

# ACS College of Engineering

#207, Kambipura, Mysore Road, Bangalore - 560 074.

Affiliated to VTU, Belgaum. Approved by AICTE, New Delhi & Govt. of Karnataka



## DEPARTMENT OF AEROSPACE ENGINEERING

### INTERNSHIP DETAILS 2017-2021

SI NO	USN	Student Name	Internship Title
1	1AH17AS002	Abhirami.K	Aerospace materials
2	1AH17AS003	Ajay Yalameli	Advanced Aerospace Materials Characterization and Modeling
3	1AH17AS005	Amrutha. H R	Aerospace Materials
4	1AH17AS006	Anushree R Koushik	Basic aerospace design
5	1AH17AS007	Arpitha.M B	Aerospace material
6	1AH17AS009	Chandana.M J	Case Studies on Aerospace Materials at CSIR-NIIST as a Virtual Intern.
7	1AH17AS010	Chandu.C P	Advanced Aerospace Materials Characterization and Modelling
8	1AH17AS011	Dhansingh Bhandari.J	Advanced Aerospace Materials Characterization and Modeling
9	1AH17AS013	Jagadish.J	Case studies on Aerospace Materials
10	1AH17AS014	Jayadarth Sudhakar Poojary	Drone Engineering
11	1AH17AS015	Jiji C Joy	Advanced Aerospace Materials
12	1AH17AS016	Jijin P Savyar	Advanced Aerospace Materials Characterization & Modeling
13	1AH17AS017	M.Ashok Kumar	Advanced aerospace materials characterization and modelling
14	1AH17AS018	Mahendar.B.S	Advanced aerospace materials characterization and modeling
15	1AH17AS019	Minhazul Hussain	HAL ARDC
16	1AH17AS021	Nitin.B L	Advance aerospace materials and characterization
17	1AH17AS023	Prajna. H N	Basic Aerospace Design

HOD

Department of Aerospace Engineering,  
ACS College of Engineering  
207 Kambipura Mysore Road  
Bangalore-560074



# ACS College of Engineering

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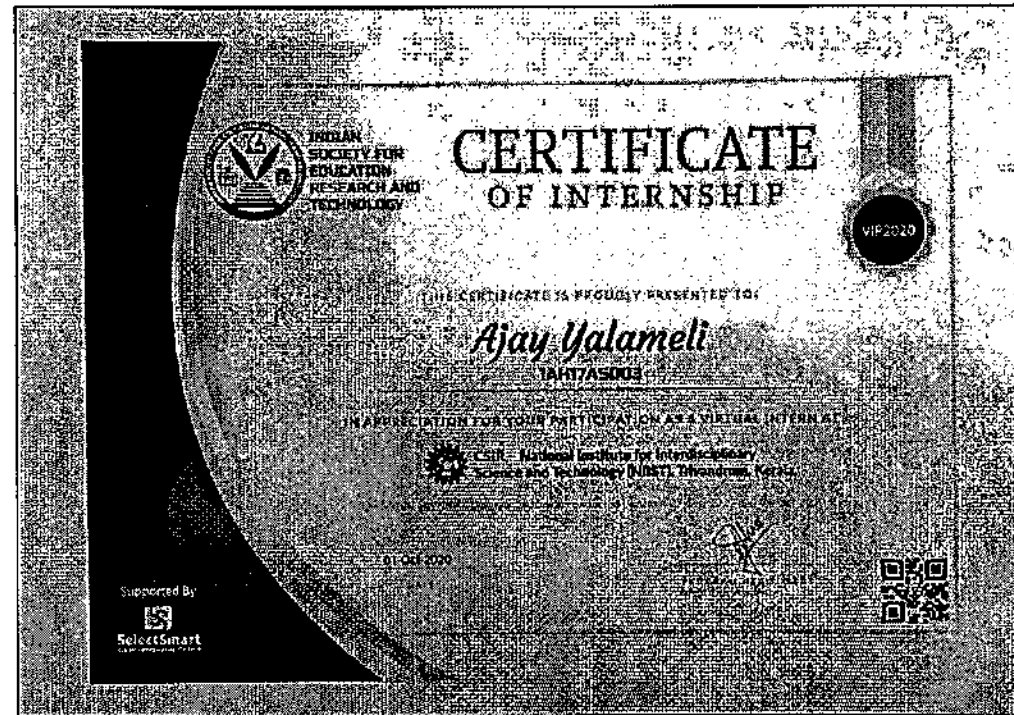
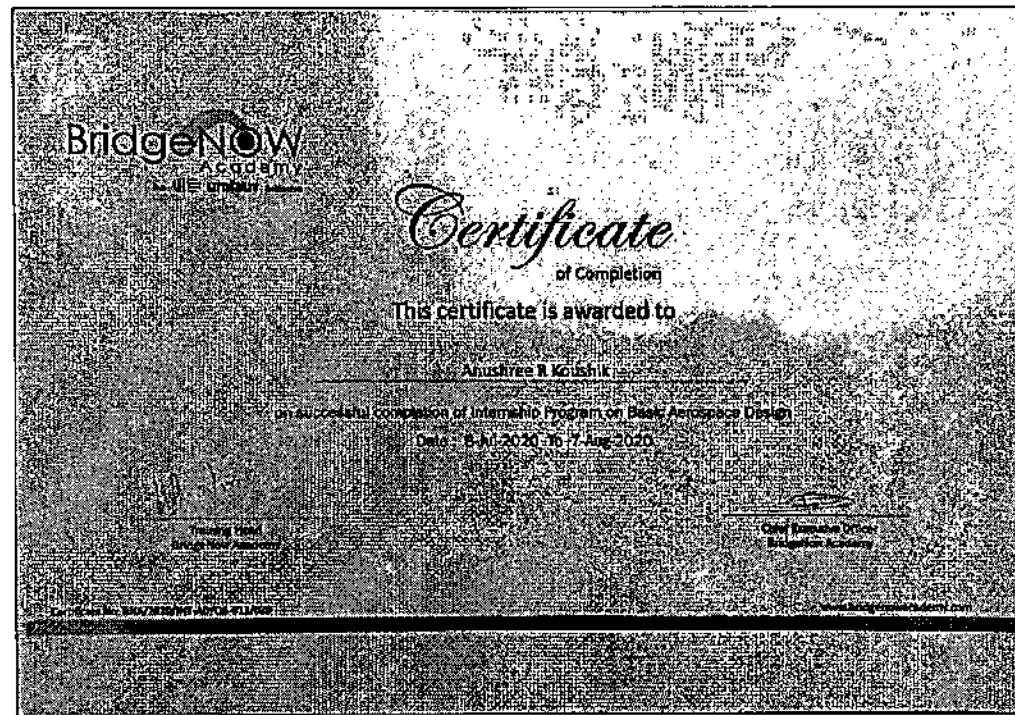
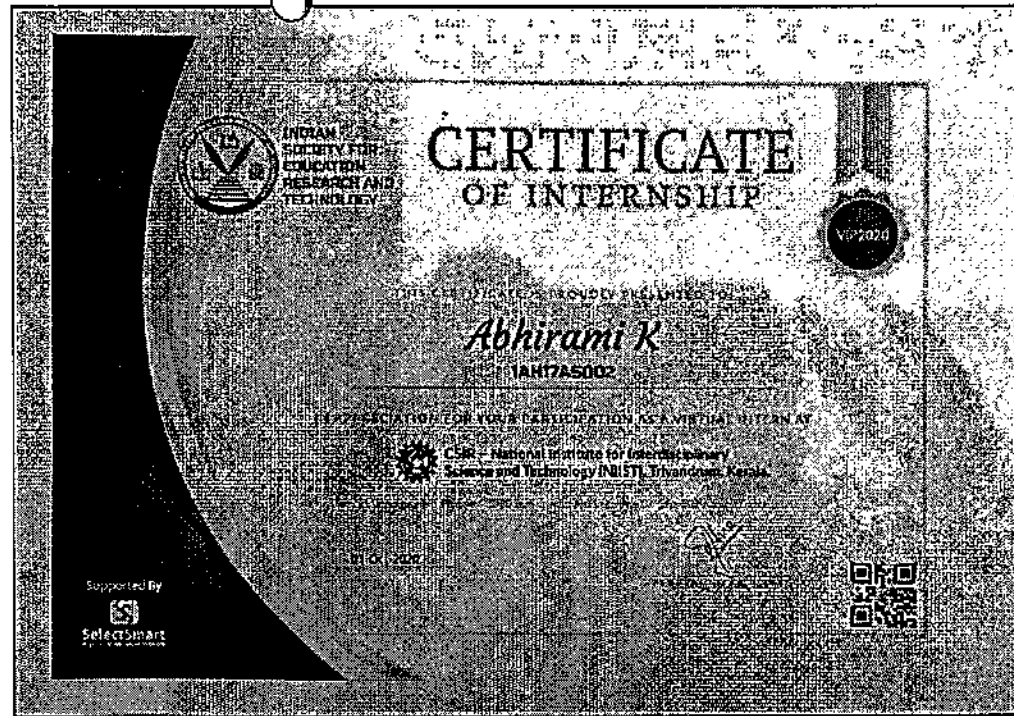
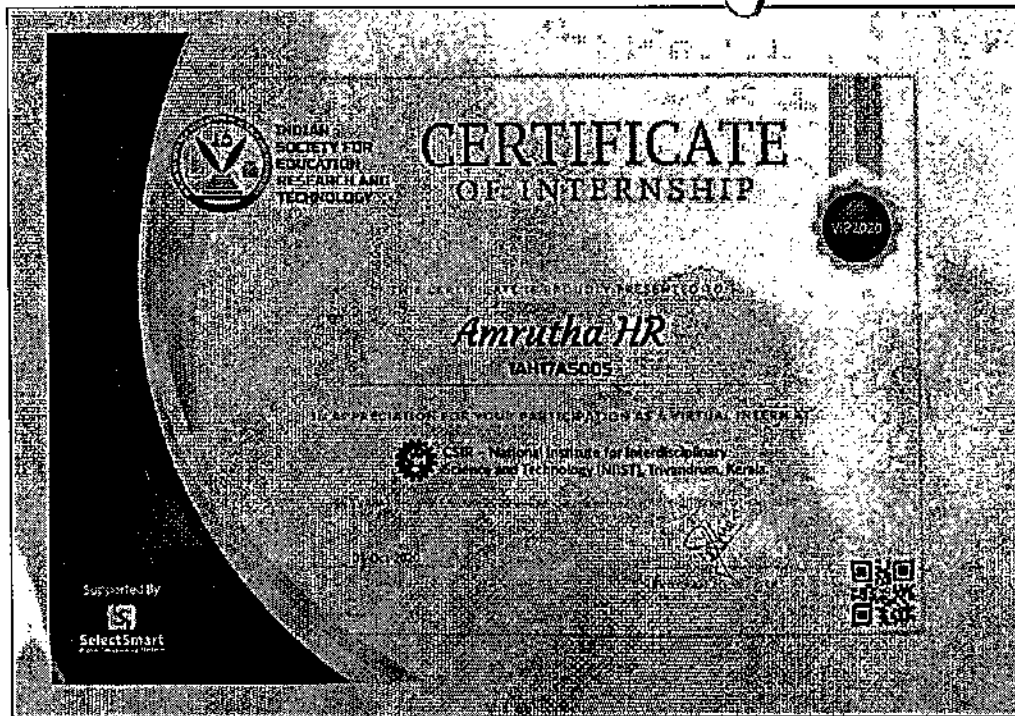
## DEPARTMENT OF AEROSPACE ENGINEERING

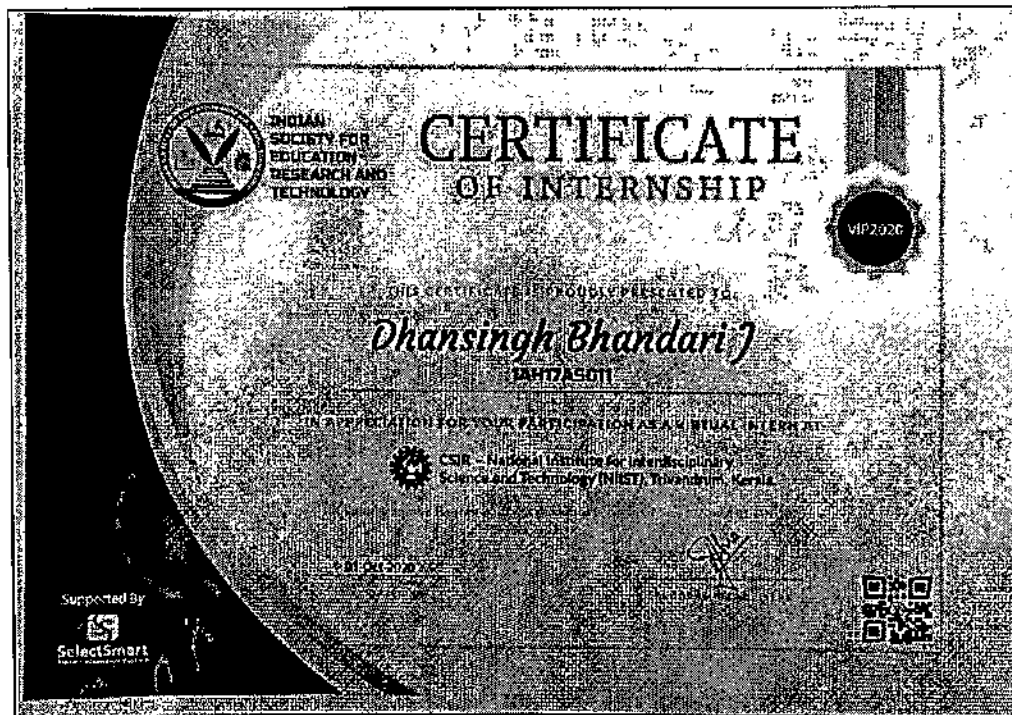
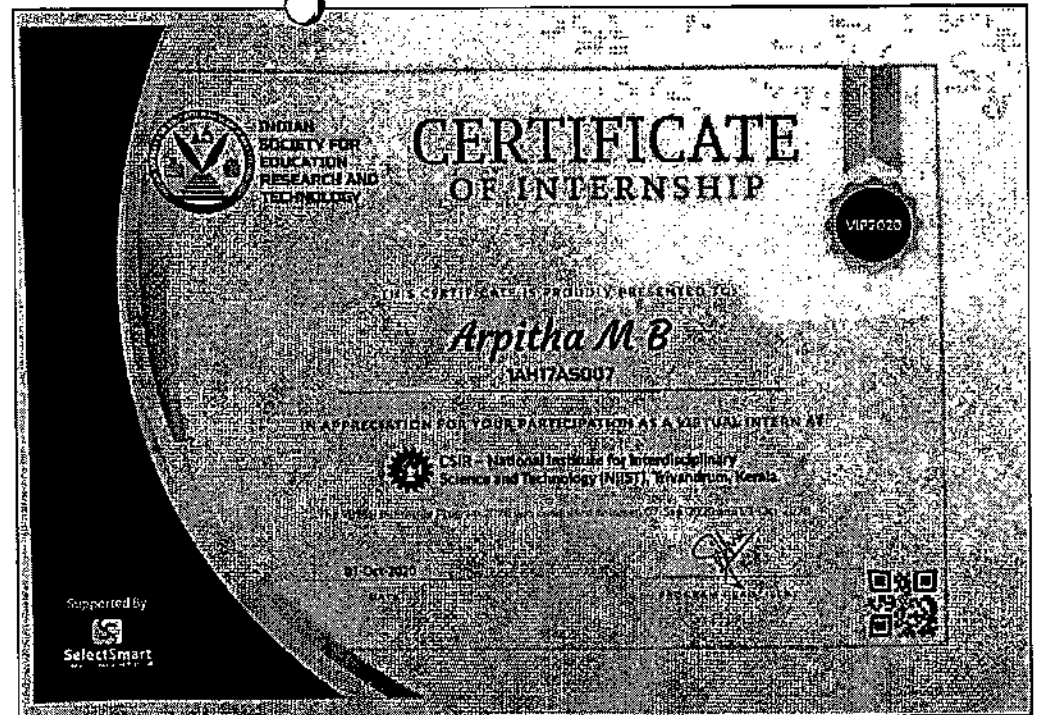
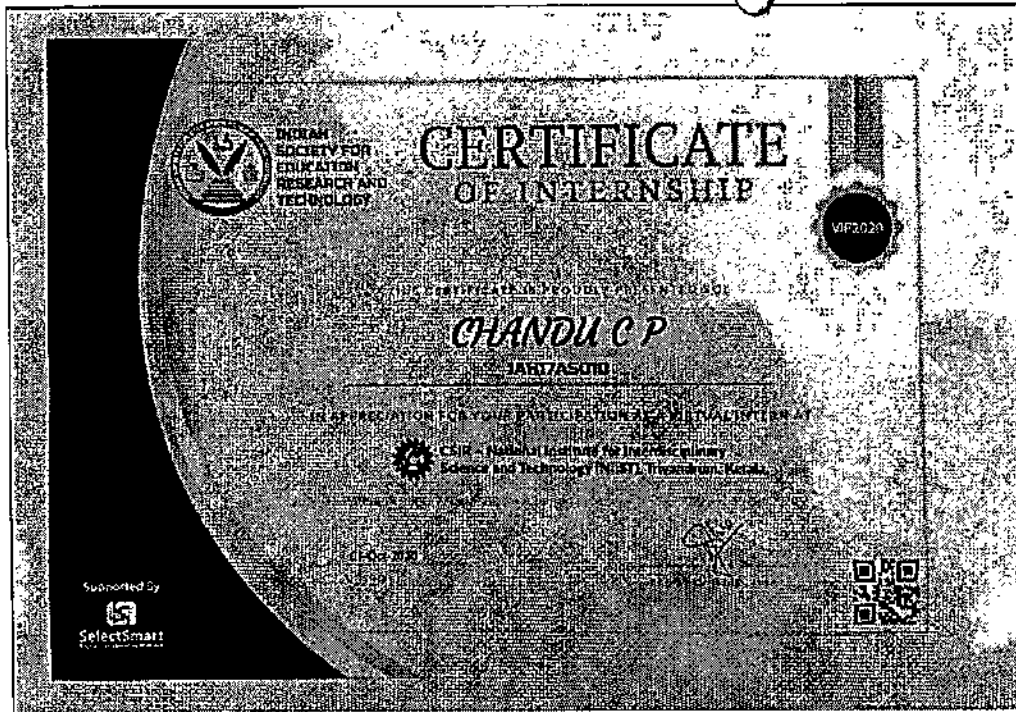
### INTERNSHIP DETAILS 2017-2021

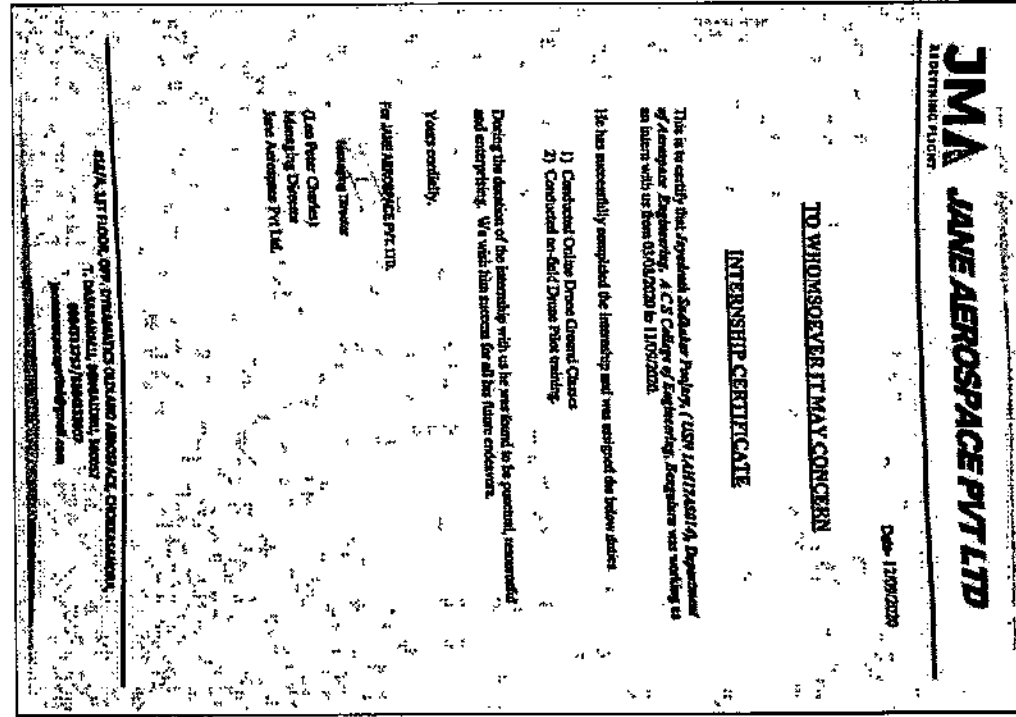
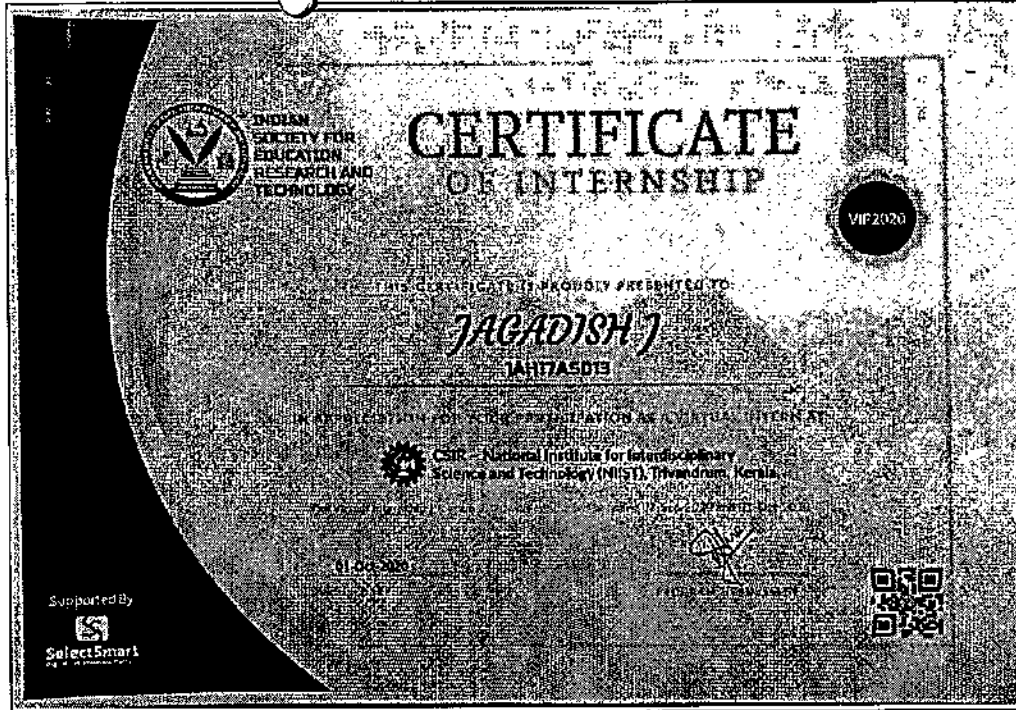
SI NO	USN	Student Name	Internship Title
18	1AH17AS024	R.Sai Bhuvan	Exploring the Landscape of Machine Learning and AI at the edge of Industrial Automaton
19	1AH17AS025	Renisha Ruth Pereira	Structural design analysis and integration of VTOL technology in commercial aviation
20	1AH17AS026	Ruthvik Vijayakumar Joshi	Artificial Intelligence and Machine Learning
21	1AH17AS027	Sankeerthana.M	ORGANIZATIONAL STUDY ON SANSERA ENGINEERING
22	1AH17AS028	Sanketh Shivaji Naharkar	Aero design
23	1AH17AS029	Sarvesh.J	Advanced Aerospace Materials Characterization & Modeling: Characteristics and Applications of Precipitation Hardening Stainless Steel (17-4PH)
24	1AH17AS030	Sathya Moorthy.K	Advanced Aerospace Materials Characterization and Modelling
25	1AH17AS031	Sharon.V	Basic Aerospace Design
26	1AH17AS032	Sidhapara Mitul Mukesh Bhai	Advanced aerospace materials characterization and modelling
27	1AH17AS034	Srigowri.A	Performance Analysis of Aeroengine with Twin Turbo Charger
28	1AH17AS036	Suneha.R	Experimental and Numerical Investigation of Spoiler and Canards Impact on Aerodynamics Properties of a Car
29	1AH17AS037	Tarun.K	Machine Learning
30	1AH17AS040	Yukthashree.H M	Advanced Aerospace Materials

*Plm*  
HOD

Department of Aerospace Engineering,  
ACS College of Engineering  
207 Kambipura Mysore Road  
Bangalore-560074









**M∞**  
**MACH INFINITY AEROSPACE**

**INTERNSHIP CERTIFICATE**

ISSUE Date: 14/06/2021

**RENISHA PEREIRA**

This is to certify that HE/SHE, has been awarded this certificate on completing one month Internship from 14th May 2021 to 14th June 2021 in OUR COMPANY

Intern number - MI2105AE13  
Department- Aerospace



Any Queries: contact@machinfinity.in  
CIN:AAX-1920

*K. RAJU*

**K. RAJU**  
Chairman  
MACH INFINITY AEROSPACE

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Academy  
an IBM Unicity Solution

*Certificate*  
of Completion

This certificate is awarded to

Prajna H N

on successful completion of Internship Program on Basic Aerospace Design

Date : 8-Jul-2020 To 7-Aug-2020

*[Signature]*

Training Head  
BridgeNow Academy

*[Signature]*

Chief Executive Officer  
BridgeNow Academy

BridgeNow Inc. 594/2020/01/2020/01/2020

www.bridgenowacademy.com

**Silicon**  
**microsystems**  
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**INTERNSHIP CERTIFICATE**

**HEBEON**  
Technologies/  
- Airport Centers  
www.hebeon.com

This Certifies that

**RUTHVIK VIJAYKUMAR JOSHI**

**A.C.S COLLEGE OF ENGINEERING**

has completed four weeks Internship on

**AI FOUNDATION USING PYTHON AND DATA SCIENCE**

at our company from Date: 28th Aug to 6th Sept 2020

We found him / her sincere, hardworking, dedicated and result oriented.

He / She worked well as a part of the team as an individual during his / her tenure.

We take this opportunity to thank him / her and wish him / her all the best for the future.

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**SHANKAR RAJU**  
DIRECTOR / TRAINER  
HEBEON TECHNOLOGIES PRIVATE LIMITED  
BANGALURU



**M.S.JAYASANDRA WADGA**  
DIRECTOR  
SILICON MICROSYSTEMS  
BANGALURU

**pincore**

128, 1st Main Road, 1st Cross, 1st Stage, 1st Block,  
Koramangala, Bangalore, Karnataka, India  
www.pincore.com

*[Signature]*  
Chief Executive Officer  
Pincore Technologies Private Limited

We wish a successful & fruitful future endeavours.

This is to certify that Mr. R SAI BHIVANJAN (201924) student of A.C.S COLLEGE OF ENGINEERING, BANGALORE, has undertaken and successfully completed four weeks of Internship in "Exploring the Landscape of Machine Learning and AI at the edge of Artificial Intelligence" at Pincore International - A subsidiary of Pincore Technologies India Pvt. Ltd., as part of fulfillment of requirement of Bachelor of Engineering curriculum. During the last-monthly internship, we found candidate is sincere and hardworking towards the given assignment.

**TO WHOMSOEVER IT MAY CONCERN**

Devadasi, 28th August 2020

Date: 01/09/2020

**PINCORE TECHNOLOGIES INDIA PVT. LTD.**



Date: 21 Oct 2020

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Sanketshana M (1A117AS027), student of ACS College of Engineering, Bangalore - 560074, has successfully completed the internship in our organisation from 12 Sep 2020 to 21 Oct 2020.

We wish her all the best in her future endeavours.

For Sansera Engineering Limited

Vijayendra Kumar H S

Deputy Manager - HR

SANSERA ENGINEERING LIMITED

Address: Plot No. 12 & 13, 4th Phase, Sarvesh Nagar, 1st Cross Road, Tumkur Road, Bangalore - 560074. Phone: 080 2662 2222. Email: hr@sansera.com



CERTIFICATE OF INTERNSHIP

This is to certify that

**SANKET SHIVAY NEHARKAR**

was in our company as an intern from 15/09/20 to 15/10/20 in Aero Dept. department.

A company, JetAvi is a legal entity made up of an association of people, be they natural, or a mixture of both, for carrying on a commercial or industrial enterprise.

For JETAVI

VISHNU M

DEPUTY MANAGER

JETAVI ENGINEERING PVT LTD

By No. 76/2, 1st Floor, NCC Urban Windsor, Opposite to Jakkur Aerodrome, Allahsandra Village, Hebl, Yelahanka, Bengaluru, Karnataka 560064

CERTIFICATE OF INTERNSHIP

INDIAN SOCIETY FOR EDUCATION RESEARCH AND TECHNOLOGY



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

**Sarvesh J**  
JANTASOD

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT:

CSIR - National Institute for Interdisciplinary Science and Technology (NIIST), Triruvananthapuram, Kerala.

The Virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

PROBING HEAD, NIIST



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CERTIFICATE OF INTERNSHIP

INDIAN SOCIETY FOR EDUCATION RESEARCH AND TECHNOLOGY



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

**Sathya Moorthy R**  
JANTASOD

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT:

CSIR - National Institute for Interdisciplinary Science and Technology (NIIST), Triruvananthapuram, Kerala.

The Virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

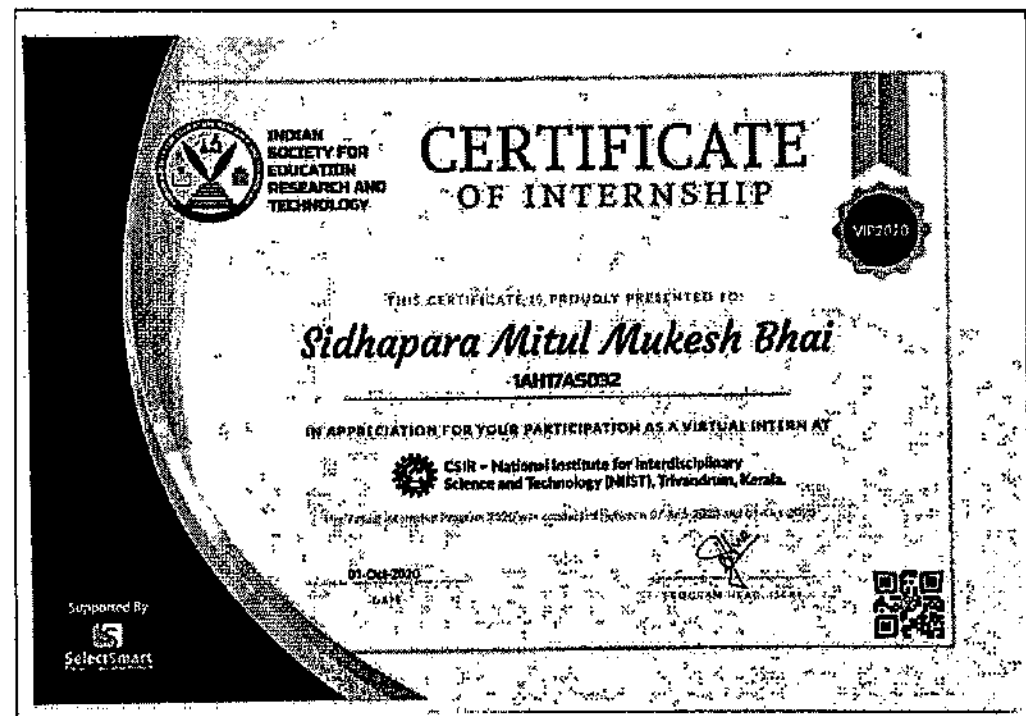
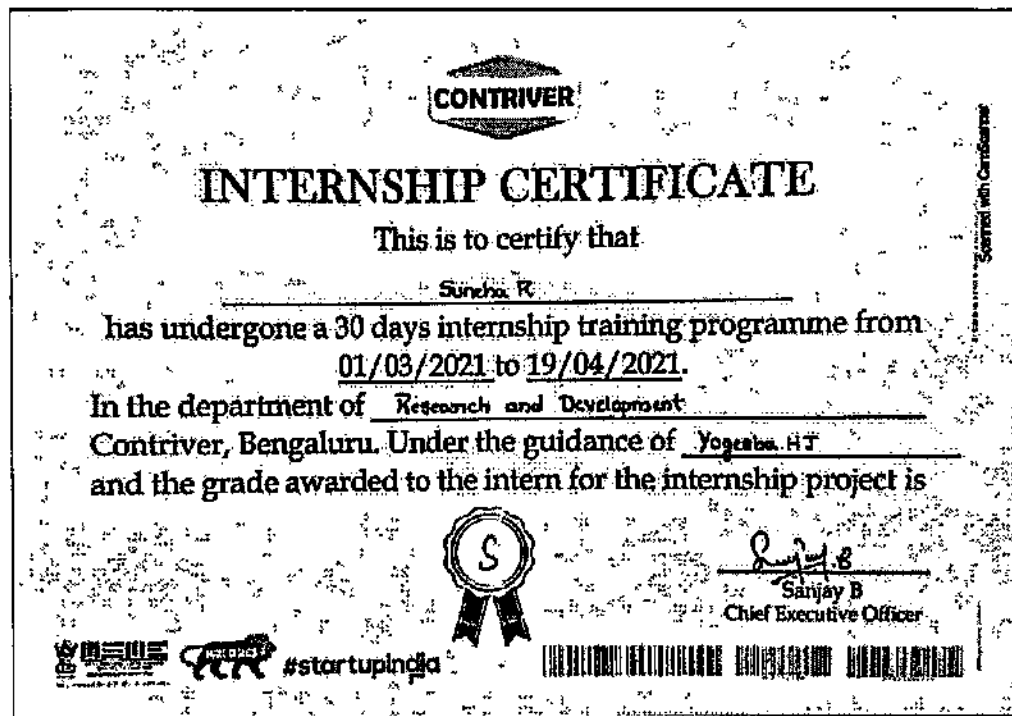
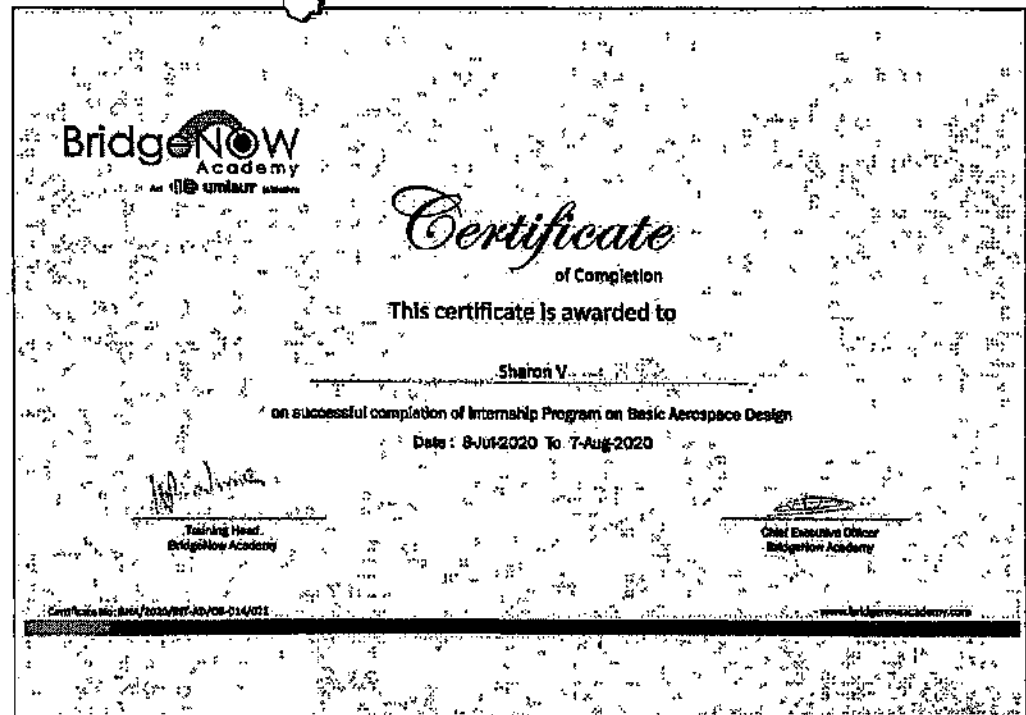
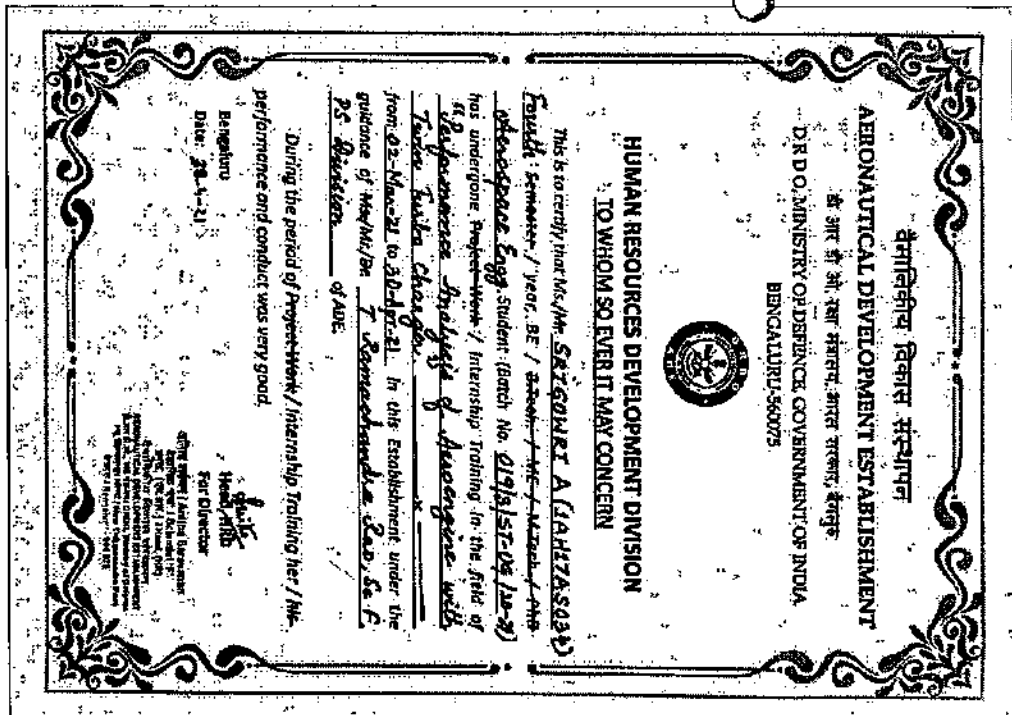
PROBING HEAD, NIIST



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Tarun K  
ACS COLLEGE OF ENGINEERING  
IAH17AS037

Intern Has Successfully Completed The Internship  
Intern Was Found To Be Good And Disciplined  
March 1st to April 15th 2021



*Signature*



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Internship provided by Machine Learning, Coding and Innovation for Good (MLA) Club, ACS College of Engineering, Coimbatore

01-04-2021



INDIAN  
SOCIETY FOR  
EDUCATION,  
RESEARCH AND  
TECHNOLOGY

# CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS HEREBY PRESENTED TO:

*Yukthashree H M*  
IAH17AS041

REAPPRECIATION FOR YOUR CERTIFICATION AS A VIRTUAL INTERNSHIP



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIST), Thiruvananthapuram, Kerala

01-04-2021

*Signature*



Date: 17-08-2020

To,  
HR Manager,  
Maini Aerospace,  
112/C,  
Bommasandra Industrial Area,  
Bangalore 560099.

Respected Sir/Madam,

**Sub: Permission request to do internship at your esteemed organisation**

With reference to the above subject, we request your kind self to grant permission to do internship for **Ms. Amrutha.H.R D/o Mr. Ramesha.H.P,** BEARING University Seat Number **1AH17AS005**, who is bonafide Student of **ACS College of Engineering.** Studying in **B.E Semester of Aerospace Engineering Branch** during the academic year 2019-2020. She bears good conduct.

She can undergo Internship at your facility, if permitted tentatively for a total of 4 weeks.

Anticipating affirmative reply from your end.

Thanking you and looking for your kind operation.

Sincerely,

Head, Dept of Aerospace Engineering

Dr. R Mukesh

  
HOD  
Department of Aerospace Engineering,  
ACS College of Engineering,  
207 Kambhira Mysore Road  
Bangalore-560074  
074

Date: 17-08-2020

To,  
HR Manager,  
Maini Aerospace,  
112/C,  
Bommasandra Industrial Area,  
Bangalore 560099.

Respected Sir/Madam,

**Sub: Permission request to do internship at your esteemed organisation**

With reference to the above subject, we request your kind self to grant permission to do internship for **Ms. Sankeerthana.M D/o Mr. Mohan Kumar**, BEARING University Seat Number **1AH17AS027**, who is bonafide Student of **ACS College of Engineering**. Studying in **B.E Semester of Aerospace Engineering Branch** during the academic year 2019-2020. She bears good conduct.

She can undergo Internship at your facility, if permitted tentatively for a total of 4 weeks.

Anticipating affirmative reply from your end.

Thanking you and looking for your kind operation.

Sincerely,

Head, Dept of Aerospace Engineering

Dr. R Mukesh

  
HOD  
Department of Aerospace Engineering  
ACS College of Engineering

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
207, Kambipura, Kengeri, Mysore Road, Bangaluru – 560074



**CERTIFICATE**

This is to certify that dissertation entitled “Analysis And Design Of Residential Tower” being submitted by **ROHIT M (1AH13CV031), GURUPRASAD G H (1AH13CV011), ZARAR ATHAR (1AH13CV044), VINAY KOTAGI (1AH13CV043)** to Visvesvaraya Technological University, Belagavi for the award of “Degree in Bachelor of Civil Engineering” is a record of bonafide work carried out by him during the year 2016 – 2017. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

*For, Umesh*  
**Mrs. Kavitha S**  
Assistant Professor  
Department of Civil Engineering

**HOD**

*[Signature]*  
**Dr. D L Venkatesh Babu**  
Head of Department  
Department of Civil Engineering

**PRINCIPAL**

*[Signature]*  
**Principal**  
**Dr. M. S. Venkatesh**  
A.C.S. College of Engineering  
Kambipura, Mysore College of Engineering, Bangalore

**Examiners**

1. **KAMALAKAARA**
2. **Dr DLV BABU**

**Signature with date**

*[Signature]*  
**29/11**  
**24/10**

# ACS COLLEGE OF ENGINEERING

## DEPARTMENT OF CIVIL ENGINEERING

#207, Kambipura, Kengeri, Mysore Road, Bengaluru - 560074



### CERTIFICATE

This is to certify that Project report entitled " SEISMIC ANALYSIS AND DESIGN OF OFFICE BUILDING "being submitted by

PRASAD . R	1AH14CV407
RAKSHITH .S . SHELLIKERI	1AH14CV410
RAMESHA . K	1AH14CV411
HARISH . V	1AH13CV405

To Visvesvaraya Technological University, Belagavi for the award of "Bachelor of Engineering" in Civil Engineering is a record of bonafide work carried out by us during the year 2016 – 2017. The report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the above said degree.

GUIDE

Mrs. UMA DEVI . R

Assistant Professor

Department of Civil Engineering  
ACS College of Engineering

HOD

Dr. DL VENKATESH BABU

Professor and Head

Department of Civil Engineering  
ACS College of Engineering

PRINCIPAL

DR. M. MURALI

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Road,  
Bangalore - 560 074

Name of Examiners

1. Dr DLV BABU
2. KAMALAKARA

Signature and Date

Dr DLV BABU  
23/6  
Kamalakar

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that dissertation entitled “**EXPERIMENTAL INVESTIGATION ON BEHAVIOUR OF CONCRETE USING RECYCLED WASTE**” being submitted by

**SHASHIDHAR GOWDA BG (1AH15CV416)**      **MAHADEVA NC (1AH15CV408)**  
**HEMASHANKAR M (1AH13CV012)**      **VENUGOPAL P (1AH13CV042)**

to Visvesvaraya Technological University, Belagavi for the award of “**Degree in Bachelor of civil engineering**”, is a record of bonafide work carried out by him during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

*Indumathy V 13/06/18*  
**Mrs. INDUMATHY V**

Assistant Professor  
Department of Civil Engineering  
ACS College of Engineering

**HOD**

*D.S. Babu*  
**Dr. D.L VENKATESH BABU**

Professor and Head  
Department of Civil Engineering  
ACS College of Engineering

**PRINCIPAL**

*Murali 14/6/18*  
**Dr. M.S MURALI**

ACS College of  
Engineering  
Bengaluru

Examiners

1. *Agalwala*
2. *Veena N*

Signature with date

*14/6/18*  
*14/6/18*

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that dissertation entitled “**INVESTIGATION ON PROPERTIES OF SCC WITH DOLOMITE POWDER**” being submitted by

**SUSHMA K (1AH13CV040)**

**PRAKRUTHI H (1AH13CV025)**

**ROHIT K (1AH13CV030)**

**MAHESH BABU (1AH13CV018)**

to Visvesvaraya Technological University, Belagavi for the award of “**DEGREE IN BACHELOR OF CIVIL ENGINEERING**”, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

  
**Mrs. INDUMATHY V**

**ASSISTANT Professor**  
Department of Civil Engineering  
ACS College of Engineering

  
**Dr. D.L VENKATESH BABU**

**Professor and Head**  
Department of Civil Engineering  
ACS College of Engineering

**PRINCIPAL**

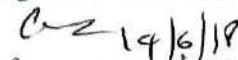
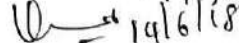
  
**Dr. M. S MURALI**  
**Principal**

**A.C.S. College of Engineering**  
Kambipura, Mysuru Road, Kengeri Hoalli,  
Bengaluru - 560 074

**Examiners**

1.  **Gayathri**
2.  **Veena N**

**Signature with date**



**ACS COLLEGE OF ENGINEERING**


**DEPARTMENT OF CIVIL ENGINEERING**


**#207, Kambipura, Kengeri, Mysore Road, Bengaluru – 560074**




**CERTIFICATE**

This is to certify that seminar report entitled **“EXPERIMENTAL INVESTIGATION ON THE BEHAVIOUR OF STEEL FIBRE REINFORCED CONCRETE”** being submitted, by **Monika Bhargavi A R (1AH14CV025), Rohith K N (1AH15CV412), Manjunatha V (1AH14CV021), Yuvaraj T S (1AH14CV048)** to Visvesvaraya Technological University, Belagavi for the award of **“Bachelor of Engineering”** in Civil Engineering, is a record of bonafide work carried out by him during the year 2017– 2018. The report has been approved as it satisfies the academic requirement in respect of Seminar work prescribed for the above said degree.

  
**GUIDE**  
**MRS. KAVITHA S**  
Assistant Professor  
Of dept civil engineering

**HOD**   
**Dr. D L VENKATESH BABU**  
Professor and Head of dept of civil  
engineering  
ACS College of Engineering

  
**Principal**  
**Dr. M SMURALI**  
ACS College of  
Engineering

DEPARTMENT OF CIVIL ENGINEERING  
207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



## CERTIFICATE

This is to certify that dissertation entitled “**OPTIMIZATION OF RESERVOIR OPERATION USING LINEAR PROGRAMMING**” being submitted by

**MAHESH N (1AH14CV020)**

**VANAJAKSHI H (1AH14CV044)**

**POOJA N (1AH14CV030)**

**SRINIVAS MURTHY H S (1AH15CV417)**

to Visvesvaraya Technological University, Belagavi for the award of “**DEGREE IN BACHELOR OF CIVIL ENGINEERING**”, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

*B.C.V*  
**GUIDE**

**Dr. KUMAR RAJU B C**

Associate Professor  
Department of Civil Engineering  
ACS College of Engineering

*D.S.S*  
**HOD**

**Dr. D.L VENKATESH BABU**

Professor and Head  
Department of Civil Engineering  
ACS College of Engineering

*Murali*  
**PRINCIPAL**

**Dr. M. S MURALI**

ACS College of  
Engineering  
Bengaluru

- Examiners
1. *Rajathina*
  2. *Veena N*

Signature with date

*By 17/05/18*

*W → 14/6/18*

207, Kambipura, Kengeri, Mysore Road, Bangalore - 560074



## CERTIFICATE

This is to certify that dissertation entitled **“PERFORMANCE OF PERVIOUS CONCRETE PAVEMENT”** being submitted by

**MEGHESH (1AH12CV010)**

**RAVINDRA KUMAR (1AH12CV014)**

**VINAY (1AH12CV022)**

**BALAJI B V (1AH12CV025)**

to Visvesvaraya Technological University, Belagavi for the award of **“DEGREE IN BACHELOR OF CIVIL ENGINEERING”**, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

*S. S. 13/6/18*  
**Mrs. KAVITH S**

Associate Professor  
Department of Civil Engineering  
ACS College of Engineering

**HOD**

*[Signature]*  
**Dr. D.L VENKATESH BABU**

Professor and Head  
Department of Civil Engineering  
ACS College of Engineering

**PRINCIPAL**

*[Signature]*  
**Dr. M. S MURALI**

Principal  
ACS College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

**Examiners**

1. **KAMALAKARA**
2. **Gayathri S**

**Signature with date**

*[Signature]*

*[Signature]*  
13/6/18

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

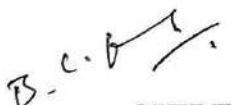
This is to certify that dissertation entitled “**STUDIES ON FRESH AND HARDENED PROPERTIES OF M-20 GRADE CONCRETE USING RECYCLED RMC WASTE COARSE AGGREGATES**” being submitted by

**PRAGATHI R (1AH14CV031)**

**HAMSASHRIS (1AH14CV015)**

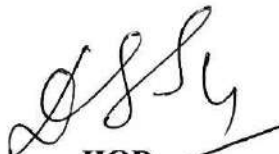
**BHARAT N (1AH14CV008)**

to Visvesvaraya Technological University, Belagavi for the award of “**DEGREE IN BACHELOR OF CIVIL ENGINEERING**”, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
**GUIDE**

**Dr. KUMAR RAJU B C**

Associate Professor  
Department of Civil Engineering  
ACS College of Engineering

  
**HOD**

**Dr. D.L VENKATESH BABU**

Professor and Head  
Department of Civil Engineering  
ACS College of Engineering

  
**PRINCIPAL**

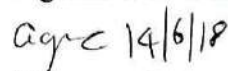
**Dr. M. S MURALI**

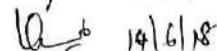
ACS College of  
Engineering  
Bengaluru

Examiners

1. Gayathri. A
2. Veena N

Signature with date

 14/6/18

 14/6/18

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
 227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that project report entitled **“STUDIES ON FRESH AND HARDENED PROPERTIES OF M-20 GRADE CONCRETE USING RECYCLED RMC WASTE COARSE AGGRGATES”** being submitted by **Mr. MOHAN KUMAR K** bearing **USN: 1AH15C409**, to Visvesvaraya Technological University, Belagavi for the award of **“BACHELOR OF ENGINEERING”** in Civil Engineering, is a record of bonafide work carried out by him during the year 2017-2018. The report has been approved as it satisfies the academic requirement in respect of Seminar work prescribed for the above said degree.

*for. M. K. B.*  
**GUIDE**

**Dr. KUMAR RAJU B. C. Dr. SANJEEV GADAD**

Associate Professor  
 Department of Civil Engineering  
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Associate Professor  
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*G. V. K.*  
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**Dr. D.L VENKATESH BABU**  
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1. *H. Nataraj kumar*
2. **DR SHARMILA GV**

*H. Nataraj kumar*  
*G. V. K.*  
 3/12/19

**ACS COLLEGE OF ENGINEERING**  
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207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that dissertation entitled **“RAINFALL RUNOFF MODELLING USING ARTIFICIAL NEURAL NETWORK”** being submitted by

<b>THRIVENI P</b>	<b>(1AH15CV418)</b>	<b>HARSHITHA H</b>	<b>(1AH14CV016)</b>
<b>DEEKSHITH N</b>	<b>(1AH14CV014)</b>	<b>NAGAPPA</b>	<b>(1AH15CV410)</b>

to Visvesvaraya Technological University, Belagavi for the award of **“Degree in Bachelor of civil engineering”**, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.



**GUIDE**

**Dr. SANJEEV GADAD**  
Associate Professor  
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**Examiners**

- 1) *Gayathri G*
- 2) *Veena N*

**Signature**



*14/06/18*



*14/6/18*

# ACS COLLEGE OF ENGINEERING

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### CERTIFICATE

This is to certify that dissertation entitled **“PERFORMANCE AND EVALUATION OF SELF COMPACTING GEO POLYMER CONCRET”** being submitted by

**ANJAN KUMAR S (1AH13CV004)**

**JASHWANTH D E (1AH14CV017)**

**RAJESH KUMAR J (1AH15CV411)**

to Visvesvaraya Technological University, Belagavi for the award of **“DEGREE IN BACHELOR OF CIVIL ENGINEERING”**, is a record of bonafide work carried out by them during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE & HOD**

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Professor and Head

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**PRINCIPAL**

**Dr. M. S MURALI**

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Bengaluru

Examiners

1.

Signature with date

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
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**CERTIFICATE**

This is to certify that dissertation entitled "**Experimental Investigation on Flexural Behavior of Bamboo Reinforced Concrete Members**"  
being submitted by

**Neelamma Mahantagouda Patil** 1AH14CV028      **Kavitha S N** 1AH15CV406  
**Chetan S Mellalli** 1AH15CV401      **Diwakar M** 1AH15CV403

to Visvesvaraya Technological University, Belagavi for the award of "**Degree in Bachelor of civil engineering**", is a record of bonafide work carried out by us during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
GUIDE

**Mrs. KAVITHA S**  
Assissant Professor  
Department of Civil Engineering  
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HOD

**Dr. D.L VENKATESH BABU**  
Professor and Head  
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ACS College of Engineering


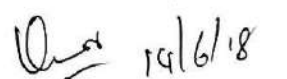
  
PRINCIPAL

**Dr. M.S MURALI**  
**A.C.S. College of Engineering**  
Kambipura - Mysuru Road - Kengeri (HOD),  
ACS College of Engineering  
Bengaluru - 560 074

**Examiner Name**

- 1) Gayathri
- 2) Veena X

**Signature**



# ACS COLLEGE OF ENGINEERING

## DEPARTMENT OF CIVIL ENGINEERING

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### CERTIFICATE

This is to certify that seminar report entitled “**PERFORMANCE EVALUATION OF STP FOR THE TREATMENT OF DOMESTIC WASTEWATER AT RAJARAJESHWARI MEDICAL COLLEGE AND HOSPITAL PREMISES**” being submitted, by **Rachana M D (1AH14CV032), Prasad J (1AH13CV413), Manjunath T (1AH14CV404), Suraj Hiremath (1AH14CV041)** to Visvesvaraya Technological University, Belagavi for the award of “**Bachelor of Engineering**” in Civil Engineering, is a record of bonafide work carried out by us during the year 2017– 2018. The report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the above said degree.

#### GUIDE

*Gayathri G*

**Mrs. GAYATHRI G**

Assistant Professor

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#### HOD

*Dr. D L Venkatesh Babu*

**Dr. D L VENKATESH BABU**

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#### PRINCIPAL

*M S Murali*  
13/6/18

**Dr. M S MURALI**

Professor

ACS College of Engineering

Name of The Examiners

1. KANALAKARA
2. Gayathri. G

Signature & Date

*Kanalakara*  
*Gayathri G*  
13/6/18

**DEPARTMENT OF CIVIL ENGINEERING**  
207, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



## CERTIFICATE

This is to certify that dissertation entitled “**ANALYSIS AND DESIGN OF MULTI-STORIED RESIDENTIAL BUILDING**” being submitted by

**BHUVANA D (1AH13CV007)**  
**YASAR ARAFATH M (1AH14CV047)**

**DARSHAN H K (1AH14CV013)**  
**ABHINAND T M (1AH15CV400)**

to Visvesvaraya Technological University, Belagavi for the award of “**Degree in Bachelor of civil engineering**”, is a record of bonafide work carried out by him during the year 2017 – 2018. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
**GUIDE**

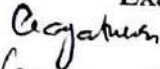

**Prof. SHIVA SHANKAR K M**  
Associate Professor  
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**HOD**

**Dr. D.L VENKATESH BABU**  
Professor and Head  
Department of Civil Engineering  
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**PRINCIPAL**

**Dr. M. S MURULI**  
ACS College of  
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Bengaluru

Examiners  
1.   
2. 

Signature with date  
  


**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074




**CERTIFICATE**

This is to certify that the project report on “**STABILIZATION OF BLACK COTTON SOIL**” being submitted by **CHETAN N**, bearing **USN: 1AH15CV007**, **SANJAY R** bearing **USN: 1AH15CV033** and **SHREYAS G** bearing **USN: 1AH15CV036**.

To Visvesvaraya Technological University, Belagavi for the award of “**Degree in Bachelor of Civil Engineering**” is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

  
**Dr. KUMAR RAJU B C**  
Associate Professor  
Department of Civil Engineering

**HOD**

  
**Dr. D L VENKATESH BABU**  
Professor and Head  
Department of Civil Engineering

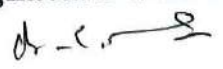

**PRINCIPAL**

  
**Dr. M S MURALI**  
ACS College of  
Engineering, Bangalore

**Examiners**

1. 
2.   


**Signature with date**

 12/6/20  
 12/6

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that the project report on "**MANUFACTURING OF BRICK FROM WASTE PLASTIC**" being submitted by **DARSHAN C G**, bearing USN: **1AH15CV011**

To Visvesvaraya Technological University, Belagavi for the award of "**Degree in Bachelor of Civil Engineering**" is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

*S. Kavitha*  
15/6/19

**Dr. S. KAVITHA**  
Associate Professor

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**HOD**

*Gayathri (for)*

**Dr. D L VENKATESH BABU**  
Professor and Head

Department of Civil

**PRINCIPAL**

*Murali*  
15/6/19

**Dr. M S MURALI**  
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**Examiners**

**Signature with date**

1.

*Gayathri G*

*15/6/19*

2.

*PRASHANTH  
GCE, Ramangudi*

*15/6*

ACS COLLEGE OF ENGINEERING  
BANGALORE-560074



Department of Civil Engineering

**CERTIFICATE**

Certified that the project work entitled "AN EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF CEMENT AND FINE AGGREGATES BY STAINLESS STEEL SLAG" carried out by RAKSHITH N (1AH14CV033), THARUN S NIKKAM (1AH14CV043), PRABHUDEV N S (1AH15CV030), CHANDAN KISHORE K (1AH16CV402) are bonafide students of ACS College Of Engineering in partial fulfillment for the award of Bachelor of Engineering in Civil Engineering stream of Visvesvaraya Technological University Belagavi, during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

  
GUIDE

Mrs. PALLAVI H J  
Assistant Professor  
Department of Civil Engineering

  
HOD (JSE)

Dr. D L VENKATESH BABU  
Professor and Head of  
Department of Civil Engineering

  
PRINCIPAL

Dr. M S MURALI  
ACS College of  
Engineering, Bangalore

Examiners

1. Gayathri
2. Praveen  
GUER

Signature with date

  
15/6/19

  
15/6

ACS COLLEGE OF ENGINEERING  
BANGALORE-560074



Department of Civil Engineering

**CERTIFICATE**

Certified that the project work entitled “EXPERIMENTAL STUDY ON AUTOCLAVED AERATED CONCRETE BLOCKS” carried out by Adhithya (1AH14CV050), Abhishek R Naik (1AH16CV400), Mohan Kumar K M (1AH16CV413), Chethan H R (1AH16CV429) are bonafide students of ACS College Of Engineering in partial fulfillment for the award of Bachelor of Engineering in Civil Engineering stream of Visvesvaraya Technological University Belagavi, during the academic year 2018–2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project work report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

*BM. Shiva Shankar*  
Guide

Mr. SHIVA SHANKAR K M  
Assistant Professor  
Department of Civil Engineering

*Gayathri*  
HOD

Dr. D L VENKATESH BABU  
Professor and Head Of  
Department of Civil Engineering

*Murali*  
Principal 14/12

Dr. M S MURALI  
ACS College of  
Engineering, Bangalore

Examiners

1. *Gayathri*
2. *PRAKASH B  
GUR*

Signature with date

*Gayathri 14/12/19*  
*Praakash B*  
*GU*

# ACS COLLEGE OF ENGINEERING BANGALORE-560074



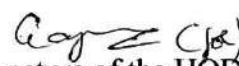
## Department of Civil Engineering

### CERTIFICATE

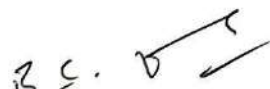
Certified that the project work entitled "AN ASSESSMENT OF GROUNDWATER QUALITY IN AND AROUND KENGERI (Bangalore)" carried out by Mr. MANIKANDAN J, NAGARAJA KC, VIJAY K bearing USN 1AH16CV426, 1AH16CV414, 1AH16CV420. A bonafide student of **ACS College Of Engineering** in partial fulfilment for the award of Degree in Bachelor of Engineering in **Civil Engineering** stream of **Visveswararajah Technological University**, Belagavi during the academic year **2018-2019**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Signature of the Principal

**Dr. M S MURALI**  
ACS College of Engineering  
Bangalore.


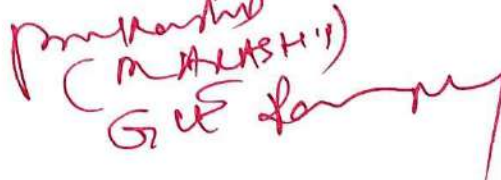
  
Signature of the HOD

**Dr. DL VENKATESH BABU**  
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Signature of the Guides

**Dr. KUMAR RAJU BC**  
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Signature of the Examiner

-   
1.   
(M. K. H. S. H. S.)  
G. U. S. S. S. S.
-

**ACS COLLEGE OF ENGINEERING  
DEPARTMENT OF CIVIL ENGINEERING**

227, Kambipura, Kengeri, Mysuru Road, Bengaluru – 560074



**CERTIFICATE**

This is to certify that dissertation entitled “**DESIGN AND ANALYSIS OF A RESIDENTIAL BUILDING BY CONSIDERING SEISMIC LOADS**”

being submitted by **SYED AL WAZZAINULLA(1AH14CV042)**

**DADA HAYATH (1AH15CV010) DIWAKAR KURMI (1AH15CV013)**

To Visvesvaraya Technological University, Belagavi for the award of “**DEGREE IN BACHELOR OF CIVIL ENGINEERING**”, is a record of bonafide work carried out by them during the year 2018-2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
**PROJECT GUIDE**

**Mrs. MAMATHA PG**  
Assistant Professor  
Department of Civil Engineering

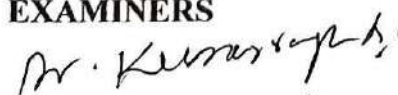

**HOD**

  
**Dr. D L VENKATESH BABU**  
Professor and Head Of  
Department of Civil Engineering


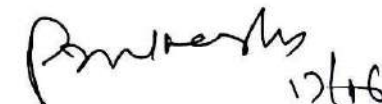
**PRINCIPAL**

  
**Dr. M S MURULI**  
ACS College of  
Engineering, Bangalore

**EXAMINERS**

1. 
2. 

**Signature with date**



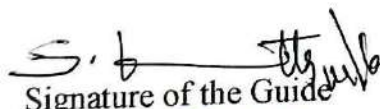
# ACS COLLEGE OF ENGINEERING BANGALORE-560074

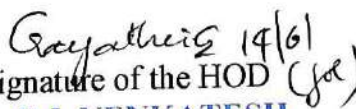


## Department of Civil Engineering

### CERTIFICATE

Certified that the project work entitled "EXPERIMENTAL STUDY ON GEOPOLYMER CONCRETE USING GGBS AND METAKAOLIN" carried out by Ms SUKRUTHA M V (1AH16CV428), Ms DIVYASHREE S (1AH16CV403), Mr SWAMY K P (1AH16CV418), a bonafide student of ACS College Of Engineering in partial fulfilment for the award of Degree in Bachelor of Engineering in Civil Engineering stream of Visveswaraiah Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Signature of the Guide  
**Dr. KAVITHA S**  
Associated Professor,  
Dept. of Civil Engineering,  
ACSCE, Bangalore



  
Signature of the HOD (ja)  
**Dr. D L VENKATESH  
BABU**  
Dept. of Civil Engineering,  
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Signature of the Principal  
**Dr. M S MURALI**  
ACSCE, Bangalore

#### Name of the Examiner

1. 
2.   


#### Signature with Date:

# ACS COLLEGE OF ENGINEERING



## CERTIFICATE

This is to certify that dissertation entitled “ANALYSIS & DESIGN OF MULTISTORIED RC BUILDING” being submitted by

**KARTHIK SWAROOP KUMAR S** (1AH15CV017)  
**PRUTHVI R** (1AH15CV031)  
**SUMA S** (1AH15CV040)  
**TEJASHWINI K N** (1AH15CV045)

To Visvesvaraya Technological University , Belagavi for the award of “**Degree in Bachelor of Civil Engineering** “ , is a record of bonafide work to be carried out by us during the year 2018-19 .The Project Report has been approved as it satisfies the academic requirement in respect to project work prescribed for the said degree.

  
**GUIDE**

**Mr. NIKHIL SHASTRY**  
Assistant Professor  
Department of Civil  
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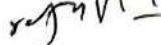
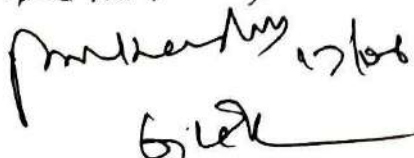
  
**HOD**

**Dr. D L VENKATESH BABU**  
Professor & Head of  
Department of Civil  
Engineering

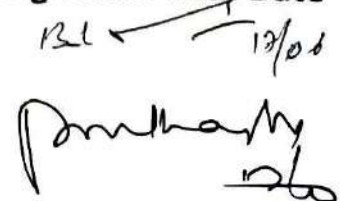
  
**PRINCIPAL**

**Dr. M S MURALI**  
ACS College of  
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Bengaluru

**Name of Examiner**

1. Dr. Kumar V 
2.   
Guide

**Signature with Date**

  
13/08



## CERTIFICATE

This is to certify that dissertation entitled

“Removal of struvite from the wastewater” being submitted by

**INCHARA BH (1AH15CV016)**

**APOORVA B (1AH15CV004)**

**LAKSHMI K (1AH15CV018)**

**NISARGA J (1AH15CV027)**

To Visvesvaraya Technological University , Belagavi for the award of “**Degree in Bachelor of Civil Engineering** “ , is a record of bonafide work to be carried out by us during the year 2018-19 .The synopsis report has been approved as it satisfies the academic requirement in respect to project work prescribed for the said degree.

*Gayathri G*  
**GUIDE**

*Gayathri G*  
**HOD 15/6/19**

*Murali*  
**PRINCIPAL**

**Mrs. GAYATHRI G**

Assistant Professor  
Department of Civil  
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**Dr. D L VENKATESH BABU**

Professor & Head of  
Department of Civil  
Engineering

**Dr. M S MURALI**

ACS College of  
Engineering,  
Bangalore

**ACS COLLEGE OF ENGINEERING  
DEPARTMENT OF CIVIL ENGINEERING**

227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**


This is to certify that the project report on “*INVESTIGATIONS ON BEHAVIOR OF STABILIZED MUD BLOCK WITH BAMBOO FIBERS*” being submitted by **RAKESH D R**, bearing USN: 1AH15CV032.


To Visvesvaraya Technological University, Belagavi for the award of “**Degree in Bachelor of Civil Engineering**” is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.


**GUIDE**

**HOD**

**PRINCIPAL**

  
**Dr. S. KAVITHA**  
Associate Professor  
Department of Civil Engineering

  
**Dr. D L VENKATESH BABU**  
Professor and Head  
Department of Civil Engineering

  
**Dr. M S MURALI**  
ACS College of  
Engineering, Bangalore

**Examiners**

**Signature with date**

1.   
Dr. K. S. RAMESH

  
15/12/18

2.   
Dr. K. S. RAMESH

  
12/12/18

**ACS COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that the project report on “ANALYSIS OF HYBRID POWER GENERATION SYSTEM ON ACS CAMPUS” being submitted by NAVYASHREE A N (1AH15CV024), JAFAR PINJAR (1AH16CV408), LAVANYA B V (1AH15CV051), SWAPNIL PATIL (1AH15CV042). To Visvesvaraya Technological University, Belagavi for the award of “Degree in Bachelor of Civil Engineering” is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

*B.M. Shiva Shankar*  
**Mr. SHIVA SHANKAR K M**  
Assistant Professor  
Department of Civil Engineering

**HOD**

*D.L. Venkatesh Babu*  
**Dr. D L VENKATESH BABU**  
Professor and Head  
Department of Civil Engineering

**PRINCIPAL**

*Murali*  
**Dr. M S MURALI**  
ACS College of  
Engineering, Bangalore

**Examiners**

- D. Kumar*
- P. Srinivas*  
*G. R.*

**Signature with date**

*B. C. Srinivas*  
*P. Srinivas*  
12/06



Department of Civil Engineering

CERTIFICATE

Certified that the project work entitled "STRENGTHENING OF DISTRESSED CONCRETE CYLINDERS USING CARBON FIBER REINFORCED POLYMER" carried out by Ms. RASHMI J (1AH16CV427), Ms. PAVITHRA K (1AH15CV029), Ms. NEELAVENI C (1AH15CV025), Ms. MUTHUSNEHA V(1AH15CV021), a bonafide student of ACS College Of Engineering in partial fulfilment for the award of Degree in Bachelor of Engineering in Civil Engineering stream of Visveswaraiah Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*[Signature]*  
Signature of the Guide  
**Dr. D L VENKATESH BABU**  
Professor and Head  
Department of Civil Engineering,  
Bangalore

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Signature of the HOD  
**Dr. D L VENKATESH BABU**  
Professor and Head  
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Bangalore

*[Signature]*  
Signature of Principal  
**Dr. M S MURALI**  
ACSCE, Bangalore

Name of the Examiner  
1. *[Signature]*  
.....  
2. *[Signature]*  
.....  
*[Signature]*

Signature with Date:  
*[Signature]* 12/6  
*[Signature]* 12/6

ACS College of Engineering, Bengaluru-560074

## ACS COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



### CERTIFICATE

This is to certify that project report entitled “DESIGN AND ANALYSIS OF OFFICE BUILDING USING ETABS” being submitted by Mr.ABHISHEK R bearing USN 1AH14CV001, to Visvesvaraya Technological University, Belagavi for the award of “BACHELOR OF ENGINEERING” in Civil Engineering, is a record of bonafide work carried out by him during the year 2018-2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the above said degree.

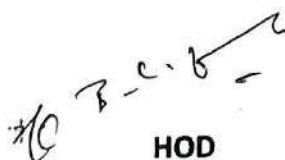
  
GUIDE

MR.NIKHIL S SASTRY

Assistant Professor

Department of Civil Engineering

ACS College of Engineering

  
HOD

Dr. D.L VENKATESH BABU

Professor and Head

Department of Civil Engineering

ACS College of Engineering

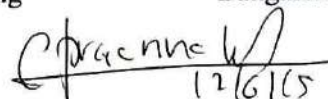
  
PRINCIPAL

DR M.S MURALI

Principle

Acs college of engineering

Bangalore -79

External Examiner:   
12/6/15

**ACS COLLEGE OF ENGINEERING  
DEPARTMENT OF CIVIL ENGINEERING**

227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that the project on “STABILIZATION OF BLACK COTTON SOIL” being submitted by **BHASKARA T**, bearing **USN: 1AH15CV005**.

To Visvesvaraya Technological University, Belagavi for the award of “**Degree in Bachelor of Civil Engineering**” is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

**GUIDE**

**Dr. KAVITHA**

Professor and Head

Department of Civil Engineering

**HOD**

**Dr. KAVITHA**

Professor and Head

Department of Civil Engineering

**PRINCIPAL**

**Dr. M S MURALI**

ACS College of

Engineering, Bangalore

**Examiners**

1. *H. narendra kumar*
2. *SHARMIKA*

**Signature with date**



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**DEPARTMENT OF CIVIL ENGINEERING**  
227, Kambipura, Kengeri, Mysuru Road, Bengaluru - 560074



**CERTIFICATE**

This is to certify that project report entitled “**DEFLUORIDATION OF GROUND WATER USING LOW COST ADSORBENTS**” being submitted by **Mr.MUTHESH GOWDA M J** bearing **USN 1AH14CV026**, to Visvesvaraya Technological University, Belagavi for the award of “**BACHELOR OF ENGINEERING**” in Civil Engineering, is a record of bonafide work carried out by him during the year 2018-2019. The report has been approved as it satisfies the academic requirement in respect of Seminar work prescribed for the above said degree.

**GUIDE**

**GAYATHRI G**

Associate Professor  
Department of Civil Engineering  
ACS College of Engineering.

**PRINCIPAL**

**DR MS.MURALI** 12/10/18

ACS College of engineering  
bangalore

**Principal**

**A.C.S. College of Engineering**  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

**HOD**

**Dr. D.L VENKATESH BABU**

Professor & Head of  
Department of Civil Engineering  
ACS College of Engineering.

**Examiners**

- 1.
- 2.

**Signature with date**

  
12/6/19  
  
12/6/19  
2

**ACS COLLEGE OF ENGINEERING**

Bengaluru – 560074

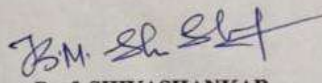
**Department of Civil Engineering**



**CERTIFICATE**

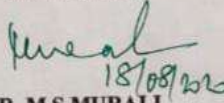
Certified that this Technical seminar presentation being made by MEGHA A NIMBALKAR bearing USN 1AH16CV024 , a bonafied student of ACS college of engineering in partial fulfillment for the award of bachelor degree in Civil engineering of Vishvesvaraya Technological University, Belagavi is a Reoprt of the activities undertaken by him during the period 08<sup>TH</sup> JULY to 07<sup>th</sup> AUGUST 2019 .

**GUIDE**



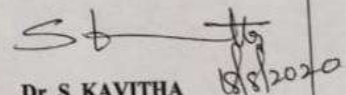
**Prof. SHIVASHANKAR**  
Assistant Professor  
Civil Engineering

**PRINCIPAL**

  
18/08/2020

**DR. M S MURALI**  
ACS College Of  
Engineering, Bengaluru

**HOD**

  
18/8/2020

**Dr. S. KAVITHA**  
Professor and HOD of  
Civil Engineering

**ACS College of Engineering, Bangalore-74**  
**Department Of Civil Engineering**  
#207, Kambipura, Kengeri, Mysore Road, Bangaluru-560074



**CERTIFICATE**

This is certify that the project on “Comparative study on pervious concrete using hybrid fibers” has been successfully carried out by **K N THRIVENI (1AH16CV018)**, **SRUJAN S (1AH15CV037)**, **HARSHITHA H K (1AH16CV014)** , **SANCHITHA C J (1AH16CV036)** in partial fulfillment of 8<sup>th</sup> semester B.E. Civil Engineering during the academic year 2019-2020 prescribed by the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** for the award of “Bachelor of Civil Engineering”

Signature of Guide

**Prof .VISHAL B V**

Department Of Civil Engineering,  
ACSCE, Bangalore-74

Signature of HOD

**Dr. S Kavitha**

Department Of Civil Engineering,  
ACSCE, Bangalore-74

Signature of Principal

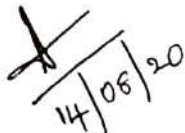
**Dr. M S Murali**

ACSCE, Bangalore-74

# CERTIFICATE



This is to certify that the Project work (15CV85) “HYBRID FIBER REINFORCED CONCRETE USING STEEL FIBER AND GLASS FIBER IN SELF COMPACTING CONCRETE (SCC)” has been successfully carried out by JAINUL HABID P N (1AH16CV016), SHARATH U B (1AH16CV040), VIVEK K R (1AH16CV048) and RAKESH RANJAN (1AH16CV029) to Visvesvaraya Technological University, Belagavi for the award of “Degree in Bachelor of Civil Engineering” is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
14/06/20

Signature of the guide

**Prof. ANJU ANNE VARGHESE**

Asst. Professor

Department of Civil Engg.

  
14/6/2020

Signature of HOD

**Dr. S. KAVITHA**

HOD

Department of Civil Engg.

  
14/6/2020

Signature of Principal

**Dr. M S MURALI**

Principal

ACSCE

**Examiners**

**Signature with date**

1.

2.

**ACS College of Engineering, Bangalore-74**

**Department Of Civil Engineering**

#207, Kambipura, Kengeri, Mysore Road, Bangaluru-560074



**CERTIFICATE**

This is to certify that the “Fluoride removal in drinking water using low cost adsorbent” has been successfully carried out by **MARY SHUBA M S (IAH14CV023), SUPRITHA K N (IAH14CV040), AISHWARYA (IAH16CV002)** in partial fulfillment of 8<sup>th</sup> semester B.E. Civil Engineering during the academic year 2019-2020 prescribed by the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** for the award of “Bachelor of Civil Engineering”.

Under The Guidance

**Prof Gayathri G**

Department Of Civil Engineering,

ACSCE, Bangalore-74

Head of the department

**Dr. S Kavitha**

Department Of Civil Engineering,

ACSCE, Bangalore-74

Principal

**Dr. M S Murali**

ACSCE, Bangalore-74

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore road, Bangalore-74



## CERTIFICATE

This is to **CERTIFY** that the Project on “**Experimental study on glass fibers Recron3s reinforced concrete with GGBS for partial replacement of cement**” has been Successfully Carried out by,

**SADANANDA GOWDA (1AH17CV406)**


**SUSHEEL KUMAR S(1AH15CV041)**

**YOGESH.H**

**(1AH16CV049)**

**SHARATH K.G. (1AH15CV035)**

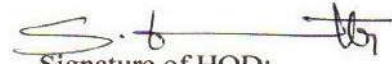
in partial fulfilment of 8th semester **B.E. Civil Engineering** during the academic year 2019-20 prescribed by the **VISVESVARAYA TECHNOLOGICALUNIVERSITY, BELAGAVI** for the award of “**Degree of civil engineering.**”

  
Signature of guide:

**ASST. PROF. MAMATHA PG.**

**Dept. of civil Engineering**

**ACSCE, Bangalore.**

  
Signature of HOD:

**DR. S KAVITHA.**

**HOD, Dept. of civil Engineering**

**ACSCE, Bangalore.**

  
Signature of Principal:

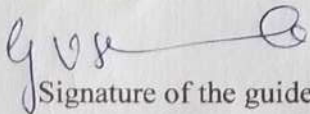
**Dr. MS. MURALI.**

**ACSCE, Bangalore**

## CERTIFICATE



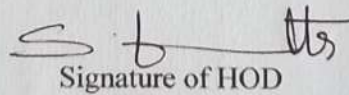
This is to certify that the Project work (15CV85) "**Experimental investigation of Ultra High performance of concrete using Alccofine and Steel fibres**" has been successfully carried out by **AYYANNA (1AH16CV006), BHARATH M N (1AH16CV008) CHANDAN (1AH16CV009) and DHANRAJ R (1AH16CV011)**, to Visvesvaraya Technological University, Belagavi for the award of "**Degree in Bachelor of Civil Engineering**" is a record of bonafide work carried out by us during the year 2018 – 2019. The report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

  
Signature of the guide

**Dr SHARMILA G V**

Associate. Professor

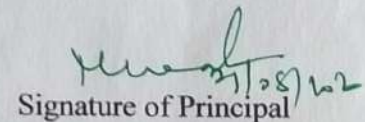
Department of Civil Engg.

  
Signature of HOD

**Dr. S. KAVITHA**

HOD

Department of Civil Engg.

  
Signature of Principal

**Dr. M S MURALI**

Principal

ACSCE

**Examiners**

**Signature with date**

1.

2.

# ACS COLLEGE OF ENGINEERING

Department of Civil Engineering

Bangalore – 560074



## CERTIFICATE

Certified that this project phase 2 synopsis report entitled "Model footing resting on surface treated coir fiber reinforced in black cotton soil overlying loose stratum" being made by VARSHA M (IAH17CV408), KIRAN KUMAR N (IAH16CV425), LIKITH R (IAH16CV410), YATHISH KUMAR R K (IAH17CV409) a bonafied students of ACS college of engineering in partial fulfillment for the award of bachelor degree in Civil engineering of Vishvesvaraya Technological University, Belagavi during acadamic year 2019-20

Signature of guide

S. Selsidevi

Signature of HOD

Dr. SKavitha

Signature of principle

M. S Murali



# ACS COLLEGE OF ENGINEERING,

Kambipura Mysore Road, Bengaluru- 560 074

## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "SIMULATION ANALYSIS OF FLUID STRUCTURE INTERACTION ON AN AIRCRAFT WING" is a Bonafede work carried out by Mr. PRAJWAL R[1AH17AE029], Mr. RAKSHITH P GOWDA[1AH17AE032], Mr. SHRAVANKUMA[1AH17AE042], Mr. VISHNUPRASAD S[1AH17AE052], in partial fulfillment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide

Mr. DhanyaPrakash R Babu  
Assoc. professor  
Dept. of Aeronautical  
Engineering  
ACSCE, Bangalore

Signature of HOD

Dr. G. Ramanan  
HOD  
Dept. of Aeronautical  
Engineering  
ACSCE, Bangalore

Signature of Principal

Dr. M. S. Murali  
Principal  
ACSCE, Bangalore

Name of the Examiner

1. Dr. G. Ramanan
2. Dr. A.K. Sankar

Signature

- 1.
- 2.

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore road, Bangalore 560 074

## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "**FLIGHT DYNAMICS MODELLING AND SIMULATION OF FLIGHT VEHICLES**" is a bonafide work carried out by Mr. NARENDRA N [IAH17AE027] and YASHWANTH T S [IAH17AE055] in partial fulfillment of the award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirement in respect of the project work prescribed for the degree.

Signature of Guide

Dr. A. K SARKAR

Professor

Dept. of Aeronautical Engineering  
ACSCE, Bangalore.

Signature of HOD

Dr. G RAMANAN

Head of the Department

Dept. of Aeronautical Engineering  
ACSCE, Bangalore.

Signature of Principal

Dr. MURALI

Principal,

ACSCE, Bangalore.

Name of the Examiner

1. Dr. G. Ramanan

2. Dr. A.K. Sankar

Signature

1.

2.

# ACS COLLEGE OF ENGINEERING,

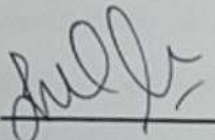
Kambipura Mysore Road, Bengaluru- 560 074

## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "Design and Analysis of Wing with and without Cropped Delta Vortex Generator" is a bonafide work carried out by Mr. NANDEESH K C (1AH17AE026), SAJALA REDDY PAVAN (1AH17AE035), SHARANA GOWDA A (1AH17AE038) in partial fulfillment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-21. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
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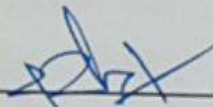
Signature of Guide

**Prof. H M Ranjan**

**Asst. professor**

Dept. of Aeronautical Engineering

ACSCE, Bangalore

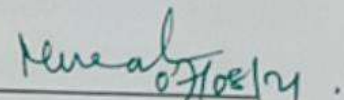
  
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Signature of HOD

**Prof. Ramanan**

Prof. & HOD, Dept. of  
Aeronautical Engineering

ACSCE, Bangalore

  
\_\_\_\_\_

Signature of Principal

**Dr. M. S. Murali**


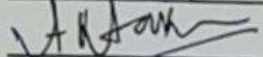
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**Principal**  
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Kambipura, Mysore Road, Kengeri Hobli  
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**Name of the Examiner**

1. Dr. G. Ramanan
2. Dr. A.K. Sankar

**Signature**

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2. 

# ACS COLLEGE OF ENGINEERING

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## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "DESIGN AND FE ANALYSIS OF HORIZONTAL TAIL STRUCTURE FOR A LIGHT BUSINESS JET AIRCRAFT" is a bonafide work carried out by Ms.Hitha.N. Babu (IAH17AE018), Mr. Joel Vince.K (IAH17AE019), Ms.Sannidhi (IAH17AE036) in partial fulfillment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

**Mr. DhanyaPrakash R B**

Assoc. Professor

Dept. of Aeronautical Engineering

ACSCE, Bangalore

Signature of HOD

**Dr. Ramanan G**

Prof. & HOD, Dept. of  
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ACSCE, Bangalore

Signature of Principal

**Dr. M. S. Murali**

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**A.C.S. College of Engineering**  
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Bangalore - 560 074

Name of the Examiner

1. Dr. G. Ramanan

2. Dr. A.K. Sarthar

Signature

1.

2.

ACS COLLEGE OF ENGINEERING,  
Kambipura Mysore Road, Bengaluru- 560 074

DEPARTMENT OF AERONAUTICAL ENGINEERING



**CERTIFICATE**

This is to certify that the dissertation work entitled "MODELLING AND SIMULATION ANALYSIS OF WING BY MODIFYING WINGLET DESIGN" is a bonafide work carried out by Ms. NIVEDITHA R [IAH17AE028], Ms. DEEPIKA M [IAH17AE014], Mr. BHUSHAN S [IAH17AE010], Mr. BHARATH KUMAR U [IAH17AE009], in partial fulfillment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide  
**Prof. Radhakrishnan**  
Asst.Prof., Dept. of  
Aeronautical Engineering  
ACSCE, Bangalore

Signature of HOD  
**Dr. G. Ramanan**  
Prof & Head, Dept. of  
Aeronautical Engineering  
ACSCE, Bangalore

Signature of Principal  
**Dr. M. S. Murali**  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Bangalore  
Bangalore - 560 074

Name of the Examiner

1. Dr. G. Ramanan
2. Dr. A. K. Sankar

Sign

- 1.
- 2.

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## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "**INTEGRATION OF BIODEGRADABLE COMPOSITES IN AIRCRAFT STRUCTURE**" is a Bonafede work carried out by Ms. AKSHATHA RD [1AH17AE003], Mr. B A SUHAS [1AH17AE007], Ms. ANANYA U MANVI [1AH17AE005], Mr. PRUTHVI D K [1AH17AE059] in partial fulfilment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide  
**Dr. G Ramanan**  
Associate Prof.,  
Dept of Aeronautical  
Engineering  
ACSCE, Bangalore

Signature of HOD  
**Dr. Ramanan G**  
Associate Prof. & Head of Department  
  
Aeronautical Engineering  
ACSCE, Bangalore

Signature of Principal  
**Dr. M. S. Murali**  
ACSCE, Bangalore  
**Principal**  
**A.C.S. College of Engineering**  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

Name of the Examiner:

1. Dr. G. Ramanan

2. Dr. A.K. Sankar

Signature:

1.

2.

# ACS COLLEGE OF ENGINEERING

Kambipura Mysore Road, Bengaluru- 560 074

## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "Fabrication and testing of mechanical properties of carbon nanofiber composite for aircraft brakes" is a Bonafede work carried out by **Mr. LOKESH N [IAH17AE023]**, **Mr. SACHIN KUMAR K [IAH17AE033]**, **Mr. SURESH V [IAH17AE044]**, **Mr. MANJUNATH B [IAH16AE020]** in partial fulfillment of award of the degree of **Bachelor of Engineering in Aeronautical Engineering**, from the **Visvesvaraya Technological University, Belagavi** during the year **2020-2021**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

**Mr. ARUN A K**

**Associate professor**

Dept. of Aeronautical Engineering

ACSCE, Bangalore

Signature of HOD

**Dr. RAMANAN G**

**Associate Prof. & HOD,**

Dept. of Aeronautical  
Engineering

ACSCE, Bangalore

Signature of  
Principal

**Dr. M. S. Murali**

ACSCE, Bangalore  
Principal

**A.C.S. College of Engineering**  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

Name of The Examiners

1. Dr. G. Ramangan

2. Dr. A.K. Sankar

# ACS COLLEGE OF ENGINEERING

Kambipura Mysore Road, Bangalore- 560 074

## DEPARTMENT OF AERONAUTICAL ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "Design Analysis of Conventional Solar Powered Unmanned Aerial Vehicle" is a bonafide work carried out by Mr. KARTIK PATTAR (1AH17AE020), Mr. RAHUL KUMAR (1AH17AE031), Mr. SAGAR HITTALAMANI (1AH17AE034), Ms. SHAGUN KAJAL (1AH17AE037), in partial fulfillment of award of the degree of Bachelor of Engineering in Aeronautical Engineering, from the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
6/12/21

Signature of Guide

**Mr. Inamul Hasan M**

Asst. Professor

Dept. of Aeronautical Engineering

ACSCE, Bangalore

  
6/12/2021

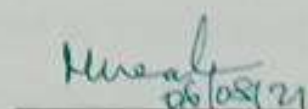
Signature of HOD

**Dr. Ramanan G**

Assoc. Prof. & HOD,

Dept. of Aeronautical Engineering

ACSCE, Bangalore

  
06/08/21

Signature of Principal

**Dr. M. S. Murali**

Principal

ACSCE, Bangalore

**A.C.S. College of Engineering**

Kambipura, Mysore Road, Kengeri Hobli,

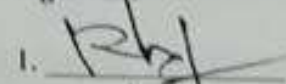
Bangalore - 560 074

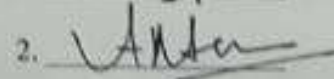
Name of the Examiner

1. Dr. G. Ramanan

2. Dr. A.K. Sarkar

Signature

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This is to certify that the dissertation work entitled “**FFT Based PSD Estimation and Digital Filter Design for smoothing Noisy Telemeter Signal**” is a bonafide work carried out by **Mr. Tejas Chandra N [1AH17AE48]**, **Mr. Yogesh K A [1AH17AE056]**, **Mr. Harsha M G [1AH17AE015]** in partial fulfillment of **Aeronautical** award of the degree of **Bachelor of Engineering in Engineering**, from the **Visvesvaraya Technological University, Belagavi** during the year **2020-2021**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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1. Dr. G Ramanan
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This is to certify that the dissertation work "Design, Analysis and Optimization of Wing Spar of NACA 65-415" is a Bonafede work carried out by HARSHITHA G [1AH17AE017] and HARSHINI G [1AH17AE016], in partial fulfilment for the award of the Degree of Bachelor of Engineering in AERONAUTICAL ENGINEERING of the Visvesvaraya Technological University, Belgaum during the year 2020-2021. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree

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This is to certify that the dissertation work **Design and numerical analysis of supersonic nozzles** is a Bonafede work carried out by **BALAJI PRJITH T [IAH17AE008]**, **CHANDAN P [IAH17ARE011]** and **CHARLES ROHAN J [IAH17AE012]**, in partial fulfilment for the award of the Degree of **Bachelor of Engineering in AERONAUTICAL ENGINEERING** of the Visvesvaraya Technological University, Belgaum during the year 2020-2021. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree

  
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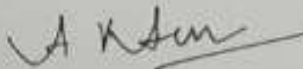
  
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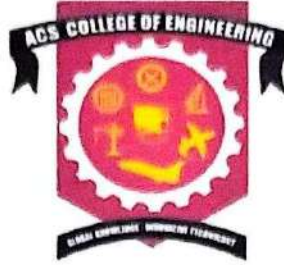
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**Academic Year: 2020-2021**

**CERTIFICATE**

This is to certify that ASHWINI N (1AH16CV005), POOJA S R (1AH16CV027), NAGARJUN L (1AH15CV022), VEDAN B S (1AH15CV047) have submitted the project work report entitled, "**VETIVER SYSTEM**". They have satisfactorily completed the project work prescribed by VISHVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM for VIII semester B.E in CIVIL ENGINEERING in this institute for the academic year 2020-2021.


  
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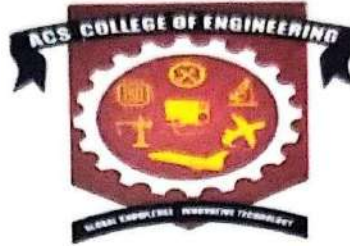
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This is to certify that the Project Work entitled, “PARTIAL REPLACEMENT OF CEMENT WITH GLASS POWDER IN CONCRETE”, prepared by AJAY KEERTHI B(1AH15CV002), GOVARDHAN C(1AH15CV014) AND SYED AZEEM MOHIUDDIN(1AH15CV044) a Bonafede student of ACS college of Engineering, in partial fulfilment of the requirements for the award of Bachelor of Civil Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2020-21

It is certified that all the corrections and suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements prescribed for the said degree.

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Gayathri (F/C) 7/18/21

**Prof. GAYATHRI G**

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Murali 07/08/21

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Principal

**External examiner**

Name \_\_\_\_\_

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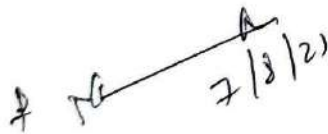
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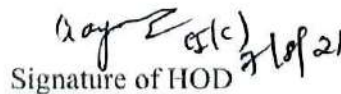


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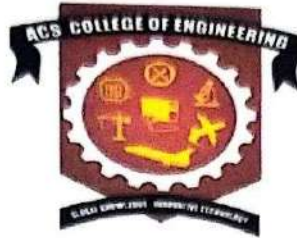


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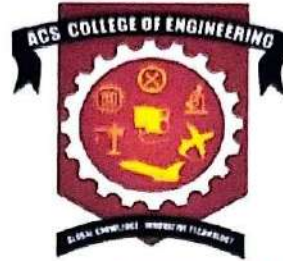
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*Gayathri*  
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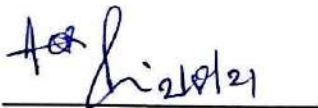
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This is to certify that the dissertation work “EXPERIMENTAL STUDY OF WASTE TO WEALTH GEOPOLYMER CONCRETE” is a bonafide work carried out by **Rakesh S (1AH17CV030)**, **Venkatesh (1AH18CV403)**, **Vinod Kumar(1AH18CV404)** and **Yeshwanth N(1AH17CV050)**, in partial fulfilment for the award of the Degree of **Bachelor of Engineering in CIVIL ENGINEERING** of the **Visvesvaraya Technological University, Belgaum** during the year 2020-2021. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.


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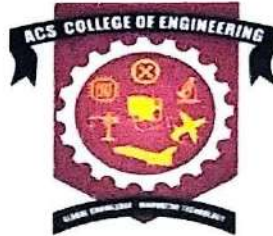
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This is to certify that **SHA ZEESHAN (1AH15CV034), GIRISH CHOUL (1AH16CV013), HEMANTH KALMANI (1AH16CV015), HARISH K R (1AH16CV407)** have submitted the project work report entitled, **“DESIGN AND ANALYSIS OF A RESIDENTIAL BUILDING”**. They have satisfactorily completed the project work prescribed by **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM** for VIII semester B.E curriculum of **CIVIL ENGINEERING** in this institute for the academic year 2020-2021.

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Name of the Examiners

Signature & Date

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RESEARCH AND  
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*Abhirami K*

**1AH17A5002**

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CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

The Virtual internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020.

01-Oct-2020

DATE

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*Ajay Yalameli*

**1AH17A5003**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

The Virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

DATE

PROGRAM HEAD, ISERT



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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Amrutha HR*

**1AH17AS005**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
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# *Certificate*

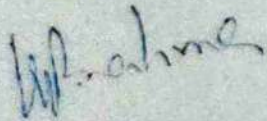
of Completion

This certificate is awarded to

Anushree R Koushik

on successful completion of Internship Program on Basic Aerospace Design

Date : 8-Jul-2020 To 7-Aug-2020



Training Head  
BridgeNow Academy



Chief Executive Officer  
BridgeNow Academy



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EDUCATION  
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TECHNOLOGY

# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Arpitha M B*

**1AH17A5007**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
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01-Oct-2020

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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Chandana Mj*

**1AH17AS009**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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Science and Technology (NIIST), Trivandrum, Kerala.

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01-Oct-2020

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# CERTIFICATE OF INTERNSHIP

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THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*CHANDU C P*

**1AH17A5010**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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# CERTIFICATE OF INTERNSHIP

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THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Dhansingh Bhandari J*  
**1AH17A5011**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*JAGADISH J*

**1AH17A5013**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

The Virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

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Date- 12/09/2020

**TO WHOMSOEVER IT MAY CONCERN**

**INTERNSHIP CERTIFICATE**

This is to certify that *Jayadrath Sudhakar Poojary, ( USN 1AH17AS014), Department of Aerospace Engineering, A C S College of Engineering, Bengaluru* was working as an intern with us from 03/08/2020 to 11/09/2020.

He has successfully completed the internship and was assigned the below duties.

- 1) Conducted Online Drone Ground Classes
- 2) Conducted on-field Drone Pilot training.

During the duration of the internship with us he was found to be punctual, resourceful and enterprising. We wish him success for all his future endeavors.

Yours cordially,

For JANE AEROSPACE PVT. LTD.

*Managing Director*

(Leo Peter Charles)  
Managing Director  
Jane Aerospace Pvt Ltd.



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# CERTIFICATE OF INTERNSHIP



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Jiji C Joy*  
**1AH17A5015**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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Science and Technology (NIIST), Trivandrum, Kerala.

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# CERTIFICATE OF INTERNSHIP

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THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Jijin P Savyar*

**1AH17AS016**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*M Ashok Kumar*

**1AH17A5017**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Mahendar B. S*

**1AH17AS018**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

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01-Oct-2020

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ವಿಮಾನ ಸಂಶೋಧನೆ ಮತ್ತು ವಿನ್ಯಾಸ ಕೇಂದ್ರ (ಎ ಆರ್ ಡಿ ಸಿ)  
विमान अनुसंधान एवं अभिकल्प केन्द्र (ए आर डी सी)  
AIRCRAFT RESEARCH & DESIGN CENTRE (ARDC)  
ವಿನ್ಯಾಸ ಸಂಕೀರ್ಣ / ಅಭಿವ್ಯಕ್ತಿ ಕಾಂಪ್ಲೆಕ್ಸ್ / DESIGN COMPLEX  
ಹಿಂದೂಸ್ತಾನ್ ಏರೋನಾಟಿಕ್ಸ್ ಲಿಮಿಟೆಡ್  
हिन्दुस्तान एरोनॉटिक्स लिमिटेड  
HINDUSTAN AERONAUTICS LIMITED



ಮಾರಾಠ್ ಹಳ್ಳಿ ಪೋಸ್ಟ್, ಬೆಂಗಳೂರು - 560 037, ಭಾರತ  
भारतहल्ली पोस्ट, बेंगलूरु - 560 037, भारत  
Marathahalli Post, Bengaluru - 560 037, India  
ದೂರ / ದೂರವಾಣಿ / Ph.: 91 - 80 - 2232 4312, 2231 6774  
ಫ್ಯಾಕ್ಸ್ / ಫೇಕ್ಸ್ / Fax: 91 - 80 - 2231 4320

D/ARDC/HR/Proj/Cert/1816/21

16.04.2021

## CERTIFICATE

This is to certify that **Mr Minhazul Hussain** who is a student of B.E (Aeronautical & Aerospace), ACS College of Engineering, Bengaluru, has undergone **Internship Training** at HAL ARDC, Design Complex, Bengaluru from 19-03-2021 to 16-04-2021 on "**No-Pay-No-Fee-Basis**" he has been punctual, sincere and committed trainee. His conduct has been Very Good.

The student brings in a lot of energy and enthusiasm in the work, he is structured in his approach and methodical in resolving a problem. He is resourceful and adaptive to working environment.



  
(Prachi Dalvi)  
Dy. Manager (HR)  
ARDC, Design Complex.

ನೋಂದಾಯಿತ ಕಛೇರಿ : 15/1, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 001, ಭಾರತ  
पंजीकृत कार्यालय : 15 /1, कब्बन रोड़, बेंगलूरु - 560 001, भारत  
Registered Office : 15 /1, Cubbon Road, Bengaluru - 560 001, India  
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SOCIETY FOR  
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TECHNOLOGY

# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Nithin B L*

**1AH17AS021**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

The Virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

DATE

PROGRAM HEAD ISERT



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# *Certificate*

of Completion

This certificate is awarded to

Prajna H N

on successful completion of Internship Program on Basic Aerospace Design

Date : 8-Jul-2020 To 7-Aug-2020



Training Head  
BridgeNow Academy



Chief Executive Officer  
BridgeNow Academy

# PINCORE TECHNOLOGIES INDIA PVT. LTD.



Certificate ID: PCINTRB1853

Date: 01.09.2020

## TO WHOM SOEVER IT MAY CONCERN

This is to certify that **Mr. R SAI BHUVAN [IAH17AS024]** student of ACS COLLEGE OF ENGINEERING BANGALORE, has undertaken and successfully completed four weeks of internship on **“Exploring the Landscape of Machine Learning and AI at the edge of Industrial Automation”** at Pincore Communal - A subcaudal of Pincore Technologies India Pvt. Ltd., as part of fulfilment of requirements of Bachelor of Engineering curriculum. During the internship phase, we found candidate is sincere and hardworking towards the given assignments.

We wish a successful career in future endeavours.

**Narendra Baluvanerahu Venkataramaiah**  
Chief Technical Officer  
Pincore Product Development Centre



**pincore**

#28, 1st Main Road, 1st Cross, Shakthi  
Garden, Kalyanagara, Bengaluru-72

+91 96 86 96 3065  
info@pincore.in

**Mos**  
**MACH INFINITY AEROSPACE**

**INTERNSHIP CERTIFICATE**

**ISSUE Date- 14/06/2021**

**RENISHA PEREIRA**

**This is to certify that HE/SHE, has been  
awarded this certificate on completing one  
month internship from 14th May 2021 TO 14th  
June 2021 in OUR COMPANY**

**Intern number - MI2105AE13  
Department- Aerospace**



**Any Queries: [contact@machinfinity.in](mailto:contact@machinfinity.in)  
CIN:AAX-1920**

**K. RAJU**  
**Chairman**  
**MACH INFINITY AEROSPCE**



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This Certifies that

**RUTHVIK VIJAYKUMAR JOSHI**

**A.C.S COLLEGE OF ENGINEERING**

has completed four weeks internship on

**AI FOUNDATION USING PYTHON AND DATA SCIENCE**

at our company from Date 7th Aug to 6th Sept 2020

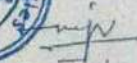
We found him / her sincere, hardworking, dedicated and result oriented.

He / She worked well as a part of the team & as an Individual during his / her tenure.

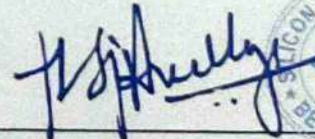
We take this opportunity to thank him / her and wish him / her all the best for the future.

  
**XIMAX**  
SKILL UNIVERSITY  
[www.ximax.in](http://www.ximax.in)



  
SHANKAR RAJU  
DIRECTOR - TRAINER  
HEBEON TECHNOLOGIES PVT LTD.,  
HYDERABAD



  
M.S.JAYACHANDRA ARADHYA  
DIRECTOR  
SILICON MICROSYSTEMS  
BENGALURU

Date: 21 Oct 2020

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that Ms. Sankeerthana M (1AH17AS027), student of ACS College of Engineering, Bengaluru - 560074, has successfully completed the internship in our organisation from 12 Sep 2020 to 21 Oct 2020.

We wish her all the best in her future endeavours.

**For Sansera Engineering Limited**



**Vijayendra Kumar H S**

**Deputy Manager - HR**

**SANSERA ENGINEERING LIMITED**

(Formerly Sansera Engineering Pvt Ltd)

Ambapalye Division, Plot # 125 & 126, 4th Phase, Bommasandra, Agara Link Road, Bommasandra Industrial Area  
Anasai Taluk, Bangalore - 560 089, India. Ph: +91 9900020248/249 +91 8027838323  
Reg. off. No. 1437, Agara Link Road, Bangalore - 560 105, India. Tel: +91 80-27839081/82/83 Fax: +91 80-27839056  
E-mail id: info@sansera.in Website: www.sansera.in CIN: U74103KA1980PTC004542





**CERTIFICATE OF INTERNSHIP**

**This is to certify that**

**SANKET SHIVAJI NEHARKAR**

**was in our company as an intern**

**from 15/03/21 to 15/04/21**

**in AERO DESIGN department.**

**A company, JetAvi is a legal entity made up of an association**

**of people, be they natural, or a mixture of both,**

**for carrying on a commercial or industrial enterprise.**

**For JETAVI**

*Rishu*  
**VISHNU M**  
**DIRECTOR**

**JETAVI ENGINEERING PVT LTD**

---

**Sy No. 76/2, 1st Floor, NCC Urban Windsor, Opposite to Jakkur  
Aerodrome, Allalasandra Village, Hobli, Yelahanka, Bengaluru,  
Karnataka 560064**



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# CERTIFICATE OF INTERNSHIP



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Sarvesh J*

**1AH17AS029**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



CSIR - National Institute for Interdisciplinary  
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# CERTIFICATE OF INTERNSHIP

VIP2020

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Sathya Moorthy K*

**1AH17A5030**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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Science and Technology (NIIST), Trivandrum, Kerala.

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# *Certificate*

of Completion

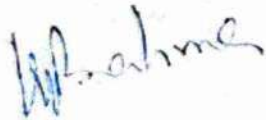
This certificate is awarded to

Sharon V

---

on successful completion of Internship Program on Basic Aerospace Design

Date : 8-Jul-2020 To 7-Aug-2020



---

Training Head  
BridgeNow Academy



---

Chief Executive Officer  
BridgeNow Academy



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SOCIETY FOR  
EDUCATION  
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TECHNOLOGY

# CERTIFICATE OF INTERNSHIP



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Sidhapara Mitul Mukesh Bhai*

**1AH17AS032**

IN APPRECIATION FOR YOUR PARTICIPATION AS A VIRTUAL INTERN AT



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Science and Technology (NIIST), Trivandrum, Kerala.

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AERONAUTICAL DEVELOPMENT ESTABLISHMENT

डी आर डी ओ, रक्षा मंत्रालय, भारत सरकार, बेंगलुरु

D R D O, MINISTRY OF DEFENCE, GOVERNMENT OF INDIA  
BENGALURU-560075



**HUMAN RESOURCES DEVELOPMENT DIVISION**  
**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that Ms./Mr. SRI GOWRI A (1AH17AS034)  
Fourth Semester / year, BE / B.Tech. / ME / M.Tech / PhD  
Aerospace Engg. Student (Batch No. 019/3/ST-UG/20-21)  
has undergone ~~Project Work~~ / Internship Training in the field of  
"Performance Analysis of Aeroengine with  
Twin Turbo Charger." x  
from 02-Mar-21 to 30-Apr-21 in this Establishment under the  
guidance of Ms./Mr./Dr. T Ramachandra Rao, Sc F,  
PS Division of ADE.

During the period of ~~Project Work~~ / Internship Training her / his  
performance and conduct was very good.

Bengaluru

Date: 30-4-21

*Anitha*  
Head, HRD  
For Director

अनिता सर्वणन / Anitha Saravanan  
वैज्ञानिक 'एफ' / Scientist 'F'  
प्रमुख, (एच.आर.) / Head, (HR)  
वैमानिकीय विकास संस्थापन  
AERONAUTICAL DEVELOPMENT ESTABLISHMENT  
डी.आर.डी.ओ., रक्षा मंत्रालय / DRDO, Ministry of Defence  
न्यू थिप्पसन्द्रा पोस्ट / New Thippasandra Post  
बेंगलुरु / Bengaluru - 560 075

**CONTRIVER**

# INTERNSHIP CERTIFICATE

This is to certify that

Suneha R

has undergone a 30 days internship training programme from  
01/03/2021 to 19/04/2021.

In the department of Research and Development  
Contriver, Bengaluru. Under the guidance of Yogesha HJ  
and the grade awarded to the intern for the internship project is



Sanjay B  
Sanjay B  
Chief Executive Officer





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# Certificate of Internship Machine Learning

Tarun K  
ACS COLLEGE OF ENGINEERING  
1AH17AS037

Intern Has Successfully Completed The Internship.  
Intern Was Found To Be Good And Disciplined.  
March 1st to April 15th,2021



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# CERTIFICATE OF INTERNSHIP



THIS CERTIFICATE IS PROUDLY PRESENTED TO:

*Yukthashree H M*

**1AHT7A5040**

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CSIR - National Institute for Interdisciplinary  
Science and Technology (NIIST), Trivandrum, Kerala.

The virtual Internship Program 2020 was conducted between 07-Sep-2020 and 01-Oct-2020

01-Oct-2020

DATE

PROGRAM HEAD, IISERT



# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the **PROJECT WORK** entitled "**VEHICLE COLLISION  
DETECTION AND AVOIDANCE SYSTEM**" carried out by

M VARSHINNI	1AH15EC019
SUHASK S	1AH15EC039
SUSHMAP	1AH15EC041
NIRANJAN R KUMAR	1AH14EC018

are bonafide students of **ACS COLLEGE OF ENGINEERING, BENGALURU** in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

*BG* 11/6/19  
Mrs. Bharathi Gururaj  
Internal Guide

*H.B.* 11/6/19  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

*Murali* 11/12  
Dr. M. S. Murali  
Principal

### External Viva

Name of the Examiners  
1. Dr. H. B. Bhuvaneshwari  
2. Aniltha. N

Signature with Date

*H.B.* 12/6/19

*Aniltha* 12/6/19

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



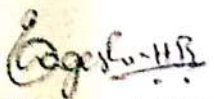
### CERTIFICATE

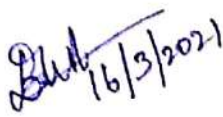
This is to certify that the **PROJECT PHASE-I** work entitled has  
"SMART ELECTRONIC VOTING MACHINE"


carried out by

MONISH D	(1AH17EC022)
DILIP K	(1AH17EC015)
DRUPAD N	(1AH17EC017)
BHARATH KUMAR P	(1AH17EC008)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
Mr.Nagesh.H.B  
Internal Guide

  
Dr.H.B.Bhuvaneshwari  
HOD, ECE

  
Dr.M.S.Murali

Principal  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



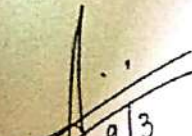
### CERTIFICATE

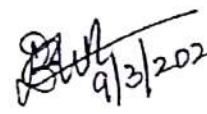
This is to certify that the **PROJECT PHASE-I** work entitled has  
**“FUEL EFFICIENT WASTE COLLECTION METHOD  
USING GRAPH THEORY”**


carried out by

ANINDITH P	(1AH15EC002)
SATHYASHREE G	(1AH15EC034)
PAVITHRA P C	(1AH16EC033)
BRINDA V	(1AH17EC009)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
Mr. Prajith Prakash Nair  
Internal Guide

  
Dr. H.B. Bhuvaneshwari  
HOD, ECE

  
Dr. M.S. Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bengaluru - 560 074

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU- 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work phase-1 entitled "**BLOOD LEAKAGE MONITORING SYSTEM**" carried out by

<b>SRIKANTH S</b>	<b>(1AH14EC029)</b>
<b>PUNEETH KUMAR R</b>	<b>(1AH14EC022)</b>
<b>MADHUSUDHAN S</b>	<b>(1AH15EC020)</b>

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

**Mrs. Vijaya.Dalawai**  
Internal Guide

**Dr.H.B.Bhuvanewari**  
HOD,ECE

**Dr.M.S.Murali**  
Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU - 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING





### CERTIFICATE

This is to certify that the **PROJECT WORK PHASE-1** entitled  
**"SMARTPHONE TRACKING SYSTEM FOR THEFT MOBILE  
USING ANDROID APPLICATION"** carried out by

DINESH NAIDU J	(1AH15EC010)
LISHA S	(1AH15EC016)
SOUNDARYA C D	(1AH15EC038)
YASHAS KUMAR K E	(1AH15EC045)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

  
Dr. M. Mathivanan  
Internal Guide

  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

  
Dr. M. S. Murali  
Principal

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "**IOT BASED SMART ELEVATOR**" carried out by

VENKATESH K V (1AH14EC032)

YASHASWINI A (1AH14EC035)

PAVAN KUMAR M (1AH15EC401)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
Dr. M. Mathivanan

Internal Guide

  
Dr. H. B. Bhuvaneshwari

HOD/EC  
Dept. of ECE  
ACS College of Engineering  
External Viva

  
Dr. M. S. Murali

Principal  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bengaluru - 560 074

Signature with Date

Name of the Examiners

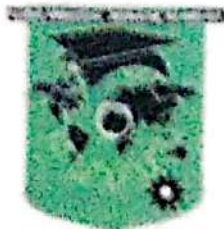
1. Dr. H. B. Bhuvaneshwari
2. P. B. Manoj

13/6/18  
15/6/18

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING




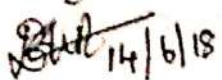
### CERTIFICATE

This is to certify that the project work entitled  
"SPEECH ENHANCEMENT FOR NOISY SPEECH SIGNAL  
IN MOBILE COMMUNICATION"  
carried out by

ADARSHA JYOTHI H N (1AH14EC002)  
LAVANYA S (1AH14EC014)  
SUJAY S (1AH14EC411)  
VIVINT VARGHESE (1AH11EC019)

are bonafide students of ACS COLLEGE OF ENGINEERING,  
BENGALURU in partial fulfillment for the award of **Bachelor of Engineering**  
in **Electronics & Communication Engineering** of the Visvesvaraya  
Technological University, Belagavi during the year 2017-2018. It is certified  
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project work prescribed for the said Degree.

  
Dr. M. Mathivanan  
Internal Guide

  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

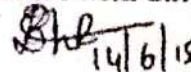
  
Dr. M. S. Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

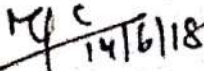
### EXTERNAL VIVA

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari.
2. P. B. Manoj

Signature with date

  
14/6/18

  
14/6/18



# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING




### CERTIFICATE


This is to certify that the project work entitled "AN APPROACH TOWARDS AUTOMATIC IMAGE REGISTRATION USING COARSE TO FINE TRANSFORMATION" carried out by

HARSHITH R (IAH14EC009)  
PRIYA C (IAH14EC020)  
ABHISHEK M S (IAH15EC400)  
SUSHMITHA S KUMAR (IAH13EC038)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Mr. Harish L.  
Internal Guide

  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

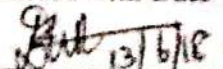
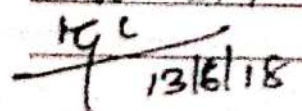
  
Dr. M. S. Murali  
Principal

### EXTERNAL VIVA

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari
2. P. B. Manoj

Signature with Date

  
13/6/18  
  
13/6/18

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "PERFORMANCE ANALYSIS OF WAVELET FILTERS FOR IMAGE COMPRESSION" carried out by

ANAM FATIMA (IAH14EC004)  
BIDIYA K (IAH14EC007)  
VINDYA NAIR (IAH14EC033)  
VISHWAS R (IAH13EC041)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

*Bharathi Gururaj*  
Mrs. Bharathi Gururaj  
Internal Guide

*Dr. H. B. Bhuvanewari*  
13/6/2018  
Dr. H. B. Bhuvanewari  
HOD, ECE

*Principal*  
13/6/18  
Dr. M. Prudhali  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Road  
Bangalore - 560 074

Name of the Examiners

External Viva

Signature with Date

1. Harish L

13/6/18

2. NAGESH KUMAR DN

13/6/19

**ACS COLLEGE OF ENGINEERING**  
KAMBIPURA, MYSORE ROAD, BENGALURU-560 074

**DEPARTMENT OF ELECTRONICS & COMMUNICATION  
ENGINEERING**



**CERTIFICATE**

This is to certify that the project work entitled "FABRICATION AND TESTING OF WIDEBAND MICROSTRIP PATCH ANTENNA" has been carried out by

<b>HEMA B</b>	<b>(1AH14EC010)</b>
<b>NAGASHREE GURURAJ</b>	<b>(1AH14EC016)</b>
<b>RANJITHA H S</b>	<b>(1AH14EC025)</b>

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

*[Signature]*  
13/6/2018  
**Dr. H B Bhuvaneshwari**  
HOD  
Guide, prof. & Head, ECE Dept.  
Dept. of ECE  
ACS College of Engineering  
Bangalore - 560 074.

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari
2. P. B. Manoj

External viva

*[Signature]*  
13/7/18  
**Principal**  
Dr. M. S. Purali  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

Signature with Date

*[Signature]* 13/6/18  
*[Signature]* 13/6/18

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE


This is to certify that the project work entitled "SIGN LANGUAGE INTERPRETATION SYSTEM FOR THE MUTE PEOPLE" carried out by

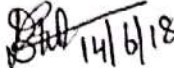
BHAVYA C (1AH14EC006)


NISCHITHA J (1AH14EC019)

VINAY M (1AH14EC412)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Mr. Harish. L  
Internal Guide

  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

  
Dr. M. S. Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

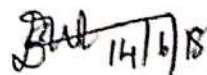
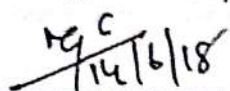
External Viva

Signature with Date

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari

2. P. B. Manoj

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "IOT BASED GARBAGE MONITORING SYSTEM AND DOMESTIC CARE" carried out by

ANILKUMAR S	(1AH14EC005)
KARTHIK KUMAR T R	(1AH14EC011)
NARESH M R	(1AH14EC017)
PRIYANKA MANJUNATH	(1AH14EC021)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

*Ramesh*  
12/06/2018  
Mr. RAMESHA M  
Internal Guide

*H. B. Bhuvaneshwari*  
12/6/18  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

*M. S. Murah*  
12/6/18  
Dr. M. S. Murah  
Principal

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari
2. P. B. Manoj

Signature with Date

*H. B. Bhuvaneshwari*  
12/6/18  
*P. B. Manoj*  
12/6/18

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING




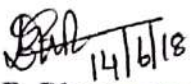
### CERTIFICATE

This is to certify that the project work entitled “**MEDICINAL PLANT LEAF INFORMATION EXTRACTION USING DEEP FEATURES**” carried out by

DEEKSHITHA M (1AH13EC005)  
MEGHASHREE N (1AH13EC014)  
POORNA K S (1AH13EC019)  
GOWTHAMI D M (1AH14EC403)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Mr. Rahul R. Rai  
Internal Guide

  
Dr. H. B. Bhuvanewari  
HOD, ECE

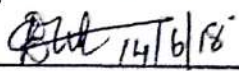

  
Dr. P. B. Manij  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva

Name of the Examiners

1. Dr. H. B. Bhuvanewari
2. P. B. Manij

Signature with Date

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



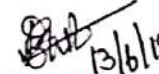
### CERTIFICATE

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ANAM FATIMA (1AH14EC004)  
BINDIYA K (1AH14EC007)  
VINDYA NAIR (1AH14EC033)  
VISHWAS R (1AH13EC041)

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Mrs. Bharathi Gururaj  
Internal Guide

  
Dr. H. B. Bhuvaneshwari  
HOD, ECE


  
Dr. M. S. Murali  
Principal

Name of the Examiners

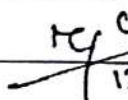
External Viva

Signature with Date

1. Dr. H. B. Bhuvaneshwari

  
13/6/18

2. P. B. Manoj

  
13/6/18

# ACS COLLEGE OF ENGINEERING

Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

Certified that the project work entitled "EMBEDDED BASED AGRICULTURAL LAND MONITORING SYSTEM" carried out by,

ABHISHEK SINGH J (1AH12EC001)

MANJESH H (1AH14EC015)

NITHIN S (1AH13EC018)

VISHWAS L V (1AH14EC035)

Are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Mr. VIJAYA KUMAR H R  
ASSISTANT PROFESSOR

Dr. H B BHUVANESWARI  
HOD, ECE

Dr. M S MURALI  
13/08

Principal

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

### EXTERNAL VIVA

Name of the Examiners

Signature with Date

1. Dr. H. B. Bhuvaneshwari

14/6/18

2. P. B. Manoj

14/6/18



# ACS COLLEGE OF ENGINEERING

KAMHIPURA, MYSORE ROAD, BENGALURU - 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the **PROJECT WORK PHASE-2** entitled "**SMARTPHONE TRACKING SYSTEM FOR THEFT MOBILE USING ANDROID APPLICATION**" carried out by

DINESH NAIDU J	(1AH15EC010)
LISHA S	(1AH15EC016)
SOUNDARYA C D	(1AH15EC038)
YASHAS KUMAR K E	(1AH15EC045)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-2 prescribed for the said degree.

*Mathivanan*  
8/6/19  
Dr.M.Mathivanan

*Bhuvaneshwari*  
8/6/19  
Dr.H.B.Bhuvaneshwari

*Murali*  
11/6/19  
Dr.M.S.Murali

Internal Guide

HOD, ECE

Principal

Name of the Examiners

Signature with Date

1. Dr.H.B.Bhuvaneshwari

*Bhuvaneshwari*  
12/6/19

2. Anitha. N

*Anitha*  
12/6/19

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the **PROJECT REPORT PHASE-1** entitled “**SMART PARKING PLATFORM**” carried out by

HARSHAD JAIN A	1AH15EC012
LOHITH R	1AH15EC018
SHWETHA SUBBARAO	1AH15EC036
SWATHI S	1AH15EC042

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visveswaraya Technological University, Belagavi during the year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase -1 prescribed for the said degree.

**Mr. Harish. L**  
Internal Guide

**Dr. H. B. Bhuvaneshwari**  
HOD, ECE

**Dr. M. S. Murali**  
Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE


This is to certify that the **PROJECT WORK PHASE-1** entitled  
**“SMARTPHONE TRACKING SYSTEM FOR THEFT MOBILE  
USING ANDROID APPLICATION”** carried out by

DINESH NAIDU J	(1AH15EC010)
LISHA S	(1AH15EC016)
SOUNDARYA C D	(1AH15EC038)
YASHAS KUMAR K E	(1AH15EC045)

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Dr. M. Mathivanan

Internal Guide

  
Dr. H. B. Bhuvaneshwari

HOD, ECE

  
Dr. M. S. Murali

Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU - 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the PROJECT REPORT PHASE-1 entitled  
"ACTIVE VIBRATION" carried out by

SUSHMA R	(1AH14EC030)
HEMA R	(1AH15EC013)
REVATHI A	(1AH15EC031)
SANIA TABASSUM	(1AH15EC032)

are bonafide students of ACS COLLEGE OF ENGINEERING,  
BENGALURU in partial fulfilment for the award of **Bachelor of Engineering  
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report has been approved as it satisfies the academic requirements in respect of  
project work phase-1 prescribed for the said degree.

Mr. Vijaya Kumar. H. R

Internal Guide

Dr. H. B. Bhuvaneshwari

HOD, ECE

Dr. M. S. Murali

Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

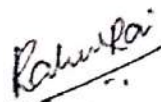


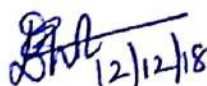
### CERTIFICATE

This is to certify that the Project Work Phase-1 entitled “**NOISE REDUCTION AND SPEECH ENHANCEMENT USING MATLAB FOR MOBILE COMMUNICATION**” carried out by

CHAITHRA R	(1AH15EC007)
MOHAMED ARSHAD S	(1AH15EC021)
SONYA A	(1AH15EC037)
YASHMITHA B S	(1AH15EC046)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

  
Mr. Rahul Rai  
Internal Guide

  
12/12/18  
Dr. H.B. Bhuvaneshwari  
HOD, ECE

  
14/12  
Dr. M.S. Murali  
Principal

**ACS COLLEGE OF ENGINEERING**  
**KAMBIPURA, MYSORE ROAD, BENGALURU – 560074**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**



**CERTIFICATE**

This is to certify that the **Project Work Phase-1** entitled "**VEHICLE COLLISION DETECTION AND AVOIDANCE SYSTEM USING COMPUTER VISION TECHNIQUE**" carried out by

<b>NIRANJAN R KUMAR</b>	<b>1AH14EC018</b>
<b>SUHAS K.S</b>	<b>1AH15EC039</b>
<b>SUSHMA P</b>	<b>1AH15EC041</b>
<b>M. VARSHINNI</b>	<b>1AH15EC019</b>

are bonafide students of **ACS COLLEGE OF ENGINEERING, BENGALURU** in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2018- 2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

*BC*  
**Mrs. Bharathi Gururaj**

**Internal Guide**

*HBA*  
**Dr.H.B.Bhuvanewari**

**HOD, ECE**

*Murali*  
**Dr.M.S.Murali**

**Principal**

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the PROJECT REPORT PHASE-1 entitled  
“ACTIVE VIBRATION” carried out by

SUSHMA R	(1AH14EC030)
HEMA R	(1AH15EC013)
REVATHI A	(1AH15EC031)
SANIA TABASSUM	(1AH15EC032)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

*Vijaya Kumar*

Mr. Vijaya Kumar. H. R

Internal Guide

*H. B. Bhuvaneshwari*  
14/12/18

Dr. H. B. Bhuvaneshwari

HOD, ECE

*M. S. Murali*  
14/12

Dr. M. S. Murali

Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING




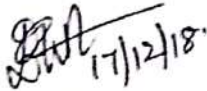
### CERTIFICATE

This is to certify that the **PROJECT REPORT PHASE-1** entitled “**SMART PARKING PLATFORM**” carried out by

HARSHAD JAIN A	1AH15EC012
LOHITH R	1AH15EC018
SHWETHA SUBBARAO	1AH15EC036
SWATHI S	1AH15EC042

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visveswaraya Technological University, **Belagavi** during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase -1 prescribed for the said degree.

  
**Mr. Harish. L**  
Internal Guide

  
**Dr. H. B. Bhuvanewari**  
HOD, ECE

  
**Dr. M. S. Murali**  
Principal



**ACS COLLEGE OF ENGINEERING**  
**KAMBIPURA, MYSORE ROAD, BENGALURU – 560074**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**



**CERTIFICATE**

This is to certify that the Project Work Phase-1 entitled "VEHICLE COLLISION DETECTION AND AVOIDANCE SYSTEM USING COMPUTER VISION TECHNIQUE" carried out by

NIRANJAN R KUMAR	1AH14EC018
SUHAS K.S	1AH15EC039
SUSHMA P	1AH15EC041
M. VARSHINNI	1AH15EC019

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018- 2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

*BG*  
17/12/18  
Mrs. Bharathi Gururaj

Internal Guide

*H.B.*  
17/12/18  
Dr.H.B.Bhuvanewari

HOD, ECE

*Murali*  
17/12  
Dr.M.S.Murali

Principal

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work phase I entitled “ARDUINO BASED ANIMAL DETECTION USING IMAGE PROCESSING” carried out by

LIKITHA.M	(1AH15EC015)
RASHMI KANABUR	(1AH15EC028)
SUMAN SUREKHA.V	(1AH15EC040)
VINUTHA.G.N	(1AH15EC044)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

**Mr.Nagesh.H.B**  
Assistant Professor  
Dept. of ECE, ACSCE

**Dr.H.B.Bhuvaneshwari**  
Professor &HOD, ECE  
ACSCE

**Dr.M.S.Murali**  
Principal  
ACSCE

#### External viva

Name of the Examiners

- 1.
- 2.

Signature with Date

**ACS COLLEGE OF ENGINEERING**  
**KAMBIPURA, MYSORE ROAD, BENGALURU – 560074**

**DEPARTMENT OF ELECTRONICS &  
COMMUNICATION ENGINEERING**




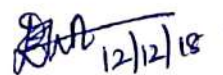
**CERTIFICATE**

This is to certify that the **Project Work Phase-1** entitled “**NOISE REDUCTION AND SPEECH ENHANCEMENT USING MATLAB FOR MOBILE COMMUNICATION**” carried out by

<b>CHAITHRA R</b>	<b>(1AH15EC007)</b>
<b>MOHAMED ARSHAD S</b>	<b>(1AH15EC021)</b>
<b>SONYA A</b>	<b>(1AH15EC037)</b>
<b>YASHMITHA B S</b>	<b>(1AH15EC046)</b>

are bonafide students of **ACS COLLEGE OF ENGINEERING, BENGALURU** in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-1 prescribed for the said degree.

  
**Mr. Rahul Rai**  
**Internal Guide**

  
**Dr.H.B.Bhuvaneshwari**  
**HOD, ECE**

  
**Dr.M.S.Murali**  
**Principal**

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the **PROJECT WORK PHASE-2** entitled “**SMARTPHONE TRACKING SYSTEM FOR THEFT MOBILE USING ANDROID APPLICATION**” carried out by

DINESH NAIDU J	(1AH15EC010)
LISHA S	(1AH15EC016)
SOUNDARYA C D	(1AH15EC038)
YASHAS KUMAR K E	(1AH15EC045)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-2 prescribed for the said degree.

  
Dr. M. Mathivanan

Internal Guide

Name of the Examiners

1. Dr. H. B. Bhuvaneshwari

2. Anitha. H


  
Dr. H. B. Bhuvaneshwari

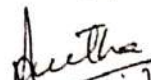
HOD, ECE

  
Dr. M. S. Murali

Principal

Signature with Date

  
12/6/19.

  
12/6/19.

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the **PROJECT REPORT PHASE-1** entitled  
**“DROWSINESS DETECTING USING EEG SIGNAL ANALYSIS”** carried out  
by

A SHREYA

1AH16EC001

AKSHAY S

1AH16EC004

DEVIKA S

1AH16EC015

HIMANSHU BASWAL T

1AH16EC018

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visveswaraya Technological University, Belagavi during the year 2019-2020. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase -1 prescribed for the said degree.

Dr. Mathivanan. M  
Internal Guide

Dr. H. B. Bhuvaneshwari  
HOD, ECE

Dr. M. S. Murali  
Principal

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



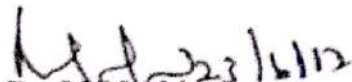
### CERTIFICATE

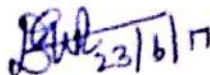
This is to certify that the project work entitled **"IOT BASED CONTINUOUS MONITORING OF CARDIAC PATIENTS USING RASPBERRY PI 3"** carried out by

**G MANISHA REDDY** (1AH13EC006)

**NANDINI R** (1AH13EC015)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Dr. M. Mathivanan  
Internal Guide

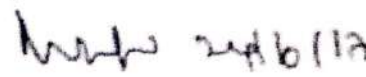
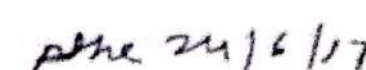
  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

  
23/06/17  
Dr. M. S. Murali  
Principal

Name of the Examiners

Signature with Date

1. Dr. M. Mathivanan
2. Chandrashekar NS

 24/6/17  
 24/6/17

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



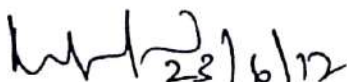
### CERTIFICATE

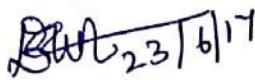
This is to certify that the project work entitled "**IOT BASED CONTINUOUS MONITORING OF CARDIAC PATIENTS USING RASPBERRY PI 3**" carried out by

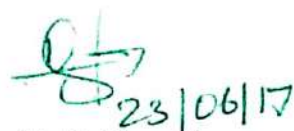
**G MANISHA REDDY** (1AH13EC006)

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**Dr. M Mathivanan**  
Internal Guide

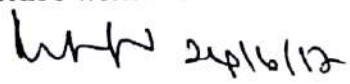
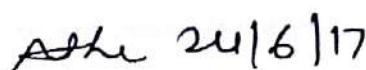
  
**Dr. H. B. Bhuvaneshwari**  
HOD, ECE

  
**Dr. M. S. Murali**  
Principal

Name of the Examiners

Signature with Date

1. **Dr. M. MATHIVANAN**
2. **Chandrasekhar N**

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



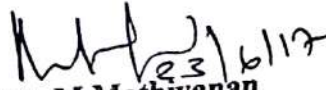
### CERTIFICATE


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**G MANISHA REDDY** (1AH13EC006)

**NANDINI R** (1AH13EC015)

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23/6/17  
**Dr. M Mathivanan**  
Internal Guide

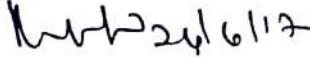
  
23/6/17  
**Dr. H. B. Bhuvaneshwari**  
HOD, ECE

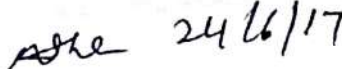
  
23/06/17  
**Dr. M. S. Murali**  
Principal

Name of the Examiners

1. **Dr. M. MATHIVANAN**
2. **Chandrasekhar M S**

Signature with Date

  
24/6/17

  
24/6/17



ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru-560 074

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING




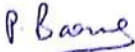
**CERTIFICATE**


This is to certify that the Project work entitled "IMAGE PROCESSING USING CONNECTED COMPONENT LABELING AND CENTROIDDING FOR RADAR IMAGES" has been carried out by

HEMALATHA R	1AH13EC007
MANJUSHREE G	1AH13EC011
R POORVASHREE	1AH13EC022
SMISHA M	1AH13EC034

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project report prescribed for the said Degree.

  
Mr. Ramesha M  
Internal Guide  
Assistant Professor

  
Mrs. Paramita Barua  
External Guide  
Scientist 'D'  
Radar I, LRDE

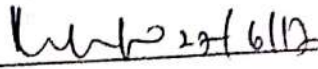
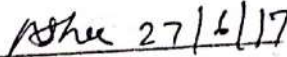
  
23/6/2017  
Dr. H.B. Bhuvaneshwari  
Head of Department

  
Dr. M.S. Murali  
Principal

Name of the Examiners

1. Dr. M. MATHIVANAN
2. Chandrashekar NS

Signature with Date

  
27/6/17  
  
27/6/17

# ACS COLLEGE OF ENGINEERING


KAMBIPURA, OFF MYSORE ROAD, BENGALURU-560074

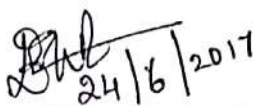
## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING




### CERTIFICATE

This is to certify that the project entitled "SMART DRUNKEN DRIVER DETECTION WITH ACCIDENTAL ALERT AND SECURITY SYSTEM FOR VEHICLES" has been carried out by AISHWARYA R.V (1AH13EC002), MANOJ A (1AH13EC013), RASHMI K.S (1AH13EC027), HEMAVATHI M.J (1AH12EC009) bonafide students of ACS College of Engineering, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

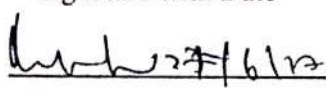
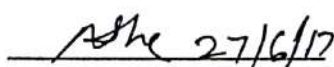
  
Name and Signature of guide  
**Internal guide**  
**Kavitha R.J.**  
Asst,Prof,ECE Dept

  
Name and Signature of HOD  
**Dr H.B. Bhuvanewari**  
Prof and Head  
Department of ECE

  
Signature of Principal  
**Dr M.S. Muruli**  
Principal, ACSCE

### External viva

Name of the Examiners  
1. Dr. J. MATHIVANAN  
2. Chandrasekhar

Signature with Date  
  


# ACS COLLEGE OF ENGINEERING

KAMBIPURA, MYSORE ROAD, BENGALURU-560 074

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

Certify that the project entitled "SEMINAR HALL AUTOMATION USING RASPBERRY PI 3" has been carried out by

PRAVEEN KUMAR S

1AH13EC020

RAJESH K

1AH13EC024

SUBRAHMANYA S

1AH13EC037

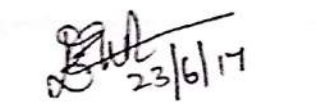
KANTHARAJU A G

1AH14EC406

are bonafide students of ACS College of Engineering, Bengaluru in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library.

  
22/6/17  
**Project Guide**

**Dr. M. Mathivanan**  
Asso. Professor, ECE

  
23/6/17  
**Head of the Department**

**Dr. H.B. Bhuvaneshwari**  
Prof. & Head, ECE

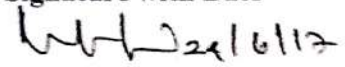
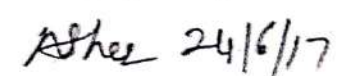
  
**Principal**

**Dr. M.S. Murali**

Name of the Examiner's

1. Dr. M. MATHIVANAN
2. Chandrashekhare NS

Signature with Date

 22/6/17  
 24/6/17

# ACS COLLEGE OF ENGINEERING


Mysore road, Kambipura Bengaluru Karnataka 560074  
2016-2017

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE



Certified that the Dissertation work entitled "DESIGN AND SIMULATION OF WIDE BAND U-SLOT MICROSTRIP PATCH ANTENNA FOR WIRELESS COMMUNICATION" has been carried out by VINUTHA M R, USN: 1AH15LD901, a bonafide student of ACS College of Engineering, Bengaluru in partial fulfilled for the award of degree of Master of Technology in Digital Electronics & Communication Systems of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment has been incorporated in the report deposited in the departmental library. The dissertation report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Signature of ~~Head~~ and Guide  
Dr. H. B. Bhuvaneshwari  
Professor & Head of ECE  
Department of ECE, ACSCE

  
Signature of the Principal  
ACS College of Engineering  
Kambipura, Mysore Road, Kengeri Hoalli,  
Bengaluru - 560 074  
ACS college of Engineering

### VIVA VOCE

Name of the Examiner  
1. Dr. G. Sadashivappa  
2. Dr. H. B. Bhuvaneshwari

Signature with Date  
  


# ACS COLLEGE OF ENGINEERING

Kambipura, Off Mysore Road, Bengaluru-560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

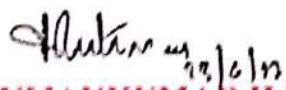


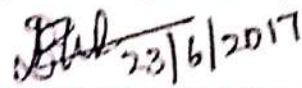
### CERTIFICATE

Certified that the project work entitled "FACE DETECTION AND SIMILARITY SEARCH USING LOCAL BINARY PATTERN" carried out by

JAGAN NADAN S	(1AH13EC008)
NAVEEN P R	(1AH13EC016)
RAGHU H P	(1AH13EC023)
CHANDRA SHEKAR B R	(1AH14EC401)

are bonafide students of ACS College of Engineering, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

  
Mr. VIJAYKUMAR H R  
Assistant Professor  
Internal Guide

  
Dr. H B BHUVANESWARI  
HOD, ECE

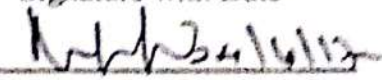

  
Dr. M S MURALI  
Principal, ACSCE

### External Viva

Name of the Examiners

1. Dr. M. MATHIVANAN  
2. Chandrashekar

Signature with Date

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "SMART FARMING USING IoT" carried out by

SINDHU C BHARADWAJ (1AH13EC033)

INDIRA A (1AH13EC043)

Y SNEHA SAI (1AH13EC044)

HARSHITHA N (1AH14EC405)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mr. Suresh  
Internal Guide

  
23/6/2017

Dr. H. B. Bhuvaneshwari  
HOD, ECE

Dr. M. S. Murali  
Principal

Name of the Examiners

Signature with Date

1. Dr. M. MATHIVANAN
2. Chendrasekhar NS

Mth 24/6/17  
she 24/6/17

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, OFF MYSORE ROAD, BENGALURU-560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project entitled "APPLICATION OF ACOUSTIC VECTOR SENSOR TOWARDS DIRECTION OF ARRIVAL ESTIMATION OF A SINGLE ACOUSTIC SOURCE" has been carried out by **CHARITHA N (IAH13EC004)**, **SHREYAS K M (IAH13EC400)** and **TEJASHWINI N D (IAH13EC039)**, bonafide students of ACS College of Engineering, Bangalore in partial fulfillment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visveswaraiah Technological University, Belgaum during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name and Signature of Guide      Name and Signature of HOD      Signature of Principal

*Ajharani Hansdah*

External:

Mrs. Ajharani Hansdah  
Scientist 'D' STR-1,  
ADE, DRDO

*Rahul R Rai*

Internal:

Mr. Rahul R Rai  
Assistant Professor  
Dept. of ECE, ACSCE

*BH* 23/6/2017

Dr. BHUVANESWARI H.B.  
Prof. & HOD of ECE, ACSCE

*M.S Murali*

Dr. M.S Murali  
Principal, ACSCE

### External viva

Name of the Examiners

1. *Dr. M. MATHIVANAN*
2. *Chandrashekar NS*

Signature with Date

*M.S Murali* 24/6/17

*Athe* 24/6/17

# ACS COLLEGE OF ENGINEERING

KAMBIPURA, OFF MYSORE ROAD, BANG. AT 1000 760071

## DEPARTMENT OF ELECTRONICS & ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "SMART SECURITY SOLUTION FOR WOMEN USING IOT" has been carried out by

**RAJESH KUMAR DUBEY**

(1AH13EC025)

**ROHITH S J**

(1AH13EC030)

**HARSHA S N**

(1AH14EC404)

**KARTHIK M**

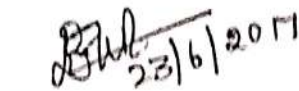
(1AH14EC407)

are bonafide student of ACS College of Engineering, Bangalore in partial fulfilment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visveswaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Mrs. Bharathi Gururaj

Assistant Professor

Dept. of ECE, ACSCE

  
23/6/2017

Dr. H. B. Bhuvaneshwari

Professor & HOD, ECE

ACSCE



Dr. M. S. Murall

Principal

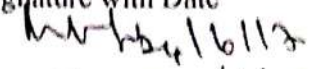
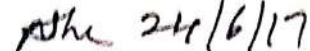
ACSCE

### External viva

Name of the Examiners

1. Dr. M. MATHIVANAN
2. Chandrashekar N S

Signature with Date

  
24/6/17  
  
24/6/17



# ACS COLLEGE OF ENGINEERING

KAMBIPURA, OFF MYSORE ROAD, BENGALURU-560074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the project entitled "SMART DRUNKEN DRIVER DETECTION WITH ACCIDENTAL ALERT AND SECURITY SYSTEM FOR VEHICLES" has been carried out by AISHWARYA R.V (IAH13EC002), MANOJA (IAH13EC013), RASHMI K.S (IAH13EC027), HEMAVATHI M.J (IAH12EC009) bonafide students of ACS College of Engineering, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*K.R.*  
21/6/17  
Name and Signature of guide  
Internal guide  
Kavitha R.J.  
Asst,Prof,ECE Dept

*H.B.*  
24/6/2017  
Name and Signature of HOD  
Dr H.B. Bhuvanewari  
Prof and Head  
Department of ECE

*M.S.*  
24/06/17  
Signature of Principal  
Dr M.S. Muruli  
Principal, ACSCE

### External viva

Name of the Examiners  
1. Dr. M. MATHIVANAN  
2. Chandrasekhar MS

Signature with Date  
*M. Mathivanan*  
*MS* 27/6/17

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



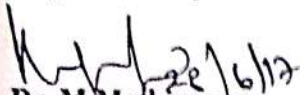
### CERTIFICATE

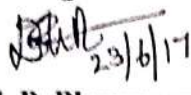
This is to certify that the project work entitled "**IOT BASED CONTINUOUS MONITORING OF CARDIAC PATIENTS USING RASPBERRY PI 3**" carried out by

**G MANISHA REDDY** (1AH13EC006)

**NANDINI R** (1AH13EC015)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Dr. M. Mathivanan  
Internal Guide

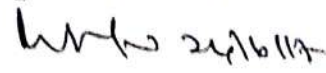
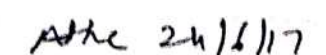
  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

  
Dr. M. S. Murali  
Principal

Name of the Examiners

1. Dr. M. M. MATHIVANAN
2. Chandrashekar V. S.

Signature with Date

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Bengaluru-560 074

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### CERTIFICATE

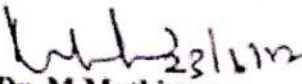
This is to certify that the project work entitled "IOT BASED CONTINUOUS MONITORING OF CARDIAC PATIENTS USING RASPBERRY PI 3" carried out by

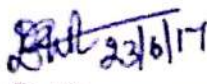
G MANISHA REDDY (1AH13EC006)

NANDINI R (1AH13EC015)

SHREEGANDHA D T (1AH13EC032)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfillment for the award of **Bachelor of Engineering in Electronics & Communication Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

  
Dr. M Mathivanan  
Internal Guide

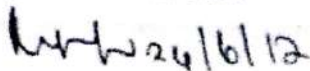
  
Dr. H. B. Bhuvaneshwari  
HOD, ECE

  
23/06/17  
Dr. M. S. Murali  
Principal

Name of the Examiners

1. Dr. M. MATHIVANAN
2. Chandrashekar N S

Signature with Date

  
24/6/17

  
24/6/17

# ACS COLLEGE OF ENGINEERING


#74, KAMBIPIURA, MYSORE ROAD, BANGLORE-74

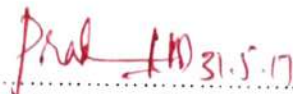


Department of Computer Science and Engineering

## CERTIFICATE

This is to certify that the Final Year Project Report entitled "IOT based Power Management and Controlled socket" has been presented by Manoj Kumar KS(1AH12CS013), Maruthi R(1AH13CS020), Rakesh Kumar(1AH13CS028), Vinod Kumar S(1AH13CS045), a bonafide student of ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

  
Signature of the Guide  
Mr. Mahantesh Mathapati  
Assistant Professor,  
Dept. of CSE, ACSCE

  
Signature of HOD  
Dr. B S Pradeep  
Professor & HOD,  
Dept. of CSE, ACSCE  
Dept. of C.S. & Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
Signature of the Principal  
Dr. M S Murali,  
Principal, ACSCE  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

S.No

Name of the Examiners

Signature with Date

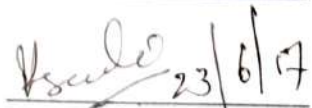
1

Dr. B. Senthil Kumar



2

Renuka Patil

  
23/6/17

# ACS COLLEGE OF ENGINEERING

#74, KAMBIPURA, MYSORE ROAD, BANGLORE-74



## Department of Computer Science and Engineering

### CERTIFICATE

This is to certify that the Final year project Report entitled “**FRoDO: Fraud Resilient Device for Secure Micro-Payment**” has been presented by BINDU S(1AH13CS010), RAKSHITHA S(1AH13CS030), RANI M(1AH13CS032) and YASHASWINI N G(1AH13CS046) a bonafide students of ACS College of engineering affiliated to Visvesvaraya Technological University, Belgaum during the year 2016-2017. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The Project Report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.



Signature of the Guide

Mrs. Jyoti Metan

Assistant Professor

Dept. of CSE, ACSCE




Signature of the HOD

Dr. B.S. Pradeep

Professor & HOD

Dept. of CSE, ACSCE

HOD  
Dept. of C.S. & Engrg  
ACS College of Engineering  
Bangalore - 560 074.



Signature of Principal

Dr. M.S. Murali

Principal

ACSCE

Principal

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

Signature With Date

Sl.No

Name of The Examiners

1.

Dr. P. Santhi Kumar

2.

Renuka Patil



23/6/17

# ACS COLLEGE OF ENGINEERING

#204, Kambipura, Mysore Road, KengeriHobli, Bangalore – 560 074.



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## CERTIFICATE

This is to certify that the Project Report entitled “**DISEASE PREDICTION BY MACHINE LEARNING OVER BIG DATA FROM HEALTHCARE COMMUNITIES**” has been presented by **Aishwarya.G(1AH14CS003)**, **Bindushree.K(1AH14CS006)**, **Harshitha.M(1AH14CS013)**, **Maheshwari.B(1AH14CS018)**, bonafide students of ACS College of Engineering affiliated to **Visvesvaraya Technological University, Belagavi**, during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project Report prescribed for the said degree.

Signature of the Guide  
**Dr. T. SenthilKumaran**  
Associate Professor  
Dept. of CSE, ACSCE

Signature of the HOD  
**Dr. B.S. Pradeep**  
Professor & HOD  
Dept. of CSE & AGSCE  
HOD  
ACS College of Engineering  
Bangalore - 560 074.

Signature of the Principal  
**Dr. M. S. Murali**  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

Name of the Examiners

1. Prof. Chandramma
2. Dr. T. Senthil Kumaran

Signature with Date

# ACS COLLEGE OF ENGINEERING

Kambipura, Mysore Road, Banglore-74



## Department of Computer Science and Engineering CERTIFICATE

This is to certify that the Final Year Project Report entitled “Secure Retrieval of Data Using Repair Tree Algorithm in Distributed Storage System “ has been presented by Aishwarya.A.M (1AH14CS002), Jyothi.S (1AH14CS014) and Sushma.S (1AH14CS035), bonafide students of ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in departmental library. The Project Report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

Signature of the Guide  
Dr. V. Mareeswari  
Assoc. Professor  
Dept. of CSE, ACSCE

Signature of the HOD  
Dr. B. S. Pradeep  
Professor & HOD  
HOD  
Dept. of CSE, ACSCE  
ACS College of Engineering  
Bangalore - 560 074.

Signature of the Principal  
Principal Murali  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli.  
Bangalore - 560 074

### Name of the Examiners

1. Prof. Chandramma
2. Dr. T. Sen. The. Theerani

### Signature with Date

14/4/18

# ACS COLLEGE OF ENGINEERING


Kambipura, Mysore Road, Bangalore-74

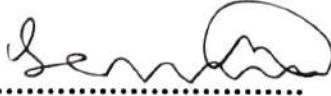



Department of Computer Science and Engineering

## CERTIFICATE

This is to certify that the Final Year Project Report entitled **“SENSITIVE DATA SHARING PREVENTION FOR CHILDREN”** has been presented by **Kavyashree R (1AH15CS021), Rakshita B S (1AH15CS043), Varshini R (1AH15CS058), Vidhyaa B (1AH15CS059)**, a bonafide student of ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in departmental library. The Project Report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

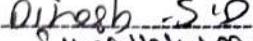
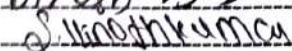
  
.....  
Signature of the Guide  
Mrs. Kavita K. Patil  
Assistant Professor  
Dept. of CSE, ACSCE

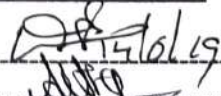
  
.....  
Signature of the HOD  
Dr. T Senthil Kumaran  
Professor & HOD  
Dept. of CSE, ACSCE  
Dept. of C.S. & Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
.....  
Signature of the Principal  
Dr. M.S. Murali  
Principal  
A.C.S. College of Engineering  
ACSCE  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

Name of the Examiners

Signature with Date

1.   
.....
2.   
.....

  
.....  
14/6/19



# ACS COLLEGE OF ENGINEERING

#74, Kambipura, Mysore Road, Bengaluru – 560074

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



## CERTIFICATE

This is to certify that the Final Year Project Report entitled **“DEEP AIR LEARNING: INTERPOLATION, PREDICTION AND FEATURE ANALYSIS OF FINE-GRAINED AIR QUALITY”** has been successfully submitted by **NAYANA R(1AH15CS029), MONISHA S (1AH15CS028), SHEHNAAZ BANU T (1AH15CS052)**, a bonafide student of **ACS COLLEGE OF ENGINEERING** affiliated to **Visvesvaraya Technological University, Belgaum** during the year **2018-2019**. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in departmental library. The Project Report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

**Signature of the Guide**  
Mrs. Kavya G  
Assistant Professor  
Dept. of CSE, ACSCE

**Signature of the HOD**  
Dr. T Senthil Kumaran  
Assoc Professor & HOD  
Dept. of CSE, ACSCE

**Signature of the Principal**  
Dr. M S Murali  
Principal  
ACSCE

**Name of the examiners**

1. Dinesh S.D
2. S. Vinodh kumar

**Signature with date**

# ACS COLLEGE OF ENGINEERING

#74, Kambipura Mysore Road, Bengaluru-560074

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



## CERTIFICATE

Certificate that the Final Project on topic **“Securing Electronic Health Record in Cloud”** has been successfully submitted by **Raksha J Shetty (1AH17CS052), Rakshitha W M (1AH17CS054) and Shwetha M (1AH17CS077)** a bonafide students at ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report submitted to the department. The Project report has been approved as it satisfies the academic requirement in respect of the project work as prescribed in 8<sup>th</sup> semester.

**Signature of the Guide**

Mrs. Kavya G  
Assistant Professor, CSE  
ACSCE, Bengaluru

**Signature of the Co-Ordinator**

Dr. T Senthil Kumaran  
Professor, CSE  
ACSCE, Bengaluru

**Signature of the HOD**

Dr. V Mareeswari  
Professor & HOD, CSE  
ACSCE, Bengaluru

**Name of the Examiner**

1. \_\_\_\_\_

2. \_\_\_\_\_

**Signature with Date**

\_\_\_\_\_

\_\_\_\_\_

# ACS COLLEGE OF ENGINEERING

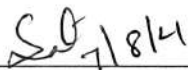
KAMBIPURA, MYSORE ROAD, BENGALURU – 560074

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



## CERTIFICATE

This is to certify that the project work phase-II entitled “**Face mask detection in the era of COVID-19 pandemic**” carried out by **BHAVANA G (1AH17CS016)**, **CHAITANYASHREE (1AH17CS017)** and **KEERTHI L N (1AH17CS026)** are bonafide students of **ACS COLLEGE OF ENGINEERING, BENGALURU** in fulfillment for the award of **Bachelor of Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2020-2021**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work phase-II prescribed for the said degree.

  
7/8/21

**Mrs. Sunita Chalageri**  
Internal Guide



**Dr. T Senthil Kumaran**  
Coordinator

  
7/8/21

**Dr. V Mareeswari**  
HOD, CSE

Name of the Examiners

- 1.
- 2.

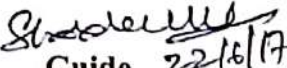
Signature with Date


ACS College of Engineering, Bangalore-74  
Department of Mechanical Engineering



**CERTIFICATE**

Certified that the project work entitled "Manufacturing of Nanostructured Materials processed by Severe Plastic Deformation Process" carried out by BHUVANESH V SHETTY (IAH13ME047), RAGHAVENDRA RAO K (IAH11ME009), SHIVA PRASAD (IAH13ME034), PRAJWAL GOWDA A S (IAH13ME029), a bonafide student of ACS College of Engineering, in partial fulfilment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Guide 22/6/17  
Prof. H S Siddesha

  
Head of Department  
Dr. Eswarmoorthy  
Dr. M. ESWARAMOORTHY M.Tech., Ph.D. (NIT-T)  
Professor & Head  
Department of Mechanical Engineering  
A.C.S. College of Engineering  
#207, Kambipura, Mysuru Road,  
Bengaluru-560074

  
Principal 22/06  
Dr. M.S Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva

1. Dr. H.S. SIDDESHA

2. Dr. M. rethanjaya M

Examiner Signature with date:  
 23/6/17

 23/6/17

ACS College Of Engineering, Bangalore-74  
Department of Mechanical Engineering



**CERTIFICATE**

Certified that the project work entitled "**Frictionless Braking System**" carried out by KARTHIK J N GOWDA (1AH14ME023), MADAN KUMAWAT (1AH14ME030), SHARATH K (1AH14ME043), TEJAS HEGDE D (1AH14ME048) a bonafide students of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Mr. R. Sandeep*  
Guide

Mr. SANDEEP G R  
Assistant Professor

*Siddesh*  
12/6/2018  
Head of Department

Dept. of Mechanical Engg.  
Dr. S. SIDDESHA  
ACS College of Engineering  
Associate Professor  
Bangalore - 560 074.

*Dr. M.S. Murali*  
Principal

ACS College of Engineering  
Dr. M.S. Murali  
Kampapura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

**External Viva**

1. Dr. R. Siva Subramanian
2. Dr. J. Satheesh

**Examiner Signature with date:**

*P. d. P.*  
14/6  
*Baltesh* 14/6

# ACS COLLEGE OF ENGINEERING

#204, Kambipura, Mysore Road, Kengeri Hobli, Bangalore – 560 074.



## DEPARTMENT OF MECHANICAL ENGINEERING

### Certificate

This is to certify that the Project Report entitled **“POWER GENERATION BY SPEED BRAKER”** has been presented by Sagar S (1AH15ME419), Suneel K P (1AH15ME420), Tejeshkumar J S(1AH15ME422), Kirankumar Muthappa Kolur (1AH15ME409), bonafide students of ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi, during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project Report prescribed for the said degree.

Bangalore, 13/6/18

Signature of the Guide  
Bapugowda C M  
Assistant Professor  
Dept. of ME, ACSCE

Siddesha 13/6/18

Signature of the HOD  
Dr. H.S Siddesha  
Associate Professor & HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

Murali 13/6/18

Signature of the Principal

Dr. M.S Murali  
Principal  
ACSCE

C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

Name of the Examiners

Signature with Date

1. Dr. R. Siva Lakshmanan

[Signature]  
14/6

2. Dr. J. Satheesh

[Signature]  
14/6

# ACS COLLEGE OF ENGINEERING

#204, Kambipura, Mysore Road, Kengeri Hobli, Bangalore – 560 074.



## DEPARTMENT OF MECHANICAL ENGINEERING

### Certificate

This is to certify that the Project Report entitled “**POWER GENERATION BY SPEED BRAKER**” has been presented by Sagar S (1AH15ME419), Suneel K P (1AH15ME420), Tejeshkumar J S(1AH15ME422), Kirankumar Muthappa Kolar (1AH15ME409), bonafide students of ACS College of Engineering affiliated to Visvesvaraya Technological University, Belagavi, during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project Report prescribed for the said degree.

Bapugowda 12/6/18

Signature of the Guide  
Bapugowda C M  
Assistant Professor  
Dept. of ME, ACSCE

Siddesha 13/6/2018

Signature of the HOD  
Dr. H.S Siddesha  
Associate Professor & HOD  
Dept. of Mechanical Engg  
ACS College of Engineering  
Bangalore - 560 074.

Suneel 13/6/18

Signature of the Principal  
Dr. M.S.Murali  
Principal  
ACS College of Engineering  
Bangalore - 560 074.

Name of the Examiners

1. Dr. R. Siva Subramanian

2. Dr. T. Sathesh

Signature with Date

R. Siva  
14/6

Sathesh  
14/6

# ACS COLLEGE OF ENGINEERING

Kambipura, Off Mysore Road, Bengaluru-560074


## DEPARTMENT OF MECHANICAL ENGINEERING

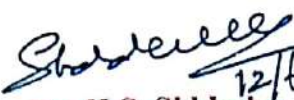
GLOBAL KNOWLEDGE, INNOVATIVE TECHNOLOGY



### CERTIFICATE

This is to certify that the final year project entitled "UTILIZATION OF HUMAN EXERCISE ENERGY TOWARDS THE PRODUCTION OF GREEN ENERGY" has been carried out by **ARPIT CHAUHAN (1AH14ME005)**, **KARTHIK ATHREYA (1AH14ME021)**, **SRINIVAS V (1AH14ME045)**, **TEJKIRAN P (1AH14ME050)**, bonafide students of ACS College of Engineering, Bangalore in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of the Visvesvaraya Technological University, Belgaum during the year **2014-2018**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library.

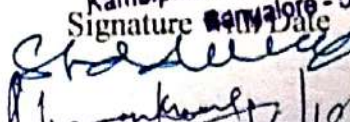
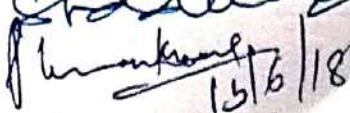
  
**Dr. R.Siva Subramaniam**  
Project Guide  
Asso. Prof. of ME  
ACSCE

  
**Dr. H.S. Siddesha**  
Prof. & HOD of ME  
ACSCE  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
**Dr. M.S. Murali**  
Principal  
ACSCE  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Heblit,  
Bangalore - 560 074

Name of the Examiners

1. **Dr. H.S. Siddesha ACSCE**
2. **Dr. Kiran kumar SJBIT**

  
Signature   
Date **13/6/2018**

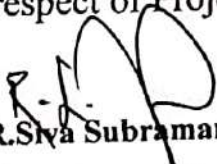


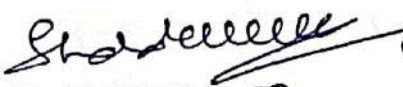
**ACS College Of Engineering, Bangalore-74**  
**Department of Mechanical Engineering**



**CERTIFICATE**

Certified that the project work entitled "**AN EXPERIMENTAL INVESTIGATION OF THE PERFORMANCE OF SINGLE CYLINDER CI ENGINE FUELLED WITH BIODIESEL AND HYDROGEN**" carried out by **CHETHAN KUMAR (1AH115ME404)**, a bonafide student of **ACS College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in Mechanical department of **Visvesvaraya Technological University, Belgaum** during the year **2017-2018**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
**Dr. R. Siva Subramaniyam**  
**Prof. Rakesh S**  
Guide

  
**Dr. H.S. Siddeshappa**  
HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Head Office of Department of Mechanical Engineering  
Bangalore - 560 074.

**M. S. Murali**  
Principal

External Viva Examiner

- 1.
- 2.

Signature with date

**ACS College Of Engineering, Bangalore-74**

**Department of Mechanical Engineering**



**CERTIFICATE**

Certified that the project work entitled “**Nanostructure and Mechanical Properties of Titanium Alloy Processed by Constrained Groove Pressing**” carried out by JAVAD ALI (1AH14ME019), MOHAMMED MUJEER (1AH14ME033), SHAHABAZ KHURESHI P (1AH10ME042), AYUB MOHAMMED ATEEB (1AH13ME006) a bonafide students of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year, 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Dr. H.S. SiddeSha*  
Guide 7/6/2018

**Dr. H.S.SIDDESHA**  
Associate Professor

*Dr. H.S. SiddeSha*  
7/6/2018  
Head of Department

**Dr. H.S.SIDDESHA**  
HOD  
Associate Professor  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

*Dr. M.S. Murali*  
4/6/18  
Principal

**Dr. M.S.Murali**  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva

1. *Dr. Kiran Kumar* 13/6/18
2. *Dr. Kiran Kumar*

Examiner Signature with date:

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

Certified that the Project Work entitled "FABIRCATION OF BIO-COMPOSITE STEERING WHEEL FOR AUTOMOBILES (SISAL, BANANA, JUTE AND COCONUT COIR)" has been successfully carried out by Mr.Devraj D (1AH15ME405), Mr.Mahendra M (1AH15ME411), Mr.Rakesh V (1AH15ME418), Mr.Surakshith B M (1AH15ME421) Bonafide Students of ACS College of Engineering, Bengaluru in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belgavi for the year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

*Chandra* 12.06.18  
Signature of the Guide  
Chandrashekhar B  
Assistant Professor

*Siddesha* 12/6/18  
Signature of the HOD  
Dr. H.S. Siddesha  
Department of Mechanical  
Engineering  
HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

*Murali* 12/6/18  
Signature of the Principal  
Dr.M.S.Murali  
Principal  
ACSCE

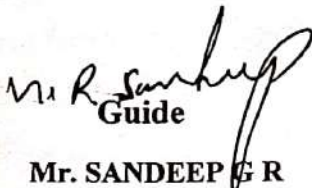
SL No.	Name of Examiners	Signature with date
1.	Dr. R. Siva Subramanian	<i>R. Siva Subramanian</i> 12/6/18
2.	Dr. J. Sathesh	<i>J. Sathesh</i> 12/6/18


ACS College Of Engineering, Bangalore-74  
Department of Mechanical Engineering



**CERTIFICATE**

Certified that the project work entitled "**Frictionless Braking System**" carried out by KARTHIK J N GOWDA (1AH14ME023), MADAN KUMAWAT (1AH14ME030), SHARATH K (1AH14ME043), TEJAS HEGDE D (1AH14ME048) a bonafide students of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Guide  
Mr. SANDEEP G R  
Assistant Professor

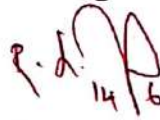

  
12/6/2018  
Head of Department  
HOD  
Dr. H. S. SIDDESHU Engg  
ACS College of Engineering  
Associate Professor  
Bangalore - 560 074.

  
Principal  
A.C.S. College of Engineering  
Mysore Road, Hengeri Hobli,  
Bangalore - 560 074

**External Viva**

1. Dr. R. Siva Subramanian
2. Dr. J. Sathesh

**Examiner Signature with date:**

  
14/6  


ACS College Of Engineering, Bangalore-74  
Department of Mechanical Engineering



**CERTIFICATE**

Certified that the project work entitled "Design and Manufacture of White Metal Thrust Pad Bearing" carried out by ABHILASH HK (1AH12ME400), PUNITH BG (1AH13ME028), DAVID SANDEEP (1AH13ME009), RAVI SONDERA (1AH13ME415) a bonafide students of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*P. Sivasankar*  
14/6/18  
Guide

Sivasankar P  
Assistant Professor

*Dr. H.S. SiddeSha*  
14/6/18  
Head of Department

Dr. H.S. SIDDESHA  
HOD  
Associate Professor  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

*Murali*  
14/6/18  
Principal

Principal  
Dr. M.S. Murali  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

External Viva

Examiner Signature with date:

1. Dr. R. Siva Subramanian
2. Dr. J. Satheesh

*R. Siva Subramanian*  
14/6  
*Dr. J. Satheesh*  
14/6

**ACS College of Engineering, Bangalore-560074**  
**Department of Mechanical Engineering**



**CERTIFICATE**

Certified that the project work entitled **“FABRICATION OF BIO COMPOSITE AUTOMOBILE RADIATOR COOLING FAN”** carried out by **ASHA K G (1AH14ME006), GOKUL N BHARADWAJ (1AH14ME017), PURUSHOTHAM G (1AH14ME038), SHIVA PRASAD S (1AH14ME044)**, a bonafide students of ACS College of Engineering, Bangalore-560074, in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering Department of Visvesvaraya Technological University, Belgaum** during the year **2017-2018**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Srinidhi Acharya S R* 13/06/18

**Srinidhi Acharya S R**

**Guide**

*Dr. Siddesha H S*

**Dr. Siddesha H S**

**Head of the Department  
HOD**

**Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.**

*Dr. M S Murali* 13/6

**Dr. M S Murali**  
**Principal**

**A.C.S. College of Engineering**  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

**Signature with Date**

*P. d. J. Sathya* 14/6  
*Sathya* 14/6

**External Viva Examiners**

1. *Dr. R. Siva Subramaniam*

2. *Dr. J. Sathya*


ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru-560 074


DEPARTMENT OF MECHANICAL ENGINEERING

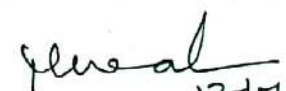


CERTIFICATE

Certified that the technical seminar report entitles "POWER GENERATION THROUGH BIKE FRONT SUSPENSION" has been carried out by NITHIN M with usn 1AH15ME414, CHETHAN H.R with usn 1AH13ME012, RAGHU A with usn 1AH13ME030, ARCHITHA N with usn 1AH14ME055, a bonafide student of ACS College of Engineering, Bengaluru, in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of the Visvesvaraya Technological University, Belagavi during the year **2017-2018**. It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

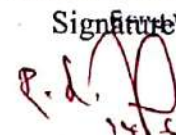
  
11/06/2018  
Signature of the Guide  
MR. KUMAR B.M

  
11/6/2018  
Signature of the HOD  
DR. SIDDESHA H. S.  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
12/06/2018  
Signature of the Principal  
DR. MURALI M. S.  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

Name of the Examiners

- 1) Dr. R. Siva Subramanian
- 2) Dr. J. Sathesh

  
14/6  
Baltaru/6

ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru – 560074  
(Affiliated to Visvesvaraya Technological University, Belagavi)




DEPARTMENT OF MECHANICAL ENGINEERING

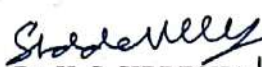
CERTIFICATE


Submitted By,

HITESH. S	1AH15ME407
PRATHAP. M. R	1AH15ME417
NITHIN. M	1AH15ME415

This is to certify that the project work entitled "**THE STUDY OF DYNAMIC PROPERTIES OF JUTE, E-GLASS AND EPOXY HYBRID COMPOSITE**" is a bonafide work carried out by the student of ACS College of Engineering, Bengaluru in partial fulfillment of the requirement of Bachelor of Engineering in Mechanical Engineering during academic year 2017-2018. It is certified that the correction and suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The Project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the bachelor of engineering degree.

  
12/6/2018  
Dr. SURESH. P. M  
Professor, MED  
ACSCE Bengaluru-74

  
12/6/2018  
Dr. H. S. SIDDESHA  
HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bengaluru - 560 074.

  
12/6/2018  
Dr. M. S. MURALI  
Principal  
ACSCE Bengaluru-74  
Principal

Name of the examiner

1. Dr. H. S. Siddesha, ACSCE, Bengaluru 13/6  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bengaluru - 560 074
2. Dr. K. S. Srinivas, SBIT, Bengaluru 13/6/18



**ACS COLLEGE OF ENGINEERING**  
**Mysore Road, Bengaluru – 560074**  
**(Affiliated to Visvesvaraya Technological University, Belagavi)**



**DEPARTMENT OF MECHANICAL ENGINEERING**

**CERTIFICATE**

Submitted By,

<b>ARJUN K</b>	<b>1AH14ME004</b>
<b>LIJIN J</b>	<b>1AH15ME410</b>
<b>ALEX WILSON</b>	<b>1AH14ME003</b>
<b>JOSE ANTONY</b>	<b>1AH12ME016</b>

This is to certify that the project work entitled “EXPERIMENTAL STUDY ON CONCENTRIC TUBE WASTE HEAT RECOVERY SYSTEM BIOMASS FUELED MULTIFUNCTIONAL COOKING STOVE”

is a bonafide work carried out by the student of ACS College of Engineering, Bengaluru in partial fulfillment of the requirement of **Bachelor of Engineering in Mechanical Engineering** during academic year 2017-2018. It is certified that the correction and suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The Project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the bachelor of engineering degree.

*[Signature]*  
**Dr. M. ESWARAMOORTHY**  
 Professor, MED  
 ACSCE Bengaluru-74

*[Signature]*  
**Dr. H. S. SIDDESHA** 12/6/18  
 HOD

*[Signature]*  
**Dr. M. S. MURALI** 7/06  
 Principal

Dept. of Mechanical Engg.  
 ACS College of Engineering  
 ACSCE Bengaluru-74  
 Bangalore - 560 074.

A.C. Principal  
 ACS College of Engineering  
 ACSCE Bengaluru-74, Kengeri H. Blk  
 Bangalore - 560 074

Name of the examiner

1. Dr. H-S-Siddesha
2. Dr. Kirankumar P

ACSCG  
 SJBIF

*[Signature]* 8/6/18  
*[Signature]* 13/6/18

ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru-560 074

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

Certified that the technical seminar report entitles "POWER GENERATION THROUGH BIKE FRONT SUSPENSION" has been carried out by NITHIN M with usn 1AH15ME414, CHETHAN H.R with usn 1AH13ME012, RAGHU A with usn 1AH13ME030, ARCHITHA N with usn 1AH14ME055, a bonafide student of ACS College of Engineering, Bengaluru, in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
11/06/2018  
Signature of the Guide

MR. KUMAR B.M


Name of the Examiners

1) Dr. R. Siva Subramanyam

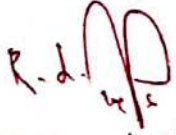
2) Dr. J. Sathesh

  
4/6/2018  
Signature of the HOD

DR. SIDDESHA H. S.  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
12/06/2018  
Signature of the Principal

DR. MURALI M. S.  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri hi.  
Bangalore - 560 074

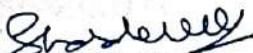
  
R. Siva Subramanyam  
11/6/18

**ACS COLLEGE OF ENGINEERING, BANGALOR74**  
**DEPARTMENT OF MECHANICAL ENGINEERING**



**CERTIFICATE**

Certified that the project work entitled "DESIGN, MODELING AND FABRICATION OF TWO STROKE AIR DRIVEN ENGINE" carried out by LAKSHMISH G (1AH15ME021), KARUNESHA H (1AH16ME411), KALLANA GOWDA G.S (1AH15ME015), MANJUNATH ANIL KHOT (1AH15ME022) bonafide students of Department of Mechanical Engineering, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the synopsis deposited in the departmental library. The final project synopsis has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.



  
**Dr. H.S Siddesha**  
Internal Guide



  
**Dr. H.S Siddesha** 11/6/2019  
HOD  
Dept of Mechanical Engg.  
Head of Department  
ACS College of Engineering  
Bangalore - 560 074.

  
**Dr. M.S Murali** 12/6/19  
A.C.S. Principal  
Engineering  
Kambipura, Mysore Road, Kengeri H. Bli.  
Bangalore - 560 074

External Viva Examiner

Signature with Date

- 1)  Dr. Suresh PM
- 2)  Dr. D.P. Girish

 12/6.  
 12/6

# ACS COLLEGE OF ENGINEERING, BANGALORE -74


## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

Certified that the project work entitled "EXPERIMENTAL INVESTIGATION ON TWO WHEELER FOUR STROKE METHANE GAS ENGINE" carried out Darshan B.N (1AH15ME009), Darshan M.S (1AH15ME010), Syed Sibghathulla (1AH15ME042), Chinnu B.R (1AH16ME405) are bonafide students of Mechanical Engineering Department, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The Project Report has been approved as it satisfies the academic requirements in respect of the Project Work prescribed for the said Degree.

  
Mr. Sunilraj B.A  
Guide



  
Dr. H S Siddesh  
Head of Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074

  
Dr. M S Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva Examiner

Signature with Date

1. Dr. Suresh PM
2. Dr. Anand

ACS College Of Engineering, Bangalore-74

Department of Mechanical Engineering



**CERTIFICATE**

Certified that the project work entitled "Production Of Nanostructure Materials By Repetitive Corrugated And Straightening Process For Low Carbon Steel Sheets" carried out by UDAY (1AH15ME046), PARVEZ M ALAM (1AH16ME413), PRADEEP B S (1AH16ME414), ROHITH KUMAR S (1AH16ME419) a bonafide students of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Sandeep G.R.*  
Guide

Sandeep.G.R  
Assistant Professor

*Dr. H.S. Siddesh*  
Head of Department 11/6/19

Dr. H.S.Siddesh  
Associate Professor  
Dept. of Mechanical Engg  
ACS College of Engineering  
Bangalore - 560 074.

*Dr. M.S. Murali*  
Principal 11/06

Dr. M.S Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Houli  
Bangalore - 560 074

External Viva

1. *Dr. Suresh PM*
2. *Dr. Chandra*

Examiner Signature with date:

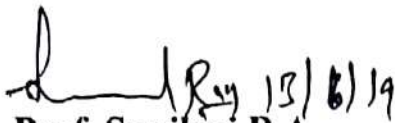
*Dr. Suresh PM*  
*Dr. Chandra*  
11/6


ACS COLLEGE OF ENGINEERING  
DEPARTMENT OF MECHANICAL ENGINEERING




CERTIFICATE

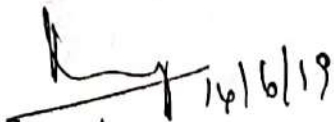
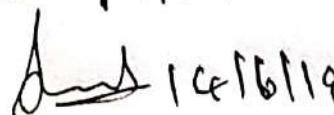
Certified that the project work entitled "FABRICATION OF MECHANIZED HAND CART" carried out by KARTHIK B M (1AH14ME022), PRADEEP MS (1AH14ME035), KARTHIK DALABHANJAN (1AH15ME408), VINAYKUMAR B V (1AH15ME423) bonafide students of Department of Mechanical Engineering, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belagavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the synopsis deposited in the departmental library. The first phase project synopsis has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
13/6/19  
Prof. Sunilraj B A  
Guide

  
13/6/19  
Dr. H.S. Siddesha  
Head of Department Engg.

  
13/6/19  
Dr. M S Murali  
Principal  
ACS College of Engineering  
Bangalore - 560 074. Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074

Dr. R. Mohan Raj  
Sunil Raj BA

  
14/6/19  
  
14/6/19

# ACS COLLEGE OF ENGINEERING, BANGALORE -74

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

Certified that the project work entitled **AUTOMATED CHAIN CLEANING AND LUBRICATION SYSTEM FOR SPORTS MOTORCYCLES** carried out by **Karthik S Bharadwaj (1AH15ME017)**, **Kashyap Krishnan P (1AH15ME018)**, **Prasanna Vignesh P N (1AH15ME028)** are bonafide students of Mechanical Engineering Department, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belgavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The Project Report has been approved as it satisfies the academic requirements in respect of the Project Work prescribed for the said Degree.

HOD

Dept. of Mechanical Engg.  
ACS College of Engineering

Bangalore - 560 074

*Dr. H S Siddesha*  
23/5/2019  
Dr. H S Siddesha

Head of Department

*Dr. M S Murali*  
12/6/19  
Dr. M S Murali

Principal

Principal

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

*Prof. Chandrashekhar B*  
23/05/19  
Prof. Chandrashekhar B

Guide

External Viva Examiner

Signature with Date

1. *Dr. Suresh PM*

*Suresh PM* 12/6/19

2. *Dr. Shivanna*

*Shivanna* 13/6/19

ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru – 560074  
(Affiliated to Visvesvaraya Technological University, Belagavi)




DEPARTMENT OF MECHANICAL ENGINEERING

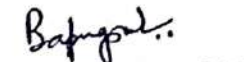
CERTIFICATE


Submitted By,

ANAND A	1AH16ME402
AMARESH S	1AH16ME401
ASHOK K	1AH16ME403
SUNIL R	1AH16ME422

This is to certify that the project work entitled "Evaluation of dynamic mechanical properties of hybrid composite with shear thickening fluid" is a bonafide work carried out by the student of ACS College of Engineering, Bengaluru in partial fulfillment of the requirement of Bachelor of Engineering in Mechanical Engineering during academic year 2018-2019. It is certified that the correction and suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The Project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the bachelor of engineering degree.

  
Dr. SURESH P M  
Guide  
Professor  
ACSCE Bengaluru-74


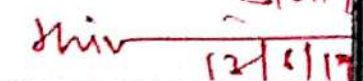
  
BAPUGOWDA C M  
Co-Guide  
Assistant professor  
ACSCE Bengaluru-74

  
Dr. H. S. SIDDESHA  
HOD  
HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
ACSCE Bengaluru-74

  
Dr. M. S. MURALI  
Principal  
Principal  
ACSCE Bengaluru-74  
Kambipura, Mysore Road, Kengeri Hot  
Bengaluru - 560 074

Name of the examiner

1. Dr. Suresh P M
2. Dr. S. S. S. S. S.

  
12/6/19  
  
12/6/19






# ACS College of Engineering

Approved by AICTE New Delhi, Affiliated to VTU, Belagavi  
(A Unit of RajaRajeswari Group of Institutions)

## DEPARTMENT OF MECHANICAL ENGINEERING

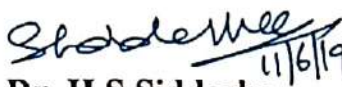
### CERTIFICATE

This is to certify that the project work entitled "AN EXPERIMENTAL INVESTIGATION ON THE PERFORMANCE OF SINGLE CYLINDER CI ENGINE FUELLED WITH CALOPHYLLUM INOPHYLLUM BIODIESEL USING TiO<sub>2</sub> NANOPARTICLES AS AN ADDITIVE" is a bonafide work carried out by D LOKESH (1AH15ME008), PRATEEK R (1AH15ME029), AMIT BHATTARAI (1AH15ME004), VISHNUKANTH (1AH14ME052) and submitted in partial fulfillment for the award of Bachelor of Engineering in Mechanical of Visvesvaraya Technological University, Belgavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Dr. R Siva Subramaniyam  
Internal Guide

External Examiner



- 1) Dr. Suresh PM
- 2) Dr. Anurag M

  
Dr. H.S Siddesha  
Head of Department

Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
Dr. M S Murall  
Principal

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

ACS COLLEGE OF ENGINEERING  
Mysore Road, Bengaluru – 560074  
(Affiliated to Visvesvaraya Technological University, Belagavi)



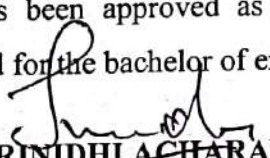
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Submitted By,

ABHISHEK .M	1AH16ME425
DARSHAN B.V	1AH16ME408
GOWTHAMA K.M	1AH16ME410
VEERESH .R	1AH16ME423

This is to certify that the project work entitled “DESIGN AND FABRICATION OF AUTOMOBILE BRAKING SYSTEM USING MAGNETORHEOLOGICAL FLUID” is a bonafide work carried out by the student of ACS College of Engineering, Bengaluru in partial fulfillment of the requirement of Bachelor of Engineering in Mechanical Engineering during academic year 2018-2019. It is certified that the correction and suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The Project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the bachelor of engineering degree.

  
SRINIDHILACHARAYA S R

Guide,

Assistant professor

  
Dr. H. S. SIDDESHA

HOD

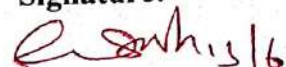
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
Dr. M. S. MURULI

Principal

A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

Signature:



Name of the examiner:

1. Dr. S. Urvashi P.M.
2. Dr. Shivarama

  
12/11/19

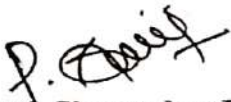
ACS COLLEGE OF ENGINEERING, BANGALORE -74  
DEPARTMENT OF MECHANICAL ENGINEERING

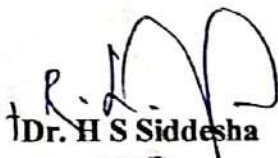


CERTIFICATE

Certified that the project work entitled ELECTRIC VEHICLE PROPULSION USING SHAPED MAGNETIC FIELD carried out by Akash R (1AH15ME003), Tejas B S (1AH15ME043), Usha B G (1AH15ME047), are bonafide students of Mechanical Engineering Department, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belgavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library.

The Project Report has been approved as it satisfies the academic requirements in respect of the Project work prescribed for the said Degree.

  
Prof. Sivasankar P  
Guide


  
Dr. H S Siddesha  
HOD  
Head of Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

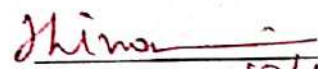
  
Dr. M S Murali  
Principal  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva Examiner

Signature with Date

1. Dr. Suresh PM
2. Dr. Shivanna

  
13/6/19

  
13/6/19

# ACS COLLEGE OF ENGINEERING, BANGALORE -74

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

Certified that the project work entitled **AUTOMATED CHAIN CLEANING AND LUBRICATION SYSTEM FOR SPORTS MOTORCYCLES** carried out by **Karthik S Bharadwaj (1AH15ME017), Kashyap Krishnan P (1AH15ME018), Prasanna Vignesh P N (1AH15ME028)** are bonafide students of Mechanical Engineering Department, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belgavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The Project Report has been approved as it satisfies the academic requirements in respect of the Project Work prescribed for the said Degree.

*Ches 23/05/2019*  
Prof. Chandrashekhar B  
Guide

HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.  
*Siddesha 23/5/2019*  
Dr. H S Siddesha  
Head of Department

*Murali 12/6/19*  
Dr. M S Murali  
Principal  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

External Viva Examiner

Signature with Date

1. Dr. Suresh PM
2. Dr. Shivanna

*Suresh PM 13/6/19*  
*Shivanna 13/6/19*


# ACS COLLEGE OF ENGINEERING, BANGALORE-74

## DEPARTMENT OF MECHANICAL ENGINEERING

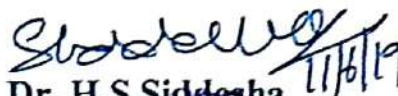



### CERTIFICATE

Certified that the project work entitled "AUTOMATED HYDRAULIC JACK BY USING INTERNAL BATTERY OF THE VEHICLE" carried out by KAMLESH B PUROHIT (1AH15ME016), JNANESH R (1AH15ME014), MANJUNATH R (1AH15ME023), PARVEEZ AHAMED (1AH15ME027) bonafide students of Department of Mechanical Engineering, ACS College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical Department of Visvesvaraya Technological University, Belgavi during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the synopsis deposited in the departmental library. The final project synopsis has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.


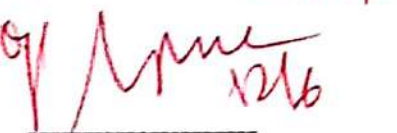
  
Mr. Kumar B M  
Guide

External Viva Examiner

  
Dr. H.S Siddeha  
Head of Department Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
Dr. M.S Murali  
Principal  
A.C.S. College of Engineering  
Chambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074  
Signature with Date

- 1) DR. SURESH P.M
- 2) DR. LAKSHY

# ACS COLLEGE OF ENGINEERING

Approved by AICTE New Delhi, Affiliated to VTU, Belagavi  
(A Unit of RajaRajeshwari Group of Institutions)

## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify the project work entitled **DEVELOPMENT OF SOLAR INTEGRATED DISH ANTENNA** carried out by **SHREYAS V(1AH16ME037),**  
**CHETHAN PRABHU ARER(1AH16ME012),**  
**UNDAVALLI PRASHANTH(1AH16ME042),**  
**BASAVARAJPOTARAVINDHRA(1AH16ME008),**  
bonafide students of ACS College of Engineering, in partial fulfilment for the award of BACHELOR OF ENGINEERING in Mechanical Engineering of Visvesvaraya Technological University Belagavi during the year 2019-2020. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Sunil Raj*  
MR SUNIL RAJ  
BA  
Guide

*H.S. Siddesh*  
H.O.B.  
Dr. H. S. Siddesh  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Head of Department

*Murali*  
Dr. M. S. Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Rengeri Hobli,  
Bangalore - 560 074

1. Internal Examiner.
2. External Examiner

*Dr. Suran PM*

*[Signature]*

ACS COLLEGE OF ENGINEERING

Mysore Road, Bengaluru – 560074

DEPARTMENT OF MECHANICAL ENGINEERING



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify the project work entitled “DESIGN AND FABRICATION OF STANDING WHEEL CHAIR FOR SPECIALLY ABLED PERSON” carried out by DARSHAN S GAGGRI (1AH16ME014), MANISHA MANOHARAN (1AH16ME027), NIKITHA MA (1AH16ME030), bonafide students of ACS College of Engineering, in partial fulfilment for the award of BACHELOR OF ENGINEERING in Mechanical Engineering of Visvesvaraya Technological University Belagavi during the year 2019-2020. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
Dr. Suresh P M

Internal Guide

  
Dr. H.S Siddesha

Head of Department

  
Dr. M S Murali

Principal, ACSCE

EXTERNAL VIVA

Name of the Examiner

1. Dr. Suresh P M



Signature

1. Prof. Kumara. B.M.



# ACS COLLEGE OF ENGINEERING


Approved by AICTE New Delhi, Affiliated to VTU, Belagavi  
(A Unit of RajaRajeshwari Group of Institutions)

## DEPARTMENT OF MECHANICAL ENGINEERING

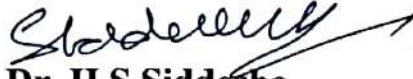


### CERTIFICATE

This is to certify the project work entitled "**DESIGN AND FABRICATION OF CARBON FIBER FRAME FOR FIREARM**" carried out by **KARTHIK KUMAR Y S (1AH16ME021)**, **MELVIN M VAZ (1AH16ME028)**, **NATARAJA N (1AH16ME029)**, **THRISHEEL BALAJI R (1AH16ME041)**, bonafide students of ACS College of Engineering, in partial fulfilment for the award of **BACHELOR OF ENGINEERING** in Mechanical Engineering of Visvesvaraya Technological University Belagavi during the year 2019-2020. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.


  
**Dr. Suresh P M**  
Guide

1. Internal Examiner

  
**Dr. H S Siddesha**  
HOD  
Head of Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074

  
**Dr. M S Murali**  
Principal  
ACS College of Engineering  
Bangalore - 560 074

2. External Examiner

  
Prof. K. Narayana M.



## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

Certified that the project work entitled "STUDY OF SESAME OIL WITH ADDITIVE AS BIO LUBRICANT" carried out by Mr. ASHISH YADAV USN: 1AH14ME430, Ms. YESHASWINI.L USN: 1AH14ME054, Mr. ATIQ UR RAHMAN USN: 1AH15ME005, Ms. YASHASWINI.C USN: 1AH16ME430, the bonafide students of ACS College of Engineering, Bengaluru:560074 in Mechanical Engineering Department in the partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering as prescribed by Visvesvaraya Technological University, Belagavi during the academic year 2019-2020. It is certified that all the corrections/suggestions indicated for the internal assessment have been incorporated in the report deposited in the department library.

The project report has been approved as it satisfies the academic requirements in respect of internship work prescribed for the above said degree.

*Srinidhi Acharya*  
Project Guide

Mr.Srinidhi Acharya.S.R

*Srinidhi Acharya*  
HOD  
Head of the Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

*Murali*  
Principal  
27/09/2020

Dr. M.S. Murali  
Principal  
A.C.S. College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli,  
Bangalore - 560 074

EXTERNAL VIVA	
Name of the Examiners	Signature with date
1.	
2.	

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project work titled **DESIGN AND FABRICATION OF WET WASTE CRUSHER** has been successfully carried out by **ABHIJEET B R (1AH16ME001), TEJAS KUMAR (1AH16ME429), PUNITH N (1AH16ME415), ANOOP N (1AH16ME005)** bonafide students of **ACS COLLEGE OF ENGINEERING** in partial fulfilment for the award of *Bachelor of Engineering in Mechanical Engineering* under **Visvesvaraya Technological University, Belagavi** during the academic year **2020**. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree

  
Signature of Guide

**Dr.H.S.Siddesha**

  
Signature of HOD

**Dr.H.S.Siddesha**  
HOD  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.

  
Signature of Principal

**Dr. M S Murali**



## CERTIFICATE

Certified that the project work entitled "Ultra-fined-grained structure development of Carbon Steel processed using severe plastic deformation process by constrained groove pressing - cross route" carried out by GOUTHAM C (1AH17ME006), SUHAAS KAPARDHI B S (1AH17ME020), LIKITH KUMAR B K (1AH17ME010), SANJAY M B (1AH17ME016) a bonafide student of ACS College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Mechanical department of Visvesvaraya Technological University, Belgaum during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

*Shashidhar*  
Guide 5/8/2021  
HOD

Dr. H. S. Sridhesha  
Head of Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074.  
External Viva

*Shashidhar*  
5/8/2021  
HOD

Dr. H. S. Sridhesha  
Head of Department  
Dept. of Mechanical Engg.  
ACS College of Engineering  
Bangalore - 560 074

*Murali*  
Principal 25/08/21

Dr. M. S. Murali  
Principal  
Dept. of Mechanical Engineering  
ACS College of Engineering  
Kambipura, Mysore Road, Kengeri Hobli  
Bangalore - 560 074  
Examiner Signature with date:

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the seminar topic work titled **Manually Operated Inter Crop Cultivator** has been successfully carried out by **ABHISHEK CHOUBEY(1AH17ME001), G NAGESH(1AH17ME005), SOURABH KUMAR SINGH (1AH17ME019), VEERESH ASHOKKUMAR KADALE(1AH17ME023)**, bonafide student of **ACS COLLEGE OF ENGINEERING** in partial fulfilment for the award of *Bachelor of Engineering in Mechanical Engineering* under **Visvesvaraya Technological University, Belagavi** during the academic year 2020-21. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The seminar topic report has been approved as it satisfies the academic requirements in respect of seminar topic for the said degree.

  
Signature of Guide

Prof. SIVASANKAR P

  
Signature of HOD

HOD  
Dept. of Mechanical Engg.  
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Bangalore - 560 074.

  
Signature of Principal

Dr. M S Murali

External Viva-voce

Name of Examiners:

Signature with date

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(Approved By AICTE, New Delhi, Affiliated To VTU, Belagavi)

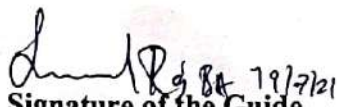


## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

Certified that the Project Work entitled "FABRICATION OF SHEET METAL CUTTING MACHINE AND FOOT STEP POWER GENERATION" has been successfully carried out by Mr. Lohith M C (1AH17ME011), Mr. Nitish G (1AH17ME015), Mr. Anil Kumar (1AH17ME003), Mr. Vinod Kumar K (1AH17ME024) Bonafide Students of ACS College of Engineering, Bengaluru in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of the Visvesvaraya Technological University, Belagavi for the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

  
Signature of the Guide  
Prof. Sunil Raj B A  
Assistant Professor

  
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Dr. H S Siddesha  
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Name of Examiners

Signature with date

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2

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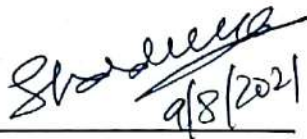
### CERTIFICATE

This is to certify that the project work titled “**DESIGN AND FABRICATION OF MECHANICAL SWEEPING CUM WASTE COLLECTION MACHINE**” has been successfully carried out by **YESHWANTH S (1AH17ME025), VARUN S (1AH16ME043), INDRESH C VODEYAR (1AH17ME007), PUNEETH KUMAR R (1AH17ME403)** the bonafide students of **ACS COLLEGE OF ENGINEERING** in partial fulfilment for the award of *Bachelor of Engineering in Mechanical Engineering* under **Visvesvaraya Technological University, Belagavi** during the academic year **2021**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in respect of internship for the said degree.

  
9/8/2021

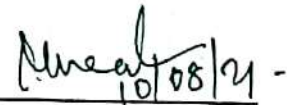
Signature of Guide

**Dr. H S Siddesha**

  
9/8/2021

Signature **HOD**

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10/08/21

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## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the **Project Report** work entitled  
**“DESIGN AND DEVELOPMENT OF MOVABLE HEADLIGHT  
BY CAR STEERING”**

carried out by

KOUSTUBHA V	1AH17ME009
MANOJ R	1AH17ME012
NITHISH GOWDA K P	1AH17ME014
SHARATH KUMAR M	1AH17ME017

Are bonafide students of **ACS COLLEGE OF ENGINEERING, BENGALURU** in partial fulfilment for the award of **Bachelor of Engineering in Mechanical engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2020-2021**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of projectwork phase-II prescribed for the said degree.

  
Sunil Raj B A

Internal Guide

  
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Dr. M.S. Murali

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ACS COLLEGE OF ENGINEERING, BANGALORE -74  
DEPARTMENT OF MECHANICAL ENGINEERING

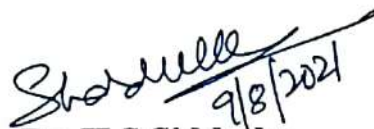


CERTIFICATE

This is to certify that project entitled “DESIGN OF SELF-BALANCING TWO-WHEELER USING GYROSCOPE” is a bonafide work carried out by AKHILA VASANTH SHETTY(1AH17ME002), JEEVAN M(1AH17ME008), K SRINIVAS(1AH16ME038), in partial fulfilment for the award of Degree of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for the said Degree.

  
9/8/2021  
Dr. Suresh P M

Guide

  
9/8/2021  
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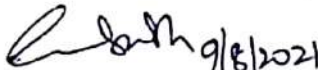
DEPARTMENT OF MECHANICAL ENGINEERING



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## CERTIFICATE

This is to certify the project work entitled “DESIGN AND FABRICATION OF LOW COST, MODIFIED, MANOEUVRABLE, STANDING AND STRETCHER WHEELCHAIR TRANSPORT SYSTEM” carried out by DEEPAK GOWDA .L VINAY .H, CHARAN GOWDA .G and RAJESH .V are bonafide students of ACS College of Engineering, Project report submitted in partial fulfilment for the award of BACHELOR OF ENGINEERING in Mechanical Engineering of Visvesvaraya Technological University Belagavi during the year 2020-2021. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

  
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## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the **Project Report** work entitled  
“**FABRICATION AND MECHANICAL CHARACTERISTICS OF  
ALUMINIUM REINFORCED WITH SiC**”

carried out by

KUSHAL N	1AH14ME028
PRAJWAL V	1AH14ME036
GURUPRASAD D N	1AH15ME012
ROHAN NAYAK	1AH16ME417

Are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Mechanical engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2020-2021**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of projectwork phase-II prescribed for the said degree.



Srinidhi acharya S R

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Dr. Siddesha H.S

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Dr. Murali

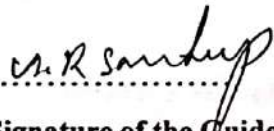
M.S

Principal



## CERTIFICATE

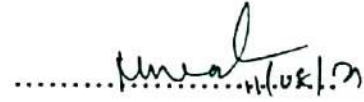
Certified that the Project Work entitled “**FLEXURE DESIGN FOR PRECISION ENGINEERING**” has been successfully carried out by **Mr. SAGAR S MIRAJE (1AH16ME036), MS. R ANITHA (1AH16ME032), Mr. LOHITH KUMAR (1AH16ME025), Mr. MEGHRAJ MALGE (1AH16ME047)** Bonafide Students of ACS College of Engineering, Bengaluru in partial fulfillment for the award of Bachelor of Engineering in **Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** for the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.



Signature of the Guide  
MR. SANDEEP G R  
Assistant Professor



Signature of the HOD  
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Department of Mechanical  
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Dr. M. S. MURALI  
Principal of ACSCE

Principal  
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Bangalore - 560 074

SL No.	Name of Examiners	Signature with date
1.	.....	.....
2.	.....	.....

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## DEPARTMENT OF MECHANICAL ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled "Automatic Motorbike Stand Slider" carried out by

RANGARAJU C  
RAKESH YARADONI  
VIJAY KUMAR M R

(1AH16ME034)  
(1AH16ME033)  
(1AH17ME407)

are bonafide students of ACS COLLEGE OF ENGINEERING, BENGALURU in partial fulfilment for the award of **Bachelor of Engineering in Mechanical Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.


  
Mr. Kumara BM

Internal Guide

Name of the Examiners

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- 2.

  
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Principal  
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Bangalore - 560 074  
Signature with Date

# ACS COLLEGE OF ENGINEERING

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## DEPARTMENT OF AEROSPACE ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "NOZZLE DESIGN OPTIMIZATION TO REDUCE NOISE IN TURBO ENGINES" is a bonafide work carried out by Ms.Abhirami K, Ms.Amrutha HR, Ms.Anushree R Koushik, Ms.Sharon V bearing university register number 1AH17AS002, 1AH17AS005, 1AH17AS006, 1AH17AS031 Aerospace Engineering, from Visvesvaraya Technological University, Belgaum during the year 2020-2021. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the degree.

  
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Dr. Mukesh R  
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ACSCE-Bangalore

  
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Dr. M.S Murali  
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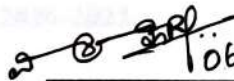
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## DEPARTMENT OF AEROSPACE ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work "Design, Analysis and Simulation of Solar Sail Propulsion System for CubeSats" is a bonafide work carried out by **Ajay Yalameli, Jijin P Savyar, M Ashok Kumar and Renisha Ruth Pereira**, in partial fulfilment for the award of the Degree of **Bachelor of Engineering in Aerospace ENGINEERING** of the **Visvesvaraya Technological University, Belgaum** during the year **2020-2021**. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

  
06/08/21

Signature of Internal Guide

**Ms. Vidyashree K R**

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HOD

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Bangalore

#### External Viva

Name of the Examiners

Signature & Date

1.

2.

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## DEPARTMENT OF AEROSPACE ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "ICE PROTECTION SYSTEM DESIGN AND ANALYSIS OF BASIC AIR DATA SYSTEM (PITOT STATIC TUBE)" is a bonafide work carried out by Ms. Arpitha M B, Ms. Prajna H N, Ms. Sankeerthana M, Mr. Sanket Shivaji Neharkar bearing university register number 1AH17AS007, 1AH17AS023, 1AH17AS027, 1AH17AS028 in partial fulfilment of award of the degree of Bachelor of Engineering in Aerospace Engineering, from Visvesvaraya Technological University, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the degree.

*Rm*

*Rm*

*Murali 09/08/21*

**Signature of Guide**  
Dr. R. Mukesh  
Professor and Head  
Dept. of Aerospace Engineering  
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**Signature of HOD**  
Dr. R. Mukesh  
Professor and Head  
Dept. of Aerospace Engineering  
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**Signature of Principal**  
Dr. M.S Murali  
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**Principal**

**Name of the Examiner**

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**Signature**  
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**CERTIFICATE**

This is to certify that the dissertation work “CFD ANALYSIS OF THE AEROSPIKE NOZZLE” is a bonafide work carried out by Chandana MJ, Jagadish J, Jiji C Joy, and Srigoiri A, in partial fulfilment for the award of the Degree of Bachelor of Engineering in Aerospace Engineering of Visvesvaraya Technological University, Belgaum during the academic year 2020-2021. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guide

Signature of HOD

Signature of Principal

**Dr. P. THEERTHAMALAI**

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### Certificate

This is to certify that the dissertation work entitled "Investigation of Propeller effects on Ice Protection System Design" is a bonafide work carried out by Chandu C P, Dhansingh Bhandari J, Sathya Moorthy k, Sidhapara Mitul Mukesh Bhai, bearing USN 1AH17AS010, 1AH17AS011, 1AH17AS030, 1AH17AS032 respectively, in partial fulfillment of award of the degree of Bachelor of Engineering in Aerospace Engineering, from Visvesvaraya Technological University, Belgaum during the year 2020-2021. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the degree.

  
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Prof. & head of the  
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**CERTIFICATE**

This is to certify that the dissertation work "STUDY OF FUEL SLOSHING AND STRUCTURAL SIZING OF AIRCRAFT AUXILIARY FUEL TANK" is a bonafide work carried out by Jayadrath Sudhakar Poojary, Suneha R, Tarun K and Yukthashree HM, in fulfilment for the award of the Degree of Bachelor of Engineering in AEROSPACE ENGINEERING of the Visvesvaraya Technological University, Belgaum during the year 2020-2021. It is certified that all corrections/ suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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Signature of HOD

Dr. MUKESH R  
Prof. & Head of the  
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**HOD**

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Dr. M.S MURALI  
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2. \_\_\_\_\_

Signature

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## DEPARTMENT OF AEROSPACE ENGINEERING



### CERTIFICATE

This is to certify that the dissertation work entitled "THRUST VECTOR CONTROL FOR SOLID ROCKET MOTOR" is a bonafide work carried out by Mr. R Sai Bhuvan (1AH17AS024), Mr. Nithin B L (1AH17AS021), Mr. Minhazul Hussain (1AH17AS019), Mr. Mahendar B S (1AH17AS018) AEROSPACE ENGINEERING from Visvesvaraya Technological University, Belgaum during the year 2020-2021. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the degree.

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**DEPARTMENT OF AEROSPACE ENGINEERING**



*Certificate*

This is to certify that the dissertation work entitled “ELECTRIC PROPULSION SYSTEM FOR POCKETQUBE AND CUBESATS” is a bonafide work carried out by, MR RUTHVIK VIJAYKUMAR JOSHI, MR SARVESH J bearing university serial number 1AH17AS026, 1AH17AS029 respectively, in partial fulfillment of award of the degree of Bachelor of Engineering in Aerospace Engineering, from Visvesvaraya Technological University, Belagavi during the year 2020-2021. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the degree.

Signature of guide

Mr. KARTHIKEYAN P  
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ACSCE- Bangalore

Signature of HOD

Dr. P R MUKESH  
Prof. & HOD  
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ACSCE- Bangalore

Signature of Principal

Dr. M.S MURALI  
Principal  
ACSCE- Bangalore

**HOD**

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Name of the Examiner

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2. \_\_\_\_\_

Signature

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2. \_\_\_\_\_