

### SRI SRINIVASA EDUCATIONAL AND CHARITABLE TRUST® SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE, New Delhi)

(Accredited by NAAC with "A" grade) Accredited by NBA (CSE, ECE, EEE, ISE, ME)

(An ISO 9001:2015 & ISO 14001:2015 Certified)

SI.No.	Batch. No.	USN No.	Student Name	Project Tittle	Guide
1	1	1SG19EC002	ABHISHEK VIDYADAR SHETT	CONCRETE CRACK DETECTION USING CNN	DR. PRAKASH JADHAV
2		1SG19EC054	MOHAMMED MAAZ HAMEED		
3		1SG19EC058	NITIKA KUMARI		
4		1SG19EC082	S RAVEESH KOTI		
5	2	1SG19EC093	SHREYAS G RAJ	IOT BASED WHEEL CHAIR AND HOME	PROF. AGALYA P
6	2	1SG19EC096	SM FÁRAZ HUSSAIN	AUTOMATION	TROL AGALIAT
7		1SG19EC099	SUBHASH BS		
8		1SG19EC005	AMITOJE SINGH	IOT BASED AUTOMATIC VEHICLE ACCIDENT ALERT SYSTEM FOR 4 WHEELER AS WELL AS 2 WHEELER	PROF. MANASA M G
9	3	1SG19EC053	MANYA UPADHYAY		
10	3	1SG19EC055	MOHAMMED MOULANA		
11		1SG19EC075	RAJAPU RISHIKESH		
12	- 190	1SG19EC065	PRAVEEN B R	ELECTRONIC NASAL MASK	PROF. MANASA M G
13	4	1SG19EC077	RANJITH S G		
14	4	1SG19EC090	SHIVAM KUMAR SHARMA		
15		1SG19EC105	SWAROOP S		
16		1SG19EC061	POORNIMA S		
17	5	1SG19EC072	RAHUL N	DESIGN AND IMPLEMENTATION OF SLEEP APNEA DETECTION SYSTEM	PROF. KALAVATHI S
18	5	1SG19EC086	SANJAY K		rkor. KALAVATHI S
19	2120 10 10	.1SG12EC102	SUMANTH C GOWDA		
20		1SG19EC015	BHOOMIKA N	AN PERIOPAT DEED I FADAUDIO ED AME WORK	19

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road Bengalure

21	6	1SG19EC041	INCHARA V	AN EFFICIENT DEEP LEAKNING FRAME WORK	PROF. KALAVATHI S
22		1SG19EC049	LATHA T S	TOR DISTRACTED DRIVER DETECTION	
23		1SG19EC088	SHASHANK R	INTELLIGENT WATER DISTRIBUTION AND MONITORING SYSTEM	A she was a second s
24	7	1SG19EC089	SHIVAM KUMAR O		PROF. VINUTHA C
25		1SG19EC080	ROHITH D G	MONITORING STSTEM	
26		1SG19EC025	DEEPIKA P		· · · · · · · · · · · · · · · · · · ·
27	8	1SG19EC038	HARSHITHA N	SMART MEDICINE BOX FOR BLIND AND OLD	PROF. GIRISH J R
28	0	1SG20EC409	SACHIN M J	AGE PEOPLE	FROF. UIKISH J K
29		1SG20EC411	SHILPA S		
30		1SG19EC101	SUMANA M	DESIGN AND DEVELOPMENT OF MONITOPING	DR. PRAKASH JADHAV
31	9	1SG19EC111	VANDHANA S	DESIGN AND DEVELOPMENT OF MONITORING	
32		1SG19EC017	BINDHU H C		
33		1SG19EC004	AKSHAY KUMAR HP	HAND GESTURER RECOGNITION CHATBOT FOR DISEASE PREDICTION AND TREATMENT RECOMMENDATION USING MACHINE LEARNING	PROF.SHOBHA S
34	10	1SG19EC063	PRATHIK R GOWDA		
35	10	1SG19EC070	KISHORE R		
36		1SG20EC404	HONNESH BABU PN		
37	11	1SG19EC062	PRASHANTH K B	MULTI TENANCY EV CHARGING STATION	PROF. RAVISHANKAR M N
38	11	1SG19EC066	PREETAM HEGDE	MOLTI TENANCI EV CHAROINO STATION	
39		1SG20EC404	MEGHANA H P		DR. SHOBHA H
40	12	1SG20EC405	NANDITHA G	FOOD FRESHNESS MANAGEMENT SYSTEM	
41	12	1SG20EC407	PRAVEEN B	USING IOT	
42		1SG20EC408	PUSHPALATHA K R		
43		1SG19EC067	PREETI KULKARNI		
44	13	1SG19EC095	SINDHU S	MACHINE LEARNING TECHNIQUE FOR BREAST CANCER PREDICTION AND DIAGNOSIS	PROF. VEENA N
45	15	1SG19EC117	VISMAYA.B.V		TROF. VEENA IN
46		1SG19EC120	YASHASWINI.S		0
47			ANANYA. P		

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48	14	1SG19EC028	DINESH. B	LI-FI TECHNOLOGY BASED PATIENT HEALTH	PROF. SHILPA V
49		1SG19EC040	HITAISHI. S	MONITORING AND TRACKING SYSTEM	
50		1SG19EC092	SHIVANI. V		
51		1SG19EC076	RAKESH L		
52	15	1SG19EC083	SAGAR A	ATM FOR VISUALLY IMPAIRED PERSON	PROF. PRATIBHA P
53	10	1SG19EC084	SAI GANESH C S	ATM FOR VISUALLY IMPAINED PERSON	I KOL I KATIDIA I
54	e na subter	1SG19EC098	SRINIVAS N KAUSHIK		
55		1SG19EC013	BHAVANA N		
56	16	1SG19EC014	BHAVANA P S	SMART LIBRARY SORTING USING IMAGE	DDOE CUMA V CHETTY
57	10	1SG19EC045	KOKILA A S	PROCESSING	PROF. SUMA V SHETTY
58		1SG19EC029	DIPTHI N		
59		1SG19EC024	DARSHAN PATEL		
60	17 -	1SG19EC051	MANJUNATHA M	EMS: AN ENERGY MANAGEMENT SCHEME FOR GREEN IOT ENVIRONMENT	DR. PRAKASH JADHAV
61		1SG19EC059	PK SHRIRAM		
62		1SG19EC060	PAVAN K S		
63	- 18	1SG19EC009	ANUSHKA S	DESIGN AND IMPLEMENTATION OF ASSISTIVE ROBOT FOR ELDERLY AND IMPAIRED PERSON	DR. A M NAGARAJ
64		1SG19EC026	DHANUSH GM		
65	10	1SG19EC027	DHANUSH V		
66		1SG19EC048	KUSHAL BHARADWAJ BA		
67		1SG19EC091	SHIVAM SHIVA		
68	19	1SG19EC074	RAHUL KUMAR YADAV	DITELLICENT MIDEO CUDUM ENCE QUOTEN	
69	19	1SG19EC106	TAPAN UPADHAYAY	INTELLIGENT VIDEO SURVILENCE SYSTEM	DR. H C SATEESH KUMAR
70		1SG19EC094	SHUBHAM PATHAK		
71			CHANDAN D	1.1.2.1. Sector 1	
72	20		HARSHAN GOWDA KH	DETECTION OF ADULTRATION IN FRUITS USING	
73	20		HEMANTH KUMAR L	MACHINE LEARNING	PROF. SHILPA V
74	h de al		MANOJ H		0

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75		1SG19EC023	CHANDRIKA D	STOCK MARKET PREDICTION USING MACHINE	PROF. RAVISHANKAR M N
76	21	1SG19EC033	GOURIPRIYA R		
77	21	1SG19EC037	HARSHITHA H G	LEARNING	
78		1SG19EC109	V VARSHINI		
79		1SG19EC007	ANIL KUMAR YADAV P		
80	22	1SG19EC011	AVINASH H M	MULTIPURPOSE AGRICULTURAL ROBOT	PROF. SUGNYANI PATIL
81	22	1SG19EC012	BHARGAV A	MOLTH OKI OSE AGRICULTOKAL KOBOT	TROF. SUCHTAINTATIL
82		1SG19EC044	KISHAN C S		
83		1SG19EC030	DIVYASHREE G K	DEGION OF AN EFFICIENT OUA DOE NUMBERING	
84	23	1SG19EC043	KAVANA T R	DESIGN OF AN EFFICIENT CHARGE PUMP PHASE LOCK LOOP USING CMOS 90NM TECHNOLOGY	PROF. GIRISH J R
85		1SG19EC022	CHANDRASHEKAR Y M	ECCR ECCI CONTO EMOS JUNIT TECHNOLOGI	
86		1SG19EC112	VARSHA M	CNN BASED PRECODER AND COMBINER IN MM- WAVE MIMO SYSTEM	PROF.SHOBHA S
87	24	1SG19EC107	TARANUM BANU		
88	24	1SG19EC116	VINUTHA MJ		
89		1SG19EC069	PURUSHOTHAM R		
90		1SG20EC401	HARSHITH V	IOT BASED HEART DISEASE PREDICTION AND DIAGNOSIS MODEL FOR HEALTHCARE USING MACHINE LEARNING MODELS	DR. A M NAGARAJ
91	25	1SG20EC412	SUHAS S		
92	25	1SG20EC406	NIKHIL SS		
93		1SG19EC085	SANGEETH M		
94		1SG19EC100	SUCHARITHA M G		PROF. PRATIBHA P
95	26	1SG19EC110	VAISHNAVI U S	CNN BASED OBJECT RECOGNITION TO ASSIST	
96	20	1SG19EC115	VINUTHA H V	VISUALLY IMPAIRED PEOPLE.	
97		1SG19EC104	SUSHMA M M		
98		1SG19EC097	SNEHARANI U		- 6 - 6
99	27	1SG19EC103	SUSHMA B O		PROF. PADMAVATHI C
100	27	1SG19EC108	THANUSHREE G	SMART SHOES	
101		1SG19EC118	YAMUNA A C		$\cap$

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102	28	1SG19EC113	VIJAYAKUMAR S N	IOT BASED PROBING OF HIDDEN CAMERA	PROF. SUMA V SHETTY
103		1SG20EC400	GOWTHAM S MAGAR		
104	28	1SG20EC403	LAKSHMISHA J P	USING RF SIGNALS.	PROF. SUMA V SHETTY
105		1SG20EC410	SANDEEP O		体的目的情况。自我的
106		1SG19EC034	HARISHGOWDA T R		
107	29	1SG19EC032	GIRISH REDDY S	BIOMETRICALLY SECURED ATM VIGILANCE	DR. H C SATEESH KUMAR
108	29	1SG19EC003	ADARSH GOWDA K R	SYSTEM	DR. HC SATEESH KUMAK
109		1SG19EC050	MANISH SHAH R		
110		1SG19EC073	RAHUL N		PROF. RANJITHA R
111	30	1SG19EC078	RAVIKIRAN	IOT BASED SMART MIRROR USING RASPBERRY PI.	
112	30	1SG19EC079	REVAYYA KABBURMATH		
113		1SG19EC114	VIKRAM PARASANAGOUDRA		
114		1SG19EC008	ANUSHA C	A MACHINE LEARNING METHODOLOGY FOR DIAGONISING CHRONIC KIDNEY DISEASE.	PROF. PADMAVATHI C
115	31	1SG19EC018	BRUNDA G P		
116	51	1SG19EC019	BRUNDA P		
117		1SG19EC056.	MONICA VALENTINA M		
118			BHUVANA K S		PROF. AGALYA P
119	32		GAGANA KUMARI N	SVIN DIVEL DETECTION LIQUIC DEED LEADNING	
120	52	1SG19EC057	NIRUPAMA G	SKIN PIXEL DETECTION USING DEEP LEARNING	
121		1SG19EC071	RACHANA M		
122		1SG19EC087	SANKEERTH M		
123	33	1SG19EC081	RITHVIK GOWDA H		
124	33	1SG19EC064	PRAVEEN A	CROP PREDICTION USING NEURAL NETWORK	PROF. VEENA N
125		1SG19EC042	JEEVAN TV		the manual states and

**Project Coordinator** 

Principal Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Roy Bengaluru - 560 057

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### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled "Concrete Crack Detection Using Image Pre-Processing and Deep Learning" is a bonafide work carried out by

Abhishek Vidyadhar Shet	1SG19EC002
Mohammed Maaz Hameed	1SG19EC054
Nitika Kumari	1SG19EC058

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

**Project Viva Voce** 

Dr. Prakash Jadhav Associate Professor

Name of Examiners

d)of the Department ins formulation Elec Sapthagin College of Engineering DBH C Sateesh Komar

Head of the Department

Dr. H Ramakrishna Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057

2. Dr. Balach Jack

Signature with Date

Principal Sapthagiri College of Engineering 14/5. Chikkasandra, Hesaraghatta Main Road) Rengaluru - 560 057

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### Bengaluru-560057

### **Department of Electronics & Communication Engineering**



### CERTIFICATE

This is to certify that the project work entitled "Development of wheel chair control system with home automation" is a bonafide work carried out by

S Raveesh Koti Shreyas G Raj S M FARAZ Hussain Subhash B S 1SG19EC082 1SG19EC093 1SG19EC096 1SG19EC099

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Prof. Agalya P

Guide

Department Japi Dry H Colatesh Kumar Head of the Department

Dr. H Ramakrishna Principal

#### **Project Viva Voce**

**Signature with Date** 27/1

Name of Examiners

1. Dr. Prakash Judhov. 2. Dr. Ray Nehoules W

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled IOT Based Automatic Vehicle Accident Alert System For 4 Wheelers and 2 Wheelers is a bonafide work carried out by

> Amitoje Singh Manya Upadhyay Mohammed Moulana Rajapu Rishikesh

1SG19EC005 1SG19EC053 1SG19EC055 1SG19EC075

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Prof. Manasa M G

Assistant Professor

th Department St on Smunication, Elecher Bapth Drith Co'sateesh Kuthapering

Bangator 560 057. Head of the Department

**Project Viva Voce** 

Dr. H Ramakrishna Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

Name of Examiners

1. Dr. Raexbarealer 2. Dr. Bakosh Jadhov

Signature with Date

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled Electronic Nasal Mask with Band is a bonafide work carried out by

Praveen B R Ranjith S G Shivam Kumar Sharma Swaroop S

1SG19EC065 1SG19EC077 1SG19EC090 1SG19EC105

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 scribed for the degree. r

the Department unication ga of Engineering Sapthal Prof. Manasa M G Dr. H.C. Sateesh Kumar Dr. H Ramakrishna Principal Assistant Professor Head of the Department Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057 **Project Viva Voce** Name of Examiners Signature with Date 2004 Longar a 2. Dr. Prakash Judhan Sapthagiri College of Engleening 4/5, Chikkasandra, Hesarook

Bengati

BH

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**Department of Electronics & Communication Engineering** 



#### CERTIFICATE

This is to certify that the project work entitled Design and Implementation of Sleep Apnea Detection System is a bonafide work carried out by

Poornima S 1SG19EC061 Rahul N 1SG19EC072 Sanjay K 1SG19EC086 Sumanth C Gowda 1SG19EC102

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 rescribed for the degree.

Kalavalti.S. Kalavathi S

Guide

Dr. HC Sateesn Kumar	Dr. ri Kalliaki isilila
Head of the Department ment Electronics & Communication	Principals
Électronics & Communication	lagin Conege of English Road
Electronics & Communication Sapthagiri College of Engineering Project Viva Voce	Rongalure- 560 007
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Name of Examiners 1. Dr. Bakoch Jcolhon

**Signature with Date** 

rincipal Sapthagin College of Engineering 14/5, Chikkasandra, Heseraghatta Main Road Bengaluru - 560 057

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled "DRIVER DISTRACTION AND DROWSINESS DETECTION" is a bonafide work carried out by

Bhoomika N	1SG19EC015
Inchara V	1SG19EC041
Latha T S	1SG19EC049

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the suggestions

dicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work phase 2 prescribed for the degree.

Kalavalti .S. Prof. Kalavathi S

Assistant Professor

Jead of the Department Dr. H C Sateesh Kumar Electronics & Communicati BapHead of the Department Bangalor 560 007

Dr. H Ramakrishna On **Principal** Sapthagin College of Enginee Chikkasandra, Hesaraghatta Ro Bangalore-560 057

#### Name of Examiners

1. Dr. Raeve Laloer V 2. Dr. Prakash Judbar

**Project Viva Voce** Signature with Date bid

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled Intelligent Water Distribution And Monitoring System is a bonafide work carried out by

Rohith D G Shashank R Shivam Kumar O 1SG19EC080 1SG19EC088 1SG19EC089

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the suggestions indicated during internal assessment have been incorporated in the report and <sup>+</sup>his report satisfies the academic requirement in respect of project work phase 2  $_{\rm P}$  rescribed for the degree.

limetto, CM.

Prof. Vinutha C M Assistant Professor

Dr. H C Sateesh Kumar Head of the Department

**Project Viva Voce** 

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Dr. H	Ramakrishna	>
Pr	incipal	

Name of Examiners

Prakash Jadhon

Signature with Date

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled A SMART MEDICINE BOX FOR BLIND AND OLD AGE PEOPLE is a bonafide work carried out by

> DEEPIKA P HARSHITHA N SACHIN M J SHILPA S

1SG19EC025 1SG19EC038 1SG20EC409 1SG20EC411

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the suggestions

dicated during internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work phase 2 prescribed for the degree.

0 Sug

Prof. Girish J R Guide

Name of Examiners

1. Dr. Kayharlar 4 2. Dr. Brakash Judhar

the Department Elec Bapt Dr. H C Sateesh Kumar

Head of the Department

Dr. H-Ramakrishna

Principalal Sapthagiri College of Engineer Chikkasandra, Hesaraghatta Roa

**Project Viva Voce** 

Bangalore-560 057 Signature with Date

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Bengaluru-560057

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### CERTIFICATE

This is to certify that the project work entitled **Development of Incubator Monitoring System Using IoT** is a bonafide work carried out by

Bindhu H C	1SG19EC017
Sumana M	1SG19EC101
Vandhana S	1SG19EC111

partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2

prescribed for the degree. df the Department Electr minunication Bapthager AddstackEKumaring Dr. H Ramakrishna Dr. Prakash Jadhav Bangalor 580 057 Head of the Department Bringipab Guide Sapthaglri College of Engineering Chikkasandra, Hesarant at **External Viva** Bangalore- 850 057 Signature with date Name of the examiners (rubble 2719)23 1. Dr. Prakash Jadhan 2. Dr. Ray Lailer W

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### CERTIFICATE

This is to certify that the project work entitled "Hand Gesture Recognition and Voice Conversion for Deaf and Aphonic People" is a bonafide work carried out by

Akshay Kumar HP Prathik R Gowda R Kishore Honnesh Babu PN 1SG19EC004 1SG19EC063 1SG19EC070 1SG20EC402

in partial fulfilment for the award of the degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the suggestions indicated during the internal assessment have been incorporated in the report and this report satisfies the academic requirement in respect of project work phase 2 prescribed for the degree.

Prof. Shobha S Associate Professor

of the Department SICIAD Communication Dr. H.C. Satesh Kumar

Head of the Department

**Project Viva Voce** 

Dr. H Ramakfishna Principal Sapthagiri College of Engineerin Chikkasandra, Hesaraghatta Road Bangalore- 560 057

Name of Examiners

1. Dr. Prakosh Judhar 2. Dr. Raliglanow W

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**Signature with Date** 

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**Department of Electronics & Communication Engineering** 



#### CERTIFICATE

This is to certify that the project work entitled Multi Tenancy EV Charging Station is a bonafide work carried out by

> Prashanth K B 1SG19EC062 1SG19EC066 Preetam Hegde

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

andar

Prof. Ravi Shankara M N Guide

Name of Examiners

2. Dr. Prakash Judhar

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HDrsHPC Sateesh Kumar ation HDreffec Sateesh Kumar anon Electronics & Communerteering Head of the Departmenteering Sapthagiri College of Engineerin Bangalori -560 057

H Ramakrishna Dr.

Chikkasandra, Hesaraghalla Road Bangalore-560057

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Signature with Date

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### CERTIFICATE

This is to certify that the project work entitled Food Freshness Management System Using IOT is a bonafide work carried out by

> **MEGHANA HP** NANDITHA G PRAVEEN B PUSHPALATHA KR

1SG20EC404 1SG20EC405 1SG20EC407 1SG20EC408

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 escribed for the degree.

Dr Shobha Hugar

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Dr. H Ramakris Principa Dr. H C Sateesh Kumar Head of the Department

BeHead of the Department cations apthagiri Bonegel of Engineerin Chikkasandra, Hesaraghatta Road Sapthagiri Gollege of Engineering Bangalore- 560 057 Bangalon Project Viva Voce

Name of Examiners

1. Dr. Kourshaulh W 2. Dr. Prakosh Judhan

Signature with Date

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#### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



#### CERTIFICATE

This is to certify that the project work entitled "USING MACHINE LEARNING ALGORITHM FOR BREAST CANCER PREDICTION" is a bonafide work carried out by

PREETI KULKARNI	[1SG19EC067]
SINDHU S	[1SG19EC095]
VISMAYA B V	[1SG19EC117]
YASHASWINI S	[1SG19EC120]

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics* & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 1 prescribed for the degree

ful

Prof. Veena N Guide

#### **External Viva**

Name of the examiners 1. Do Peoleen <sup>2.</sup> Dr. Prakash Jadhan

Hubs the Department Electron & Communications Sapth Dur Hool Baycosh Kuyinvering Head of the Department

ng Dr. H Ramakrishna Principal Sapthagiri Confine of Engineering Chikkesandre, Hesaraghetta Road Engineer 560 057

Signature with date Prolla 23/5/23

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#### Bengaluru-560057

Department of Electronics & Communication Engineering

#### CERTIFICATE

This is to certify that the project work entitled Li-Fi Technology-Based Patient Health Monitoring \*and Heart Disease Prediction Using ML is a bonafide work carried out by

ANANYA P	
DINESH B	
HITAISHI S	
SHIVANI V	

1SG19EC006 1SG19EC028 1SG19EC040 1SG19EC092

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Shinpu i

Assistant Professor

the Department onumentation llede of Engineering Dr.HOSucesh Kannar-

Head of the Department

Dr. H Bamak Incipal

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Name of Examiners

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2. Dr. Ponkash Jadher

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#### <u>CERTIFICATE</u>

This is to certify that the project work entitled **ATM for Visually Impaired Person** is a bonafide work carried out by

Rakesh L	1SG19EC076		
Sagar A	1SG19EC083		
Sai Ganesh C S	1SG19EC084		
Srinivas N Kaushik	1SG19EC098		

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree

Prof. Prathibha P Guide

Name of Examiners 1. Dr. Rockash Jadhan

Bapthage Concerning

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Elect

Head of the Department

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Dr. H. Ramakrishna Sapthagiri Collegepal Engineering Chikkasandra, Hesaraghatta Road, Bangalore-560 057

Signature with Date 23/5/22

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### CERTIFICATE

This is to certify that the project work entitled Library Book Sorting Using Image Processing is a bonafide work carried out by

Bhavana N	1SG19EC013		
Bhavana P S	1SG19EC014		
Dipthi N	1SG19EC029		
Kokila A S	1SG19EC045		

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

he Department Sume V Shelty Dr. H C Sateesh Kumar Prof. Suma V Shetty

Guide

Head of the Department

**Project Viva Voce** 

Dr. H Ramakrishna Principal

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Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Signature With Date

Name of Examiners

1. Dr. Rakash Jaelha

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### CERTIFICATE

This is to certify that the project work entitled Simulation of Wireless Sensor Network for Energy Management in IoT Environments is a bonafide work carried out by

> Darshan Patel Manjunatha M P K Shriram Pavan K S

1SG19EC024 1SG19EC051 1SG19EC059 1SG19EC060

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 rescribed for the degree.

Dr. Prakash Jadhav Guide

the Department lar Communication r College of Excineering Japthagir Head of the Department

Dr. H Ramakrishna Punetpal Sapthagiri Collegeof Engineerin Chikkesandre, Hesareghatta Road Bangalore-560057

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Name of Examiners

2. Dr. Brakash Jadhar

Talho

**Signature with Date** 

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**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled **DESIGN AND IMPLEMENTATION OF AN ASSISTIVE ROBOT FOR ELDERLY AND IMPAIRED PERSON** is a bonafide work carried out by

ANUSHKA S1SG19EC009DHANUSH G M1SG19EC026DHANUSH V1SG19EC027KUSHAL BHARADWAJ B A1SG19EC048

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 vork phase 2 prescribed for the degree.

Dr. A M Nagaraja

Professor

of the Department



Elec Dr. HCC Sateesh Klimaration Bapthagur College of Engineering Head of the Department

Dr. H Ramakrishna

Ad of the Department Principal Project Viva Voce apthagiri College of Engineming Chikkasandra, Hesaraghatta Road, Signatune with Date

Name of Examiners

Prakayh Talher

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### **CERTIFICATE**

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

Shivam Shiva Rahul Kumar Yadav Tapan Shubham Pathak

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in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 r escribed for the degree.

Dr. H C Sateesh Kumar

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Dr. H C Sateesh Kumar

Head of the Department

Dr. H Ramakrishna Principal

Name of Examiners

1. Dr. A. H. Nagarye 2. Dr. Shreesha Kalhoor

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**Department of Electronics & Communication Engineering** 



### **CERTIFICATE**

This is to certify that the project work entitled **Detection of Adulteration in fruits** using Machine Learning and IoT is a bonafide work carried out by

Chandan D Harshan Gowda KH Hemanth kumar L Manoj H 1SG19EC020 1SG19EC035 1SG19EC039 1SG19EC052

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

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g Dr. H Ramakrishna Principal Sapthagiri College Of Engineerin Chikkasandra, Hesaraghatta Road Bangalore- 560 057

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#### CERTIFICATE

This is to certify that the project work entitled STOCK MARKET PREDICTION USING MACHINE LEARNING is a bonafide work carried out by

> CHANDRIKA D **GOURI PRIYA R** HARSHITHA H G **V VARSHINI**

1SG19EC023 1SG19EC033 1SG19EC037 1SG19EC109

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 escribed for the degree.

10. Sen

Associate Professor

Head o tment Prof. Ravi Shankara M N 32 Dr. H C Satesh Kumar Gring

Head of the Department

560 057

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Name of Examiners

1. Dr. AM. Nagany 2. Dr. Shreesha Kalkoor

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**Department of Electronics & Communication Engineering** 



#### **CERTIFICATE**

This is to certify that the project work entitled **MULTIPURPOSE AGRICULTURE ROBOT** is a bonafide work carried out by

> ANIL KUMAR YADAV P AVINASH HM BHARGAV A KISHAN C S

1SG19EC007 1SG19EC011 1SG19EC012 1SG19EC044

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

**Project Viva Voce** 

Dr. Prakash Jadhav Associate Professor

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Head of the Department

Dr. H Ramakrishna Principal Sapthagiri Oowegel of Engineowin Chikkasandra, Hesaraghatta Road Bangalore-560 057

Name of Examiners 1. Dr. Am. Nojam 2. Dr. Shreesha Kalkoor

Signature with Date 24/05 23

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### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### **CERTIFICATE**

This is to certify that the project work entitled "Design of an Efficient Charge Pump Phase Lock Loop using CMOS 90nm Technology" is a bonafide work carried out by

> CHANDRASHEKAR Y M DIVYA SHREE G K KAVANA T R

1SG19EC022 1SG19EC030 1SG19EC043

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Prof. Girish J R Assistant Professor

achment

Head of the Department

Dr. H.Ramakrishna PPrintoipal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore-560 057

Name of Examiners

1. Dr. Shreesha Kalboor

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Signature with Date 05

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#### CERTIFICATE

This is to certify that the project work entitled Deep CNN-based precoder and combiner Design using mm-wave MIMO system is a bonafide work carried out by

Purushotham R
Taranum Banu
Varsha M
Vinutha M J

1SG19EC069 1SG19EC107 1SG19EC112 1SG19EC116

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Prof. Shobha S

Associate Professor

office Depart

Principal

EDICIPIC Sateesh Kumar SFthe Bepartment

Dr. H Ramakrishna angalor 560 057 Sapthagiri CollegeorlEngineering Project Viva Voce Chikkasandra, Hesaraghatta Road

Name of Examiners

1. Dr. Am. Negani 2. Dr. Shreesha Kalboor.

Bangalore- 560 057 Signature with Date 24/05/23

Sapthagirl College of Engineering Principal 14/5, Chikkasandra, Hesarach Bengaluru .

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### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled Heart Disease Diagnostic IOT Model Using ML Technique is a bonafide work carried out by

> SANGEETH M HARSHITH V NIKHIL S S SUHAS S

1SG19EC085 1SG20EC401 1SG20EC406 1SG20EC412

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Dr. AM Nagaraja

Guide

Dr. H Ramakrishna

Bas

Dr. H C Sateesh Kumar Head of the Department Head of the Department Electronics & Communication Sapthagiri College of Engineering Sapthagiri College of Engineering

Principal Chikkasandre, Hesarsghatta Road

Bangalore-560 057

Name of Examiners

BanProject Viva Voce

Dr. Shreesha Kaltoor

**Signature with Date** 22 D

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#### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled "Virtual Assistance for Visually Impaired People Using Machine Learning" is a bonafide work carried out by

> Sucharitha M G Sushma M M Vaishnavi U S Vinutha H V

1SG19EC100 1SG19EC104 1SG19EC110 1SG19EC115

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 ork phase 2 prescribed for the degree.

Prathibha P

Guide

ad of the Department Ele cs & Communication San lege of Engineering Dr. H C Sateesh Kumar

Head of the Department

Dr. H Ramakhishna Principal) Sapthagiri College of Engineeri

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**Project Viva Voce** 

Chikkasandra, Hesarsghatta Read Bangalore-560057

Name of Examiners 1. Dr. A 2. Dr. Shree

Signature with Date 05

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#### Bengaluru-560057

Department of Electronics & Communication Engineering



#### CERTIFICATE

This is to certify that the project work entitled "SMART SHOES FOR SAFETY AND SECURITY" is a bonafide work carried out by

Sneharani U	[1SG19EC097]		
Sushma B O	[1SG19EC103]		
Thanushree G	[1SG19EC108]		
Yamuna A C	[1SG19EC118]		

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics* & *Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree,

Prof. Padmavathi C Guide

**External Viva** 

Name of the examiners 1. Dr. A. M. Nagany <sup>2</sup> Dr. Shreesha Kalkour t

the Department det uturnication, Saptian Br. HC Satsesh Symar Bangalon assesh Symar

Head of the Department

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Dr. H Ramakrishna Pincipal Sapthagir: College BrEngineering Chikkasandre, Hesaraghana Road Bangalore 560 957

Signature with date 2 7

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### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### **CERTIFICATE**

This is to certify that the project work entitled IOT BASED PROBING OF HIDDEN CAMERA USING RF SIGNAL is a bonafide work carried out by

VIJAYAKUMAR S N GOWTHAM S MAGAR LAKSHMISHA J P SANDEEP O

Sapthagin

1SG19EC113 1SG20EC400 1SG20EC403 1SG20EC410

noil

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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

Pr.HOSafeesh Kumar

Sheread of the Department neoring

**Project Viva Voce** 

ork phase 2 prescribed for the degree.

Sum v Shelty

Prof. Suma V Shetty Assistant Professor

Name of Examiners

1. Dr. A. M. Nagam 2. Dr. Shreesha Kalkoor

Signature with Date 05

Dr. H'Ramakrishna

Sapinagiri Collegerol Engineering Principal

Chikkesendra, Hesartelevier

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Rose

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ISO 9001-2015 and 14001-2015 certified Institute

### Bengaluru-560057

Department of Electronics & Communication Engineering



### **CERTIFICATE**

This is to certify that the project work entitled **BIOMETRICALLY SECURED MULTI-ACCOUNT INTEGRATED ATM CARD** is a bonafide work carried out by

ADARSH GOWDA K R GIRISH REDDY S HARISH GOWDA T R MANISH SHAH R 1SG19EC003 1SG19EC032 1SG19EC034 1SG19EC050

in partial fulfillment for the award of degree of *Bachelor of Engineering in Electronics & Communication Engineering* of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Dr. H C Sateesh Kumar Guide & Head of the Department apthage College of Engineering Bangaron 500 057.

Bze

Dr. H Ramakrishna

Principal Principal Sapthagiri College of Engineering Project Viva Voce<sup>Chikkasandra,</sup> Hesaraghatta Road, Bangalore-560,057

Name of Examiners

1. Dr. Shreesha Kalboor

Signature with Date 25/05/23

Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta M Bengaluru - 580

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### Bengaluru-560057

Department of Electronics & Communication Engineering



### CERTIFICATE

This is to certify that the project work entitled Smart Mirror Using Raspberry PI is a bonafide work carried out by

Rahul N Ravikiran Revayya Kabburmath Vikram P

1SG19EC073 1SG19EC078 1SG19EC079 1SG19EC114 BB

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in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Ranjitz R 13/05/23 gpartment Cummication Bangalori Satesh Kyman Dr. H Ramakrishna Mrs. Ranjitha R Principal Sapthagiri Collegeipetngineering Head of the Department Assistant Professor Chikkasandra, Hesaraghatta Road Bangalore- 560 057 **Project Viva Voce Signature with Date** Name of Examiners 1. Dr. A. M. Nagaroja 2. Dr. Shreesha Kallcoor Ø Principal Sapthagiri College of Engineering

14/5, Chikkasandra, Hesaraghatta Main Roar Bangaluru - 580 057

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Bengaluru-560057 **Department of Electronics & Communication Engineering** 



### **CERTIFICATE**

This is to certify that the project work entitled Machine Learning Algorithms in Predicting Chronic Kidney Disease is a bonafide work carried out by

Anusha C Brunda G P Brunda P Monica Valentina M 1SG19EC008 1SG19EC018 1SG19EC019 1SG19EC056

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

ettee. C

Prof. Padmavathi C Assistant Professor

id of the Department And set oremunication An College of Engineering Bant Dr. H.C. Sateesh Kumar

Head of the Department

Dr. H Ramakrishna

33

Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

**Project Viva Voce** 

Name of Examiners

1. Dr. A.M. N-gam

Signature with Date

rincipal Sapthagiri College of Engineering 14/5, Chikkasandra, Hesara Rangal

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#### Bengaluru-560057

**Department of Electronics & Communication Engineering** 

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### CERTIFICATE

This is to certify that the project work entitled DEEP LEARNING FRAMEWORK FOR SKIN DETECTION IN COLOR IMAGES is a bonafide work carried out by

Bhuvana K S Gagana Kumari N Nirupama G ISG19EC016 1SG19EC031 1SG19EC057

in partial fulfillment for the award of degree of **Bachelor of Engineering in Electronics & Communication Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 prescribed for the degree.

Agalya

Associate Professor

Dr. H C Sateesh Kumar Head of the Department

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Dr. H Ramakrishna Anincipal Sapthagiri College of Engineering Chikkasandra, Hosaraghatta Road Bangalore- 560 057

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Name of Examiners

1. Dr. Am. Nrgam 2. Dr. Shreesha Kalkoor

Signature-with Date 12 05 23

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ISO 9001-2015 and 14001-2015 certified Institute

### Bengaluru-560057

**Department of Electronics & Communication Engineering** 



### CERTIFICATE

This is to certify that the project work entitled CROP PREDICTION USING MACHINE LEARNING is a bonafide work carried out by

> **JEEVAN TV** PRAVEEN A **RUTHVIK GOWDA H** SANKEERTH M

1SG19EC042 1SG19EC064 1SG19EC081 1SG19EC087

in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. 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 phase 2 cribed for the degree. DI

wf the Department Head Elect ts & Communication apillasi sering Dr. HC Sateesh Kumar

VEENA N

Guide

Head of the Department

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Dr H	Ran	nakrişl	ina

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**Project Viva Voce** 

Name of Examiners

1. Dr. A.M. Wayam 2. Dr. Shreesha Kalkoor

**Signature with Date** 

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