



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Braille based Mobile Communication and Translation Glove for Deaf-Blind People** is a bonafide work carried out by*

Yashwanth K H	1KG14EC102
Prasanna P	1KG15EC061
Shashank P	1KG15EC075
Vishwas S	1KG15EC096

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Kripa K.B*  
*Kripa K.B*  
Name and Signature of Guide

*[Signature]*  
Head of the Department

*[Signature]*  
Principal/Director  
**D. MA NARASIMHA**  
Principal/Director  
K S School of Engineering and Management  
Bengaluru - 560 109

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P. B. Manoj* / *[Signature]* 13.6.19  
Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Implementation of IoT based Intelligent Vehicle System for Pollution Monitoring using ARM7** is a bonafide work carried out by*

Aishwarya J	1KG15EC001
Anusha R	1KG15EC007
Jeevitha J V	1KG15EC027
P R Aishwarya	1KG15EC053

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

*Zoiba Zoiba*

Name and Signature of  
Guide

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

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

*[Signature]*  
Principal/  
Director

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P. B. Manoj* / *[Signature]* / *12.6.19*  
Name and Signature of Examiner-2



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



**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled "Implementation of Biometric Based and Aadhaar Linked Electronic Voting Machine for Migrated People" is a bonafide work carried out by*

P Sai Teja

1KG15EC054

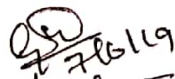
K Y Keerthi


1KG15EC031

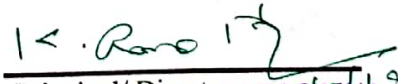
Anusha S P

1KG15EC008


*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

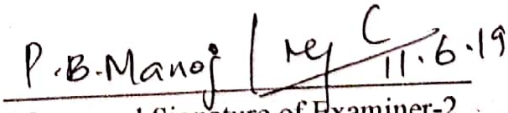
  
Ganesheela T. J.  
Name and Signature of  
Internal Guide

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

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

University Examiners:

  
Name and Signature of Examiner-1

  
P. B. Manoj  
Name and Signature of Examiner-2  
11.6.19

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



**Department of Electronics and Communication Engineering**

## Certificate

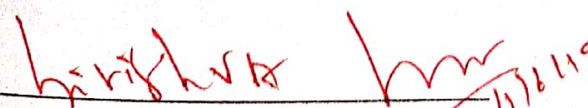
*This is to certify that the project work entitled Design and Implementation of Canal Automation using LabVIEW is a bonafide work carried out by*

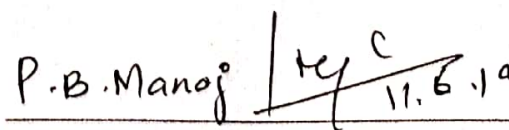
Ajay Kumar U	1KG15EC002
Aravind R K	1KG15EC011
Chethan M	1KG15EC015
H P Ruthwik Nayak	1KG15EC022

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 Name and Signature of Internal Guide	 Head of the Department Professor & head Dept. of Electronics & Communication Engineering K. S. School of Engineering & Management Bangalore-560 109	 Principal/ Director Dr. K. RAMA NARASIMHA Principal/Director K. S. School of Engineering and Management Bengaluru - 560 109
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University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2



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**Department of Electronics and Communication Engineering**

## Certificate

*This is to certify that the project work entitled **Design and Implementation of a Smart Glove using ESP32 for Gesture Recognition Applications** is a bonafide work carried out by*

Sahana R	1KG15EC070
Sumithraj Shetty U	1KG15EC085
Sushma G S	1KG15EC090

*in partial fulfilment for the award of **Bachelor of Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

BAu  
(Ravikiran B.A.)

Name and Signature of  
Internal Guide

[Signature]  
11/11/19

Head of the Department  
Professor & Head

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

[Signature]  
11/11/19

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

Dept. of Engineering and Management  
Bangalore - 560 109

University Examiners:

[Signature]  
12.6.19

Name and Signature of Examiner-1

P. B. Manoj / [Signature]  
12.6.19

Name and Signature of Examiner-2

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



**Department of Electronics and Communication Engineering**

## **Certificate**

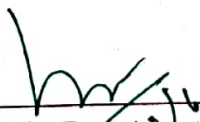
*This is to certify that the project work entitled **Implementation Of Smart Robot For Land Survey Using Arduino Mega** is a bonafide work carried out by*

<b>Alekhya J</b>	<b>1KG15EC004</b>
<b>Atiya Fatima</b>	<b>1KG15EC013</b>
<b>Mamatha M</b>	<b>1KG15EC041</b>
<b>Pathipati Yaswanth Kumar</b>	<b>1KG15EC057</b>


*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
**SHANTHALA. G. M.**

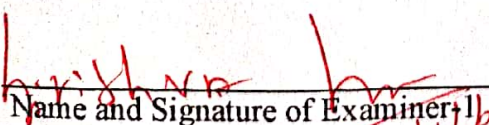
Name and Signature of  
Internal Guide

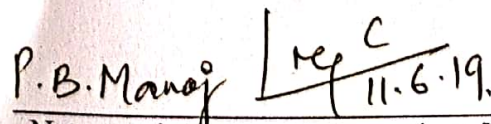
  
Head of the Department  
Professor & Head

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

  
Principal/ Director  
**Dr. K. RAMANARASIMHA**  
Principal/Director  
of Engineering and Management  
Bangaluru - 560 109

University Examiners:

  
Name and Signature of Examiner-1

  
Name and Signature of Examiner-2





**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of Human Emotion Recognition System From Voice Samples Using MFCC and SVM" is a bonafide work carried out by*

<b>G Mahesh</b>	<b>1KG15EC018</b>
<b>Kavitha GN</b>	<b>1KG15EC033</b>
<b>Lekhashree K</b>	<b>1KG15EC040</b>
<b>R M Mouhith</b>	<b>1KG15EC064</b>

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

*Shilpa A.P (E.Pg)*  
Internal Guide

*[Signature]*  
Head of the Department

*[Signature]*  
Principal/ Director

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

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

University Examiners:

*[Signature]*  
Name and Signature of Examiner-1

*P.B. Manoj* / 19/13.6.19  
Name and Signature of Examiner-2

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

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062



Department of Electronics and Communication Engineering

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of LFM for Radar Timing Generation by DDS Technique on an FPGA" is a bonafide work carried out by*

Pooja M R	1KG15EC058
Sanjana M	1KG15EC073
Sudhanva Anand	1KG15EC083
Vibha N	1KG15EC095

*in partial fulfilment of the requirements for VIII Semester of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work prescribed for the degree.*

Dinesh  
10/6/19  
Name and Signature of  
Internal Guide

[Signature]  
10/6/19  
Head of the  
Department

[Signature]  
Principal/  
Director

University Examiners:

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

School of Engineering & Management  
Bangalore-560 062

[Signature]  
12/6  
Name and signature of examiner 1

P. B. Manoj  
12/6-19  
Name and signature of examiner 2



**K.S. School of Engineering and Management**  
No. 15, Mallasandra, off Kanakapura Road, Bangalore-560062



**Department of Electronics and Communication Engineering**

# Certificate

*This is to certify that the project work entitled Design And Implementation Of Autonomous Driverless Car is a bonafide work carried out by*

Sai Smitha Reddy P	1KG15EC071
Srikanth V M	1KG15EC082
Varsha M	1KG15EC093
Velur Geethanjali	1KG15EC094

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

Internal Guide  
Mrs. Shalini Shravan  
Assistant Prof, Dept of ECE  
KSSEM, Bangalore

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

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

University Examiners:

Name and Signature of Examiner-1

Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled **Design and Implementation of Smart Energy Management System** is a bonafide work carried out by*

Sanjana R	1KG15EC074
Sireesha M	1KG15EC080
Suhas G R	1KG15EC084

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

*Renuka V. T*  
8/6/19

Name and Signature of  
Internal Guide

*[Signature]*  
10/6/19

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

*[Signature]*

Principal/  
Direct  
Principal / Director  
K.S. School of Engineering & Management  
Bangalore-560 062

University Examiners:

*[Signature]*  
12/6/19

Name and Signature of Examiner-1

*[Signature]*  
12.6.19

Name and Signature of Examiner-2



# K.S. School of Engineering and Management

No. 15, Mallasandra, off Kanakapura Road, Bengaluru-560062.



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

Department of Electronics and Communication Engineering

## Certificate

*This is to certify that the project work entitled Smart Traffic Awareness System is a bonified work carried out by*

**Aniruddha M Vajpeyam**

**1KG14EC005**

**Yeshwanth Kumar M R**

**1KG13EC118**

**Umesh N**

**1KG14EC056**

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of technical seminar prescribed for the degree.*

*Vijayalaxmi C. Kalal*  
*V. Kalal*

Name and Signature of the

Internal Guide

*[Signature]*

Head of the Department  
Professor & Head

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

*[Signature]*  
**Dr. K. RAMANARAJAN**

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

University Examiners  
*[Signature]*  
**Dr. P. Karthik**

Name and Signature of Examiner-1

*[Signature]*  
**G. K. VENKATESH**

Name and Signature of Examiner-2



**Department of Electronics and Communication Engineering**

*Certificate*

*This is to certify that the project work entitled "Design and Implementation of Agricultural Robot for Sowing Seeds and Irrigation in Real Time using IoT" is a bonafide work carried out by*

Divya Prathibha	1KG15EC017
Harshitha T H	1KG15EC025
K Vineeth	1KG15EC030
KavyaShree P	1KG15EC036

*in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

  
10/6/19

Internal Guide

  
10/6/19

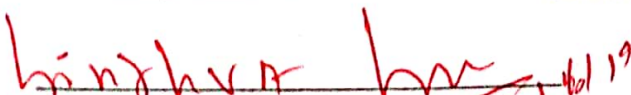
Head of the Department  
Professor & Head



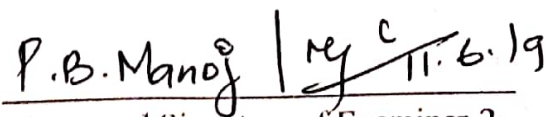
Principal/Director  
Principal/Director

Dept. of Electronics & Communication Engineering School of Engineering & Management  
K. S. School of Engineering & Management Bangalore-560 062  
Bangalore-560 109

University Examiners:

  
11/6/19

Name and Signature of Examiner-1

  
11.6.19

Name and Signature of Examiner-2



# K.S. School of Engineering and Management

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



## Department of Electronics and Communication Engineering

### Certificate

This is to certify that the project work entitled "Development of IoT based Remote Monitoring System for Air and Water Pollutants in Industrial Environment" is a bonafide work carried out by

Anupamashree S	1KG15EC006
Gowri Priya A C	1KG15EC021
Harshitha P	1KG15EC024
Keerthishree K V	1KG15EC037

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

PUNGETH S 20/5/19  
Name and Signature of  
Guide

[Signature]  
Head of the  
Department  
Professor & Head

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

University Examiners:

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

[Signature] 11/6/19  
Name and Signature of Examiner-1

[Signature] 11.6.19  
Name and Signature of Examiner-2

**K.S. School of Engineering and Management**  
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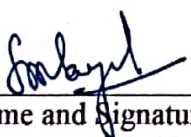
**Department of Electronics and Communication Engineering**


## *Certificate*

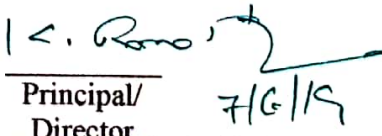
*This is to certify that the project work entitled **Age Estimation Using Deep Learning** is a bonafide work carried out by*

Divya O	1KG14EC021
Nikhath Ameena	1KG15EC047
Nischitha B	1KG15EC048
Priyadarshini N D	1KG15EC062

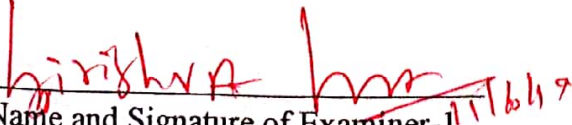
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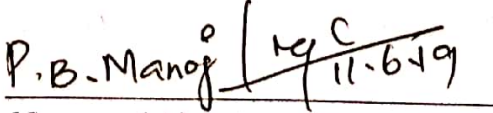
  
Name and Signature of  
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Head of the  
Department  
Professor & Head  
Dept. of Electronics & Communication Engineering  
K. S. School of Engineering & Management  
Bengaluru-560 109

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

University Examiners:

  
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Name and Signature of Examiner-2



# K.S. School of Engineering and Management

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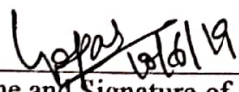
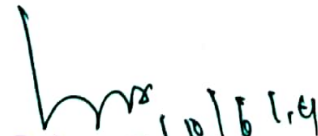

Department of Electronics and Communication Engineering

## Certificate

*This is to certify that the project work entitled **Development and Implementation of Highway Electric Power Generation Using Wind Turbine for Smart Traffic and Light Control System** is a bonafide work carried out by*

Apeksha M	1KG15EC009
Apoorva J Purohit	1KG15EC010
Ashalatha A	1KG15EC012
Kouser Khanum	1KG15EC038

*in partial fulfilment for the award of **Bachelor of Engineering in Electronics and Communication Engineering** of Visvesvaraya Technological University, Belgaum, during the year 2018-19. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and this thesis satisfies the academic requirement in respect of project work prescribed for the degree.*

 Name and Signature of Guide	 Professor & Head Dept. of Electronics & Communication Engineering K. S. School of Engineering & Management Bengaluru - 560 109	 Principal/Director Dr. K. RAM NARASIMHA K S School of Engineering and Management Bengaluru - 560 109
--------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

University Examiners:

 Name and Signature of Examiner-1	 Name and Signature of Examiner-2
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