1KG18CS085</b>
<b>T Sandhya</b>	<b>1KG18CS114</b>
<b>Vijaya Lakshmi S</b>	<b>1KG18CS122</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

*Gargi*  
11/7/22  
.....  
Signature of the Guide

[Mrs. Gargi N]

*K Venkata Rao*  
11/7/22  
.....  
Signature of the HOD

[Dr. K Venkata Rao]

*K Rama Narasimha*  
.....  
Signature of the Principal

Dr. K. RAMA NARASIMHA  
[Dr. K Rama Narasimha]

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Bengaluru - 560 109

HOD

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K.S. School of Engineering & Management  
Bangalore-560 062



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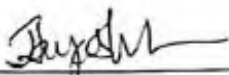
**Department of Computer Science and Engineering**

## *Certificate*

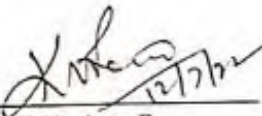
*This is to certify that the project work entitled "Quiz Conduction App With QR Code" is a bonafide work carried out by*


Pagadala Hemanth	1KG18CS071
G Poorna Chandra	1KG18CS078
Sabhyath B	1KG18CS094
Sean Kevin S	1KG18CS098

*in partial fulfilment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi, during the year 2021-22. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report which satisfies the academic requirement in respect of project work prescribed for the degree.*

  
Mrs. Jayashubha J  
Associate Professor  
Internal Guide

University Examiners:

  
Dr. K Venkata Rao  
Professor and Head  
Dept. of CSE  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062

  
Dr. K. Rama Narasimha  
Principal/Director  
KSSEM  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

\_\_\_\_\_  
Name and Signature of Examiner-1

\_\_\_\_\_  
Name and Signature of Examiner-2

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### CERTIFICATE

Certified that the Project Work Phase-II (18CS183) entitled "Deletion of Duplicate files and images using hashing algorithm" is a bonafide work carried out by:

Nisarga P	1KG18CS066
Shilpa G R	1KG18CS101
Shivani B Kulkarni	1KG18CS102
Usha R	1KG18CS117

in partial fulfillment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

[Mrs. Nagaveni B Nimbal]

Signature of the HOD

[Dr. K Venkatesh Rao]  
HOD  
Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062

Signature of the Principal

[Dr. K Rama Narasimha]

**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K. S. School of Engineering and Management  
Bangalore - 560 109



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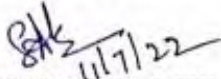
**KSSEM**

**CERTIFICATE**

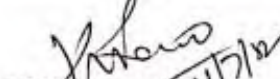
Certified that the Project Work Phase-II (18CSP83) entitled "Text Summarization of Covid Data using Machine Learning Techniques" is a bonafide work carried out by:

AMITHA S M	1KG18CS008
AMULYA D M	1KG18CS009
DEEKSHITHA V REDDY	1KG18CS026
DEEPTHI T E	1KG18CS028


in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
Signature of the Guide

[Mrs. Sandhya A Kulkarni]

  
.....  
Signature of the HOD

[Dr. K Venkata Rao]

  
.....  
Signature of the Principal

Dr. K. RAMA NARASIMHA  
[Dr. K. Rama Narasimha]  
Principal  
K S School of Engineering and Management  
Bengaluru - 560 109

HOD  
Dept. of Computer Science & Engineering,  
K.S. School of Engineering & Management  
Bangalore-560 062

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### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Advanced Navigation System and Detection of Speed Breakers" is a bonafide work carried out by:

Atul Thakur	1KG17CS008
Anusha Ramnath	1KG18CS014
Manisha Rai	1KG18CS052
Nafeesa Banu	1KG18CS060

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

Mrs. Nita Meshram

Signature of the HOD

Dr. K Venkata Rao  
HOD

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bengaluru - 560 062

Signature of the Principal

Dr. K Rama Narasimha  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109



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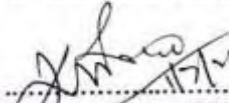
Certified that the Project Work Phase-II (18CSP83) entitled "Detection of Masked Faces using OpenCV and Tensorflow" is a bonafide work carried out by:

Adarsh P	1KG18CS002
Sai Rohit	1KG18CS033
Jeevan Sai G	1KG18CS043
Kruthika B	1KG18CS048


in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
Signature of the Guide

[Mrs. Amitha S]

  
.....  
Signature of the HOD

[Dr. K Venkata Rao]  
HOD

  
.....  
Signature of the Principal

[Dr. K Rama Narasimha]

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K.S. School of Engineering & Management  
Bangalore-560 062.

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**KSSEM**

**CERTIFICATE**

Certified that the Project Work Phase-II (18CSP83) entitled "**Detection Of Road With Less Air Quality Index and Alert The Best Route**" is a bonafide work carried out by:

<b>LAKSHMI J</b>	<b>1KG18CS049</b>
<b>MALAVIKA</b>	<b>1KG18CS051</b>
<b>MEGHA M L</b>	<b>1KG18CS054</b>
<b>MONICA V</b>	<b>1KG18CS059</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

.....  
**Signature of the Guide**

[Mrs. Meena G]

.....  
**Signature of the HOD**

[Dr. K Venkata Rao]

.....  
**Signature of the Principal**

[Dr. K Rama Narasimha]  
Dr. K. RAMA NARASIMHA  
Principal/Director

HOD  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
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### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Predict the Usage of WhatsApp Using Machine Learning" is a bonafide work carried out by:

Adithi N	1KG18CS004
Anusha H	1KG18CS012
Anusha N	1KG18CS013
Athmika H R	1KG18CS016

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

[Meena G]

Signature of the HOD

[Dr. K Venkata Rao]  
HOD

Signature of the Principal  
Dr. K. RAMA NARASIMHA

Principal/Director  
[Dr. K. Rama Narasimha]  
K S School of Engineering and Management  
Bengaluru - 560 109

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Bangalore-560062

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**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled **"DYNAMIC PRICING SAAS APPLICATION WITH STUDENTS DATA MANAGEMENT USING CLOUD COMPUTING"** is a bonafide work carried out by:

<b>PRAJWAL P ACHARYA</b>	<b>(1KG18CS081)</b>
<b>RAGHAVENDRA S N</b>	<b>(1KG18CS086)</b>
<b>SRIHARI P N</b>	<b>(1KG18CS109)</b>
<b>VENKATESH V</b>	<b>(1KG18CS118)</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

[Mrs. Nita Meshram]

Signature of the HOD

[Dr. K Venkata Rao]

Signature of the Principal / Director

**K. S. School of Engineering & Management  
Bangalore-560 062**

— HOD

Dept. of Computer Science & Engineering  
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Bangalore-560 062.



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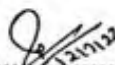
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**CERTIFICATE**

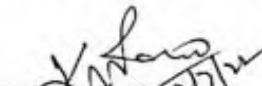
Certified that the Project Work Phase-II (18CSP83) entitled “**Converting attendance register image to excel file using OCR technique**” is a bonafide work carried out by:

<b>Adithya U</b>	<b>1KG17CS003</b>
<b>Mayurjit Borkakoty</b>	<b>1KG18CS053</b>
<b>Mithun M</b>	<b>1KG18CS057</b>
<b>P C Chandana</b>	<b>1KG18CS070</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
Signature of the Guide

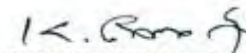
[Mrs Amitha S]

  
.....  
Signature of the HOD

[Dr. K Venkata Rao]

HOD

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062.

  
.....  
Signature of the Principal/Director  
Principal/Director  
K. S. School of Engineering and Management  
Bangalore - 560 109

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### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Language Pronunciation Translator For Better Understanding" is a bonafide work carried out by:

Hamsaveena S	1KG18CS040
Karthik Gowda D	1KG18CS045
Rama Reddy B T	1KG18CS089
Shankar K S	1KG18CS099

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Handwritten signature of Jayashubha J.

Signature of the Guide

[Jayashubha J]

Handwritten signature of Dr. K Venkata Rao.

Signature of the HOD

[Dr. K Venkata Rao] K S School of Engineering and Management

HOD

Dept. of Computer Science & Engineering

K.S. School of Engineering & Management

Bangalore-560062

Handwritten signature of K. Ramakrishna.

Signature of the Principal/Director

Principal/Director

K S School of Engineering and Management

Bengaluru - 560 109



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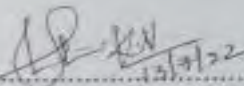
**KSSEM**

**CERTIFICATE**

Certified that the Project Work Phase-II (18CSP83) entitled "**Real Time Face Mask Detector using Machine Learning**" is a bonafide work carried out by:

<b>PRERANA R</b>	<b>1KG18CS083</b>
<b>RUTHVIK R</b>	<b>1KG18CS093</b>
<b>SUHAS KR</b>	<b>1KG18CS110</b>
<b>SUHAS S</b>	<b>1KG18CS111</b>


in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April-2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

Mrs. K. V. Shalini

  
Signature of the HOD

Dr. K. Venkata Rao

  
Signature of the Principal

Dr. K. Rama Narasimha

YD/0  
Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 082

Dr. K. RAMA NARASIMHA  
Principal/Director  
K. S. School of Engineering and Management  
Bangaluru - 560 109

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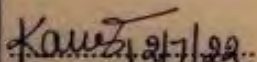
**KSSEM**

### CERTIFICATE

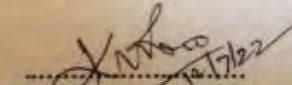
Certified that the Project Work Phase-II (18CSP83) entitled "An Android Application For Tracking And Locating a Person From Group of People" is a bonafide work carried out by:

Sai Shwetha R	1KG18CS095
Samartha C Shetty	1KG18CS096
Shruthi M S	1KG18CS105
Sneha Y T	1KG18CS107

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

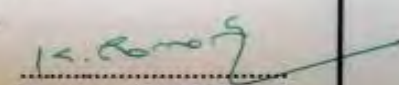
  
Signature of the Guide

[Mrs. Kavitha K S]

  
Signature of the HOD

[Dr. K. Anandh Kumar-Rao]

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bengaluru-560 062

  
Signature of the Principal

[Dr. K Rama Narasimha]

Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109



# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

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
**KSSEM**

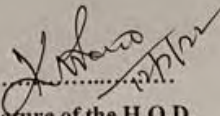
### CERTIFICATE

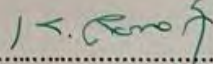
Certified that the Project Work Phase-II (18CSP83) entitled "Seat Occupancy Detection using Machine Learning" is a bonafide work carried out by:

Amith Upadhya.K.C	1KG18CS007
Ashish Kumar	1KG18CS015
Charith Bhat	1KG18CS024
Kalyan Venkatesh.B.S	1KG18CS044

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
Signature of the Guide  
Mrs.Swathi Darla  
Assistant Professor  
K.S.S.E.M., Bengaluru

  
.....  
Signature of the H.O.D.  
Dr. K.Venkata Rao  
Professor, Head of the Dept.,  
K.S.S.E.M., Bengaluru

  
.....  
Signature of the Principal  
Dr. K. Rama Narasimha  
Principal/Director,  
K.S.S.E.M., Bengaluru

HOD  
Dept. of Computer Science & Engineering,  
K.S. School of Engineering & Management  
Bangalore-560062

Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

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### CERTIFICATE

This is certified that the Project Work Phase-II (18CSP83) entitled "Alert the driver by detecting the movement of vehicles ahead using Arduino" is a bonafide work carried out by:

Sinchana KR	1KG18CS105
Vaishnavi V Vagdale	1KG17CS102
Ravikiran C Kuratti	1KG18CS092
Shrijesh Sab	1KG18CS103

in partial fulfillment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Handwritten signature of Mrs. Swathi Darla in black ink.

Signature of the Guide

[Mrs. Swathi Darla]

Handwritten signature of Dr. K. Venkata Rao in black ink.

Signature of the HOD

[Dr. K. Venkata Rao]  
HOD

Handwritten signature of Dr. K. Rama Narasimha in blue ink.

Signature of the Principal

[Dr. K. Rama Narasimha]  
Principal/Director

Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062

School of Engineering and Management  
Bangalore - 560 109



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**CERTIFICATE**

Certified that the Project Work Phase-II (18CSP83) entitled "Pot Hole Detection with Sensor Robot " is a bonafide work carried out by:

<b>Rakshitha Katti</b>	<b>1KG18CS088</b>
<b>Ranjitha.V</b>	<b>1KG18CS090</b>
<b>Sowmya.Y.J</b>	<b>1KG18CS108</b>
<b>Veena.H</b>	<b>1KG18CS121</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

*R.S. Geethanjali*  
Signature of the Guide

[R.S.Geethanjali]

*[Signature]*  
Signature of the HOD

[Dr. K Venkata Rao]  
HOD

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560062.

*[Signature]*  
Signature of the Principal

[Dr. K Rama Narasimha]

Dr. K. RAMA NARASIMHA  
Principal/Director

K.S. School of Engineering and Management  
Bangaluru - 560 109

# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

## Department of Computer Science & Engineering



**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled “Securing Attendance Data Using Blockchain Technology” is a bonafide work carried out by:

<b>KOTAPATI SUSHMA CHOWDARY</b>	<b>1KG18CS046</b>
<b>NAGA VAISHNAVI P</b>	<b>1KG18CS061</b>
<b>NANDEESH S</b>	<b>1KG18CS063</b>
<b>O PRATHYUSHA</b>	<b>1KG18CS069</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

.....  
Signature of the Guide

Mrs. Dakshayini .G.R

.....  
Signature of the HOD

Dr. K Venkata Rao  
HOD

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bengaluru-560062

.....  
Signature of the Principal

Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109



# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

## Department of Computer Science & Engineering



**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled "Blind Assistant using Machine learning" is a bonafide work carried out by:

Kruthi M	1KG18CS047
Pooja C	1KG18CS074
Poorvika J	1KG18CS079
Pruthvi B	1KG18CS084

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

Mrs. Boyapati Sahithi

Signature of the HOD

Dr. K. Venkata Rao  
HOD

Signature of the Principal/Director

Principal/Director

K. S. School of Engineering and Management  
Bengaluru - 560 109

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 002.

# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

## Department of Computer Science & Engineering



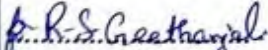
**KSSEM**

### CERTIFICATE

Certified that the Project Work Phase-II (18CSP83) entitled “Design and Development of a Framework for building a Messaging Application (DMgram) with Alert System” is a bonafide work carried out by:

<b>Bhavitha D</b>	<b>1KG18CS019</b>
<b>Chandana M</b>	<b>1KG18CS022</b>
<b>Devapoojitaa</b>	<b>1KG18CS029</b>
<b>Gayana H G</b>	<b>1KG18CS036</b>

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

[Mrs. Gargi N]

  
Signature of the HOD

[Dr. K Venkata Rao]  
HOD

  
Signature of the Principal/Director

K S School of Engineering and Management  
[Dr. K Rama Narasimha]  
Bengaluru - 560 109

Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062.



**K. S. School of Engineering and Management**  
#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

**Department of Computer Science & Engineering**

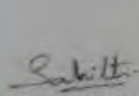


**KSSEM**  
**CERTIFICATE**

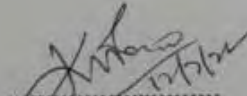
Certified that the Project Work Phase-II (18CSP83) entitled "Identifying Food is Stale or Fresh using Internet of Things" is a bonafide work carried out by:

<b>Madhumathi P</b>	<b>1KG18CS050</b>
<b>Varshitha M</b>	<b>1KG18CS119</b>
<b>Vedhavathi R</b>	<b>1KG18CS120</b>
<b>Yamuna P</b>	<b>1KG18CS123</b>

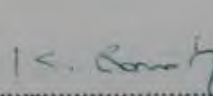
in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
.....  
**Signature of the Guide**

Mrs. Boyapati Sahithi  
Assistant Professor  
K.S.S.E.M, Bangalore

  
.....  
**Signature of the HOD**

Dr. K Venkata Rao  
Professor, Head of Department  
K.S.S.E.M, Bangalore  
HOD  
Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062.

  
.....  
**Signature of the Principal**

Dr. K Rama Narasimha  
Principal and Director  
K.S.S.E.M, Bangalore  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S School of Engineering and Management  
Bangaluru - 560 109

**K. S. School of Engineering and Management**  
#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

**Department of Computer Science & Engineering**

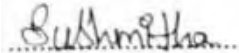


**KSSEM**  
**CERTIFICATE**

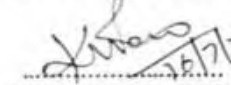
Certified that the Project Work Phase-II (18CSP83) entitled "**Attendance Prediction Based on Weather Condition**" is a bonafide work carried out by:

<b>Navya M H</b>	<b>1KG18CS065</b>
<b>Nisha R</b>	<b>1KG18CS068</b>
<b>Pooja J</b>	<b>1KG18CS075</b>
<b>Pooja P</b>	<b>1KG18CS076</b>


in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by **Visvesvaraya Technological University, Belagavi** during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

[Mrs. Sushmitha Suresh]

  
Signature of the HOD

[Dr. K Venkata Rao]

  
Signature of the Principal

Dr. K. RAMA NARASIMHA  
[Dr. K. Rama Narasimha]

K S School of Engineering and Management  
Bengaluru - 560 109

HOD  
Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062



# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

## Department of Computer Science & Engineering



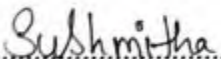
**KSSEM**

### CERTIFICATE

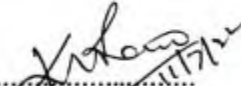
Certified that the Project Work Phase-II (18CSP83) entitled “Predicting Time management for Exam preparation using Machine Learning” is a bonafide work carried out by:

Rashmi. K	1KG18CS091
Sneha. S	1KG18CS106
Surabhi. BN	1KG18CS112
Sushil Singh	1KG18CS113

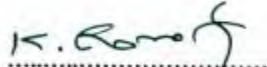
in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

  
Signature of the Guide

[Mrs. Sushmitha Suresh]

  
Signature of the HOD

[Dr. K Venkata Rao]

  
Signature of the Principal

[Dr. K Rama Narasimha]

Dr. K. RAMA NARASIMHA  
Principal/Director

HOD  
Dept. of Computer Science & Engineering  
K.S. School of Engineering & Management  
Bangalore-560 062.

S School of Engineering and Manag  
Bengaluru - 560 109

# K. S. School of Engineering and Management

#15, Mallasandra, off. Kanakapura Road, Bengaluru - 560109

## Department of Computer Science & Engineering



### CERTIFICATE

Certified that the Project Work Phase-II (17CSP85) entitled "Automated Toll Management With Smart Light System" is a bonafide work carried out by:

Sharath B S	1KG16CS094
Suyog L	1KG16CS110
Bharadwaj B S	1KG17CS012
Bhargav Swamy P M	1KG17CS015

in partial fulfilment for VIII semester B.E., Project Work in the branch of Computer Science and Engineering prescribed by Visvesvaraya Technological University, Belagavi during the period of April 2022 to June 2022. It is certified that all the corrections and suggestions indicated for internal assessment have been incorporated. The Project Work Phase-2 Report has been approved as it satisfies the academic requirements in report of project work prescribed for the Bachelor of Engineering degree.

*Chandana V.S. 23/6/22*  
Signature of the Guide

*[Signature]*  
Signature of the HOD

*[Signature]*  
Signature of the Principal

[Mrs. Chandana V S]

[Dr. K Venkata Rao]  
HOD

[Dr. K. R. Narasimha]

Dept. of Computer Science & Engineering  
K. S. School of Engineering & Management  
Bangalore-560 062

Principal/Director  
K S School of Engineering and Man  
Bengaluru - 560 109



# DESIGN AND DEVELOPMENT OF SMART ROBOTIC ARM FOR HANDLING LOW WEIGHTED OBJECTS

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

JASWANTH B S	1KG18EC024
MOHIT SINTRE H	1KG18EC034
NANDAKUMAR M N	1KG18EC035
SANJAY B	1KG18EC048

Under the Guidance of

**Mr. Puneeth S**  
Assistant Professor, Dept. of ECE  
K S School of Engineering and Management



**KSSEM**

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022




**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

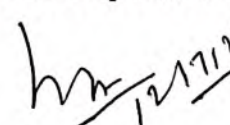
**CERTIFICATE**

This is to certify that the project work entitled **Design and Development of Smart Robotic Arm for Handling Low Weighted Objects** is a bonafide work carried out by

**JASWANTH B S            1KG18EC024**  
**MOHIT SINTRE H        1KG18EC034**  
**NANDAKUMAR M N     1KG18EC035**  
**SANJAY B                1KG18EC048**

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

  
**Internal Guide**  
11/7/2022

**Head of the Department**  


  
**Principal/Director**

**Mr. Puneeth S**  
Assistant professor  
Dept. of ECE


**Dr. Girish V Attimarad**  
Head & Professor  
Dept. of ECE  
Professor & Head

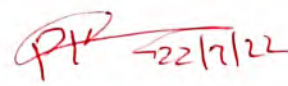
**Dr. K. Rama Narasimha**  
KSSEM

**Examiners**

Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K.S. School of Engineering and Management  
Bangaluru - 560 109

  
**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

  
**Dr. Kasthik P**  
Name and Signature of Examiner-2



# IMPLEMENTATION OF VEHICLE TRACKING AND LOCKING SYSTEM USING GPS & GSM

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

MAYAMMA N	1KG18EC033
RAKSHITHA M R	1KG18EC044
ABHILASH P R	1KG19EC401
PAVAN V	1KG19EC406

Under the Guidance of

**Mr. Sasindran Prabhu**  
Associate Professor, ECE, KSSEM  
K S School of Engineering and Management



**KSSEM**

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Implementation of Vehicle Tracking and Locking System using GPS & GSM** is a bonafide work carried out by

MAYAMMA N	1KG18EC033
RAKSHITHA M R	1KG18EC044
ABHILASH P R	1KG19EC401
PAVAN V	1KG19EC406

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

*M. Sasindran*

**Mr. Sasindran Prabhu**  
Associate Professor  
Dept. of ECE

*Girish V Attimarad*

**Dr. Girish V Attimarad**  
Professor & Head  
Dept. of ECE  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

*K. Rama Narasimha*

**Dr. K. Rama Narasimha**  
Dr. K. KSSEM  
Principal/Director  
K S School of Engineering and Management  
Bangaluru - 560 109

**Examiners**

*Girish V Attimarad*  
**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

*Karthik P*  
**Dr. Karthik P**  
Name and Signature of Examiner-2





**IMPLEMENTATION OF PASSWORD AUTHENTICATION  
SYSTEM USING BRAIN WAVE FOR PARALYZED PEPOLE**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>BHANUPRIYA C N</b>	<b>1KG18EC008</b>
<b>J R PAVANAJAKHI</b>	<b>1KG18EC023</b>
<b>TALLURUGOPIPRAVALIKA</b>	<b>1KG18EC059</b>
<b>R YASHAS</b>	<b>1KG17EC060</b>

Under the Guidance of

**Dr. KARTHIK P**

**Professor**

**K S School of Engineering and Management**



**KSSEM**  
K S School of Engineering and Management

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled "Password Authentication using Brain signals for Paralyzed people is a bonafide work carried out by

<b>BHANUPRIYA C N</b>	<b>1KG18EC008</b>
<b>J R PAVANAJAKSHI</b>	<b>1KG18EC023</b>
<b>TALLURUGOPIPRAVILKA</b>	<b>1KG18EC059</b>
<b>R YASHAS</b>	<b>1KG17EC060</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

**Dr. Karthik P**  
Professor  
Dept. of ECE

**Dr. Girish V Attimarad**  
Professor & Head,  
Dept. of ECE  
Professor & Head

**Dr. K. Rama Narasimha**  
Principal,  
KSSEM

**Dept. of Electronics & Communication Engineering**  
**K. S. School of Engineering & Management**  
Bangalore-560 109

**Examiners**

**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

**Dr. Karthik P**  
Name and Signature of Examiner-2



# IMPLEMENTATION OF AN EYE TRACKING SYSTEM FOR CURSOR CONTROL

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
In  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>DIVYASHREE S</b>	<b>1KG18EC012</b>
<b>KEERTHI G</b>	<b>1KG18EC016</b>
<b>SAMYUKTHA</b>	<b>1KG18EC047</b>
<b>SHARAN KUMAR M</b>	<b>1KG18EC051</b>

Under the Guidance of

**Mr. Ravikiran B A,**  
Assistant professor, Dept of ECE

**K S School of Engineering and Management**



**KSSEM**  
K.S. School of Engineering and Management

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

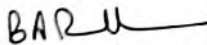
## CERTIFICATE

This is to certify that the project work entitled "Implementation of Eye Tracking System for Cursor Control" is a bonafide work carried out by

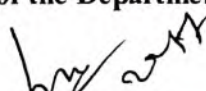
<b>DIVYASHREE S</b>	<b>1KG18EC012</b>
<b>KEERTHI G</b>	<b>1KG18EC016</b>
<b>SAMYUKTHA</b>	<b>1KG18EC047</b>
<b>SHARAN KUMAR M</b>	<b>1KG18EC051</b>

in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to Project Work (18ECP83) prescribed for the degree.


**Internal Guide**

  
**Mr. Ravikiran B A**  
Assistant Professor  
Dept of ECE

**Head of the Department**


  
**Dr. Girish V Attimarad**  
Professor & Head  
Dept. of ECE


**Principal**

  
**Dr. K. Rama Narasimha**  
KSSEM

Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

**Examiners**

  
**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

  
**Dr. Jayashikha P**  
Name and Signature of Examiner-2



# **“Handwritten Text Recognition Using Artificial Intelligence”**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>Aishwarya N Kamaty</b>	<b>1KG18EC003</b>
<b>Sumanth BL</b>	<b>1KG18EC057</b>
<b>O Haritha</b>	<b>1KG18EC039</b>
<b>Aaira Fathima</b>	<b>1KG17EC002</b>

Under the Guidance of

**Sasindran M Prabhu**  
Associate Professor, Dept of ECE  
K S School of Engineering and Management



**KSSEM**

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109

**2021-2022**



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

## CERTIFICATE

This is to certify that the project work entitled “**Hand-Written Text Recognition Using Artificial Intelligence**” is a bonafide work carried out by

<b>Aishwarya N Kamaty</b>	<b>1KG18EC003</b>
<b>Sumanth BL</b>	<b>1KG18EC057</b>
<b>O Haritha</b>	<b>1KG18EC039</b>
<b>Aaira Fathima</b>	<b>1KG17EC002</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

*M. Sasi*

**Sasindran M Prabhu**  
Associate Professor  
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*hvm 15/7/22*

**Dr. Girish V Attimarad**  
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**Examiners**

**Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
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**K. S. School of Engineering and Management  
Bangaluru - 560 109**

*hvm 22/7/22*  
**Dr. Girish V Attimarad**

Name and Signature of Examiner-1

*PR 22/7/22*  
**Dr. Karthik P**

Name and Signature of Examiner-2





# LOCALIZATION AND MAPPING OF UNKNOWN ENVIRONMENT USING AUTONOMOUS ROBOT

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>ANIKETHANA N M</b>	<b>1KG18EC005</b>
<b>JYOTISHWAR M</b>	<b>1KG18EC025</b>
<b>PARA LOKESH</b>	<b>1KG18EC041</b>
<b>REVANTH A</b>	<b>1KG18EC045</b>

Under the Guidance of

**Dr. K Senthil Babu**  
**Professor, Dept of ECE**  
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Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled “Localization and Mapping of unknown Environment using Autonomous Robot” is a bonafide work carried out by

<b>ANIKETHANA N M</b>	<b>1KG18EC005</b>
<b>JYOTISHWAR M</b>	<b>1KG18EC025</b>
<b>PARA LOKESH</b>	<b>1KG18EC041</b>
<b>REVANTH A</b>	<b>1KG18EC045</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

**Dr. K Senthil Babu**  
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**Dr. Girish V Attimarad**  
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K. S. School of Engineering & Management  
Bangalore-560 109

K.S. School of Engineering and Management  
Bangaluru - 560 109

Name and Signature of Examiner-1

Name and Signature of Examiner-2



# **SOLAR OUTDOOR AIR-PURIFIER USING AIR QUALITY MONITORING SYSTEM**

Project Work Submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfilments of the requirements  
for the award of the degree of

**BACHELOR OF ENGINEERING**

in

**ELECTRONICS AND COMMUNICATION ENGINEERING**

Submitted by

<b>GANESH P K</b>	<b>1KG18EC040</b>
<b>SANTOSH R</b>	<b>1KG18EC049</b>
<b>SRIMANNARAYANA N K</b>	<b>1KG18EC055</b>
<b>SRIRAMSRINIVASAN N K</b>	<b>1KG18EC056</b>

Under the Guidance of

**Mr. Manu D K**

**Associate Professor**

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**2021-2022**



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**K.S SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Solar Outdoor Air-Purifier Using Air Quality Monitoring System** is a bonafide work carried out by

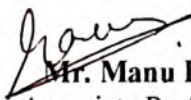
<b>GANESH P K</b>	<b>1KG18EC040</b>
<b>SANTOSH R</b>	<b>1KG18EC049</b>
<b>SRIMANNARAYANA N K</b>	<b>1KG18EC055</b>
<b>SRIRAMSRINIVASAN N K</b>	<b>1KG18EC056</b>

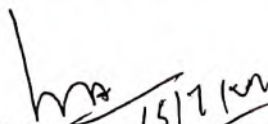
in partial fulfillment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.


**Internal Guide**

**Head of the Department**

**Principal**

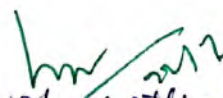
  
**Mr. Manu D K**  
Associate Professor  
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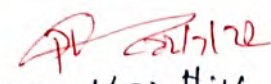
  
**Dr. Girish V Attimarad**  
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**Professor & Head**  
**Dept. of Electronics & Communication Engineering**  
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**Bangalore-560 109**

  
**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

  
**Dr. Kasthik P**  
Name and Signature of Examiner-2



# Home Security System using GSM

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

Siddanth Sand	1KG18EC052
Sinchana K P	1KG18EC053
Varsha H	1KG18EC060
Vignesh B	1KG18EC063

Under the Guidance of

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**Professor & Head**  
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2021-2022



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<b>Siddanth Sand</b>	<b>1KG18EC052</b>
<b>Sinchana K P</b>	<b>1KG18EC053</b>
<b>Varsha H</b>	<b>1KG18EC060</b>
<b>Vignesh B</b>	<b>1KG18EC063</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

**Girish V Attimarad**  
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Dept. of ECE

**Girish V Attimarad**  
Professor & Head  
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**Dr. K. Rama Narasimha**

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**Dr. Girish V Attimarad**  
Name and Signature of Examiner-1

**Dr. Karthik P**  
Name and Signature of Examiner-2



# Detection of Fake Accounts in Twitter using Machine Learning Techniques

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>Chandana K M</b>	<b>1KG18EC009</b>
<b>Veluru Harish</b>	<b>1KG18EC061</b>
<b>Venkatesh N</b>	<b>1KG18EC062</b>
<b>Y Dhanush</b>	<b>1KG18EC066</b>

Under the Guidance of

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**2021-2022**



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
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**CERTIFICATE**

This is to certify that the project work entitled **Detection of Fake Accounts in Twitter using Machine Learning Techniques** is a bonafide work carried out by

<b>Chandana K M</b>	<b>1KG18EC009</b>
<b>Veluru Harish</b>	<b>1KG18EC061</b>
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<b>Y Dhanush</b>	<b>1KG18EC066</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

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**Dr. Girish V Attimarad**  
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**Dr. Karthik P**  
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# IMPLEMENTATION OF BRAIN CONTROLLED MINIATURE WHEELCHAIR

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
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**BACHELOR OF ENGINEERING**  
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**ELECTRONICS & COMMUNICATION ENGINEERING**

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<b>G GAYATHRI</b>	<b>1KG18EC015</b>
<b>KUCHE DHANUSH</b>	<b>1KG18EC030</b>
<b>MARU ASWINI</b>	<b>1KG18EC032</b>

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**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

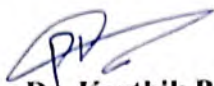
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This is to certify that the project work entitled **Implementation of Brain Controlled Miniature Wheelchair** is a bonafide work carried out by

<b>BASINENI KAVERI</b>	<b>1KG18EC007</b>
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<b>KUCHE DIANUSHI</b>	<b>1KG18EC030</b>
<b>MARU ASWINI</b>	<b>1KG18EC032</b>

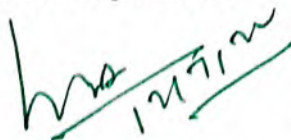
in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**



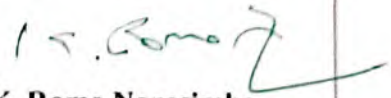
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**Head of the Department**



**Dr. Girish V Attimarad**  
Professor & Head,  
Dept. of ECE

**Principal**

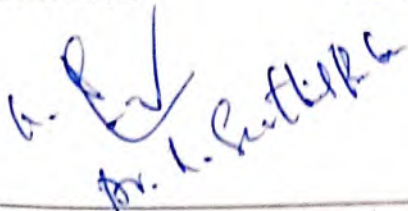


**Dr. K. Rama Narasimha**  
Principal  
KSEEM Director

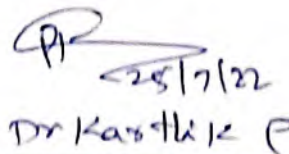
K S School of Engineering and Management  
Bangalore - 560 109

Dept. of Electronics & Communication Engineering,  
K. S. School of Engineering & Management  
Bangalore-560 109

**Examiners**



Name and Signature of Examiner-1



Name and Signature of Examiner-2



# **A Secure IoT Based Health Monitoring System with Mechanical Ventilator**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
in partial fulfillment of the requirements  
for the award of degree of  
**BACHELOR OF ENGINEERING**  
in  
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Submitted by

<b>DEEKSHA S</b>	<b>1KG18EC011</b>
<b>HARSHITHA M</b>	<b>1KG18EC019</b>
<b>KAVYASHREE K</b>	<b>1KG18EC028</b>
<b>PRIYANKA NAG G V</b>	<b>1KG18EC043</b>

Under the Guidance of  
**Mr. Gopalakrishna Murthy C R**  
Asst. Professor, ECE  
**K S School of Engineering and Management**



Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
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2021-2022

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled **A Secure IoT Based Health Monitoring System with Mechanical Ventilator** is a bonafide work carried out by

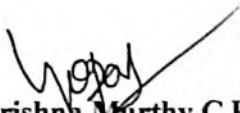
<b>DEEKSHA S</b>	<b>1KG18EC011</b>
<b>HARSHITHA M</b>	<b>1KG18EC019</b>
<b>KAVYASHREE K</b>	<b>1KG18EC028</b>
<b>PRIYANKA NAG G V</b>	<b>1KG18EC043</b>


in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.


**Internal Guide**

**Head of the  
Department**

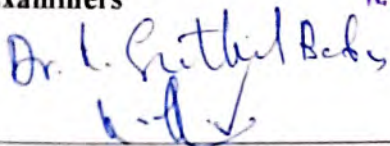
**Principal/Director**

  
**Mr. Gopalakrishna Murthy C R**  
Asst. Professor  
Dept. of ECE

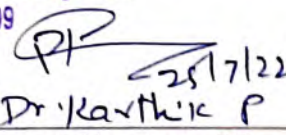
  
**Dr. Girish V Attimarad**  
Professor & Head  
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Professor & Head

  
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Principal/Director  
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Principal Director  
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**Examiners**

  
**Dr. L. Prithvi Babu**  
Name and Signature of Examiner-1

Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

  
**Dr. Karthik P**  
Name and Signature of Examiner-2



**SOLDIER HEALTH MONITORING AND TRACKING  
SYSTEM USING LoRa WAN**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

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<b>ABHISHEK M</b>	<b>1KG18EC001</b>
<b>ANU A</b>	<b>1KG18EC006</b>
<b>NAVEEN R</b>	<b>1KG18EC036</b>
<b>NIKITHA C M</b>	<b>1KG18EC037</b>

Under the Guidance of

**Mr. Puneeth S**

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

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This is to certify that the project work entitled **Soldier Health Monitoring and Tracking System Using LoRa Wan** is a bonafide work carried out by

<b>ABHISHEK M</b>	<b>1KG18EC001</b>
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<b>NAVEEN R</b>	<b>1KG18EC036</b>
<b>NIKITHA C M</b>	<b>1KG18EC037</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

*[Signature]*  
**Internal Guide**  
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**Mr. Puneeth S**  
Asst. Professor  
Dept. of ECE

**Examiners**

*[Signature]*  
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**Head of the Department**

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**Dr. Girish V Attimarad**  
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Bangalore - 560 109

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11/7/22  
*[Signature]*

Name and Signature of Examiner-2



# OBSTACLE DETECTION AND PATH STRATAGEM IN AUTONOMOUS VEHICLE

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>HRITHIK V</b>	<b>1KG18EC021</b>
<b>KAVANA H</b>	<b>1KG18EC026</b>
<b>KAVYA S</b>	<b>1KG18EC027</b>
<b>KISHORE KUMAR S</b>	<b>1KG18EC029</b>

Under the Guidance of

**Dr. K SENTHIL BABU**

**Professor**

**K S School of Engineering and Management**



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Department of Electronics and Communication Engineering  
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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **OBSTACLE DETECTION AND PATH STRATAGEM IN AUTONOMOUS VEHICLE** is a bonafide work carried out by

<b>HRITHIK V</b>	<b>1KG18EC021</b>
<b>KAVANA H</b>	<b>1KG18EC026</b>
<b>KAVYA S</b>	<b>1KG18EC027</b>
<b>KISHORE KUMAR S</b>	<b>1KG18EC029</b>

in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to Project Work (18ECP83) prescribed for the degree.

**Internal Guide**

**Dr. K Senthil Babu**  
Professor  
Dept. of ECE

**Head of the Department**

**Dr. Girish V Attimarad**  
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**Principal**

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Dr. K. RAMANASIMHA  
Principal/Director

Dept. of Electronics & Communication Engineering  
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Bangalore-560 109

**Examiners**

**Dr. K Senthil Babu**

Name and Signature of Examiner-1

**Dr. Kasthik P**

Name and Signature of Examiner-2



# Design and Implementation of Image Encryption and Analysis using Dynamic AES

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>Akshay C Kashyap</b>	<b>1KG18EC004</b>
<b>Sadhana H C</b>	<b>1KG18EC046</b>
<b>Sushma R</b>	<b>1KG18EC058</b>
<b>Vishal K</b>	<b>1KG18EC065</b>

Under the Guidance of

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2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Design and Implementation of Image Encryption and Analysis using Dynamic AES** is a bonafide work carried out by

<b>Akshay C Kashyap</b>	<b>1KG18EC004</b>
<b>Sadhana H C</b>	<b>1KG18EC046</b>
<b>Sushma R</b>	<b>1KG18EC058</b>
<b>Vishal K</b>	<b>1KG18EC065</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**

**Principal**

**Mr. Sanjay B Nayak**  
Associate Professor  
Dept. of ECE

**Dr. Girish V Attimarad**  
Professor & HOD  
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**Dr. K. Rama Narasimha**  
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Principal/Director  
Dept. of Engineering and Management  
Bengaluru - 560 109

**Examiners**

  
Name and Signature of Examiner-1

Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

  
Name and Signature of Examiner-2



**OBJECT IDENTIFICATION THROUGH SMART  
ROBOT USING VOICE COMMAND**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>CHANDRASHEKAR N</b>	<b>1KG18EC010</b>
<b>GURUKIRAN K</b>	<b>1KG18EC017</b>
<b>HARISH S</b>	<b>1KG18EC018</b>
<b>HRISHIKESH K M</b>	<b>1KG18EC020</b>

Under the Guidance of

**Dr. KISHORE M**  
**Assistant Professor**  
**K S School of Engineering and Management**



**KSSEM**  
K. S. School of Engineering and Management

Department of Electronics and Communication Engineering  
K. S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **OBJECT IDENTIFICATION THROUGH SMART ROBOT USING VOICE COMMAND** is a bonafide work carried out by

**CHANDRASHEKAR N      1KG18EC010**  
**GURUKIRAN K        1KG18EC017**  
**HARISH S              1KG18EC018**  
**HRISHIKESH K M    1KG18EC020**

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Dr. Kishore M**  
Asst Professor  
Dept. of ECE

**Head of the Department**

**Dr. Girish V Attimarad**  
Professor & Head  
Dept. of ECE  
**Professor & Head**

**Principal**

**Dr. K. Rama Narasimha**  
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Bangaluru - 560 109

**Examiners**

**Dr. K. Senthil Baby**  
Name and Signature of Examiner-1

**Dr. Karthik P**

Name and Signature of Examiner-2



# **SIGN LANGUAGE INTERPRETATION USING MACHINE LEARNING**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>EDULLA BASHA</b>	<b>1KG18EC014</b>
<b>YOGESH K</b>	<b>1KG18EC069</b>
<b>CHANDAN GOWDA S</b>	<b>1KG19EC403</b>
<b>MADHU NARASIMHA</b>	<b>1KG19EC404</b>

Under the Guidance of

**Mrs. Jayashree G R**  
Asst. Professor  
K S School of Engineering and Management



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2021-2022



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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

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This is to certify that the project work entitled **Sign Language Interpretation Using Machine Learning** is a bonafide work carried out by


<b>EDULLA BASHA</b>	<b>1KG18EC014</b>
<b>YOGESH K</b>	<b>1KG18EC069</b>
<b>CHANDAN GOWDA S</b>	<b>1KG19EC403</b>
<b>MADHU NARASIMHA</b>	<b>1KG19EC404</b>


in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.

**Internal Guide**

**Head of the Department**


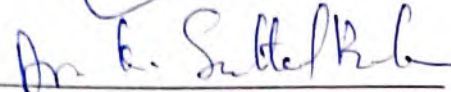
**Principal**

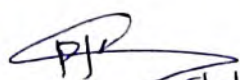
  
**Mrs. Jayashree G R**  
 Asst. Professor  
 Dept. of ECE

  
**Dr. Girish V Attimaraad**  
 Professor & Head  
 Dept. of ECE  
 Professor & Head  
 Dept. of Electronics & Communication Engineering  
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 Bangalore-560 109

  
**Dr. Ramesh Narasimha**  
 KSSEM Director  
 K S School of Engineering and Management  
 Bengaluru - 560 109

**Examiners**

  
  
 Name and Signature of Examiner-1

  
 25/7/22  
**Dr. Keethi K P**  
 Name and Signature of Examiner-2



# **Implementation of Smart Door System for Monitoring Body Temperature and Face Mask Detection**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>SREERAKSHA G S</b>	<b>1KG18EC054</b>
<b>VINISHA R P</b>	<b>1KG18EC064</b>
<b>YASHASWINI G</b>	<b>1KG18EC067</b>
<b>YASHASWINI G M</b>	<b>1KG18EC068</b>

Under the Guidance of

**Mrs. Renuka V Tali**

**Asst. Professor, ECE**

**K S School of Engineering and Management**



**KSSEM**

Department of Electronics and Communication Engineering  
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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

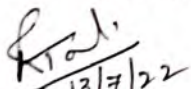
**CERTIFICATE**

This is to certify that the project work entitled **Implementation of Smart Door System for Monitoring Body Temperature and Face Mask Detection** is a bonafide work carried out by

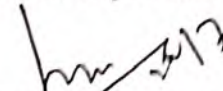
<b>SREERAKSHA G S</b>	<b>1KG18EC054</b>
<b>VINISHA R P</b>	<b>1KG18EC064</b>
<b>YASHASWINI G</b>	<b>1KG18EC067</b>
<b>YASHASWINI G M</b>	<b>1KG18EC068</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18ECP83)** prescribed for the degree.


**Internal Guide**

  
13/7/22  
**Mrs. Renuka V Tali**  
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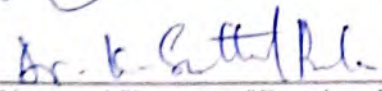
**Head of the Department**

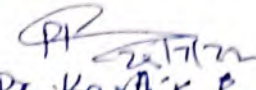
  
**Dr. Girish V Attimarad**  
Professor & Head  
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**Principal/Director**

  
**Dr. K. Rama Narasimha**  
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Bangalore - 560 109

**Examiners**

  
  
Name and Signature of Examiner-1

  
**Dr. Karthik P**  
Name and Signature of Examiner-2



# **“IoT-based Approach for Fully Automated Greenhouse System”**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

Doma Devisree	1KG18EC013
J Akila	1KG18EC022
Niraj Nishant	1KG18EC038
Asmat Bashir	1KG19EC402

Under the Guidance of

**Mr. Gopalakrishna Murthy C R**  
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2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

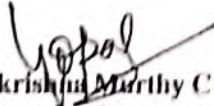
**CERTIFICATE**

This is to certify that the project work entitled "IoT-based Approach for Fully Automated Greenhouse System" is a bonafide work carried out by

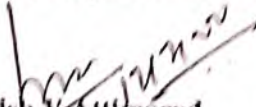
Doma Devisree	1KG18EC013
J Akila	1KG18EC022
Niraj Nishant	1KG18EC038
Asmat Bashir	1KG19EC402

in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to Project Work (18ECP83) prescribed for the degree.

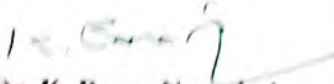
**Internal Guide**

  
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Assistant Professor  
Dept. of ECE



**Head of the Department**

  
**Dr. Girish V. Attimarad**  
Professor & Head  
Dept. of ECE  
Professor & Head

**Principal**


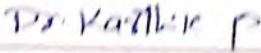
  
**Dr. K. Rama Narasimha**  
Principal/Director  
KSSEM

**Examiners**

  
  
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**Dr. K. RAMA NARASIMHA**  
Principal/Director  
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Bengaluru - 560 109

  
  
Name and Signature of Examiner-2



# Implementation of Warfield Surveillance Robot Using Night Vision Wireless Camera

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

**MOHAMMED ANAS**      1KG16EC057

**TAURAYS FATIMA**      1KG16EC107

Under the Guidance of

**Mrs. Shilpa A P**  
Assistant Professor,  
Dept. of ECE

**K S School of Engineering and Management**



**KSSEM**

Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Implementation of Warfield Surveillance Robot Using Night Vision Wireless Camera** is a bonafide work carried out by

**MOHAMMED ANAS      1KG16EC057**

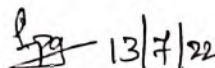
**TAURAYS FATIMA      1KG16EC107**

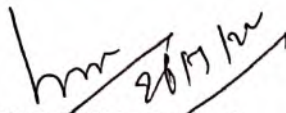
in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (15ECP85)** prescribed for the degree.


**Internal Guide**

**Head of the Department**


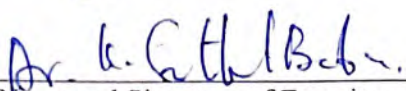
**Principal**

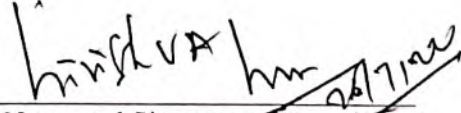
  
13/7/22  
**Mrs. Shilpa A P**  
Assistant professor  
Dept. of ECE

  
**Dr. Girish V Attinarad**  
Professor and Head  
Dept. of ECE  
Professor & head  
Dept. of Electronics & Communication Engineering  
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**Dr. K. Rama Narasimha**  
**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

  
  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



# CLOUD BASED CAR PARKING SYSTEM

Project Work Submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfilments of the requirements  
for the award of the degree of

## **BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING**

Submitted by

Skanda S	1KG16EC093
Bharath A	1KG17EC013
Keerthi Mallesh	1KG17EC034
Nandini K	1KG17EC052

Under the Guidance of

**Mr. Manu D K**

**Associate Professor**

**K.S School of Engineering and Management**



**KSSEM**

Department of Electronics and Communication Engineering

K.S School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109

2021-2022




**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION  
ENGINEERING  
CERTIFICATE**

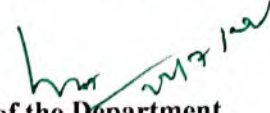
This is to certify that the phase 2 project work entitled "Cloud Based Car Parking System" is a bonafide work carried out by,

Skanda S	1KG16EC093
Bharath A	1KG17EC013
Keerthi Mallesh	1KG17EC034
Nandini K	1KG17EC052

in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belagavi, during the years 2021-2022. It is certified that all the suggestions indicated during the presentations and discussion have been incorporated in the report and this report satisfies the academic requirement with respect to Project Work Phase-2 (17ECP85) prescribed for the degree.

  
Internal Guide  
Mr. Manu D K

Associate Professor  
Dept. of ECE

  
Head of the Department

Dr. Girish V Attimarad

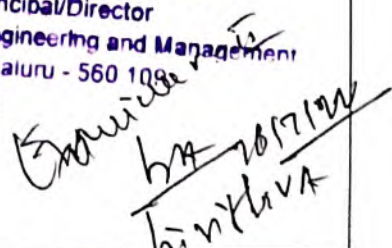
Professor & Head,

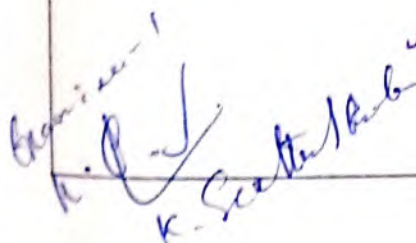
Dept. of ECE K S School of Engineering and Management  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bangalore-560 109

  
Principal

Dr. K. Rama Narasimha

Dr. K. RAMANARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bangalore - 560 109

  
Principal/Director  
K.S. School of Engineering and Management  
Bangalore - 560 109

  
Mr. Manu D K  
Associate Professor  
Dept. of ECE



**Design Of IoT Based Landmine Detection Robot**  
Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted by

<b>Anarghya BG</b>	<b>1KG17EC008</b>
<b>Bhargavi KV</b>	<b>1KG17EC014</b>
<b>Mrunalini Girish Antin</b>	<b>1KG17EC049</b>
<b>Karthikeyan T J</b>	<b>1KG17EC032</b>

Under the Guidance of

**Mrs. Swati Sarkar**  
Assistant Professor  
Department Of Electronics and Communication  
K S School of Engineering and Management



**KSSEM**  
K.S. School of Engineering and Management

Department of Electronics and Communication Engineering  
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No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022



**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Design of IOT Based Landmine Detection Robot** is a bonafide work carried out by

<b>Anarghya BG</b>	<b>1KG17EC008</b>
<b>Bhargavi KV</b>	<b>1KG17EC014</b>
<b>Mrunalini Girish Antin</b>	<b>1KG17EC049</b>
<b>Karthikeyan T J</b>	<b>1KG17EC032</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (17ECP85)** prescribed for the degree.

**Internal Guide**

*Swati Sarkar*  
09/07/22

**Mrs. Swati Sarkar**  
Assistant Professor  
Dept. of ECE

**Head of the Department**

*[Signature]*  
09/07/22

**Dr. Girish V Attimarad**  
Professor & Head  
Dept. of ECE

Professor & Head  
Dept. of Electronics & Communication Engineering  
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Bangalore-560 109

**Principal**

*[Signature]*  
09/07/22

**Dr. K. Rama Narasimha**  
KSSEM

**Dr. K. RAMA NARASIMHA**  
Principal/Director

School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

*[Signature]*  
09/07/22  
Name and Signature of Examiner-1

*[Signature]*  
Name and Signature of Examiner-2



# **IoT Based Food Monitoring System Using Low-Cost Sensors**

A Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
in partial fulfillment of the requirements  
for the award of degree of

**Bachelor of Engineering**  
in  
**Electronics & Communication Engineering**

Submitted by

<b>Jayanth Hegde H R</b>	<b>1KG17EC098</b>
<b>Kavitha B R</b>	<b>1KG17EC099</b>
<b>Shreyas R</b>	<b>1KG17EC075</b>
<b>Harsha</b>	<b>1KG16EC029</b>

Under the Guidance of  
**Mrs. Bhargavi Vijendra Sangam**  
Assistant. Professor,  
Department of ECE  
KSSEM, Bengaluru.



Department of Electronics and Communication Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **IoT Based Food Monitoring System Using Low-cost Sensors** is a bonafide work carried out by

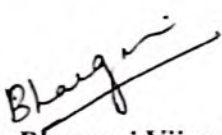
Jayanth Hegde	1KG17EC098
Kavitha B R	1KG17EC099
Shreyas R	1KG17EC075
Harsha	1KG16EC029

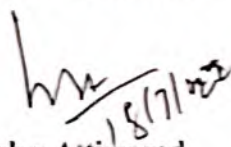
in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (17ECP85)** prescribed for the degree.


**Internal Guide**

**Head of the Department**

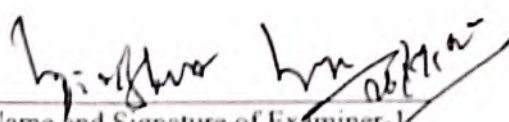
**Principal**

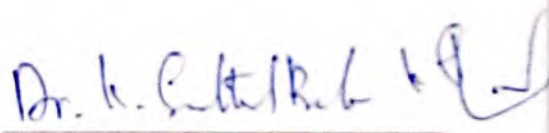
  
**Mrs. Bhargavi Vijendra Sangam**  
Assistant Prof  
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**Dr. Girish v Attimarad**  
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Professor & head  
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K. S. School of Engineering & Management  
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**Dr. K. Rama Narasimha**  
DKSSEEMA NARASIMHA  
Principal/Director  
K. S. School of Engineering and Management  
Bangaluru - 560 109

**Examiners**

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



# **SOLAR POWERED INDOOR AIR PURIFIER**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRICAL AND ELECTRONICS ENGINEERING**

**Submitted by**

<b>DHANUSH R</b>	<b>1KG18EE002</b>
<b>DIVYA M</b>	<b>1KG18EE004</b>
<b>KEERTHANA M</b>	<b>1KG18EE007</b>

Under the Guidance of

**Dr Arun Kumar M**  
**Associate & Head**  
**Dept of Electrical & Electronics**  
**K S School of Engineering and Management**



Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**



**KSSEM**  
11 Years of Distinction and Achievement

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Solar Powered Indoor Air Purifier** is a bonafide work carried out by

<b>DHANUSH R</b>	<b>1KG18EE002</b>
<b>DIVYA M</b>	<b>1KG18EE004</b>
<b>KEERTHANA M</b>	<b>1KG18EE007</b>

in partial fulfillment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18EEP83)** prescribed for the degree.

**Internal Guide**

**Dr Arun Kumar M**  
Associate & Head  
Dept. of EEE

**Head of the Department**

**Dr Arun Kumar M**  
Associate & Head  
Dept. of EEE

**Principal**

**Dr. K. Rama Narasimha**  
**Dr. K. RAMA NARASIMHA**  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

25/7/22  
Name and Signature of Examiner-1

25/7/2022  
Name and Signature of Examiner-2





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**DECLARATION**

We

<b>DIANUSH R</b>	<b>1KG18EE002</b>
<b>DIVYA M</b>	<b>1KG18EE004</b>
<b>KEERTHANA M</b>	<b>1KG18EE007</b>

the students of BE VIII Semester (Electrical and Electronics Engineering) declare that the project entitled "Solar Powered Indoor Air Purifier" is carried out by us as a partial fulfillment of academic requirement of degree under Visvesvaraya Technological University. The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
<b>DIANUSH R</b>	<b>1KG18EE002</b>	<i>Dianush R</i>
<b>DIVYA M</b>	<b>1KG18EE004</b>	<i>Divya M</i>
<b>KEERTHANA M</b>	<b>1KG18EE007</b>	<i>Keerthana M</i>

Date: 21/07/2022  
Place: Bengaluru

# **Design and Development of Power Generation Model using Power Humps**

Project Work submitted to



## **KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

in partial fulfillment of the requirements  
for the award of degree of

### **BACHELOR OF ENGINEERING in ELECTRICAL AND ELECTRONICS ENGINEERING**

Submitted by

<b>Nikitha P</b>	<b>1KG18EE009</b>
<b>Sai Darshan G</b>	<b>1KG18EE011</b>
<b>Varshini K</b>	<b>1KG18EE013</b>

**Under the Guidance of  
Mrs. Manjula B G  
Associate Professor  
Electrical and Electronics Engineering  
K S School of Engineering and Management**



Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
#15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**





**KSSEM**

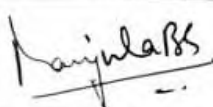


**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Design and Development of Power Generation Model using Power Humps** is a bonafide work carried out by

<b>Nikitha P</b>	<b>1KG18EE009</b>
<b>Sai Darshan G</b>	<b>1KG18EE011</b>
<b>Varshini K</b>	<b>1KG18EE013</b>

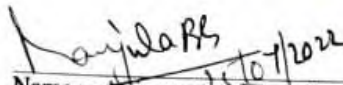
in partial fulfillment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18EEP83)** prescribed for the degree.

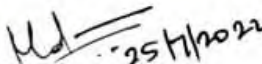
<b>Guide</b>	<b>Head of the Department</b>	<b>Principal/Director</b>
		
<b>Mrs. Manjula B G</b> Associate Professor Dept. of EEE	<b>Dr. Arun Kumar. M</b> Associate Professor & Head of the Department Dept. of EEE	<b>Dr. K. Rama Narasimha</b> KSSEM

**Examiners**

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K.S. School of Engineering and Management  
Bengaluru-560 109

Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**DECLARATION**

We

<b>Nikitha P</b>	<b>1KG18EE009</b>
<b>Sai Darshan G</b>	<b>1KG18EE011</b>
<b>Varshini K</b>	<b>IKG18EE013</b>

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled “**Design and Development of Power Generation Model using Power Humps**” is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University**. The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
<b>Nikitha P</b>	<b>1KG18EE009</b>	<i>Nikitha P</i>
<b>Sai Darshan G</b>	<b>1KG18EE011</b>	<i>Sai Darshan G</i>
<b>Varshini K</b>	<b>IKG18EE013</b>	<i>Varshini K</i>

Date: 30-06-2022  
Place: Bengaluru



**DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements for the award of degree of

**BACHELOR OF ENGINEERING**

in

**ELECTRICAL AND ELECTRONICS ENGINEERING**

Submitted by

**JAYAWANTH B**

**1KG18EE005**

**SUSHMA UDUPA K S**

**1KG18EE012**

Under the Guidance of

**Mrs. Hemapriya M**

**Assistant Professor**

**Department of EEE**

**K S School of Engineering and Management**



**KSSEM**

**Department of Electrical and Electronics Engineering**

**K.S. School of Engineering and Management**

**No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109**

**2021-2022**



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT DEPARTMENT OF  
ELECTRICAL AND ELECTRONICS ENGINEERING

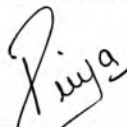
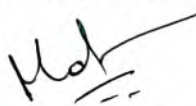

## CERTIFICATE

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM** is a bonafide work carried out by

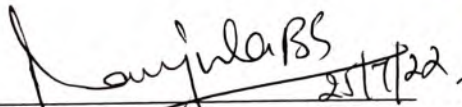
**1KG18EE005**  
**1KG18EE012**

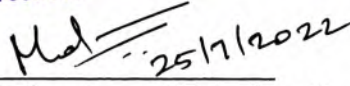
**JAYAWANTH B**  
**SUSHMA UDUPA K S**

in partial fulfillment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (18EEP83)** prescribed for the degree.

Internal Guide	Head of the Department	Principal
		
<b>Mrs. Hemapriya M</b> Assistant professor Dept. of EEE	<b>Dr. Arun Kumar M</b> Head of the Department Dept. of EEE	<b>Dr. K. Rama Narasimha</b> KSSEM

Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
KS School of Engineering and Management  
Bengaluru-560 109  
Principal/Director  
KSSEM  
KS School of Engineering and Management  
Bengaluru - 560 109

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2





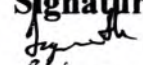
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT DEPARTMENT OF ELECTRICAL  
AND ELECTRONICS ENGINEERING

## DECLARATION

We,

**JAYAWANTH B                      1KG18EE005**  
**SUSHMA UDUPA K S            1KG18EE012**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF IOT SURVEILLANCE SYSTEM** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University**. The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
JAYAWANTH B	1KG18EE005	
SUSHMA UDUPA KS	1KG18EE012	

Date: 30-06-2022  
Place : Bengaluru

# **DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfillment of the requirements  
for the award of degree of

**BACHELOR OF ENGINEERING**  
in  
**ELECTRICAL AND ELECTRONICS ENGINEERING**

Submitted by

<b>ARJUN A</b>	<b>1KG17EE002</b>
<b>DHEENA P</b>	<b>1KG18EE003</b>
<b>SAGAR K</b>	<b>1KG18EE010</b>

Under the Guidance of

**Mrs. Manjula B G**  
**Associate Professor**  
**Electrical and Electronics Engineering**  
**K S School of Engineering and Management**



Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT** is a bonafide work carried out by

ARJUN A                    1KG17EE002  
DHEENA P                1KG18EE003  
SAGAR K                 1KG18EE010

in partial fulfillment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (18EEP83)** prescribed for the degree.

Guide	Head of the Department	Principal / Director
Mrs. Manjula B G Associate Professor Department of EEE	Dr. Arun Kumar M Associate Professor & Head of the Department Department of EEE Associate Professor Head of the Department	Dr. K. RAMA NARASIMHA Principal/Director K S School of Engineering and Management KSSEM Bengaluru - 560 109

**Examiners**

Name and Signature of Examiner-1  
25/7/22

Department of Electrical & Electronics Engineering  
K S School of Engineering and Management  
Bengaluru-560 109

Name and Signature of Examiner-2  
25/7/2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**DECLARATION**

We

<b>ARJUN A</b>	<b>1KG17EE002</b>
<b>DHEENA P</b>	<b>1KG18EE003</b>
<b>SAGAR K</b>	<b>1KG18EE010</b>

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF SUBSTATION MONITORING AND CONTROL SYSTEM USING IoT** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University**. The content in the report is original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
ARJUN A	1KG17EE002	
DHEENA P	1KG18EE003	
SAGAR K	1KG18EE010	

Date: 30/6/2022  
Place: Bengaluru



**Project Proposal Reference Number: 45S\_BE\_3323**  
**DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER**

*A Project sponsored by*



**KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**  
**INDIAN INSTITUTE OF SCIENCE CAMPUS**  
**BENGALURU -560012**

*In partial fulfilment*

*Submitted by*

**SARVESH M**                      **1KG16EE025**

**ANILKUMAR S**                      **1KG17EE001**

*Under the Guidance of*

**Mrs. TEJASWINI G V**  
Assistant Professor  
Dept. of Electrical and Electronics Engineering  
KSSEM, Bengaluru



**KSSEM**  
KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru – 560109  
**2021-2022**



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER** is a bona fide work carried out by


**SARVESH M                      1KG16EE025**  
**ANILKUMAR S                1KG17EE001**


in partial fulfillment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Final year Project (17EEP85)** prescribed for the degree.


**Guide**

**Head of the Department**

**Principal / Director**

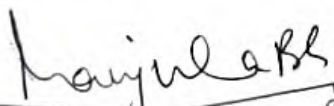
  
**Mrs. Tejaswini G V**  
Assistant Professor  
Department of EEE

  
**Dr. Arun Kumar M**  
Associate Professor &  
Head of the Department  
Department of EEE  
Associate Professor  
Head of the Department

  
**Dr. K. Rama Narasimha**  
KSSEM  
Dr. K. RAMA NARASIMHA  
Principal/Director

**Examiners**

**Department of Electrical & Electronics Engineering, K.S. School of Engineering and Management, Bengaluru-560 109**

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2





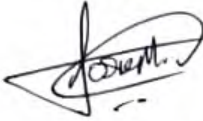
**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**DECLARATION**

We

**SARVESH M                      1KG16EE025**  
**ANILKUMAR S                1KG17EE001**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled **DESIGN AND DEVELOPMENT OF COST-EFFECTIVE 3D PRINTER** is carried out by us as a partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University**. The content in the report are original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
SARVESH M	1KG16EE025	
ANILKUMAR S	1KG17EE001	S. Anilkumar

Date: 30/6/2022  
Place: Bengaluru

# **HYDROPOWER GENERATION USING MICROTURBINE IN THE PLUMBING SYSTEM OF THE BUILDING**

Project Work submitted to



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

in partial fulfilment of the requirements  
for the award of a degree of

**BACHELOR OF ENGINEERING**

in

**ELECTRICAL AND ELECTRONICS ENGINEERING**

Submitted by

**DEEPAK A S                      1KG16EE010**

**KIRAN KUMAR G                1KG16EE015**

Under the Guidance of

**Mrs Tejaswini G V**

**Assistant Professor**

**Dept. Of E&E Engineering**

**K. S. School of Engineering and Management**



**KSSEM**  
K.S. School of Engineering and Management

Department of Electrical and Electronics Engineering  
K.S. School of Engineering and Management  
No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560109  
**2021-2022**





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **HYDROPOWER GENERATION USING MICROTURBINE IN THE PLUMBING SYSTEM OF THE BUILDING** is a bonafide work carried out by

**DEEPAK A S                      1KG16EE010**  
**KIRAN KUMAR G                1KG16EE015**


in partial fulfilment for the award of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during the internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (15EEP85)** prescribed for the degree.

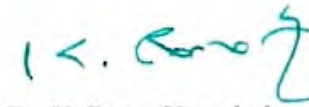
**Internal Guide**

**Head of the Department**

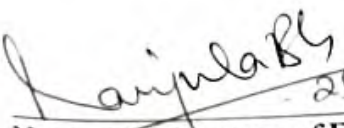
**Principal**


  
**Mrs. Tejaswini G V**  
Assistant professor  
Dept. of EEE

  
**Dr. Arun Kumar M**  
Associate professor & Head  
Dept. of EEE  
Associate Professor  
Head of the Department  
Department of Electrical & Electronics Engineering  
K.S. School of Engineering and Management  
Bengaluru-560 109

  
**Dr. K. Rama Narasimha**  
KSSEM  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

  
25/07/2022  
Name and Signature of Examiner-1

  
25/07/2022  
Name and Signature of Examiner-2



**KSSEM**


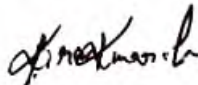
**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

**DECLARATION**

We,

**DEEPAK A S                    1KG16EE010**  
**KIRAN KUMAR G            1KG16EE015**

the students of **BE VIII Semester (Electrical and Electronics Engineering)** declare that the project entitled "**Hydropower generation using microturbine in the plumbing system of the building**" is carried out by us as partial fulfillment of academic requirement of degree under **Visvesvaraya Technological University**. The content in the report is original and are free from plagiarism and other academic dishonesty and are not submitted to any other University either partially or wholly for the award of any other degree.

<b>NAME</b>	<b>USN</b>	<b>Signature</b>
DEEPAK A S	1KG16EE010	
KIRAN KUMAR G	1KG16EE015	

Date: 30/6/2022  
Place: Bengaluru





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Design & Development Of Fixed Wing Multirotor UAV For Quick Medical Response** is a bonafide work carried out by


<b>ARUN V</b>	<b>1KG19ME402</b>
<b>KOUSHIK K</b>	<b>1KG19ME405</b>
<b>RALLAPALLI CHANUKYA</b>	<b>1KG19ME409</b>
<b>YASHWANTH B S</b>	<b>1KG19ME414</b>

in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18MEP83)** prescribed for the degree.


**Guide**

**Head of the Department**

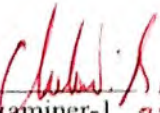
**Principal**

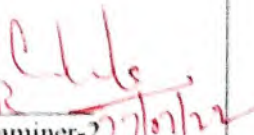
  
**Dr. Balaji B**  
Professor & HOD  
Dept. of ME

  
**Dr. Balaji B**  
**Professor & Head**  
Department Of Mechanical Engineering  
K.S. Group Of Institutions  
K.S. School Of Engineering & Management  
Bangalore-560 109

  
**Dr. K. Rama Narasimha**  
KSSEM  
**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

**Examiners**

  
**Dr. BALAJI B**  
Name and Signature of Examiner-1 **29/7/22**

  
**Dr. ABHISHEK K**  
Name and Signature of Examiner-2 **27/7/22**

## **ABSTRACT**

The present automotive industries are focusing on developing such aerial vehicle which operates with minimal human interaction and in a more stable manner.

VTOL is one of the technologies which fulfils these requirements. Due to their high payload capacity and automation with sensors make them more suitable for applications like military, rescue tasks, delivery task and aerial photography. The use of these UAVs is more economic than using a manned aircraft for a certain application.

In this project we are focusing on, a VTOL UAV system design, build, and fly a quadcopter mode and aircraft mode considered for transportation of medicines & health care products through the developed UAV. Providing a quick medical response.





**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled is a bonafide work carried out by


**DARSHAN GOWDA K M**      **1KG17ME011**  
**NITHIN E**                      **1KG17ME022**  
**NAVEEN G**                      **1KG19ME407**

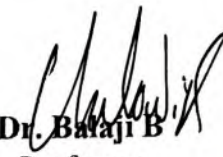
in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18MEP83)** prescribed for the degree.

**Guide**

**Head of the Department**

**Principal / Director**

  
**Dr. P. N. Jyothi**  
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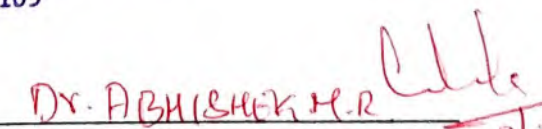
  
**Dr. K. Rama Narasimha**  
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**Examiners**

  
Name and Signature of Examiner-1 27/7/22

  
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## ABSTRACT

In larger cities, quality of indoor air is completely affected due to growing industrialization that pollutes the air we breathe with contaminants like industrial dust, smog and other particles from traffic. The solution from a user perspective is to use an air purifier that cleans the air from these particles inside the user's home. An air purifier can also be used to ease annoyance for people suffer from allergies.

However, most of air purifiers available in the market are very costly and filters used are onetime use filter that eventually ends up In landfill, which becomes tides work to replace the filters more frequently In this concern, our project aims in developing and fabricating a lowcost air purifiers for indoor operated by solar energy. The air purifier model uses two filters one is activated carbon tubes, which can be reused after easily cleaning and other filter is made by natural ingredients, available in home but this has to replaced frequently and process of replacing is also is easy.

This Air Purifier is uses natural fibres & powered by solar energy results in less cost. Air quality achieved has been improved and is within the WHO standards.





**KSSEM**

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This is to certify that the project work entitled "DESIGN AND FABRICATION OF LOW EFFORT RUNNING CYCLE" is a bonafide work carried out by


<b>SHASHANK S</b>	<b>1KG17ME033</b>
<b>DHEERAJ P</b>	<b>1KG19ME403</b>
<b>HARSHITHA H P</b>	<b>1KG19ME404</b>
<b>MAHESH K M</b>	<b>1KG19ME406</b>

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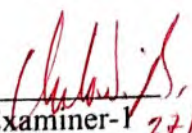
**Principal**

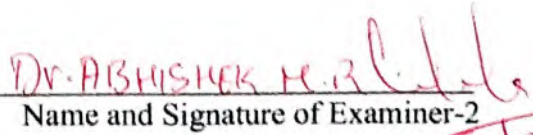
  
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## ABSTRACT

Being Healthy is one of the most basic concerns of all human beings. People these days with advancement in technology have mostly forgotten to be fit and healthy. People believe that the advanced hospitality available in the market can easily cure them from any disease. It is sure that available medicines and technology in the market can cure any disease. Elders believe in the say that "Prevention is the better than cure". Yes, the word is true prevention of any disease is better than its cure. If we talk about daily facing problems, related to health, the word obesity comes to our mind. Obesity is defined as a problem related to overweight in humans. Obesity occurs mainly because of two reasons. Nowadays due to busy schedule people don't even get a chance to think of exercising. Although a few people exercise, they are just in countable numbers.

Many companies have developed many exercising equipment's such as cross trainers, treadmill, etc. In spite of so many exercising equipment's in the market people don't go for it because of their cost which tends as a burden to them and the time spent on that. So, to overcome this problem we have built an automobile type exercising equipment named "Low effort running cycle". This cycle is an automobile type exercising equipment as it even travels with exercising. This equipment is actually a combination of a cross-trainer and a bi cycle, i.e., the motion of cross trainer is collated with a bi-cycle to make it an automobile type exercise equipment.

The equipment is provided with kinematic link, i.e., the linear motion is converted to rotary motion. In simple words, a person walks on the pedal mounted on the connecting rod which creates a linear motion. The kinematic link is provided from the connecting rod to the sprocket, this kinematic link provides the rotary motion of the sprocket which is mounted behind the cycle. A chain link is used to transmit the torque from the sprocket to the wheels.

The materials used in making the cycle is so economical that even a common person can buy it. The cycle is of portable type. The entire weight of the cycle is comparatively less than a separate cross-trainer. Bearings are provided for the friction free moment. The angle of inclination provided to the block gives a comfort of walking on it. Guideways is used inside the block so that any wear and tear occurring should not affect the block.





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in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work(18MEP83)** prescribed for the degree.

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## ABSTRACT

An electric powered incubator using a forced draft principle was developed using the available local materials and it was tested with hatchable hen egg. The aim was to produce a low cost incubator and increase the production of day old chicks for small and medium scale poultry farmers. The incubator has the hatching capacity of 40 eggs. Factors that were considered during the performance evaluation of the incubator were humidity, 55% and temperature, 37 °C during the first 18 days and was maintained at 37.5 °C till hatching. Turning of eggs was achieved with the use of tilting trays mechanism using an electric gear motor (0.5 h p). The trays were lifted through an angle of 40 ° either side of horizontal at every hour and lasted for four minutes.





**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Investigation of Mechanical Properties of Aluminum 6061 Matrix Composites Reinforced With Nano Gr Particulates Using Stir Casting Process** is a bonafide work carried out by

<b>RAJA SAJID</b>	<b>1KG19ME408</b>
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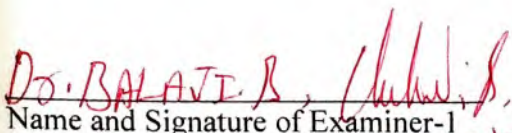


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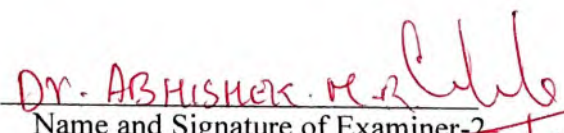


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## ABSTRACT

The growing requirement for the product having low cost along with excellent quality has moved work towards composite materials in recent years. Composite materials are very important materials nowadays. A composite material is the mixture of two or more materials, which are having distinct phases and characteristics as well as superior to the base material. Metal matrix composites (MMCs) are constantly evolving due to innovative and exciting technologies and are widely used as well as recognized as a potential material for many industrial applications in various industries. MMCs are having excellent properties in comparison with conventional metals and alloys, in MMCs, a new class of composites, aluminium metal matrix composites (AlMMCs) are gaining increasing attention, AlMMCs are very important for a wide array of applications in industries because of excellent mechanical characteristics, low weight and cost. In the production of MMC materials, there are several production methods available as well as AlMMCs also can be manufactured through a variety of techniques. By changing the methods of the fabrication process and by adding the reinforcement material, different characteristic profiles can be obtained although the materials having the same composition and same quantities. Among several methods to fabricate Aluminium metal matrix composites, stir-casting technique is used for large-scale production due to its being less expensive. This research is concerned with the fabrication of Aluminium composites with Gr nano particles at different volume fraction (0, 0.5, 1, 1.5 and 2 wt.%) as reinforcement material, for sake of producing a cost-effective composite with enhanced properties. The microstructural observation was carried out using optical and scanning electron microscopy. Tensile Strength was escalated with the introduction of reinforcement as load is transferred to strongly bonded reinforcement particles. Al6061/2 wt.% Gr Nano particles AMC exhibited 168.29% higher microhardness and 43.69% and 45.19 % higher YTS and UTS respectively compared to unreinforced Al6061 alloy. The reduction in toughness and elongation were attributed by 3.23 J and 6.44% respectively. Compressive test analysis revealed that there was an improvement of compressive strength from 322 MPa (alloy matrix) to 628 MPa (at 2 wt.% Gr Nano particles). The forgeability test disclosed that due to the presence of hard and brittle nanoparticles (Gr Nano particles), the forgeability property of the fabricated nanocomposite deteriorated on employing Gr Nano particles. SEM and XRD were done and the presence of reinforcing particles was confirmed. The interface bonding mechanisms and strengthening mechanisms were studied in detail.





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MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled "A Study On Effect Of Inorganic Nano Filler On Wear Behaviour Of Glass Fiber Reinforced Polymer Nanocomposites" is a bonafide work carried out by

<b>BONDHU VINODH</b>	<b>1KG18ME002</b>
<b>DHANUSH V</b>	<b>1KG18ME004</b>
<b>MANISH SHETTY</b>	<b>1KG18ME006</b>

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Name and Signature of Examiner-2  
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## ABSTRACT

Nanocomposites are new composite materials in which the Polymer material is reinforced by one or more separate nanomaterials in order to improve performance properties. Polymer nanocomposites are another class of material in which inorganic nanoparticles are joined with polymer matrix enhance mechanical, fire and temperature resistance properties. Such change in the properties happen as a result of their predominant phase morphology and more prominent interfacial properties. The most generally utilized nanoparticles are nanotubes, nano clay, silica particles and electro-spun polymeric nano-strands.

In this work an improvement in microhardness value was observed in the all-nanoparticles G+E nanocomposites. This may be attributed to the high intrinsic hardness of the glass fiber and nanoparticles. During indentation, nanoparticles fill in the gap between the fibre and the matrix and form a denser structure. And Addition of nanoparticles in G+E nanocomposites increases the both tensile strength and modulus due to uniform dispersion an interaction developed between filler with fibre-matrix. Thus, the improved properties of the prepared nanocomposites. In this project we can conclude that composite G+E-III has better mechanical properties than any other composites.





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**CERTIFICATE**

This is to certify that the project work entitled **Experimental Analysis of Heat Exchanger with Perforated Discs Inserts using MWCNT** is a bonafide work carried out by

<b>AKASH P G</b>	<b>1KG18ME001</b>
<b>MOKSHITH S M</b>	<b>1KG18ME008</b>
<b>PAWAN PATIL</b>	<b>1KG18ME009</b>
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in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18MEP86)** prescribed for the degree.

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**DR. BALAJI B.**  
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**DR. ABHINAV H. R.**  
Name and Signature of Examiner-2  
27/9/22

## ABSTRACT

Heat exchanger is a device which transfers the energy from a hot fluid medium to a cold fluid medium with maximum rate, minimum investment and low running costs.

Perforated discs are provided to improve the capabilities of double pipe heat exchangers. Typically, one or more tubes or binding posts pass through the discs. The discs are attached to the tube or post by press fitting, furnace or torch brazing, welding, or other method of mechanical bonding. The perforations allow heat exchange with the contents of a tube of a fluid flowing essentially parallel to the axis of the tube, in contrast to conventional disc-tube heat exchangers.

The idea behind development of nanofluids is to use them as thermo fluids in heat exchangers for enhancement of heat transfer coefficient and thus to minimize the size of heat transfer equipments. The important parameters which influence the heat transfer characteristics of nanofluids are its properties which include thermal conductivity, viscosity, specific heat and density. The thermo physical properties of nanofluids also depend on operating temperature of nanofluids. Hence, the accurate measurement of temperature dependent properties of nanofluids is essential. This project summarizes recent developments in research on nanofluids and experimental analysis of nano fluids and their results.

The main objective of the present work includes preparation of the nanofluids using Multi Walled Carbon Nano Tube (MWCNT) and composition of carbon nano tubes by dispersing in base fluid as distilled water. The nanofluid is expected to produce better thermal properties compared to individual base fluid. The prepared sample is used as a heat transfer fluid in the double pipe heat exchanger inserted with perforated discs. Performance analysis of the heat exchanger is carried out to determine the heat transfer rate and effectiveness in parallel and counter flow orientation. The results obtained are compared with the performance of base fluid and suitable conclusions are drawn.





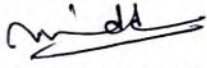
**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**Department of Mechanical Engineering**


**CERTIFICATE**


This is to certify that the project work entitled Experimental investigation of forced convection heat transfer through solid and perforated fins is a bonafide work carried out by

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<b>HARSHITH KUMAR M</b>	<b>1KG18ME005</b>
<b>MANJUNATH K</b>	<b>1KG18ME007</b>
<b>THARUN ADHITHYA C R</b>	<b>1KG18ME011</b>

In partial fulfillment for the award of **Bachelor of Engineering** in **Department of Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (18MEP86)** prescribed for the degree.

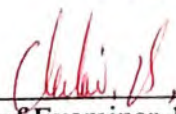
  
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**DR. ABHISHEK M. R.**  
Name and Signature of Examiner-2

## ABSTRACT

Fins are extensions on exterior surfaces of objects that increase the rate of heat transfer to or from the object by increasing convection. This is achieved by increasing the surface area of the body, which in turn increases the heat transfer rate by a sufficient degree. This is an efficient way of increasing the rate, since the alternative way of doing so is by increasing either the heat transfer coefficient (which depends on the nature of materials being used and the conditions of use). Fins are therefore a very popular solution to increase the heat transfer from surfaces and are widely used in a number of objects.

The fin material should preferably have high thermal conductivity. These fins are arranged in an order in such a way that the heat dissipated by a system will immediately enter into the surroundings with the help of perforated fins.

Perforated fins are a set of fins arranged in an order with holes on it to make the system run without any disturbance. The main objective of this project is to develop keyways onto a block of Aluminum that provides flexibility in heat transfer through fins arranged in a sequence order. This is mostly useful in electronic system with slow running capacity. Extending fins improve the rate of heat transfer or increase convection.



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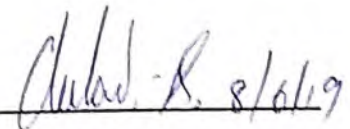

**Department of Mechanical Engineering**

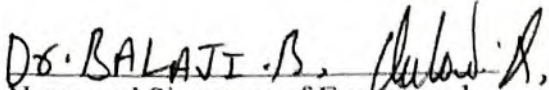
## Certificate

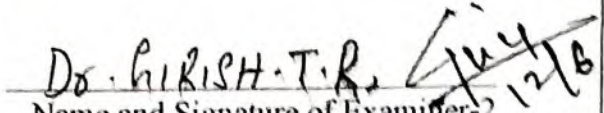
This is to certify that the project work entitled "Experimental Investigation on Performance Analysis of a VCR with Nano-Refrigerant" is a bonafide work carried out by

NIKHILESH R P	1KG15ME028
PRAJWAL K	1KG15ME030
SENTHIL KUMAR A B	1KG15ME045
TAMIL SELVAN A	1KG15ME051

are the bonafide students of Department of Mechanical Engineering in partial fulfilment for the award of Bachelor of Engineering in Visvesvaraya Technological University, Belagavi, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.

 8/6/19	 8/6/19	 8/6/19
<b>Mr. Prabhu K S</b> Assistant Professor Dept. of Mechanical Engg. K.S.S.E.M.	<b>Mr. Balaji B</b> Head of Department Dept. of Mechanical Engg Professor & Head K.S.S.E.M. Department Of Mechanical Engineering K.S. Group Of Institutions K.S. School Of Engineering & Management Bangalore-560 109	<b>Dr. K Ramanarasimha</b> Principal / Director K.S.S.E.M. Dr. K. RAMA NARASIMHA Principal/Director K S School of Engineering and Management Bengakuru - 560 109
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12/6/19

  
Name and Signature of Examiner-2  
12/6



## ABSTRACT

Performance enhancement of refrigeration is an emerging research topic recent technological developments in the fields of electronics, transportation, medical and HVAC systems have resulted in a pressing need for a performance enhanced cooling system. Now days, refrigeration has become one of the most important systems for people's daily lives. Based from some research, the use of refrigeration & air conditioning systems consumes 30 to 40% of total electricity consumed. The traditional method for increasing heat dissipation is to increase the area available for exchanging heat, However, this approach involves an undesirable increase in the size of a thermal management system; therefore, there is an urgent need for new and novel coolants with improved performance. The innovative concept of 'nanofluids' heat transfer fluids consisting of suspended of nanoparticles has been proposed as a prospect for these challenges. In this review, we summarize the Performance enhance of Vapour Compression System Using Nanofluids. Moreover, challenges and future directions of Performance enhance of VCRs and to try finding some challenging issues that need to be solved for future research.

The use of conventional refrigerants such as R600a (Methyl propane) and R134a (Tetrafluoroethane) in domestic refrigerators has led to a continuous increase in global power consumption as well as the rate of global warming. In recent times, more efficient and eco friendly working fluids are being sought after. This work investigated the effectiveness of a monometallic nanofluids; Aluminium Oxide ( $Al_2O_3$ ) when used with refrigerant R134a refrigerant in vapour compression refrigerators. The nano-refrigerants were used in a vapour compression refrigerator without any system reconstruction. The refrigerator performance was then investigated using energy consumption test and freeze capacity test. The results indicated that the performance of three nano refrigerants when used in the vapour compression system, surpassed that obtained when the pure R134a and Aluminium Oxide ( $Al_2O_3$ ) were used. The best refrigerator performance was however achieved with R134a –  $Al_2O_3$  with 15.9% less power consumed and about 6.62 % more COP overall compared to the R134a working fluid.



2021-2022



**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **analysis on Friction Stir Welding of Al 5052 and Al 7075 using hexagonal tool Profile** is a bonafide work carried out by

SATWIK K C      1KG17ME032  
SUHAS M        1KG17ME038

in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (17MEP85)** prescribed for the degree.

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---

## ABSTRACT

Friction stir welding is a solid-state welding process that involves joining similar or dissimilar metals using a rotating tool. Tool geometry and traverse speed and rotating speed of motion of the tool, tool axial force, and tilt angle are some of the variables in this process. Friction stir welding of aluminum alloys has been conducted for the past 20 years. A non-consumable tool with a pin is made to traverse through the joint line of the material to be joined. Heat is produced due to friction between tool shoulder and workpiece which softens the material around the pin and produces a few microstructural changes in and around the weld zone. The resultant microstructure of the weld cross-section, the size, and distribution of the precipitates in the case of precipitation strengthened alloys, mechanical properties of the weldment, and other microstructural features are dependent on the welding parameters, tool dimensions, initial microstructure of workpiece material, and temperature distribution during welding.

We have chosen Aluminium 5052 and aluminium 7075 as our dissimilar aluminium materials at the rotational speed of tool 1000 rpm and feed rate of 40 mm/min and 50 mm/min using hexagonal tool profile.

Tribological testing of the Friction stir welded joints are taken into consideration and compared to both the feed rate.

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**KSSEM**

**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
MECHANICAL ENGINEERING**

**CERTIFICATE**

This is to certify that the project work entitled **Study on Friction Stir Welding of Al 5052 and Al 6061 using hexagonal tool Profile** is a bonafide work carried out by

**AKARSH A**                      **1KG16ME004**  
**NIKITH REDDY R**            **1KG16ME026**  
**VINOD T C**                    **1KG17ME046**

in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**, during the year 2021-2022. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement with respect to **Project Work (17MEP85)** prescribed for the degree.

**Guide**

**Head of the Department**

**Principal**

**Ms. Nishchitha A H**  
Assistant Professor  
Dept. of ME

**Dr. Balaji B**  
Professor  
Dept. of ME

**Professor & Head**

Department Of Mechanical Engineering K S School of Engineering and Management  
K.S. Group Of Institutions

K.S. School Of Engineering & Management  
Bangalore-560 109

**Dr. K. Rama Narasimha**  
KSSEM  
**Dr. K. RAMA NARASIMHA**  
Principal/Director

Bengaluru - 560 109

**Examiners**

**Dr. BALAJI B,**   
Name and Signature of Examiner-1  
28/7/22

**Dr. ABHISHEK M R,**   
Name and Signature of Examiner-2  
28/7/22

## ABSTRACT

Friction stir welding is a solid-state welding process which involves joining similar or dissimilar metals using a rotating tool. Tool geometry and traverse speed and rotating speed of motion of the tool, tool axial force and tilt angle are some of the variables in this process. Friction stir welding of aluminum alloys has been conducted for the past 20 years. A non-consumable tool with a pin is made to traverse through the joint line of the material to be joined. Heat is produced due to friction between tool shoulder and workpiece which softens the material around the pin and produces a few microstructural changes in and around weld zone. Resultant microstructure of the weld cross-section, the size and distribution of the precipitates in the case of precipitation strengthened alloys, mechanical properties of the weldment, and other microstructural features are dependent on the welding parameters, tool dimensions, initial microstructure of workpiece material, and temperature distribution during welding.

We have chosen Aluminium 5052 and aluminium 6061 as our dissimilar aluminium materials at the rotational speed of tool 1000 rpm and feed rate of 40 mm/min and 50 mm/min using hexagonal tool profile.

Tribological testing of the Friction stir welded joints are taken into consideration and compared to both the feed rate.



**PROJECT REPORT ON**  
**"An Study on Inventory Management System at Weir Minerals Pvt Ltd"**

**By**

**AKSHAY R**

**1KG20BA002**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*

**MASTER OF BUSINESS ADMINISTRATION**

**(20MBAPR407)**

*Under the guidance of*

**INTERNAL GUIDE**

**ROOPA BALAVENU**

Assistant Prof. of K S School

of Engineering and Management

**EXTERNAL GUIDE**

**Mr. Lohith H V**

HR Manager

Weir Minerals Pvt Ltd. Peenya 2<sup>nd</sup> Stage



**Department of Management Studies**

**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**BENGALURU- 560109**

**JULY 2022**



**Minerals**

**Weir Minerals (India) Pvt. Ltd.**  
Survey No. 28/2, Nagarur Village  
Huskur Road, Dasanapura Hobli  
Bengaluru - 562 123  
Karnataka, India

**T** : +91 80 4137 2777

**F** : +91 80 4117 9230

[www.globalweir.com](http://www.globalweir.com)

May 07, 2022

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **Mr. Akshay R** USN No: 1KG20BA002 a student of K S School of Engineering and Management, Bangalore has completed his Internship with us in Finance Department. He had undergone internship with us from 26<sup>th</sup> March to 07<sup>th</sup> May 2022.

During Internship we found him punctual, sincere & hardworking in his work.

We wish him all success in his future professional endeavors.

For Weir Minerals (India) Pvt. Ltd.,

**Sheela N N**  
**Assistant Manager-Human Resource**





**Minerals**

**Weir Minerals (India) Pvt. Ltd.**  
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Huskur Road, Dasanapura Hobli  
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[www.global.weir](http://www.global.weir)

May 07, 2022

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We wish him all success in his future professional endeavors.

**For Weir Minerals (India) Pvt. Ltd.,**

**Sheela N N**  
**Assistant Manager-Human Resource**

**PROJECT REPORT (20MBAPR407)**

On

**“A Study on Effectiveness of Radio as an Advertising Medium” At Radio  
city 91.1 FM Bengaluru**

By

**ALLU BINDU MADHAVI  
USN: 1KG20BA003**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Arundhati KL  
Assistant Professor**

**KS School of Engineering and Management**

**EXTERNAL GUIDE**

**Mr. Raghavendra  
Marketing Manager**

**Radio City 91.1 FM**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109**

**July- 2022**



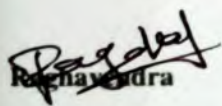
**TO WHOM SO EVER IT MAY CONCERN**

17/06/2022

**Project certificate**

This is to certify that Ms. Allu Bindu Madhavi, from K.S School of Engineering and Management Bangalore, has successfully completed her project titled "A Study on Effectiveness of Radio as an Advertising Medium" in the marketing department with our organization for 6 weeks starting from 1 Apr 2022 to 16 May 2022.

We wish her all the success in future endeavours.

  
Rajendra

Marketing manager

Radio city



KAMMAVARI SANGHAM (R), 1952

# K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Ms. ALLU BINDU MADHAVI** bearing USN **1KG20BA003**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Effectiveness of Radio as an Advertising Medium at Radiocity 91.1FM, Bengaluru"** is prepared by her under the guidance of **Arundathi K L, Assistant Professor**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
Professor & HOD-MBA,

K.S. School of Engineering & management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109.

Signature of Principal

Dr. K. RAMA NARASIMHA

Principal/Director

K S School of Engineering and Management

Bengaluru - 560 109

**Viva-voce Examination**

Date: 28/10/2022

Signature of Internal Examiner

Name & Affiliation

Arundathi K.L.

KSSEM.

Signature of External Examiner

Name & Affiliation

Dr. M. Senthil Kumar

AP, AIT, -MBA



**PROJECT REPORT ON**  
**“An Study on Inventory Management System at Weir Minerals Pvt Ltd”**

**By**

**AKSHAY R**

**1KG20BA002**

**Submitted to**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*

**MASTER OF BUSINESS ADMINISTRATION**

**(20MBAPR407)**

*Under the guidance of*

**INTERNAL GUIDE**

**ROOPA BALAVENU**

Assistant Prof. of K S School

of Engineering and Management

**EXTERNAL GUIDE**

**Mr. Lohith H V**

HR Manager

Weir Minerals Pvt Ltd. Peenya 2<sup>nd</sup> Stage



**Department of Management Studies**

**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**BENGALURU- 560109**

**JULY 2022**



**Minerals**

**Weir Minerals (India) Pvt. Ltd.**  
Survey No. 28/2, Nagarur Village  
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[www.global.weir](http://www.global.weir)

May 07, 2022

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **Mr.Akshay R** USN No: 1KG20BA002 a student of K S School of Engineering and Management, Bangalore has completed his Internship with us in Finance Department. He had undergone internship with us from 26<sup>th</sup> March to 07<sup>th</sup> May 2022.

During Internship we found him punctual, sincere & hardworking in his work.

We wish him all success in his future professional endeavors.

**For Weir Minerals (India) Pvt. Ltd.,**

**Sheela N N**  
**Assistant Manager-Human Resource**





**Minerals**

**Weir Minerals (India) Pvt. Ltd.**  
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May 07, 2022

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We wish him all success in his future professional endeavors.

**For Weir Minerals (India) Pvt. Ltd.,**

*Sheela N N*

**Sheela N N**  
**Assistant Manager-Human Resource**

**PROJECT REPORT (20MBAPR407)**

On

**“A Study on Effectiveness of Radio as an Advertising Medium” At Radio  
city 91.1 FM Bengaluru**

By

**ALLU BINDU MADHAVI  
USN: 1KG20BA003**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

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**Prof. Arundhati KL  
Assistant Professor**

**KS School of Engineering and Management**

**EXTERNAL GUIDE**

**Mr. Raghavendra  
Marketing Manager**

**Radio City 91.1 FM**



**KSSEM**  
K. S. School of Engineering and Management

**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109**

**July- 2022**



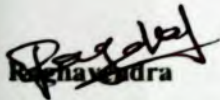
**TO WHOM SO EVER IT MAY CONCERN**

17/06/2022

**Project certificate**

This is to certify that Ms. Allu Bindu Madhavi, from K.S School of Engineering and Management Bangalore, has successfully completed her project titled "A Study on Effectiveness of Radio as an Advertising Medium" in the marketing department with our organization for 6 weeks starting from 1 Apr 2022 to 16 May 2022.

We wish her all the success in future endeavours.

  
Rajanendra

**Marketing manager**

**Radio city**

This is to certify that **Ms. ALLU BINDU MADHAVI** bearing USN **1KG20BA003**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Effectiveness of Radio as an Advertising Medium at Radiocity 91.1FM, Bengaluru"** is prepared by her under the guidance of **Arundathi K L, Assistant Professor**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
Professor & HOD-MBA,

K.S School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru - 560 109.

Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

Signature of Internal Examiner  
Name & Affiliation

Arundathi K L.  
KSSEM.

Signature of External Examiner  
Name & Affiliation

Dr. M. Senthil Kumar  
AP, AIT, - MBA



**PROJECT REPORT (20MBAPR407)**  
on  
**“A Comparative Study on Indirect Tax of India with Other Developed Countries at MGM Association, Bengaluru”**

By  
**ANUSHA S**  
**1KG20BA004**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Roopa Balavenu**  
**Assistant Professor**  
**K S School of Engineering and Management**

**EXTERNAL GUIDE**

**Mamatha N**  
**Finance Manager**  
**MGM Association**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY 2022**

**Manjunatha MG**

**Mob : 9611358769**



# **MGM ASSOCIATES**

## **Group Auditors & Tax Consultants**

---

**01, 2nd floor, 1st Cross, 8th E main, Gaurava Nagar,  
JP Nagar 7th phase, Near BESCOM Office, Bangalore 560078.  
Ph : 080 - 4370 1107 Email : mgmassociates2018@gmail.com**

### **TO WHOM SO EVER IT MAY CONCERN**

This is to certify that **Ms. ANUSHA S (USN: 1KG20BA004)** from **K S School of Engineering and Management, Bangalore, Karnataka** has successfully completed an Internship project title "**A COMPARATIVE STUDY ON INDIRECT TAX IN INDIA WITH OTHER DEVELOPED COUNTRIES**" with "**MGM ASSOCIATES**" in partial fulfillment of the requirement for the MBA from Visvesvaraya Technological university(VTU) for a period of Six(6) weeks from 28<sup>th</sup> March 2022 to 6<sup>th</sup> May 2022.

During the above period performance of **Ms. ANUSHA S (USN: 1KG20BA004)** has been very good and satisfactory.

Date: 06/05/2022

Place: Bangalore

For MGM Associates  
*Manjunatha MG*  
Manjunatha MG







**KSSEM**

Department of Management Studies

K. S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU - 560109

## DECLARATION

I, **Anusha S.** hereby declare that the Project report entitled "**A COMPARATIVE STUDY ON INDIRECT TAX OF INDIA WITH OTHER DEVELOPED COUNTRIES**", **Bengaluru**" with reference to "**MGM ASSOCIATES, Bengaluru**" prepared by me under the guidance of **Roopa Balavenu, Assistant professor**, Department of Management Studies, K. S. School of Engineering and Management, Bengaluru and external assistance by **Mamatha N, Finance Manager, MGM Associates, Bengaluru**. I also declare that this Project work is towards the partial fulfilment of the University Regulations for the award of degree of Master of Business Administration by Visvesvaraya Technological University, Belagavi. I have undergone a Project Work for a period of Six weeks. I further declare that this Project is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other University / Institution.

**Place: Bangalore**  
**Date: 19/07/2022**

**Signature of the Student**  
**Anusha.S**

**PROJECT REPORT (20MBAPR407)**  
on  
**"A STUDY ON CUSTOMER SATISFACTION AT RAPSRI PVT LTD,  
HORAHALI"**

By  
**ARPITHA R**  
**1KG20BA005**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

ARUNDATHI K L  
ASSISTANT PROFESSOR,  
MANAGEMENT STUDIES  
KSSEM

**EXTERNAL GUIDE**

PRAVEEN J B  
HR AND PRODUCT DEVELOPERS  
RAPSRI PVT LTD



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**

**July-2022**

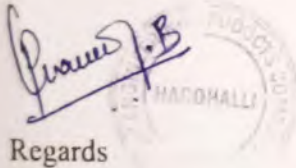


## CERTIFICATE

This is to certify that Miss Arpitha R (USN 1KG20BA005) has completed her project with Rapsri product co, ltd, Bannikuppe, Harohalli for a period of 6 weeks from 5<sup>th</sup> April 2022 to 17<sup>th</sup> May 2022. She has working on the project "Study of customer satisfaction on Rapsri product co, ltd" under guidance of Mr. Praveen JB.

We have found her conduct to be good during her project phase and her respective project has been completed.

We wish her all the best for her future endeavors.

  
Regards



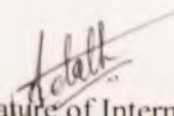
**KAMMAVARI SANGHAM (R), 1952**  
**K.S. School of Engineering and Management**

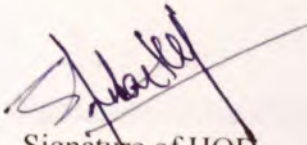
Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109, www.kssem.edu.in

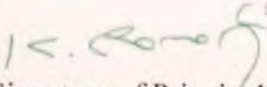
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Ms. ARPITHA R** bearing USN **1KG20BA005**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Customer Satisfaction at Rapsri Pvt Ltd, Harohalli"** is prepared by her under the guidance of **Arundathi K L, Assistant Professor**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

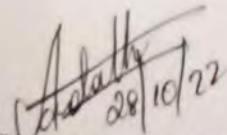
  
 Signature of Internal Guide


  
 Signature of HOD  
 Professor & HOD-MBA,  
 K.S. School of Engineering & management,  
 #15, Mallasandra, Off. Kanakapura Road,  
 Bengaluru - 560 109.

  
 Signature of Principal  
 Dr. K. RAMA NARASIMHA  
 Principal/Director  
 K.S. School of Engineering and Management  
 Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

  
 Signature of Internal Examiner  
 Name & Affiliation  
 Arundathi K.L.  
 KSSEM.

  
 Signature of External Examiner  
 Name & Affiliation  
 DR. M. Senthil Kumar  
 AP, AIT - MBA,



**PROJECT REPORT**  
**20MBAPR407**  
on  
**“A Study of Customer Relationship Management at Arvind  
Limited”**

By  
**BHASKAR Y**  
**1KG20BA006**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**PROF.ARUNDATHI KL**  
**ASSISTANT PROFESSOR**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**EXTERNAL GUIDE**  
**MRS PRATIBHAARYA**  
**EXECUTIVE**  
**ARVIND LIMITED**



**KSSEM**  
**K.S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY - 2022**

Date: 9<sup>th</sup> May 2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Bhaskar Y, from K.S School of Engineering and Management Bangalore has successfully completed his Project titled "A study on Customer Relationship Management" in merchandising and marketing department with our organization for 6 weeks starting from 29<sup>th</sup> March 2022 to 9<sup>th</sup> May 2022.

His conduct and commitment during the project was found to be GOOD.

We wish him all the best in his future endeavours.

For Arvind Limited

Suma A

Senior Manager – Human Resource





KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

### CERTIFICATE

This is to certify that **Mr. BHASKAR Y** bearing USN **1KG20BA006**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Customer Relationship Management at Arvind Limited, Bengaluru"** is prepared by him under the guidance of **Arundathi K L, Assistant Professor**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
Professor & HOD-MBA,

K.S. School of Engineering & Management,  
#15, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109

Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

Signature of Internal Examiner  
Name & Affiliation

Arundathi K.L.  
KSSEM

Signature of External Examiner  
Name & Affiliation

Dr. M. Senthil Kumar  
AP, AIT-MBA.

**PROJECT REPORT (20MBAPR407)  
ON  
A STUDY ON “EMPLOYEE WELFARE MEASURES” CONCERNING  
SIMATECH CNC SERVICES**

By  
**CHAITHANYA.N**

**1KG20BA007**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



In partial fulfilment of the requirements for the award of the degree of

**MASTER OF BUSINESS ADMINISTRATION**

Under the guidance of

**INTERNAL GUIDE**

**Dr. Shekhar. H S  
Professor & Head of Department  
Department of Management Studies, KSSEM**

**EXTERNAL GUIDE**

**Mrs. A. Sivdas  
Manager-Admin  
SIMATECH CNC SERVICES**



**Department of Management Studies  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT # 15, Mallasandra, Off  
Kanakapura Road, Bangalore-560109 (2022)**



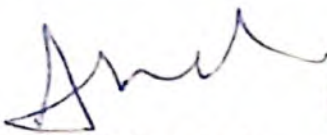
06 May 2022  
Bangalore

## INTERNSHIP CERTIFICATE

**Subject:** Internship and Project completion Letter on the topic of "  
Employee Welfare measures "

This is to certify that Ms. Chaithanya. N USN No:1KG20BA007 studying Master of Business Administration KS School of Engineering and Management under Visvesvaraya Technological University, Belgaum has successfully completed the internship project in Simatech CNC Services, Bangalore from 26-Mar-22 to 07-May-22.

For Simatech CNC Services



Authorised Signatory

A. Sivadas

Manager - Admin



06 May 2022  
Bangalore

## INTERNSHIP CERTIFICATE

**Subject:** Internship and Project completion Letter on the topic of "Employee Welfare measures "

This is to certify that Ms.Chaitanya. N USN No:1KG20BA007 studying Master of Business Administration KS School of Engineering and Management under Visvesvaraya Technological University, Belgaum has successfully completed the internship project in Simatech CNC Services, Bangalore from 26-Mar-22 to 07-May-22.

For Simatech CNC Services



Authorised Signatory

A.Sivadas

Manager - Admin





**PROJECT REPORT (20MBAPR407)**

on

**“A Study on Home Loan Process and their Customer Satisfaction at Cholamandalam Investment and Finance Company Ltd, Bengaluru”**

By  
**CHAITHRA A C**  
**1KG20BA008**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Roopa Balavenu**  
**Assistant Professor**  
**KSSEM**

**EXTERNAL GUIDE**

**Mr. Shivaraj**  
**Sales Manager**  
**Cholamandalam Investment**  
**And Finance Company LTD**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY 2022**



**Cholamandalam Investment  
And Finance Company Ltd.**  
Municipal No.45, (Old Nos. 45&  
45/1 Second Floor, Lal Bagh Main Rd,  
Lalbagh, Bengaluru, Karnataka 560027

Date: 7<sup>th</sup> May 20222

**Project Certificate**

This is to certify that **CHAITHRA AC** being registration number "1KG20BA008" from "KS School of engineering and management has carried out her project work from 28-03-2022 to 07-05-2022 in our organization under the guidance of Mr. shivaraj sales manager, submitted report on "A Study on home loan process and their customer satisfaction at cholamandalam investment and finance company" Indian Bangalore.

During the period of the said programmed, she was exposed to different areas and was found diligent, hardworking.

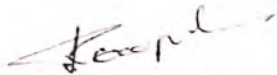
We wish her all success in future endeavors

Shivaraj  
Sales manager  
Cholamandalam investment and finance company

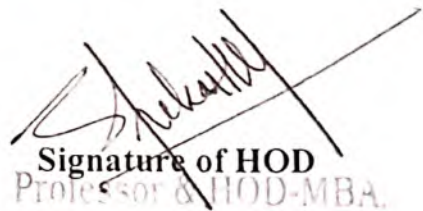


**CERTIFICATE**

This is to certify that Ms. Chaitra A C bearing USN:1KG20BA008 is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Home Loan Process and their Customer Satisfaction at Cholamandalam Investment and Finance Company Ltd., Bengaluru" is prepared by her under the guidance of Prof. Roopa Balavenu, Asst. Prof., in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.



Signature of Internal Guide


Signature of HOD  
Professor & HOD-MBA.K.S. School of Engineering & Management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109


Signature of Principal

Dr. K. RAMA NARASIMHA

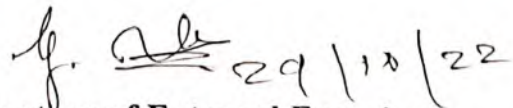
Principal/Director

K.S. School of Engineering and Management

Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22


Signature of Internal Examiner  
Name & affiliationDr. Shekar. H. S  
K. S. School of Engineering  
& Management

Signature of External Examiner  
Name & affiliation

AIT, Bengaluru.

**PROJECT REPORT**  
**20MBAPR407**  
on  
**“A Study on Merchandising at Arvind Ltd”**

By  
**CHAKARVARTHI N**  
**1KG20BA009**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Arundathi KI**  
**Assistant Professor**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**EXTERNAL GUIDE**

**Mohan ram R**  
**Senior Executive**  
**Arvind ltd**



**KSSEM**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY - 2022**



Date: 9<sup>th</sup> May 2022


TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Chakarvarthi N, from K.S School of Engineering and Management Bangalore has successfully completed his Project titled "A study on Merchandising" in merchandising and marketing department with our organization for 6 weeks starting from 29<sup>th</sup> March 2022 to 9<sup>th</sup> May 2022.

His conduct and commitment during the project was found to be GOOD.

We wish him all the best in his future endeavours.

For Arvind Limited

  
Suma A C

Senior Manager – Human Resource





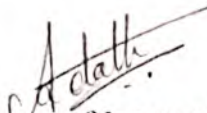
# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

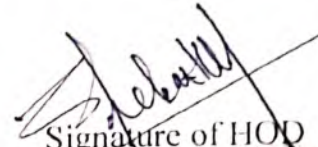
Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in


Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Mr. CHAKARVARTHI N** bearing USN **1KG20BA009**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Merchandising at Arvind Ltd, Bengaluru"** is prepared by him under the guidance of **Arundathi K L**, Assistant Professor, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

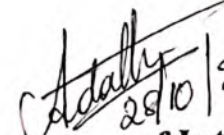
  
Signature of Internal Guide

  
Signature of HOD  
PROFESSOR & HOD-MBA,  
K.S. School of Engineering & Management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

  
Signature of Internal Examiner  
Name & Affiliation

Arundathi K L  
KSSEM

  
Signature of External Examiner  
Name & Affiliation

Dr. M. Senthil Kumar  
AP, AIT, MBA.



**PROJECT REPORT (20MBAPR407)**  
on  
**“A STUDY ON LOANS AND ADVANCES AT STATE BANK  
OF INDIA”**

By  
**CHANDANA T. Y**  
**1KG20BA010**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**PROF.ROOPA BALAVENU**  
**ASSISTANT PROFESSOR**  
**KSSEM, BANGLORE**

**EXTERNAL GUIDE**  
**MIS. UMA**  
**MANAGER**  
**SBI BANK, KANAKAPURA**



**KSSEM**  
A School of Engineering and Management

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY- 2022**



MHS ROAD KANAKAPURABRANCH  
MHS ROAD  
KANAKAPURA  
DT RAMNAGARA  
PIN 562117

Date:08/06/2022

**PROJECT CERTIFICATE**

*This is to certify that **Mis. CHANDANA T Y, USN No 1KG20BA010.** K.S School of Engineering and Management, Banglore-560109, has undergone an internship with us from 26/03/2022 to 07/05/2022.*

*Meanwhile he worked on project "**A STUDY ON LOANA AND ADVANCES AT STATE BANK OF INDIA**" with special reference to state bank of India.*

*We found she a self motivated, punctual and hardworking. Her performance was efficient.*

*We wish her Best of luck for her future career.*

For STATE BANK OF INDIA

CHIEF MANAGER  
MHS Road, Kanakapura-562117

**Chief Manager**





KAMMAVARI SANGHAM (R), 1952

# K.S. School of Engineering and Management

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# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Ms. Chandana T Y** bearing **USN:1KG20BA010** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on “**A Study on Loans & Advances at State Bank of India, Kanakapura**” is prepared by her under the guidance of **Prof. Roopa Balavenu, Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
Professor & HOD-MBA,

K.S. School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru - 560 109

Signature of Principal

Dr. K. RAMA NARASIMHA

Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
KSSEM, Bangalore

Signature of External Examiner  
Name & affiliation



**PROJECT REPORT (20MBAPR407)**  
on  
**“A Study on Impact of Working Capital Management on Profitability at  
Purewell India Exturoto Pvt Ltd, Bengaluru”**

By  
**CHETAN RAM S**  
**1KG20BA011**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Roopa Balavenu**  
**Assistant Professor**  
**K S School of Engineering**  
**And Management**

**EXTERNAL GUIDE**

**Prakash**  
**Finance Manager**  
**Purewell India Exturoto**  
**Pvt. Ltd.**



**KSSEM**  
K.S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY 2022**





**Plot No. 2J-2K 3rd Phase, KIADB Obedenahalli, Doddaballapura Main Rd,  
Industrial Area, Bengaluru, Karnataka 562163**

This is to certify that **Mr. CHETAN RAM S (USN: 1KG20BA011)** from **K S School of Engineering and Management, Bangalore, Karnataka** has successfully completed an Internship project title **"A STUDY ON IMPACT OF WORKING CAPITAL MANAGEMENT ON PROFITABILITY AT PUREWELL INDIA EXTUROTO PVT LTD"** with **"Purewell India Exturoto Pvt Ltd"** in partial fulfillment of the requirement for the MBA from Visvesvaraya Technological university(VTU) for a period of Six(6) weeks from 28th March 2022 to 6TH May 2022.

During the above period performance of **Mr. CHETAN RAM S (USN: 1KG20BA011)** has been very good and satisfactory

Date: 06/05/2022

Place: Bangalore

**Apoorva D**

HR Operations.

Purewell India Exturoto Pvt.Ltd

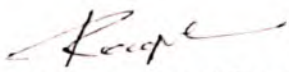
KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

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Bengaluru - 560 109, www.kssem.edu.in

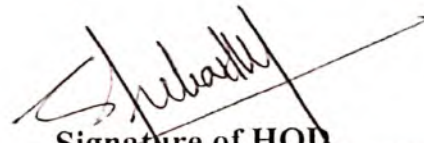
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Mr. Chetan Ram S** bearing **USN:1KG20BA011** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on “**A Study on Impact of Working Capital Management on Profitability at Purewell India Exturoto Pvt. Ltd.**” is prepared by him under the guidance of **Prof. Roopa Balavenu. Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.




**Signature of Internal Guide**



**Signature of HOD**

Professor & HOD-MBA,

K.S. School of Engineering & Management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109.



**Signature of Principal**

**Dr. K. RAMA NARASIMHA**  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

**Viva-voce Examination**

**Date:**

**Signature of Internal Examiner**  
**Name & affiliation**

**Signature of External Examiner**  
**Name & affiliation**





**PROJECT REPORT (20MBAPR407)**

on

**“A STUDY ON THE IMPACT OF GREEN BANKING PRACTICES ON BANK’S ENVIRONMENTAL PERFORMANCE WITH SPECIAL REFERENCE TO BANGALORE CITY AT SBI”**

By  
**DARSHAN A**  
**1KG20BA012**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**ROOPA BALAVENU**  
**ASSISTANT PROFESSOR**  
**MANAGEMENT STUDIES**  
**KSSEM**

**EXTERNAL GUIDE**

**UMA**  
**BANK MANGER**  
**SBI BANK, KANAKAPURA**



**KSSEM**

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU- 560109**  
**JULY 2022**



MHSROAD KANAKAPURABRANCH  
MHS ROAD  
KANAKAPURA  
DT RAMNAGARA  
PIN 562117

Date:08/06/2022

**PROJECT CERTIFICATE**

*This is to certify that Mr. DARSHAN A, USN No 1KG20BA012. K.S School of Engineering and Management, Banglore-560109, has undergone an internship with us from 26/03/2022 to 07/05/2022.*

*Meanwhile he worked on project "A study on the impact of green banking practices on bank's environmental performance with special reference to Bangalore city" with special reference to state bank of India.*

*We found he a self motivated, punctual and hardworking. His performance was efficient.*

*We wish his Best of luck for his future career.*

For STATE BANK OF INDIA

CHIEF MANAGER  
MHS Road, Kanakapura-562117

*Chief Manager*



KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

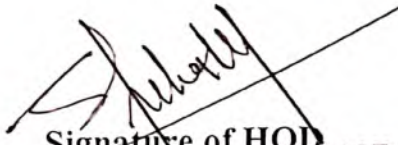
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# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in


Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Mr. Darshan A** bearing **USN:1KG20BA012** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study on the Impact of Green Banking Practices on Bank's Environmental Performance with special reference to Bangalore City at SBI”** is prepared by him under the guidance of **Prof. Roopa Balavenu, Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

  
Signature of Internal Guide


  
Signature of HOD  
Professor & HOD-MBA,  
K.S. School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru-560 109

  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

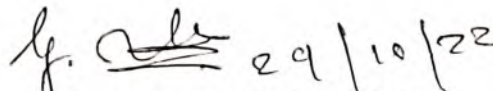
K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

  
Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
KSSSEM, Bangalore

  
Signature of External Examiner  
Name & affiliation

**PROJECT REPORT (20MBAPR407)**

**“A Study on Cash Management at Beloorbayir Biotech Ltd”**

**By**

**DATTAKUMARA K N**

**1KG20BA013**

**Submitted to**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*

**MASTER OF BUSINESS ADMINISTRATION**

*Under the guidance of*

**INTERNAL GUIDE**

**Dr. Shekar H S**

**Professor & Head of the Department**

**Department of Management Studies**

**KS School of Engineering and Management**

**EXTERNAL GUIDE**

**Mr. Praveen shastry P M**

**Asst. Finance Manager**

**Beloorbayir Biotech Ltd**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**

**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

**BENGALURU- 560109**

**JULY 2022**





# BELOORBAYIR BIOTECH LTD.

Regd. Office : # 564, 4th Cross, Kempegowda HBCS, Opp: Water Tank Park, Kathriguppe,  
Banashankari 3rd Stage, Bengaluru - 560 085

☎ +91-80-43489900 upto 99 ✉ info@bayirextracts.com 🌐 www.beloorbayir.com

CIN : U73100KA2005PLC035741

## CERTIFICATE

This is to certify that **Mr. Dattakumara K.N.** (USN No:1KG20BA013) Student of MBA 4<sup>th</sup> Sem from K S School of engineering and Management #15/1, Mallasandra, Near vajarahalli, Kanakapura Road, Banagalore -560109.

He has successfully completed his project in our esteemed "Organization study on Cash Management at Beloorbayir Biotech Ltd" from 26-Mar-22 to 07-May-22.

During this period his character was good. We wish him all success in his future endeavours.

Regards

For Beloorbayir Biotech Ltd.

(Praveen Shastry P M)

Asst. Finance Manager





KAMMAVARI SANGHAM (R), 1952

# K.S. School of Engineering and Management

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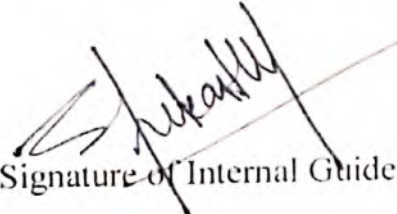
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

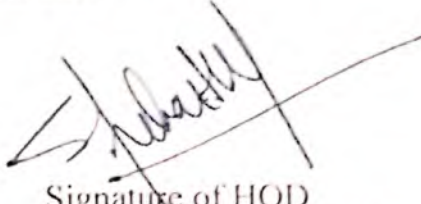
Bengaluru - 560 109, www.ksssem.edu.in

Tel: +91 80 28425012/013/163, Fax: +91 80 28425164, Mob: 8884444408 / 9606705908

## CERTIFICATE

This is to certify that **Mr. Datta Kumara K N** bearing USN 1KG20BA013, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **"A Study on Cash Flow Management at BELOORBAYIR BIOTECH"** is prepared by him under the guidance of **Dr. Shekar H.S.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

  
Signature of Internal Guide

  
Signature of HOD


  
Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

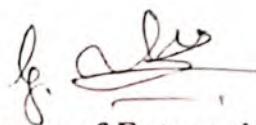
K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

  
Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H.S  
KSSSEM, Bangalore

  
Signature of External Examiner  
Name & affiliation



**PROJECT REPORT (20MBAPR407)**  
"A Study On Employee Retention Techniques at Shri Lakshmi Steel Suppliers  
Pvt.Ltd"

By  
**DEEKSHA DATTA**  
USN: 1KG20BA014

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Dr. Shekar H S**  
Professor & Head of the Department  
Department of Management Studies  
KS School of Engineering and Management

**EXTERNAL GUIDE**

**KH Mahesh Kumar**  
Senior executive HR  
Shri Lakshmi steel suppliers



**KSSEM**

Department of Management Studies  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
BENGALURU- 560109  
(July - 2022)

Date : 06-may-2022

### Internship certificate

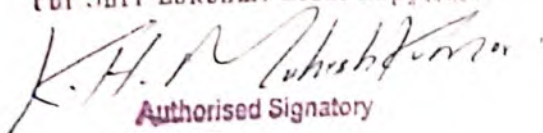
**Subject:** Project completion Letter at Shri Lakshmi steel suppliers Pvt. Ltd.

This is to certify that Ms. Deeksha Datta USN No:1KG20BA014 studying Master of Business Administration at KS School of Engineering and Management under Visvesvaraya Technological University, Belgaum has successfully completed the project " A Study On Employee Retention Techniques at Shri Lakshmi steel suppliers pvt ltd," between 26-Mar-22 to 07-May-22.

Regards

Shri Lakshmi Steel Suppliers.

For Shri Lakshmi Steel Suppliers.



Authorised Signatory

K H Mahesh Kumar

Senior executive HR



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email : sales@slgroup.in web : www.shrilakshmisteel.in





# K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

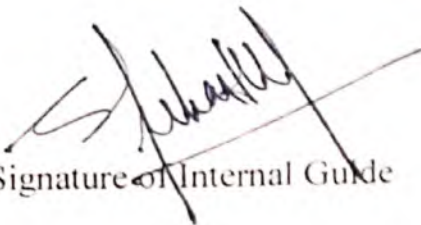
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

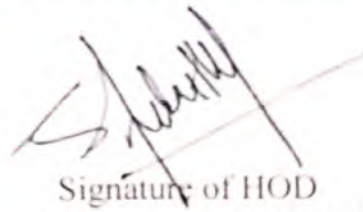
Bengaluru - 560 109, www.kssem.edu.in

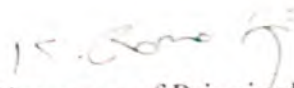
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that Ms. Deeksha Datta bearing USN 1KG20BA014, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Employee Retention Techniques at SHRI LAKSHMI STEEL SUPPLIERS" is prepared by her under the guidance of Dr. Shekar H.S, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

  
Signature of Internal Guide

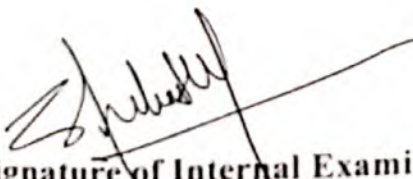
  
Signature of HOD


  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/22

  
Signature of Internal Examiner  
Name & affiliation  
Dr. Shekar H. S  
K. S. School of Engineering  
& Management

  
Signature of External Examiner  
Name & affiliation  
SATHAS PATEL  
AIT, BLUE

**PROJECT REPORT (20MBAPR407)**  
ON  
**“A Study On Customer Satisfaction At Axis Bank”**

By  
**GADDAM PAVAN**  
**1KG20BA016**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**PROF. RUPA C DAS**  
**ASSISTANT PROFESSOR**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**KSSEM, BANGLORE**

**EXTERNAL GUIDE**  
**ASHOK KUMAR T**  
**BRANCH MANAGER**  
**AXIS BANK, ANANTAPUR**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**July - 2022**



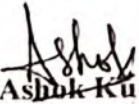
**TO WHOM SO EVER IT MAY CONCERN**

17/06/2022

**Project Certificate**

This is to certify that Mr. Gaddam Pavan, bearing registration number 1KG20BA016 from K.S School of Engineering and Management Bangalore, has successfully completed his project titled "A Study of Customer Satisfaction" in the marketing department with our organization for 6 weeks starting from 1 Apr 2022 to 16 May 2022.

We wish him all the success in future endeavors.

  
Ashok Kumar T

**Branch Manager**

**Anantapur**



# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Mr. GADDAM PAVAN** bearing USN **1KG20BA016**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study Of Customer Satisfaction at Axis Bank, Anantapur – Andhra Pradesh”** is prepared by her under the guidance of **Prof. Rupa Chatterjee Das**. in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

Signature of Principal

Dr. K. RAMANARASIMHA

Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

Signature of Internal Examiner  
Name & affiliation

Prof. RUPA CHATTERJEE DAS  
AP - KSSEM - MBA.

Signature of External Examiner  
Name & affiliation

Dr. M. Seetha Kumar  
AP, AIT - MBA.



**PROJECT REPORT (20MBAPR407)**

**on**

**“A STUDY ON IMPACT OF ADVERTISEMENT ON SALES  
PERFORMANCE AT THE CARL BECHEM LUBRICANT INDIA PVT  
LTD”**

**By**

**GAGANASHREE G R  
1KG20BA017**

**Submitted to**

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**

*Under the guidance of*

**INTERNAL GUIDE**

**PROF.RUPA C DAS**

**ASSISTANT PROFESSOR**

**KSSEM, BANGLORE**

**EXTERNAL GUIDE**

**Mr. MAHESH KUMAR**

**HR MANAGER**

**CARL BECHEM**

**LUBRICANTS PVT LTD, BIDADI**



**KSSEM**

**Department of Management Studies**

**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109**

**(May - 2022)**



**BECHEM**  
LUBRICATION  
TECHNOLOGY

CARL BECHEM LUBRICANTS (INDIA) PRIVATE LIMITED, Bangalore

CARL BECHEM LUBRICANTS  
(INDIA) PRIVATE LIMITED  
28-D, Bidadi Industrial Area,  
Bidadi-Harohalli Main Road,  
Bangalore - 562 109  
Tel. +91 80 6690 0800 / 01 / 02,  
Fax +91 80 6690 0803  
E-mail : info@bechemindia.com  
CIN : U23201KA2003PTC032976  
www.bechemindia.com

7 May 2022

### Project Certificate

This is to certify that Ms. Gaganashree G R bearing registration number 1KG20BA017 from K S School of Engineering and Management has undergone **A Study on Impact of Advertisement on Sales Performance** at our organization between **26 March 2022 to 7 May 2022**.

During the period of the said programme she was exposed to different areas and was found diligent, hardworking and inquisitive.

We wish her every success in her life and career.

For Carl Bechem Lubricants (I) Private Limited

Mahesh Kumar K  
Dy. Manager – Human Resource

since 1834



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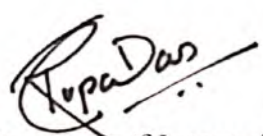
**KAMMAVARI SANGHAM (R), 1952**  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109, www.kssem.edu.in

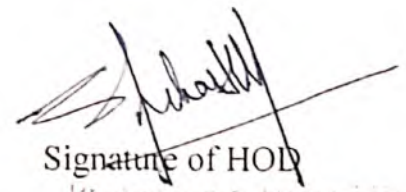
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Ms. Gaganashree G. R.** bearing USN **IKG20BA017.** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **"A Study on Impact of Advertisement on Sales Performance at Carl Bechem Lubricants Pvt. Ltd., Bidadi"** is prepared by her under the guidance of **Prof. Rupa Chatterjee Das**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.



Signature of Internal Guide



Signature of HOD  
 Professor & HOD-MBA,

K.S. School of Engineering & Management  
 #15, Mallasandra, Off Kanakapura Road,  
 Bengaluru - 560 109

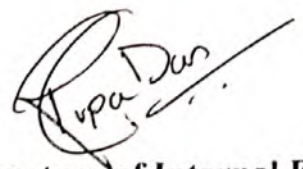


Signature of Principal  
**Dr. K. RAMA NARASIMHA**  
 Principal Director

K.S. School of Engineering and Management  
 Bengaluru - 560 109

**Viva-voce Examination**

Date: **28/10/2022**



Signature of Internal Examiner  
 Name & affiliation

**Prof Rupa Chatterjee Das**  
 AP - KSSEM - MBA



Signature of External Examiner  
 Name & affiliation

**Dr. M. Senthil Kumar**  
 AP, AIT - MBA

**PROJECT REPORT (20MBAPR407)**  
on  
**“A Study on Customer Perception with Reference to the Products and Services at E K Retail”**

By  
**Geethanjali D**  
USN: 1KG20BA018

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Rupa C Das**

**Assistant Professor**

**Department of Management Studies  
KS school of engineering and management**

**EXTERNAL GUIDE**

**Prashanth Krishnappa**

**E K Retail**

**Customer Relationship Manager**



**KSSEM**

**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109  
(JULY - 2022)**



# E. K. Retail

EK Retail 1<sup>st</sup> Main, JP

Nagar, Bangalore - 560078

## Project Certificate

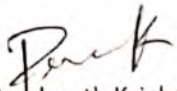
This is to certify that Ms. Geethanjali. D Bearing registration number IKG20BA018 from K.S School of Engineering and Management has successfully completed her project titled "A STUDY ON CUSTOMER PERCEPTION WITH REFERENCE TO THE PRODUCTS AND SERVICES AT E K RETAIL" at our company for the period of 6 weeks from 26-Mar-2022 to 07-May-2022.

She was exposed to various areas during the duration of the program and was deemed to be conscientious, hardworking, and curious.

We wish her the best of luck in her future career.

Regards,

EK Retail, Bangalore



Prashanth Krishnappa

Title: Customer Relationship Manager

  
Intern Signature



**SEM**

# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Ms. Geethanjali. D** bearing USN **1KG20BA018**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study On Customer Perception With Reference To The Products And Services At EK RETAIL, Bengaluru”** is prepared by her under the guidance of **Prof. Rupa Chatterjee Das**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
PROFESSOR & HOD-MBA.

K.S. School of Engineering & management,  
#15 Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

**Viva-voce Examination**

**Date:**

Signature of Internal Examiner  
Name & affiliation

Prof. RUPA CHATTERJEE DAS  
AP - KSSEM - MBA.

Signature of External Examiner  
Name & affiliation

Dr. M. Sendhil Kumar, AP  
AP - MBA.





**PROJECT REPORT (20MBAPR407)**

on

**“A STUDY ON CASH FLOW ANALYSIS AT METRO CASH AND CARRY INDIA  
PVT LTD”**

By

**GONUGUNTLA SANDEEP  
1KG20BA019**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**DR SHEKAR H S**

**PROFESSOR & HEAD OF THE DEPARTMENT**

**KSSEM, BANGLORE**

**EXTERNAL GUIDE**

**APPORVA D**

**HR MANAGER**

**METRO CASH AND**

**CARRY, BANGLORE**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(May - 2022)**



**METRO Cash & Carry India Pvt.Ltd.**

Survey No36/28

Pattanagere Village, Kengeri Hobli.

Bangalore-560059, India

CIN U51909KA2001PTC028483

**TO WHOM SO EVER IT MAY CONCERN**

08/05/2022

**Project Certificate**

This is to certify that **Gonuguntla Sandeep** bearing registration number "1KG20BA019" from KS School of Engineering and Management" has carried out his project work from 26-03-2022 to 07-05-2022 in our organization under the guidance of Ms Apoorva D, HR Manager, submitted report on "A Study on Cash Flow Analysis at Metro Cash & Carry"

India Bangalore.

During the period of the said programme, he was exposed to different areas and was found diligent, hardworking and inquisitive.

We wish his all the success in future endeavours

  
Apoorva D

HR Operations.

Metro Cash & Carry India Pvt Ltd.

**METRO**

Cash & Carry India



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# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Mr. Gonuguntla Sandeep** bearing USN 1KG20BA019, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **"A Study on Cash Flow Analysis at METRO CASH AND CARRY"** is prepared by him under the guidance of **Dr. Shekar H.S**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

PROFESSOR & HOD-MBA  
K.S. School of Engineering & Management,  
#15, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109.

Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

Signature of Internal Examiner  
Name & affiliation

Dr. Shekar . H. S  
KSSEM, Bangalore

Signature of External Examiner  
Name & affiliation

**PROJECT REPORT (20MBAPR407)**  
on  
**“A COMPARATIVE STUDY ON GOLD LOANS AND ADVANCES IN  
MANAPPURAM FINANCE LTD”**

By  
**K.MOHANRAJ**  
**1KG20BA020**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**DR SHEKAR H S**  
**PROFESSOR & HEAD OF THE DEPARTMENT**  
**KSSEM BENGALURU**

**EXTERNAL GUIDE**

**R AJITH**  
**MANAGER**  
**MANAPPURAM FINANCE**  
**PVT LTD CHITTOOR**  
**ANDHRAPRADESH**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(July - 2022)**





# MANAPPURAM FINANCE LIMITED

Make Life Easy

Date: 7/5/2022

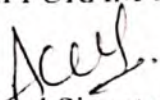
TO WHOMSOEVER IT MAY CONCERN

This is certify that MR.K.MOHAN RAJ( Reg No: 1Kg20BA020) a student of MBA in K.S school of engineering & management , Bangalore has Satisfactory completed 6 weeks (26<sup>th</sup> Mar 2022 TO 7<sup>th</sup> May 2022) PROJECT IN STUDY ON GOLD LOANS AND ADVANCES in our MANAPPURAM FINANCE LTD

During his training he was found to be sincere and hardworking .He evinced keen interest in learning and involved his in all aspects of his study.

We wish his all the success in his future endeavors.

MANAPPURAM FINANCE LTD.

  
Authorized Signatory



KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

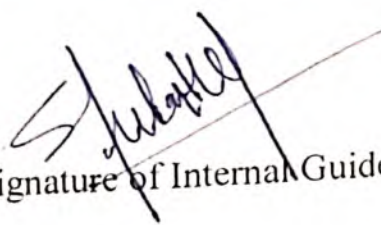
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

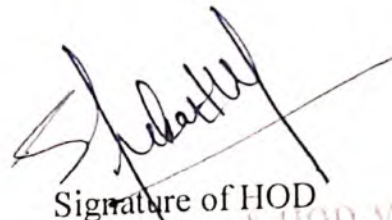
Bengaluru - 560 109, www.kssem.edu.in


Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Mr. K Mohan Raj** bearing USN 1KG20BA020, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Gold Loans and Advances at Manappuram Finance Limited" is prepared by him under the guidance of **Dr. Shekar H.S.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

  
Signature of Internal Guide

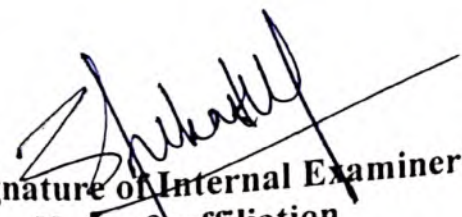
  
Signature of HOD

  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

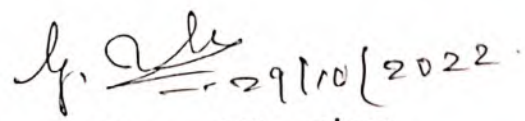
K S School of Engineering and Management  
Bengaluru - 560 109

Date: 29/10/22

Viva-voce Examination

  
Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
KSSEM, Bangalore

  
Signature of External Examiner  
Name & affiliation



**PROJECT REPORT (20MBAPR407)**  
**ON**  
**“A STUDY ON AUDIT PROCEDURE AT A GRSRA & CO, BENGALURU”**

**By**  
**KEERTHANA.C**  
**1KG20BA022**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Arundathi K L**  
**Assistant Professor**  
**K S School of Engineering and Management**

**EXTERNAL GUIDE**

**S. Govinda Rao**  
**Founder & partner**  
**GRSRA & CO**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY 2022**



GRSRA & CO.  
CHARTERED ACCOUNTANTS

Date: 16<sup>th</sup> May 2022

## Company Certificate

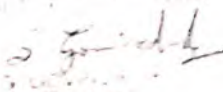
To whom so it may concern

This is to certify that MS. KEERTHANA C USN(IKG20BA022) student pursuing MBA in K S school of Engineering and Management, has done her project work on "A Study on Audit procedure at GRSRA & CO, Bengaluru" This project is carried for a period of six weeks starting from 1<sup>st</sup> April 2022 to 16<sup>th</sup> May 2022.

During the above period the performance of Ms. KEERTHANA.C has been hardworking and satisfactory.

We wish you all the best for the future endeavors.

GRSRA & CO.

FOUNDER & PARTNER  
S. Govinda Rao  
  
Partner

Seal and signature  
S Govinda Rao  
(Founder and partner)

Place: Bangalore

#178, 1<sup>st</sup> Floor 5<sup>th</sup> Main 4<sup>th</sup> Cross J P Nagar, 3<sup>rd</sup> Phase Bangalore-560078

[www.grsra.com](http://www.grsra.com)

Email: [grsraco@gmail.com](mailto:grsraco@gmail.com)

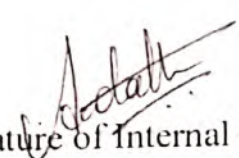
Tel: 080 26598989

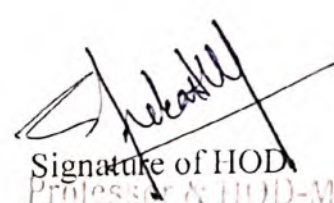





**CERTIFICATE**

This is to certify that **Ms. KEERTHANA. C** bearing USN **1KG20BA022**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Audit procedure at GRSRA & CO, Bengaluru"** is prepared by her under the guidance of **Arundathi K L, Assistant Professor**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

  
Signature of Internal Guide

  
Signature of HOD  
Professor & HOD-MBA,

K.S. School of Engineering & Management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

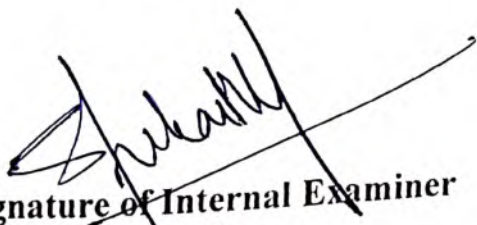
  
Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

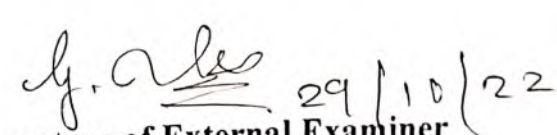
K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

  
Signature of Internal Examiner  
Name & Affiliation

Dr. Shekar. H. S  
K S SEM, Bangalore

  
Signature of External Examiner  
Name & Affiliation

**PROJECT REPORT (20MBAPR407)**

on

**“A Study on Portfolio Management at Hiline Polymers LLP, Bengaluru”**

By  
**KRUTHIKA A**  
**1KG20BA023**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Arundathi K L**  
**Assistant Professor**  
**K S School of Engineering and Management**

**EXTERNAL GUIDE**

**Siddaraju G**  
**Finance Manager**  
**Hiline Polymers LLP**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY 2022**





# HILINE POLYMERS LLP

Reg : 146/01, 1st main KHB Main Road, Manorayanapalya, R T Nagar Post, Bangalore, Bangalore,  
Karnataka, 560032, India.

Branch: 18 Sumuka Nivas APC Circle Jigani Industrial Area Opp Canara Bank Anekal TQ Blore  
E mail: [hipolymers.llp@gmail.com](mailto:hipolymers.llp@gmail.com) Con: 080-42133330 M: 9900000506

## CERTIFICATE

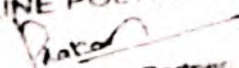
This is to certify that Ms. KRUTHIKA A (USN: 1KG20BA023) from K S School of Engineering and Management, Bangalore, Karnataka has successfully completed an internship project titled "A STUDY ON PORTFOLIO MANAGEMENT" with "HILINE POLYMERS LLP" in partial fulfilment of the requirement for the MBA from Visvesvaraya Technological University (VTU) for a period of Six (6) weeks from 28<sup>th</sup> March 2022 to 6<sup>th</sup> May 2022.

During the above period performance of Ms. Kruthika, A (USN:1KG2BA023) has been very good and satisfactory.

We wish her All the very Best

Date: 06/05/2022

Place: Bangalore

For HILINE POLYMERS LLP  
  
Designated Partner





SEM

KAMMAVARI SANGHAM (R), 1952

# K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that **Ms. KRUTHIKA A** bearing USN **IKG20BA023**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Portfolio Management at Hiliné Polymers LLP, Bengaluru"** is prepared by her under the guidance of **Arundathi K L**, Assistant Professor, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

Professor & HOD-MBA

K.S. School of Engineering and Management  
# 15, Mallasandra, off Kanakapura Road

Signature of Principal

Dr. K. RAMANARASIMHA

Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

Signature of Internal Examiner  
Name & Affiliation

Dr. Shekar. H. S  
KSSEM, Bangalore

Signature of External Examiner  
Name & Affiliation





**PROJECT REPORT (20MBAPR407)**

On

**“A Study on Customer Satisfaction of Millet Food Marketing at Aisiri”**

By;

**Manju Manish Reddy M**  
**USN: 1KG20BA024**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**

*Under the guidance of*

**INTERNAL GUIDE**  
**Prof. Rupa Chatterjee Das**  
**Assistant Professor**  
**KSSEM**

**EXTERNAL GUIDE**  
**Tilak Shankar**  
**Marketing Manager**  
**Aisiri Millet Health Mix**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(July- 2022)**

## **AIISIRI MILLET HEALTH MIX**

Maruthi Plaza, #17, First Floor,  
2nd Main Road, Vyalikaval, Bangalore – 560003

DATE: 15<sup>th</sup> May 2022

NAME: MANJU MANISH REDDY M

CONTACT NUMBER: 7022269909

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Manju Manish Reddy M from K S School of Engineering and Management Bangalore has successfully completed his Project titled “A study of customer Satisfaction” In Aiisiri Millet Health Mix and marketing department with our organization for 6 weeks starting 1<sup>st</sup> April 2022 to 15<sup>th</sup> May 2022. You are required to report to the person in charge, TILAK SHANKAR for orientation and subsequent placement of these days.

His conduct and commitment during the project was found to be GOOD.

We wish him all the best in his future endeavors.

Yours faithfully

Name: Sathish R

MANAGING DIRECTOR

AIISIRI MILLET HEALTH MIX







KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Mr. Manju Manish Reddy M** bearing USN **1KG20BA024**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Customer Satisfaction of Millet Food Marketing at Aisiri, Bengaluru" is prepared by him under the guidance of Prof. Rupa Chatterjee Das, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

PROFESSOR & HOD-MBA

K.S. School of Engineering and Management  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109

Signature of Principal

Dr. K. RAMANARASIMHA

Principal/Director

K.S. School of Engineering and Management  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109

Viva-voce Examination

Date: 28/10/2022

Signature of Internal Examiner  
 Name & affiliation

Prof. RUPA CHATTERJEE DAS  
 AP - KSSEM - MBA

Signature of External Examiner  
 Name & affiliation

Dr. M. Sendhil Kumar  
 AP, AIT - MBA.

**PROJECT REPORT (20MBAPR407)**  
on  
**“A Study on Impact of Organization Culture on Employees Job Performance at  
AKARMAXS TECH PVT. LTD”**

By

**MONIKA.V**

**USN: 1KG20BA025**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Dr. Shekar H S**  
**Professor & Head of the Department**  
**Department of Management Studies**  
**K S School of Engineering and Management**

**EXTERNAL GUIDE**

**Mrs. Jovitha.J.**  
**HR Manager**  
**Akarmaxs Tech Pvt Ltd**



**KSSEM**  
A SCHOOL OF DISTANCE AND MANAGEMENT

**Department of Management Studies**  
**KS. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**July – 2022**



Date: 06-May-2022

INTERNSHIP CERTIFICATE

Subject: Internship and Project completion Letter on the topic of "Impact of Organization culture on Employees Job Performance"

This is to certify that Ms. Monika.V – USN No:1KG20BA025 studying Master of Business Administration KS School of Engineering and Management under Visvesvaraya Technological University, Belgaum has successfully completed the internship project in AKARMAXS TECH PVT LTD, Bangalore from 26-Mar-22 to 07-May-22.

Yours Sincerely




Preetham BN

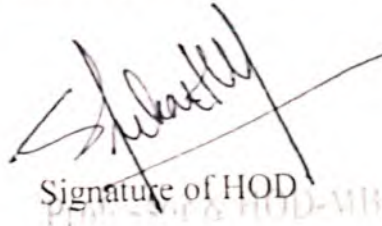
Accounts Department  
Akarmaxs Tech Pvt Ltd  
Bangalore

**CERTIFICATE**

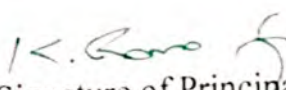
This is to certify that **Ms. Monika.V** bearing USN 1KG20BA025, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "**A Study on Impact of Organization Culture on Employees Job Performance at AKARMAXS TECH PVT.LTD**" is prepared by her under the guidance of **Dr.Shekar H.S.** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.



Signature of Internal Guide



Signature of HOD



Signature of Principal

Dr. K. RAMA NARASIMHA

Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

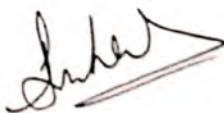
Date: 28/10/22

Viva-voce Examination



Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
K.S. School of Engineering  
and Management



Signature of External Examiner  
Name & affiliation

SUHAS PATEL  
AIT, Bilore



**PROJECT REPORT (20MBAPR407)**

on

**A STUDY ON “CUSTOMERS USAGE BEHAVIOUR AND SATISFACTION  
TOWARDS CREDIT CARD AT BAJAJ FINANCE LIMITED, BENGALURU”**

By

**MUTHURAJU.G  
USN: 1KG20BA026**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of  
**MASTER OF BUSINESS ADMINISTRATION**  
Under the guidance of*

**INTERNAL GUIDE**

**Prof. Arundathi KL**

**Assistant Professor**

**Ks School Of Engineering And Management**

**EXTERNAL GUIDE**

**Mr Venkatesh**

**Finance Manager**

**Bajaj Finance Limited**



**KSSEM**

**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU- 560109**

**JULY 2022**

Date:11/07/2022

CERTIFICATE

This is to certify that **Mr. MUTHURAJU G.** (USN No:1KG20BA026) Student of MBA 4<sup>th</sup> Sem from K S School of engineering and Management #15/1, Mallasandra, near Vajarahalli, Kanakapura Road, Banagalore -560109. has undergone an internship with us from 26/03/2022 to 7/05/2022

He has successfully completed his project on " **A Study On Customers Usage Behaviour and Satisfaction Towards Credit Card at Bajaj Finance Limited ,Bengaluru** "in our esteemed Organization Bajaj Finance Limited, Bengaluru

During this period his character was good. We wish him all success in his future endeavours.



**BAJAJ FINANCE LIMITED**

01 to 805, 8th Floor, Prestige Towers, Bangalore - 560025, Karnataka, India

Registered Office: Mumbai - Pune Road, Akurdi, Pune - 411 035, Maharashtra, India  
Corporate Office: 4th Floor, Bajaj Finserv Corporate Office, Off Pune-Ahmednagar Road, Kharanagar, Pune - 411 014, Maharashtra, INDIA

Corporate ID No.  
L65910MH1987PLC042961

[www.bajajfinserv.in](http://www.bajajfinserv.in)

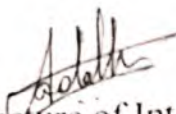


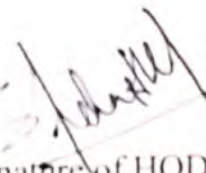





**CERTIFICATE**

This is to certify that **Mr. MUTHURAJU G** bearing USN **1KG20BA026**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **A Study on "Customers Usage Behaviour and Satisfaction towards Credit Card at Bajaj Finance Limited, Bengaluru "** is prepared by him under the guidance of **Arundathi K L**, Assistant Professor, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

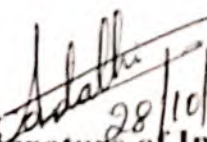
  
Signature of Internal Guide


  
Signature of HOD  
Prof. S. S. HOD-MBA  
K.S. School of Engineering & Management  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road

  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management

Date: 28/10/2022

Viva-voce Examination

  
Signature of Internal Examiner  
Name & Affiliation  
Arundathi K L.  
KSSEM.

  
Signature of External Examiner  
Name & Affiliation  
Dr. M. Seetha/Kumari, AP  
AIT - MBA

**PROJECT REPORT (20MBAPR407)**  
on  
**“A STUDY ON IMPACT OF WORKING CAPITAL ON THE  
PROFITABILITY OF THE CARL BECHEM LUBRICANT INDIA PVT  
LTD”**

By  
**NISHCHITHA K R**  
**1KG20BA027**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**PROF.ROOPA BALAVENU**  
**ASSISTANT PROFESSOR**  
**KSSEM, BANGLORE**

**EXTERNAL GUIDE**  
**Mr. MAHESH KUMAR**  
**HR MANAGER**  
**THE CARL BECHEM**  
**LUBRICANTS PRIVATE**  
**LTD, BIDADI**



**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(May - 2022)**





**BECHEM**  
LUBRICATION  
TECHNOLOGY

CARL BECHEM LUBRICANTS (INDIA) PRIVATE LIMITED, Bangalore

CARL BECHEM LUBRICANTS  
(INDIA) PRIVATE LIMITED  
28-D, Bidadi Industrial Area,  
Bidadi-Harohalli Main Road,  
Bangalore - 562 109  
Tel. +91 80 6690 0800 / 01 / 02,  
Fax +91 80 6690 0803  
E-mail : info@bechemindia.com  
CIN : U23201KA2003PTC032976  
www.bechemindia.com

7 May 2022

### Project Certificate

This is to certify that Ms. Nishchitha K R bearing registration number 1KG20BA027 from K S School of Engineering and Management has undergone **A Study on Impact of Working Capital on the Profitability of the firm** at our organization between **26 March 2022 to 7 May 2022**.

During the period of the said programme she was exposed to different areas and was found diligent, hardworking and inquisitive.

We wish her every success in her life and career.

For Carl Bechem Lubricants (I) Private Limited

  
Mahesh Kumar K  
Dy. Manager – Human Resource

since 1834



Scanned with OKEN Scanner



**KSEM**

KAMMAVARI SANGHAM (R), 1952

# K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that Ms. Nishchitha K R bearing USN:1KG20BA027 is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on “An Empirical Study of the Impact of Working Capital on Profitability of the Carl Bechem Lubricants India Private Ltd. at Bengaluru” is prepared by her under the guidance of Prof. Roopa Balavenu, Asst. Prof., in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD  
Professor & HOD-MBA.

K.S. School of Engineering & Management,  
#15, Near Vajarahalli, off Kanakapura Road,  
Bengaluru - 560 109

Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Date: 29/10/22

Viva-voce Examination

Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
KSSAM, Bangalore

Signature of External Examiner  
Name & affiliation





**PROJECT REPORT (20MBAPR407)**  
on  
**“A STUDY ON BRAND AWARENESS AND PERCEPTION AT TATA  
AIG LIFE”**

By  
**Navyasree P**  
**USN: 1KG20BA028**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. V Vidyashree**

**Assistant Professor**

**Department of Management Studies**

**K S School of engineering and management**

**EXTERNAL GUIDE**

**Jagadeesh N**

**Tata AIG Life**

**Branch Manager**



**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**JULY - 2022**

**TO WHOM SO EVER IT MAY CONCERN**

20/06/2022

**Project certificate**

This is to certify that Ms. Navya Sree P, from K.S School of Engineering and Management Bangalore, has successfully completed her project titled "Brand Awareness and Perception of Tata Aig Life" in the marketing department with our organization for 6 weeks starting from 1 Apr 2022 to 16 May 2022.

We wish her all the success in future endeavors.

JAGADESH N  
BRANCH MANAGER







**KAMMAVARI SANGHAM (R), 1952**  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
 # 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109, www.kssem.edu.in  
 Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Ms. Pathipati Navyasree , 1KG20BA028** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study on Brand Awareness and Perception at TATA AIG life”** is prepared by her under the guidance of **Ms. V.Vidyashree , Assistant Professor , Department of Management Studies , KSSEM** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

*v.vidyashree*  
 Signature of Internal Guide

*[Signature]*  
 Signature of HOD  
 Professor & HOD-MBA,  
 K.S. School of Engineering & management,  
 #15, Mallasandra, off Kanakapura Road,  
 Bengaluru - 560 109

*[Signature]*  
 Signature of Principal  
 Dr. K. RAMA NARASIMHA  
 Principal/Director  
 K S School of Engineering and Management  
 Bengaluru - 560 109

**Viva-voce Examination**

**Date:** 28/10/22

*v.vidyashree*  
 28/10/22  
 Signature of Internal Examiner  
 Name & affiliation  
 V.VIDYASHREE  
 ASSISTANT PROFESSOR  
 KSSEM

*[Signature]* 28/10/22  
 Signature of External Examiner  
 Name & affiliation  
 SUHAS PATEL  
 AIT, B'lore.  
 ASST. PROFESSOR

# **A study on performance evaluation on selected equity mutual funds**

**SUBMITTED BY**

Pawan N  
(1KG20BA029)

**SUBMITTED TO**



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAVI**

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF  
MASTER OF BUSINESS ADMINISTRATION

UNDER THE GUIDANCE OF

**INTERNAL GUIDE**

ROOPA BALAVENU  
(ASSIT PROFESSOR)

**EXTERNAL GUIDE**

VISHAL GOUSAL  
(UNIT MANGER)



**DEPARTMENT OF MBA**

KS SCHOOL OF ENGINEERING AND MANAGEMENT  
Holiday Day Village Road Vajarhalli, Kankpura Main Road, Bangalore

SUBMISSION ON: 20, JULY, 2022



Ref. No. : HR/REC01/TR8861/25052022/09450

Date : 25th May 2022

**CERTIFICATE**

This is to certify that **Mr. PAWAN N** student of **K S SCHOOL OF ENGINEERING AND MANAGEMENT** has successfully completed his project on "**PERFORMANCE EVALUATION OF EQUITY SCHEMES IN MUTUAL FUNDS**". The project period was from 31st March 2022 to 12th May 2022.

During this period he was found to be regular and hard working. We wish him all the Best in his future endeavours.

---

**Vatsal Soni**

**(Deputy General Manager - Human Resource)**

This Letter is digitally generated and does not require signature.

25/05/2022 07:49 PM

**STOCK BROKING | DEPOSITORY SERVICES | NPS**  
**FINANCIAL PRODUCT DISTRIBUTION: MUTUAL FUNDS | LOANS | PMS | REAL ESTATE**


**NJ India Invest Private Limited**, Registered & Corporate Office: Block No. 901 & 902,  
6th Floor, B Tower, Udhna Udyog Nagar Sangh Commercial Complex, Central Road No. 10, Udhna, Surat - 394 210, Gujarat  
Phone: 0261 4025901 | E-mail: email@njgroup.in | Website: www.njwealth.in | CIN: U67120GJ2000PTC037674

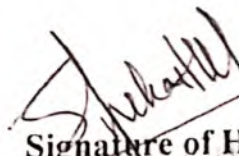





**CERTIFICATE**

This is to certify that **Mr. Pawan N** bearing **USN:1KG20BA029** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study on Performance of selected Equity Mutual Funds at NJ Wealth in Bengaluru”** is prepared by him under the guidance of **Prof. Roopa Balavenu, Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

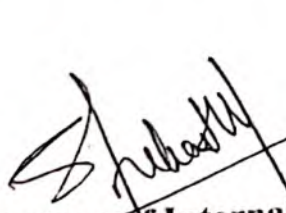
  
**Signature of Internal Guide**

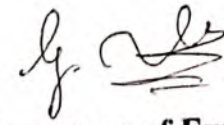
  
**Signature of HOD**  
Professor & HOD-MBA  
K.S. School of Engineering & Management  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

  
**Signature of Principal**  
Dr. K. RAMA NARASIMHA  
Principal/Director  
K.S. School of Engineering and Management  
Bengaluru - 560 109

**Date:** 29/10/22

**Viva-voce Examination**

  
**Signature of Internal Examiner**  
**Name & affiliation**  
Dr. Shekar. H. S  
KSSEM, Bangalore

  
**Signature of External Examiner**  
**Name & affiliation**  
22/10/22.



**PROJECT REPORT (20MBAPR407)**

on

**“A Study on store layout design and consumer buying behavior at MERTO  
CASH AND CARRY”**

By

**RAKESHA G**

**USN: 1KG20BA030**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. V. Vidyashree**  
Assistant Professor

Department of Management Studies  
KS School of Engineering and Management

**EXTERNAL GUIDE**

**Miss. Apoorva D**  
Metro cash & carry  
HR Manager



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

Department of Management Studies  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(May – 2022)**

TO WHOM SO EVER IT MAY CONCERN

08/05/2022

Project Certificate

This is to certify that **RAKESHA G** bearing registration number "1KG20BA030" from KS School of Engineering and Management" has carried out his project work from 26-03-2022 to 07-05-2022 in our organization under the guidance of Ms Apoorva D, HR Manager, submitted report on "A Study on Store layout at Metro Cash & Carry" India Bangalore.

During the period of the said programme, he was exposed to different areas and was found diligent, hardworking and inquisitive.

We wish his all the success in future endeavours

*Apoorva D*

Apoorva D

HR Operations.

Metro Cash & Carry India Pvt Ltd.

**METRO**

Cash & Carry India





**CERTIFICATE**

This is to certify that **Mr. Rakesha G . 1KG20BA030**, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A study on Store layout at Metro cash and carry " is prepared by him under the guidance of **Ms. V.Vidyashree , Assistant Professor , Department of Management Studies , KSSEM** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

*V.vidyashree*  
Signature of Internal Guide

*[Signature]*  
Signature of HOD  
Professor & HOD-MBA,  
K.S. School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru-560 109

*[Signature]*  
Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: *28/10/22*

*V.vidyashree 28/10/22*  
Signature of Internal Examiner  
Name & affiliation  
V.VIDYASHREE  
ASSISTANT PROFESSOR  
KSSEM

*[Signature]* *28/10/22*  
Signature of External Examiner  
Name & affiliation  
S D H A S PATEL  
ASST : P

**PROJECT REPORT (20MBAPR407)**

on

**“A Study On Consumer Behavior at ShriLakshmi Steel Suppliers pvt.ltd”**

By

**RAMYA G**

**USN: 1KG20BA031**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfillment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

Prof. V. Vidyashree

Assistant Professor

Department of Management Studies

KS school of engineering and management

**EXTERNAL GUIDE**

K H Mahesh Kumar

Senior executive HR

Shri Lakshmi steel suppliers



**KSSEM**

Department of Management Studies  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
BENGALURU- 560109  
(July - 2022)



Date : 06-may-2022

### Internship certificate

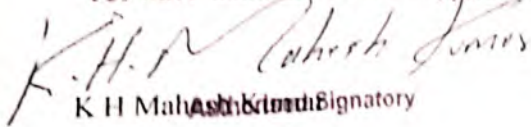
**Subject:** Project completion letter at Shri Lakshmi steel suppliers Pvt.ltd.

This is to certify that Ms. Ramya G USN No:1KG20BA031 studying Master of Business Administration at KS School of Engineering and Management under Visvesvaraya Technological University, Belgaum has successfully completed the project " A Study On Consumer Behavior at Shri Lakshmi steel suppliers pvt ltd," between 26-Mar-22 to 07-May-22.

Regards

Shri Lakshmi Steel Suppliers.

For Shri Lakshmi Steel Suppliers



K H Mahesh Kumar Signatory

Senior executive HR



**Distributors of : SAIL , RINL , JSPL & NEZONE, COLOUR ROOFING SHEETS**

No. 305, 3rd Floor, Pride Hulkul, Lalbagh Road, Bangalore – 560027. Ph.: 080 22534700 / 22270919  
email : sales@slgroup.in web : www.shrilakshmisteel.in

## CERTIFICATE

This is to certify that Ms. Ramya G , 1KG20BA031, is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Consumer Behaviour at Shrilakshmi Steel Suppliers Pvt Ltd " is prepared by her under the guidance of Ms. V.Vidyashree , Assistant Professor , Department of Management Studies , KSSEM in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

*v.vidyashree*

Signature of Internal Guide

*[Signature]*  
Signature of HOD  
Professor & HOD-MBA,

K S School of Engineering & Management,  
815, Madhav Nagar, 10<sup>th</sup> & 11<sup>th</sup> Cross, 10<sup>th</sup> Cross, 10<sup>th</sup> Cross, 10<sup>th</sup> Cross,  
Bangalore - 560 102.

*[Signature]*

Signature of Principal  
Dr. K. RAMANARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bangalore - 560 102

Viva-voce Examination

Date: 28/10/22

*v.vidyashree*  
*28/10/22*  
Signature of Internal Examiner  
Name & affiliation  
V.VIDYASHREE  
ASSISTANT PROFESSOR  
KSSEM

*[Signature]*  
*28/10/22*  
Signature of External Examiner  
Name & affiliation  
SUHAS PATEL  
ASST. PROFESSOR  
AIT, B'lore



**PROJECT REPORT (20MBAPR407)**

On

**"A Study on Determining Social Media Marketing strategies for Paper Play"**

By

**SHREEDHAR**

**USN: 1KG20BA032**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. V. Vidyashree**  
Assistant Professor  
Department of Management Studies  
KS School of Engineering and Management

**EXTERNAL GUIDE**

**Miss. Karpur**  
Paper Play Company  
Founder of the company



**KSSEM**

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(May - 2022)**

# Paper Play

CURATED FOLDS AND DESIGNS

---

## INTERNSHIP CERTIFICATE

25 May, 2022

**Subject: Project completion Letter at Paper Play**

This is to certify that Mr. Shreedhar USN No. 1KG20BA032, studying Master of Business Administration at K S School of Engineering & Management under Viswesvaraya Technological University, Belgaum has successfully completed the project '**A Study on Determining Social Media Marketing for Paper Play**' between 26th March, 2022 to 7th May, 2022.

**Sincerely**



**Raksha R Karpoor**  
**Paper Play**  
**Founder & Managing Director**





KSSEM

# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi

# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,

Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

## CERTIFICATE

This is to certify that Mr. Sreedhar N . 1KG20BA032 is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Determining Social Media Marketing Strategies for Paperplay " is prepared by him under the guidance of Ms. V.Vidyashree , Assistant Professor , Department of Management Studies , KSSEM in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

*V. Vidyashree*

Signature of Internal Guide

*[Signature]*

Signature of HOD  
Professor & HOD-MBA,

K.S. School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru - 560 109.

*[Signature]*

Signature of Principal

Dr. K. RAMANARASIMHA

Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date:

*28/10/22*

*V. Vidyashree*  
*28/10/22*

Signature of Internal Examiner

Name & affiliation

V. VIDYASHREE

ASSISTANT PROFESSOR

KSSEM

*[Signature]*  
*28/10/22*

Signature of External Examiner

Name & affiliation

SUHAS PATEL

ASSI. PROFESSOR

ATT



**PROJECT REPORT (20MBAPR407)**  
ON  
**“STUDY ON EFFECTIVENESS OF EMPLOYEE WELFARE MEASURES  
AT STOVEKRAFT LTD HAROHALLI”**

By  
**SOUNDARYA M**  
USN: 1KG20BA033

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**PROF. SREEDHAR. N**  
**KSSEM , BANGALURU**

**EXTERNAL GUIDE**  
**Saraswathi D K**  
**HR manager**  
**Stovekraft Ltd**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**July - 2022**





DATE: 19/07/2022

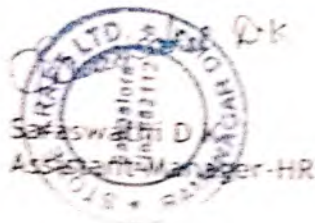
### CERTIFICATE

This is to certify that Ms.Soundarya M with USN 1KG20BA033 pursuing her Master in Business Administration at K 5 School of Engineering and Management, Visvesvaraya Technological University, Belagavi, has successfully completed her Project work on Effectiveness of Employee Welfare Measures at Stove Kraft Ltd., from 01/05/2022 to 31/05/2022.

She was disciplined and displayed keen interest in learning the HR aspects during her training period, besides being regular and punctual.

We wish her great success in her future endeavours.

For Stove Kraft Ltd.

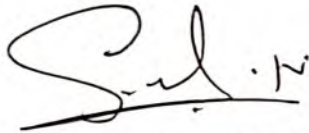


**Stovekraft Limited**  
K 5 School of Engineering and Management  
Visvesvaraya Technological University  
Belagavi - 591 029  
Karnataka - India

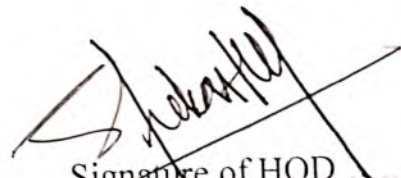


**CERTIFICATE**

This is to certify that Ms. **SOUNDARYA M** bearing USN **1KG20BA033** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Effectiveness of Employee Welfare Measures at Stovekarft Ltd" is prepared by her under the guidance of Prof. Sreedhar. N in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.



Signature of Internal Guide

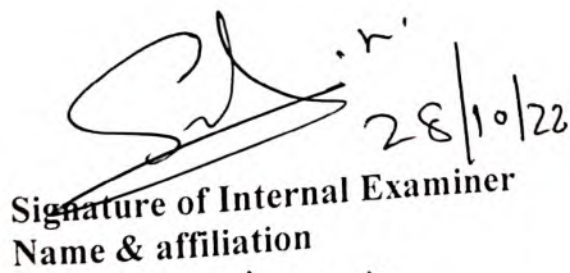
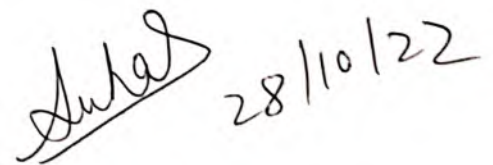

Signature of HOD  
Professor & HOD-MBA,K.S. School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru - 560 109


Signature of Principal

Dr. K. RAMA NARASIMHA  
Principal/DirectorK S School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date:


Signature of Internal Examiner  
Name & affiliationSreedhar. N  
KSSEM.

Signature of External Examiner  
Name & affiliationSUHAS PATEL  
AIT, B'lore



**PROJECT REPORT (20MBAPR407)**

On

**"AN EMPIRICAL STUDY ON CUSTOMER AWARENESS ON FIRE INSURANCE  
POLICIES WITH SPECIAL REFERENCE TO PARSONS NUTRITIONALS PVT LTD"**

By

**Sumanth H C**

**USN: 1KG20BA034**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**

*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Roopa Balavenu**

**Assistant Professor**

**Management Studies**

**KS School of Engineering and Management**

**EXTERNAL GUIDE**

**Mr.Chidanand Salagare**

**Assistant manager**



**KSSEM**

**Department of Management Studies**

**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU- 560109**

**July 2022**

# PARSONS NUTRITIONALS PRIVATE LIMITED

Plot No.319C, 320 A & B and 321, 2nd Phase, Harohalli Industrial Area,  
Kanakapura Tq., Ramanagar Dist - 562112, Karnataka,  
e-mail : hrm@parsonsnutritionals.in web : www.mannventures.com  
CIN : U65311DL2002PTC115025



20 June 2022

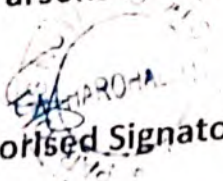
## Project Certificate

This is to certify that Mr. Sumanth H C bearing registration number 1KG20BA034 from K S School of Engineering and Management has undergone "An Empirical Study on Customer Awareness on Fire Insurance Policies with special reference to Parsons Nutritionals Private Limited. Harohalli, From 26<sup>th</sup> March 2022 to 12<sup>th</sup> May 2022.

During the period of the said programme he was exposed to different areas and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.

**For Parsons Nutritionals Pvt Ltd**

  
**Authorised Signatory**





# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9909955009

## CERTIFICATE

This is to certify that **Mr. Sumanth H C** bearing **USN:IKG20BA034** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "**An Empirical Study On Customer Awareness On Fire Insurance at Parsons Nutritionals Pvt. Ltd, Bengaluru**" is prepared by him under the guidance of **Prof. Roopa Balavenu, Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

K.S. School of Engineering & Management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

Signature of Principal

Dr. K. RAMA KRISHNA MURTHI  
Principal/Director

K.S. School of Engineering and Management  
Bengaluru - 560 109

Viva-voce Examination

Date: 29/10/22

Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
KSSEM, Bangalore

Signature of External Examiner  
Name & affiliation

**PROJECT REPORT (20MBAPR407)**

On

**A Study on "Impact of Green HRM practice on Employee job satisfaction  
at Nebo technical service private limited"**

By

**SUPREETHA H A  
1KG20BA035**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Sreedhar. N.  
KSSEM Bangalore**

**EXTERNAL GUIDE**

**Arun  
HR Manager  
Nebo technical service  
Private limited Bangalore**



**KSSEM**

**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109  
JULY - 2022**



**NEBO TECHNICAL SERVICE PRIVATE LIMITED**

Date: 26<sup>th</sup> March 2022

**TO WHOMSOEVER IT MAY CONCERN**

Name: SUPREETHA. HA  
Emp.ID: Temp 021 (Intern)  
Designation: HR-Trainee Executive  
Place: Bangalore

**Subject:** Project Report on the Topic Impact of Green HRM practices on Job Satisfaction.

Dear Ms. SUPREETHA. HA

This is certifying that Ms. SUPREETHA. HA been associated with our organisation from 26<sup>th</sup> March 2022 to May 07<sup>th</sup> 2022.

We have pleasure in informing you that, you are being Identified to work as Intern Trainee in Our esteemed organisation for period of 6 - weeks starting from 26<sup>th</sup> March 2022.

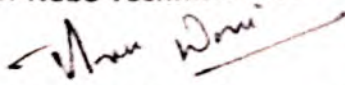
While on assignment, you will observe and respect the rules and regulations with regards to working hours, discipline and work norms, as applicable to **Nebo Technical Services India Ltd**. You will devote yourself exclusively to the business of the company.

You will not at any time without the consent of the Business Head of the company, disclose or make public, except on legal obligations any information regarding the company affairs or administration or development / research carried out whether the same may be confined to you or become known to you in the course of assignments.

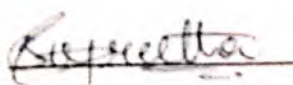
Please return a signed copy of this letter as an acknowledgement of the above terms and conditions.

We wish you all the best during the deputation period.

For Nebo Technical Service PVT LTD.

  
Arun Kumar Dorai  
Director – HR



Employee Signature: 



KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 019, www.kssem.edu.in  
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408

**CERTIFICATE**

This is to certify that Ms. SUPREETHA H A bearing USN **1KG20BA035** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Impact of Green HRM Practices on Employee Job Satisfaction at Nebo Tech Service Pvt Ltd" is prepared by her under the guidance of Prof. Sreedhar. N in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

Signature of Internal Guide

Signature of HOD

Signature of Principal

Viva-voce Examination

Date: 28/10/22

Signature of Internal Examiner  
Name & affiliation

KSSER

Signature of External Examiner  
Name & affiliation

SUHAS PATEL (Asst Professor)  
AIT, B'lore.



**PROJECT REPORT (20MBAPR407)**

on

**“A Study on Career Planning and Development at Tasa Foods Pvt Ltd”**

By

**V S BHAVI  
1KG20BA038**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**

**Prof. Sreedhar.N.  
KSSEM, Bengaluru**

**EXTERNAL GUIDE**

**Mr. Afreed  
HR Manager  
Tasa Foods Pvt Ltd**



**Department of Management Studies  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
BENGALURU- 560109  
July - 2022**

Date: 16.05.2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms.V.S.BHAVI,(USN:1KG20MBA038) a student of MBA in K.S School of Engineering & Management has Satisfactory completed 42 Days (27<sup>TH</sup> MAR 2022 TO 7<sup>TH</sup> MAY 2022 ) Internship in "CAREER PLANNING & DEVELOPEMENT "in our TASA Foods Pvt Ltd.

During her training she was found to be sincere and hardworking. She evinced Keen interest in learning and involved her in all aspects of her study.

We wish her all the success in her future endeavors.

For TASA FOODS PVT LTD

*P. S. S. S.*

Authorized Signatory









# KAMMAVARI SANGHAM (R), 1952 K.S. School of Engineering and Management

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 019, www.kssem.edu.in  
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408

## CERTIFICATE

This is to certify that **Ms. V S BHAVI** bearing USN **1KG20BA038** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **“A Study on Career Planning and Development at Tasa Foods Pvt Ltd”** is prepared by her under the guidance of **Prof. Sreedhar. N** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.


  
Signature of Internal Guide

  
Signature of HOD,  
Professor & HOD-MBA,  
K.S. School of Engineering & management,  
#15, Mallasandra, Off Kanakapura Road,  
Bengaluru - 560 109

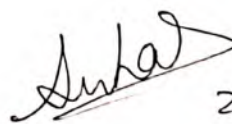
  
Signature of Principal

Viva-voce Examination

Date: 28/10/22

  
Signature of Internal Examiner  
Name & affiliation

Sreedhar N  
Asst. Prof  
KSSEM

  
Signature of External Examiner  
Name & affiliation

SUHAS PATEL  
ASST. Professor.  
AIT, Blire.

**PROJECT REPORT (20MBAPR407)**  
on  
**“A STUDY ON TRAINING MANAGEMENT SYSTEM AT PAGARIYA  
FOOD PRODUCTS PVT PLD”**

By  
**TEJASWINI Y B**  
**1KG20BA037**

Submitted to  
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*

**INTERNAL GUIDE**  
**Prof. SREEDHAR. N**  
**KSSEM, BENGALURU**

**EXTERNAL GUIDE**  
**MRS. MAMTHA BHARADWAJ**  
**HR Manager**  
**PAGARIYA FOOD PRODUCTS**  
**PVT LTD**



**KSSEM**  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

**Department of Management Studies**  
**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
**BENGALURU- 560109**  
**(July - 2022)**



**PAGARIYA FOOD PRODUCTS (P). LTD.**

An ISO 22000:2005 Certified Company

Corporate office: Pragathi Arcade, No. 243, 2nd Floor, 3rd Main Road,  
Chamarajpet, Bangalore, Karnataka - 560018.

P : 080-26606204/205

CIN No: U15300KA2009PTC051190



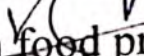
**7 MAY 2022**

## **PROJECT CERTIFICATE**

This is to certify that Ms. Tejaswini Y B bearing registration number 1KG20BA037 from K S School of engineering and management has undergone **A Study on training management system** at our organization between **26<sup>th</sup> march 2022 to 7<sup>th</sup> may 2022.**

During the period of the said program she was exposed to different areas and was found diligent, hardworking and inquisitive .

We wish her every success in her life and career.

For Pagariya  food products Pvt ltd

KAMMAVARI SANGHAM (R), 1952  
**K.S. School of Engineering and Management**

Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi  
# 15, Near Vajarahalli, Mallasandra, off Kanakapura Road,  
Bengaluru - 560 109, www.kssem.edu.in

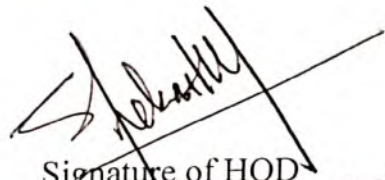
Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408 / 9606055906

**CERTIFICATE**

This is to certify that **Ms. TEJASWINI Y B** bearing USN **1KG20BA037** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on "A Study on Training Management System at Pagariya Food Products Pvt Ltd" is prepared by her under the guidance of **Prof. Sreedhar. N** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.



Signature of Internal Guide



Signature of HOD  
Professor & HOD-MBA,

K.S School of Engineering & management,  
#15, Mallasandra, Off. Kanakapura Road,  
Bengaluru - 560 109

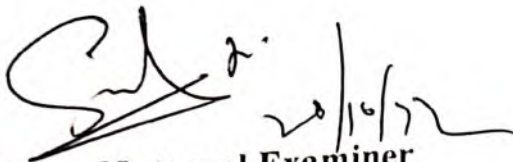


Signature of Principal  
Dr. K. RAMA NARASIMHA  
Principal/Director

K S School of Engineering and Management  
Bengaluru - 560 109

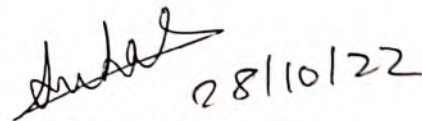
Date: 28/10/22

Viva-voce Examination



Signature of Internal Examiner  
Name & affiliation

Sreedhar  
Asst. Prof  
KSSEM



Signature of External Examiner  
Name & affiliation

SUHAS PATEL  
ASST-Professor  
AIT, Bllore.



**PROJECT REPORT (20MBAPR407)**

On

**“AN EMPIRICAL STUDY OF MUTUAL FUND INVESTOR PERCEPTION IN  
BANGALORE” (FREELANCE)**

By

**NATRAJ S**

**USN: 1KG20BA039**

Submitted to

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**



*In partial fulfilment of the requirements for the award of the degree of*  
**MASTER OF BUSINESS ADMINISTRATION**  
*Under the guidance of*  
**EXTERNAL GUIDE**

**INTERNAL GUIDE**  
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**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU- 560109**  
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SSEM

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## CERTIFICATE

This is to certify that **Mr. Natraj S** bearing **USN:1KG20BA039** is a bonafide student of Master of Business Administration course of the Institute 2020-2022 batch, affiliated to Visvesvaraya Technological University, Belagavi. Project report on **"An Empirical study of Mutual Fund Investor Perceptions with special reference to Bengaluru"** is prepared by him under the guidance of **Prof. Roopa Balavenu, Asst. Prof.**, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration of Visvesvaraya Technological University, Belagavi, Karnataka.

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Date: 29/10/22

Signature of Internal Examiner  
Name & affiliation

Dr. Shekar. H. S  
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Signature of External Examiner  
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