

PROJECT WORK PHASE-2 (18ECP83) REPORT ON

"EYE AND VOICE CONTROLLED WHEELCHAIR"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

NAME

Vikas S Benal Niranjan Sridhar R Shanmukha Srinivas Vijay Y

<u>USN</u>

1MV20EC124 1MV20EC126 1MV20EC127 1MV20EC128

Under the Guidance of

Mrs. N Bhuvaneswari Assistant Professor, Dept of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Hunasamaranahalli, Bengaluru-562157

SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

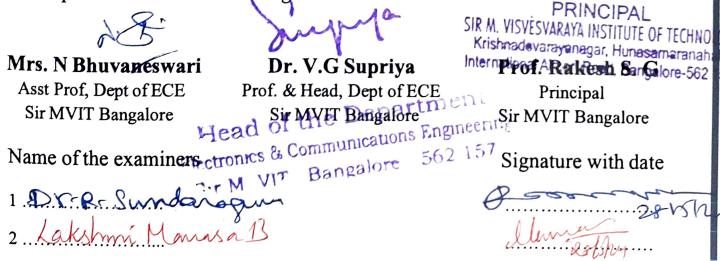
(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major-project work entitled "EYE AND VOICE CONTROLLED WHEELCHAIR" is carried out by VIKAS **BENAL(1MV20EC124)**, NIRANJAN SRIDHAR(1MV20EC126). R.SHANMUKHA SRINIVAS(1MV20EC127), VIJAY. Y(1MV20EC128) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all 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 in respect of Major Project work prescribed for the said Degree.





MAJOR PROJECT PHASE-I REPORT

on

"DIABETIC RETINOPATHY DETECTION"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS

- 1. DEVIKA H A
- 2. DIDDUKURI JOSHNA
- 3. LIKITH C K
- 4. PADAPATI LIKHITH

<u>USN</u>

1MV20EC042 1MV20EC044 1MV20EC067 1MV20EC068

Under the Guidance of Mrs. Vijayalakshmi S

Associate Professor



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Phase 1 of Major-project work entitled "DIABETIC **DETECTION**" is carried out by **DEVIKA** RETINOPATHY Η A (1MV20EC042), DIDDUKURI JOSHNA (1MV20EC044), LIKITH C K (1MV20EC067), PADAPATI LIKHITH (1MV20EC068) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all corrections and suggestions indicated for Internal Assessment havebeen incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Phase 1 of Major-project work prescribed for the said Degree.

Mrs. Vijaýalakshmi S Associate Prof, Dept of ECE Sir MVIT Bangalore

External Viva

Name of the examiners

1. Mianalalephni .S

Dr. V.G Supriya Prof. & Head, Dept of ECE SHR M VIS Krishnadgyarmawiga Bilugada Sir MVIT Bangalore Head of the Departiminternational Almort Row, Bangalore-562 157 Electronics & Communications Engine 562 17

Sir M VIT Bangalore

Signature with date

figranahalli



FINAL YEAR-PROJECT REPORT (18ECP83) On

"Wrong Posture Monitoring System"

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

BACHELOR OF ENGINEERING IN ELECTRONICS ANDCOMMUNICATION

Submitted by

<u>NAME</u> PRIYANSHU HARSHA RISHABH SHARMA SHRISTI RAJ UJJWAL KUMAR

(1MV20EC090) (1MV20EC096) (1MV20EC108) (1MV20EC120)

Under the Guidance of

Dr. SASMITA MOHAPATRA

Professor, Department of ECE



SIRM.VISVESVARAYAINSTITUTEOFTECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Final year project work entitled "WRONG POSTURE MONITORING SYSTEM" carried out by Mr. PRIYANSHU HARSHA (1MV20EC090), Mr. RISHABH SHARMA (1MV20EC096), Ms. SHRISTI RAJ (1MV20EC108), Mr. UJJWAL KUMAR (1MV20EC120),

bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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. Sasmita Mohapatra Professor, Internal Guide Department of ECE

Dr. V.G Supriya

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY Kristmadevaryn geak es Bangalore-562 157 International Atmort Road, Bangalore-562 157 Principal, Sir MVIT

Professor and Head

Department of ECE Head of the Department Ploctronics & Communications Engineerin, WIT Bangalore 562 157

External Viva Name of the examiners

1. Vijayabalerbrui :S 2. Dr. Vineetn Kumar PK

Signature with date



PROJECT WORK PHASE-2(18ECP83) REPORT ON "IOT BASED COAL MINE SAFETY MONITORING AND ALERTING SYSTEM"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

Ankit Kumar Arman Aryan Harshit Himanshu Sekhar Das

(1MV20EC016) (1MV20EC024) (1MV20EC053) (1MV20EC055)

Under the guidance of

Dr. Sasmita Mohapatra

Professor, Department of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Hunasamaranahalli, Bengaluru-562157

BENGALURU-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project entitled "IOT based Coal Mine Safety Monitoring and Alerting System" is a bonafide work carried out by ANKIT KUMAR (1MV20EC016), ARMAN ARYAN (1MV20EC024),HARSHIT (1MV20EC053), HIMANSHU SEKHAR DAS (1MV20EC055) of Sir M. Visvesvaraya Institute of Technology, Bangalore, in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics and Communication of the Visvesvaraya Technological University, Belagavi during the academic year 2023-2024. 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 Major-project (18ECP83) prescribed for Bachelor of Engineering degree.

Dr. SASMITA

MOHAPATRA

Department of ECE

Professor

Dr. SUPRIYA V. G.

Professor & Head Head of the Department lectronics & Communications Engineering MExternal Examination 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Kristatadevaroyanegar, Hunasamaranahalli InternalforefAleartRest Bangalore-562 157

Principal

Sir MVIT, Bengaluru

Name of Examiners: Vigayalalenni. S. 1. 2.

Signature with Date



PHASE-II MAJOR PROJECT REPORT (18ECP83)

on

"BRAIN SENSE CONTROLLED ROBOT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING Submitted by

NAME

Geetha Priya C R Keerthana A Lakshmi B S Manoj D P USN 1MV20EC050 1MV21EC405 1MV21EC406 1MV21EC407

Under the Guidance of Ms.SHALINI P

Associate Professor, Dept of ECE, Sir MVIT, Bengaluru-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24 SRI KRISHNADEVARAYA EDUCATIONAL TRUST

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "Brain Sense Controlled Robot" carried out by Ms. Geetha Priya C R [1MV20EC050], Ms. Keerthana A [1MV21EC405], Ms. Lakshmi B S [1MV21EC406], Mr. Manoj D P [1MV21EC407], the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 σ SHALINI P

Associate professor Dept of ECE

External Viva

Name of the Examiners

2 Lakshmi Mana

Signature of HOD

Dr.V.G. Supriya

Dept of Equepartment Head of the Boy StrangeringSir MVIT, Bengaluru . . M VIT Bangalore

PRINCIPAL SHR M. VISVESVARAYA INSTITUTE OF TECHNOLO(KriSignature of Principal maranahalli International Airport Road, Bangalore-562 15 Prof.Rakesh S.G.

Principal

Signature with Date



PHASE-II MAJOR PROJECT REPORT

(18ECP83)

on

"BIRD REPELLENT SYSTEM USING MACHINE

LEARNING"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME

Bhavya M Gulam Gouse M Shashikala R Vishala S S <u>USN</u> 1MV21EC400 1MV21EC403 1MV21EC408 1MV21EC410

Under the Guidance of

Ms.SEEMA S Assistant Professor, Dept of ECE,Sir MVIT, Bengaluru-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "Bird Repellent System using Machine Learning" carried out by Ms.Bhavya M [1MV21EC400], Mr.GulamGouse M [1MV21EC403], Ms.Shashikala R [1MV21EC408], Ms.Vishala S S [1MV21EC410], the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 SEEMA S.

Assistant professor Dept of ECE Signature of HOD

Dr.V.G. Supriya Professor & Head

Dept of ECE

Head of the Department Electronics & Communications Engineering Str M VIT Bangalore 562 157

External Viva

Viva Sir M VIT Bang

Name of the Examiners

isauolole 2. Dr. Vineeta Kum

Signature with Date

SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli Interna Sighature of: Principale-562 157

Prof.Rakesh S.G.

Principal

Sir MVIT ,Bengaluru



REPORT on MAJOR-PROJECT [18ECP83] "GARBAGE COLLECTION ROBOT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME

Satyam Shantanu Singh Shweta Kumari Yogesh Kumar

<u>USN</u>

1MV20EC102 1MV20EC105 1MV20EC110 1MV20EC125

Under the Guidance of

Mr. Phanindar Ravi P. Assistant Professor, Dept of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli Banglore-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the project work "GARBAGE COLLECTION ROBOT" is a bonafide work that is carried out by, SATYAM(1MV20EC102), SHANTANU SINGH(1MV20EC105), SHWETA KUMARI(1MV20EC110), YOGESH KUMAR(1MV20EC125) students of SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY in partial fulfillment of the requirements for the Degree of Bachelor of Engineering in Electronics and Communication Engineering as prescribed by Visvesvaraya Technological University, Belagavi for the academic year 2023-2024. It is certified that the all the correction and the suggestion indicated by the 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 course of Bachelor of Engineering.

2 Abrey

Phanindar Ravi .P Internal Guide

Dr. Supriya .V. G Prof. & Head of Deptment Head of the Department

Electronics & Communications Engineering Sir M VIT Bangalore 562 157

EXTERNAL VIVA

Name of Examiner

1. Nijayalalethnis 2. Dr. Vineetn. Kumar PK

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanegar, Hunesamaranahalli International Airport Road, Bangalore-562 157 Prof. Rakesh .S.G

Principal

Signature with Date

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI -590018



PROJECT REPORT (18ECP83) on

"MULTI- LANGUAGE VOICE COMMAND ROBOTIC VEHICLE"

Submitted in partial fulfilment of the requirements for the award of the degree.

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ABHISHEK KUMAR

ADAN BARI AKSHAT GUPTA 1MV20EC004 1MV20EC005 1MV20EC011

<u>Under the Guidance of</u> **Ms. PRAVEENA N** Assistant Professor, Department of E&C



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

Sir M Visvesvaraya Institute Of Technology

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC)

Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Project work entitled "MULTI- LANGUAGE VOICE COMMAND ROBOTIC VEHICLE" carried out by ABHISHEK KUMAR (1MV20EC004), ADAN BARI

(1MV20EC005), AKSHAT GUPTA (1MV20EC011), the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all corrections/suggestions indicated forInternal 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.

Ms. Praveena N

Assistant Professor Dept. Of E&C, Sir MVIT

Dr. V.G. Supriya

Professor and HOD

Dept. of E&C, Sir MVIT Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadayarayanagar, Hunasamarana' Alli International Airport NCSO, Sangalore-56., 157

Principal

Sir MVIT

External Viva

Name of the examiners

1. Dr. Vineeth Kumer PK

2. Vijayalolemni. s

Signature with date 27/5/2024

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI -590018



PROJECT REPORT

on

"REAL TIME TRAFFIC ANALYSIS AND STREET LIGHT MANAGEMENT SYSTEM"

Submitted in partial fulfillment of the requirements for the award of the degree BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION

Submitted by

ADARSH SINGH ADITYA ANAND AJITESH PRAKASH DEV PRAKASH 1MV20EC006 1MV20EC007 1MV20EC010 1MV20EC041

Under the Guidance of

Mr. Nataraja R.

Associate Professor, Department of ECE



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Bengaluru-562157 2023-24

SRI KRISHNADEVARAYA EDUCATIONAL TRUST SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the project work entitled "Real-Time Traffic Analysis and Street Light Management System" carried out by Mr. Adarsh Singh (USN-1MV20EC006), Mr. Aditya Anand (USN-1MV20EC007), Mr. Ajitesh Prakash (USN-1MV20EC010) and Mr. Dev Prakash (USN-1MV20EC041) a bonafide student of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering / Bachelor of Technology in Electronics and Communication Engineering of the Visveswaraiah Technological University, Belgaum during the year 2023-24 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. NA

Associate Professor

Dept. of ECE

Professor & Head

Head of the Department Electronics & Communications Engineer Sir M VIT Bangalore 562 157

External Viva

Name of the examiners

jayalalethmi. S 2)

PRINCIPAL SKR M. VISTESTARAK #8518 UCE OF TECHNOLOGY Krishnedevarayerisger, Hunasamaranahalli Internationalintripotil Road, Bangalore-562 157

SIR MVIT

Signature with date



MAJOR PROJECT PHASE-I REPORT

on

"DIABETIC RETINOPATHY DETECTION"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS

- 1. DEVIKA H A
- 2. DIDDUKURI JOSHNA
- 3. LIKITH C K
- 4. PADAPATI LIKHITH

<u>USN</u> 1MV20EC042 1MV20EC044 1MV20EC067 1MV20EC068

Under the Guidance of Mrs. Vijayalakshmi S

Associate Professor



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Phase 1 of Major-project work entitled "DIABETIC RETINOPATHY **DETECTION**" is carried by **DEVIKA** out Η A (1MV20EC042), DIDDUKURI JOSHNA (1MV20EC044), LIKITH C K (1MV20EC067), PADAPATI LIKHITH (1MV20EC068) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all corrections and suggestions indicated for Internal Assessment havebeen incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Phase 1 of Major-project work prescribed for the said Degree.

Mrs. Vijavalakshmi S Associate Prof, Dept of ECE Sir MVIT Bangalore

External Viva

Electronics & Communications Engineering Bangalore

Name of the examiners Sir M VIT

1. Vijayalalethni. S 2. Dr. Vinceth Kumar PK

Dr. V.G Supriva Krishnadevartincipal, Hunasamaranahal Sir MVIT Bangaloretment Prof. & Head, Dept of ECE mternation MINTEP Banga

Signature with date 27/1/1

STE OF TECHNOLOG

angalore-562 1



PROJECT WORK PHASE-2 (18ECP83) REPORT

ON

"SMART SHOE"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ANUBHAB SARKAR APOORV KUMAR MIHIR KUMAR SHARMA SIDDHARTHA KUMAR 1MV20EC017 1MV20EC022 1MV20EC075 1MV20EC112

Under the Guidance of

DR. R SUNDARAGURU, Ms. VIJAYALAKSHMI S

Professor, Department of ECE Associate Professor, Department of ECE



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Bengaluru – 562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major Project Phase-2 (18ECP83) work entitled "SMART SHOE" carried out by Mr. ANUBHAB SARKAR (1MV20EC017), Mr. APOORV KUMAR (1MV20EC022), Mr. MIHIR KUMAR SHARMA (1MV20EC075), Mr. SIDDHARTHA KUMAR (1MV20EC112), bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 Mini Project work prescribed for the said Degree.

Dr. R SUNDARAGURU (Guide) Professor Dept. of ECE

Ms. VIJAMALAKSHMI S

(Co-guide) Associate Professor Dept. of ECE Junta

PRINCIPAL

HMIS Dr. V.G SUPRIYASK M. VISVESVABAVA INSTITUTE OF IFCHNOLOGY Krishnadovarayanagar, Hunasamaranahalli Professor & Head International Alphin Bipat Bangalore-562 157 Head Dept. of ECE Plectronics & Communications EngineeruSIR MVIT

External Viva

Name of the examiners

1. Dr. Vineetn Kumer P.K 2 Vijayalalubmi .S

Signature with date



MAJOR PROJECT PHASE-II REPORT (18ECP83)

on

"VEHICLE SAFETY AND SECURITY SYSTEM"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

1. KISHOR KUMAR HEGGE

2. MOHITH G.S.

3. MONISH M.

4. NACHIKETH K.V.

1MV20EC062 1MV20EC077 1MV20EC080 1MV20EC081

Under the Guidance of

Mrs. SEEMA S. Assistant Professor, Dept of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-2024

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Phase II of Major-project work entitled "VEHICLE SAFETY AND SECURITY SYSTEM" is carried out by KISHOR KUMAR HEGGE (1MV20EC062), MOHITH G S (1MV20EC077), MONISH M (1MV20EC080), NACHIKETH K V (1MV20EC081) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all 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 in respect of Phase 2 of Major-project work prescribed for the

said degree.

Mrs. Seema S. Asst. Prof, Dept. of ECE Sir MVIT, Bengaluru

Dr. V.G. Supriya ECE Professor & HOD Dept. of ECE Head Sir MVIT, Bengaluru Electronics & Communications Augmeerin

Str M VII Bangalore 562 157

PRINCIPAL SIR M. VISVESYARAYA INSTITUTE OF TECHNOLOGY Kr Bhodd Rakes Bage G. Hunasameranahalli International Aliport Road, Bangalore-562 157 Sir MVIT, Bengaluru

External Viva

Name of the examiners

1. Dr-R. Sundaragum 2. Lakshmi Manasa B Signature with date

28/5/22

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANASANGAMA, BELAGAVI-590 018



PROJECT WORK PHASE 2(18ECP83) REPORT

ON

"AUTOMATIC MEDICINE DISPATCHER WITH DYNAMIC TELEMONITORING SYSTEM

USING IOT IN RURAL AREAS"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

V SUCHITHRA

1MV20EC121

<u>Under the Guidance of</u> Dr.POONGOTHAI.C

Associate Professor, Department of ECE



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified) Hunasamaranahalli, Bengaluru – 562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY (Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

BENGALURU - 562157

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



CERTIFICATE

It is certified that the Project work entitled "AUTOMATIC MEDICINE DISPATCHER WITH DYNAMIC TELEMONITORING SYSTEM USING IOT IN RURAL AREAS" carried out by V SUCHITHRA (1MV20EC121)a bonafide students of Sir M Visvesvaraya Institute of Technology, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Project work report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the degree of Bachelor of Engineering.

Signature of Guide Dr. Poogothai .C Associate Professor Dept. of ECE

Signature of HOD Dr. V.G.Supriya Dept. of ECE Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 15.7

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krisi Signature of Principal ranahalli Internation Prof. RakesheSr Galore-562 157 SIR MVIT

EXTERNAL VIVA

i

Signature with Date 2815/22

Name of Examiners

1. Dr. R. Sundargu

2. Lakshmi Manusa B

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANASANGAMA, BELAGAVI-590 018



PROJECT WORK PHASE 2(18ECP83) REPORT

ON

"FRUIT FRESHNESS AND SPOILAGE DETECTION SYSTEM USING CNN" Submitted in partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by

KRISHNA UPADHYAY LAKSHMI S MONIKA P TEJASWINI K 1MV20EC063 1MV20EC065 1MV20EC078 1MV21EC409

<u>Under the Guidance of</u> Dr.POONGOTHAI.C

> Associate Professor, Department of ECE



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified)

Hunasamaranahalli, Bengaluru – 562157

(Approved by AICTE New Delhi, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified) **BENGALURU – 562157**

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



CERTIFICATE

It is certified that the Project work entitled "FRUIT FRESHNESS AND SPOILAGE DETECTION USING CNN" carried out by KRISHNA UPADHYAY (1MV20EC063), LAKSHMI S (1MV20EC065), MONIKA P(1MV20EC078), TEJASWINI K (1MV21EC409), a bonafide students of Sir M Visvesvaraya Institute of Technology, Bengaluru in partial fulfilment for the requirements for the award of the degree of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The Project work report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the degree of Bachelor of Engineering.

Signature of Guide Dr. Poogothai .C Associate Professor Dept. of ECE

PRINCIPAL

Signature of HOD Dr. V.G.Supriya

SIR MVIT

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnad Signature of Penneipal International Apport Barry Barry Prof. Rakes10800-562 157

Head of the Effepartment Mectronics & Communications Engineering The M VIT Bangalore 562 157

EXTERNAL VIVA

Name of Examiners

1. Nijayalalethmis 2. Dr. Vineeth Kumar PK

Signature with Date



PHASE-II MAJOR PROJECT REPORT (18ECP83)

on

"BRAIN SENSE CONTROLLED ROBOT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME

Geetha Priya C R Keerthana A Lakshmi B S Manoj D P 1MV20EC050 1MV21EC405 1MV21EC406 1MV21EC407

<u>USN</u>

Under the Guidance of Ms.SHALINI P Associate Professor, Dept of ECE,Sir MVIT, Bengaluru-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24 SRI KRISHNADEVARAYA EDUCATIONAL TRUST

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "Brain Sense Controlled Robot" carried out by Ms. Geetha Priya C R [1MV20EC050], Ms. Keerthana A [1MV21EC405], Ms. Lakshmi B S [1MV21EC406], Mr. Manoj D P [1MV21EC407], the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 G

SHALINI P Associate professor Dept of ECE

Signature of HOD Dr.V.G. Supriya

Professor & Head Dept of ECE

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnedistratytrægar, Principalranahalli International Airport Road, Bangalore-562 157 Prof. Rakesh S.G.

> Principal Sir MVIT ,Bengaluru

Head of the Department Hectronics & Communications Engineerine M VIT Bangalore 562

External Viva

Name of the Examiners

mija VG 2 Lakshmi Manasa B

562 Signature with Date



"DETERRENCE OF PIRACY EMPLOYING IR TRANSMITTER AND STEGANOGRAPHY SYSTEM"

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

BACHELOR OF ENGINEERING (18ECP83)

IN

ELECTRONICS AND COMMUNICATION Submitted by

NAME

<u>USN</u>

C A SRAVAN VARMA C M RAGHAVA RAKSHITH NINGANAGOUDA G T 1MV20EC037 1MV20EC038 1MV20EC083

Under the guidance of

Mrs. Shalini P Associate professor Department of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

BENGALURU-562157

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru -562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major-project work entitled 'DETERRENCE OF PIRACY EMPLOYING IR TRANSMITTER AND STEGANOGRAPHY SYSYTEM' carried out by CA SRAVAN VARMA(1MV20EC037), С Μ RAGHAVA RAKSHITH(1MV20EC038). NINGANAGOUDA G T(1MV20EC083) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 with respect to Major Project work prescribed for the degree.

Signature Mrs. Shalini P

Associate Professor Dept of ECE

Signature of the HOD

Dr. V. G. Supriya

Professor and Head.

Sir MVIT, Bengaluru

Kristaw Jula

merne Principal

Signature of the Mincipal

SURVICE AND SUTLITE OF TECHNOLOGY

-502 157

Head of the Department Stectronics & Communications Engine 562 15

VIT Bangalore

Dept of ECE

External Examination:

Name Of Examiners: 1). Dro Srypnig VG 2). Lakshmi Manasap

Signature With Date 27/5/24

ii



PROJECT REPORT On

"CHILD SAFETY WEARABLE DEVICE"

Submitted in partial fullfilment of the requirements for the award of the degree

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

ANANYA SINGH HIMANSHU SHEKHAR HITHA S MANSI PRIYA 1MV20EC013 1MV20EC056 1MV20EC057 1MV20EC074

Under the Guidance of

Ms. SHILPA CHIPPALAKATTI

ASSISTANT PROFESSOR



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Project work entitled "CHILD SAFETY WEARABLE DEVICE" carried out by Ms. ANANYA SINGH(1MV20EC013), Mr. HIMANSHU SHEKHAR (1MV20EC056), Ms. HITHA S(1MV20EC057), Ms. MANSI PRIYA(1MV20EC074), the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 Major Project work prescribed for the said Degree.

27/5/24 Signature of the Guide

Ms. Shilpa Chippalakatti Assistant Professor Department of ECE Sir MVIT, Bengaluru

Signature of the HOD Internation Signature of the Principal57

Head o

11 1/1"

Dr. V. G. Supriya Professor and Head Department of ECE ir MVIT Bengalurinent

")-ctronics & Communications Engineering

Prof. Rakesh S.G. Sir MVIT, Bengaluru

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli

External Examiners:

Name of the Examiners

1. Vijayalalethmi. S 2. Dr. Vincets, Kumar P. K

Signature with Date



FINAL YEAR PROJECT REPORT (18ECP83)

ON

"GEO LOCATION GUIDE USING RF"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

PRANAV RAJ RAGHVENDRA KUMAR RITIK KUMAR DUBEY TUSHAR YADAV

1MV20EC089 1MV20EC092 1MV20EC098 1MV20EC119

<u>Under the Guidance of</u> MRS. SANTHOSHINI S Assistant Professor, Department of ECE



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli, Bengaluru-562157

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru - 562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the project work entitled "GEO LOCATION GUIDE USING RF" carried out by Mr. PRANAV RAJ (1MV20EC089), Mr. RAGHVENDRA KUMAR (1MV20EC092), Mr. RITIK KUMAR DUBEY (1MV20EC098), Mr. TUSHAR YADAV (1MV20EC119), bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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. Santhoshini S (Guide) Assistant professor

Dr. V G Supriya

Professor and Head

Principal

PRINCIPAL SHR M. VISYESVARAYA INSTITUTE OF TECHNOLOGY Kristmedovaravanog st. Hunasamaranahalli Mernational Aliport Aced, Bankjalore-562 157 Dr. Rakesh S G

Dept. of ECE

Dept. of ECE

SIR MVIT

Wead of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157

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External Viva

Name of the examiners

1. Do Supridye VG 2. Lakshmi Manusa B

Signature with da

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI -590018



PROJECT WORK PHASE 2 (18ECP83) REPORT ON "ARTIFICIAL SOLAR TREE"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING Submitted by

Gali Shashidhar Girishreddy B Likitha P Shwetha 1MV20EC049 1MV20EC051 1MV20EC069 1MV20EC111

<u>Under the Guidance</u> <u>of</u> Mrs.GEETHA.V Assistant Professor, Department of ECE-SIR.MVIT



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the project work entitled "ARTIFICIAL SOLAR TREE" carried out by Gali Shashidhar (1MV20EC049), Girishreddy B (1MV20EC051), Likitha P (1MV20EC069), Shwetha (1MV20EC111), bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 of Bachelor of Engineering.

Mrs.GEETHA.V (Guide)Assistant Professor, Dept of ECE

Name of the Examiners:

Dr. K. Sundanogum Lakshmi Manasa B

Dr. V.G SUPRIYA

PRINCIPA SIR M. VISVESVARAYA INSTITUTE OF TECHNOLO Krishnadevarayanagar, Hunasamaranaha International Airport Road, Bangalore-562 * Prof. RAKESH S.G.

Principal

Professor and Head, Head oberforece Department Flectronics & Communications Engineering Sir MVIT Bengaluru 562 157 PIT M VIT Bangalore

Signature with date P13121

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI -590018



PROJECT WORK PHASE-2 (18ECP83) REPORT ON .

"EYE AND VOICE CONTROLLED WHEELCHAIR"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

NAME

Vikas S Benal Niranjan Sridhar R Shanmukha Srinivas Vijay Y

<u>USN</u>

1MV20EC124 1MV20EC126 1MV20EC127 1MV20EC128

Under the Guidance of

Mrs. N Bhuvaneswari Assistant Professor, Dept of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Hunasamaranahalli, Bengaluru-562157

SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major-project work entitled "EYE AND VOICE CONTROLLED WHEELCHAIR" VIKAS is carried out by SRIDHAR(1MV20EC126). **BENAL(1MV20EC124)**, NIRANJAN **R.SHANMUKHA SRINIVAS(1MV20EC127), VIJAY. Y(1MV20EC128)** the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all 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 in respect of Major Project work prescribed for the said Degree.



Asst Prof, Dept of ECE Sir MVIT Bangalore

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Dr. V.G Supriya Krishnadev Profes Rakesnis, rapshalli Prof. & Head, Dept of ECHernational Alreori Principal Sir MVIT Bangalore Sir MVIT Bangalore Head of the Department

Name of the examiners Sectronics & Communications Engine Signature with date M VIT Bangalore

1. Dr: R. Sundaraguru

2. Lakshmi Manasa B

PRINCIPAL

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI -590018



MAJOR PROJECT PHASE-II REPORT

on

"STROKE PREDICTION SYSTEM USING ML & IOT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS

1. MONISH GOWDA NS

- 2. NAVNEET KRISHNA
- 3. ROHITH G
- 4. SHEIK TANZEEM

<u>USN</u> 1MV20EC079 1MV20EC082 1MV20EC101 1MV20EC106

Under the Guidance of

Mrs.N BHUVANESHWARI

ASSISTANT PROFESSOR



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major Project work entitled "STROKE PREDICTION SYSTEM USING ML & IOT" is carried out by MONISH GOWDA NS (1MV20EC079), NAVNEET KRISHNA (1MV20EC082), ROHITH G (1MV20EC101), SHEIK TANZEEM (1MV20EC106) the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. It is certified that all 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 in respect of Phase 2 of Major-project work prescribed for the said Degree.

Mrs. N BHUVANESWARI Asst Prof, Dept of ECE Sir MVIT Bangalore

Dr. V.G Supriya Prof. & Head, Dept of ECE Sir MVIT Bangalore

Head of the Department

Electronics & Communications Engineering

PRINCIPAL SIR M. VISVESVARAYA --SHTUTE OF TECHNOLO Krishmodovaroyanegol, Humosamaranahall Inter **Prof. Rakesti S. C** Principal Sir MVIT Bangalore

External Viva

Name of the examiners

1. Mijánjalaluhni. S 2. Dr. Vinceta Kuma, pk

Sir M VIT Bangalore 562 Signature with date

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELGAUM - 590018



PROJECT WORK PHASE - 2 REPORT (18ECP78) ON "IOT BASED HYDROPONICS SYSTEM USING DEEP NEURAL NETWORKS"

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

BACHELOR OF ENGINEERING IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

DARSHAN RAMADAS BAHNDARI DEEPTHI HARSHA D GANGOLLI

1MV20EC039 1MV20EC040 1MV20EC052

Under the guidance of

Mrs. Krishnapriya S Sharma. Associate Professor, Department of ECE



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli

Bengaluru -562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

Certified that the Major-project work entitled " IOT BASED HYDROPONICS SYSTEM USING DEEP NEURAL NETWORKS " carried out by Darshan Ramdas Bhandari (1MV20EC039), Deepthi (1MV20EC040), Harsha D Gangolli (1MV20EC052) the Bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 Major Project work prescribed for the said Degree.

Mrs. Krishnapriya S Sharma Associate Professor / Internal Guide Department of ECE

Dr. V.G Supriya

Professor and Head

KrispadevaralSir Myupasamaranahalli Internatio Virport Road, Bangalore-562 15

Department of ECE Head of the Department "lectronics & Communications Engineering Rir M VIT Bangalore 562 157

i

External Viva

Name of the examiners

Dr. R. Indana zem Lakshmi Manasa B 1.

2

Signature with date 28/0/24

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI - 590018



PROJECT WORK PHASE-2 (18ECP83) REPORT ON

"PLANT DISEASE DETECTION USING RASPBERRY PI"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

AASTHA AMYA VERMA ANISHA KUMARI ARUSHI GUPTA (1MV20EC001) (1MV20EC012) (1MV20EC014) (1MV20EC025)

Under the Guidance of

Mrs. Krishnapriya S. Sharma

Associate Professor,

Department of ECE



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

Krishnadevarayanagar, Hunasamaranahalli Bengaluru-562157 2023-24

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the Major-project work entitled "PLANT DISEASE DETECTION USING RASPBERRY PI" carried out by Aastha(1MV20EC001), Amya Verma (1MV20EC012), Anisha Kumari (1MV20EC014), Arushi Gupta (1MV20EC025) the Bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 (18ECP83) prescribed for the said Degree.

Koohan

PRINCIPAL

Mrs. Krishnapriya S. Sharma Associate Professor, Internal Guide Department of ECE

Dr. V.G Supriya SHR M. VISVES WE Rakes AUS OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli nternationariang processor Bangalore-562 157 Professor and Head internationarian approximate

Department of ECE partment Moctromes & Communications Engineer WIT Rangalor

i

External Viva

Name of the examiners Vijayalalethmi.s Dr. Vineeth Kumar Pk 2

Signature with date

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI -590018



PROJECT REPORT (18ECP83)

On

"HONEY POT"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME

Anjan Kumar M L Anurag Rajendra Naik Aryan Singh Kartik Nandagaon <u>USN</u>

1MV20EC015 1MV20EC019 1MV20EC027 1MV20EC060

(Under the Guidance of) Dr. Poongothai C Associate Professor Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to Certify that the project work entitled "Honey Pot" carried out by ANJAN KUMAR ML (1MV20EC015), ANURAG RAJENDRA NAIK (1MV20EC019), ARYAN SINGH (1MV20EC027), KARTIK NANDAGAON (1MV20EC060) the bona-fide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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. Poongothai C

Associate Professor

Department of ECE

Dr. V. G. Supriya

Professor and Head

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNILOG Krishneron Rakesh Sungsamarana Bangalore-56 2 15 International Airport Road,

Principal, Sir MVIT

Department of ECE. Head of the Department Flectronics & Communications Engineerin Pangalore 562 15

External Viva

Name of the examiners

1. Do Superiya VG 2. Lakshmi Manasa B

Signature with date

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI -590018



PHASE-II MAJOR PROJECT REPORT (18ECP83)

on

"BIRD REPELLENT SYSTEM USING MACHINE

LEARNING"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME

Bhavya M Gulam Gouse M Shashikala R

Shashikala I

Vishala S S

<u>USN</u> 1MV21EC400 1MV21EC403 1MV21EC408

1MV21EC410

Under the Guidance of Ms.SEEMA S

Assistant Professor, Dept of ECE,Sir MVIT, Bengaluru-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "Bird Repellent System using Machine Learning" carried out by Ms.Bhavya M [1MV21EC400], Mr.GulamGouse M [1MV21EC403], Ms.Shashikala R [1MV21EC408], Ms.Vishala S S [1MV21EC410], the bonafide students of Sir M Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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

SEEMA S. Assistant professor

Signature of HOD

Dr.V.G. Supriya Professor & Head PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Kristonsdovanayathaqar, Humasamaranahaili

Inter Signature of Principal ore-562 157

Prof.Rakesh S.G.

Principal Sir MVIT ,Bengaluru

Dept of ECE Head of the Department Electronics & Communications Engineering al Viva Str M VIT Bangalore 562 157

External Viva

Name of the Examiners

2. Dr. Vineeta Kumor PK

Signature with Date

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

AASTHA

1MV20EC001

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AASTHA (1MV20EC001), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.



Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnedevareyenager; Hunasamaranahalli International Airport Read, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

29.15.1.24

Head of Department Electronics & Communications Engineering Octoberry Bangalore 562 157

External Viva

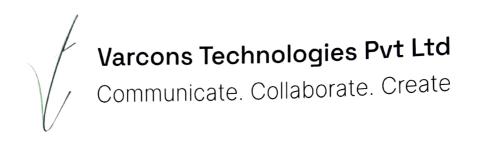
Name of the Examiners

Signature with Date

1. Pr. R. Sundergung

2. Hanjunatha Siddappa

29/5/24



Certificate of Internship

This is to certify that **Aastha** whose USN is **1MV20EC001**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on

time. To verify this certificate, click here



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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

AAYUSH SINHA

1MV20EC002

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AAYUSH SINHA (1MV20EC002), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.



Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor Dept. of ECE

PRINCIPAL SIR AL VISVESVARAYA INSTITUTE OF TECHN hiernationa signature of Principal 2 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

S.1512

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of the Epepartment

Vectronics & Communications Enginee... - M VIT Bangalore

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sundare pm

2. Manjunatha Siddappa.

Danients



CERTIFICATE OF INTERNSHIP

This is to certify that Aayush Sinha whose USN is 1MV20EC002, has completed their Machine Learning With Python (Research Based) Internship organised and handled by Varcons Technologies Pvt. Ltd from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Stockport** — **Predictive Sentiment Analysis**, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highligting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in ELECTRONICS & COMMUNICATION ENGINEERING

> Submitted by: ABHISHEK 1MV20EC003 temphin carried out

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF HURCTER OWNERS WAND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ABHISHEK (1MV20EC0003), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra Professor

Dept. of ECE

SIR.M. VISVĖSVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasemaranahalli Signature of HOD International Alsignature Bangalore-562

PRINCIPAL

Dr. V. G. Supriya Professor & Head

Prof. Rakesh S.G.

Principal

epartment Head of the Flectronics & Communications Engineerir 562 157 Sir M VIT Bangalore

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sundanguru. 2. Manjunatha Siddappa

*Javi-

DECLARATION

I ABHISHEK, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

ABHISHEK 1MV20EC003

Date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"SMART PARKING SYSTEM USING ARDUINO"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

ABHISHEK KUMAR

1MV20EC004

Internship carried out at

VARCONS TECHNOLOGIES 213,2nd FLOOR,18 M G ROAD, ULSOOR BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Spoorthi H.C Director, Varcons Technologies Bengaluru-560001

Varcons Technologies Pvt Ltd nmunicate. Coilaborate. Create

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ABHISHEK KUMAR(1MV20EC004), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from VARCONS TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Propostra

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE Head of the Department Electronics & Communications Engineeri Sur M VIT Bangalore 562 157 External Viva Suland

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnedeversyanagar, Hunesamaranehalli Internationist Asport Positi, 1986 (1916)-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

Signature with Date

1. Pr: Kr Sundengum

2. Manjunatha Siddappa.

29/5/24



CERTIFICATE OF INTERNSHIP

This is to certify that **Abhishek Kumar** whose USN is **1MV20EC004**, has completed their **Embedded Systems** Internship organised and handled by **Var-cons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"AUTOMATED PARKING SYSTEM USING ML"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ADAN BARI

1MV20EC005

Internship carried out at: Compsoft Technologies, 363, 19th Main Rd, 1st Block, Rajajinagar,Bengaluru,560010

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Nithin K S, Project Manager Compsoft Technologies Bengaluru,560010



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ADAN BARI(1MV20EC005), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from COMPSOFT TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Repartor

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE

UTE OF TECHNOLOGY SHR M. VISVESVA Krishn Sognatrure of Pitnesamaranahalli International Airport Road, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Department Slectronics & Communications Engineers Ir M Bangalore 562 157

External Viva

Name of the Examiners

2915124

Signature with Date

- 1. Pr. R. Sundangum 2. Maujunatra Siddappa

28/1/20



CERTIFICATE OF INTERNSHIP

This is to certify that ADAN BARI whose USN is 1MV20EC005, has completed their Machine Learning with Python (Research Based) Internship organized and handled by Compsoft Technologies from 13th August, 2023 to 21st September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Automated Parking System using ML**, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

Nithin K PROJECT MAN COMPSORT; TECHNOLOGIES No. 363, 19th main role 1st Block Rojojinogol Bangalore - 560010

www.compstechnlogies.com

services@compstechnologies.com

This certificate was generated using CERTEFICOM

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"IOT DEVELOPMENT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

ADARSH SINGH

1MV20EC006

Internship carried out at

Exposys Data Labs, Singanayakanahalli, Yelahanka, BENGALURU-560064

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Y Vishnuvardhan Chief Director, Exposys Data Labs, Bengaluru-560064



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ADARSH SINGH (1MV20EC006), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from IOT Developer in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SHR M. VIS

Head of the Pepartment "ectronics & Communications Engineering "r M VIT Bangalore 562 157

External Viva

Krishnadevarayanagar, Hunasamaranahalli Internationa Aliport OLP rincipada-562 157 Prof. Rakesh S.G. Principal

PRINCIPAL

STIFFUTE-OF-TECHNOLOGY

Sir MVIT, Bengaluru

2915121

Name of the Examiners

Signature with Date

1. DX. R. Sundarezouru 2. Manjunatra Giddappa

Exposys Data Labs



Certificate of Internship

TO WHOM IT MAY CONCERN

This is to certify that Mr. ADARSH SINGH has completed internship programme on "IOT Developer" from 13.08.2023 to 12.09.2023.

He took keen interest in the work assigned and successfully completed it. During the period of internship, we found him to be punctual, hardworking and inquisitive.

÷.,

We wish him luck and success in all his future endeavours.

Y Vishnuvardhan

Chief Director

SENGALUEN S

hr@exposysdata.com www.exposysdata.com

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"INTERNET OF THINGS (IOT)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

ADITYA ANAND

1MV20EC007

Internship carried out at

EXPOSYS DATA LABS BENGALURU- 560064

Internship Coordinator: **Dr. Sasmita Mohapatra,** Professor, Dept of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Aravind Kumar R&D Engineer EXPOSYS DATA LABS Bengaluru-560064





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Aditya Anand, a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from EXPOSYS DATA LABS in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SHR M- VISVESVARAYA INSTITUTE OF TECHNOLOGY Krish**Signature of Prillunesamaran**ahalli International Aliport Road, Bangalore-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Degrartment Electronics & Communications Engineering SIT M VIT BUNGHORE 562 157

External Viva

Name of the Examiners

Signature with Date

1. DV.R. Sundanozum. 2. Manjunatra Siddappa

k salohu



Exposys Data Labs

INTERNSHIP OFFER LETTER

Dear ADITYA ANAND,

Congratulations and welcome to EXPOSYS DATA LABS!

Pursuant to your application and the discussions we had with you, we are happy to offer you a position at **EXPOSYS DATA LABS.**, hereafter referred to as **EXPOSYS DATA LABS.**

You will be designated as Intern IOT Developer with a performance based after successful completion of 1 month internship period based on performance you are eligible for fulltime position at Exposys Data Labs.

For this position, your major duties will be including application process, Technical support. Your schedule will be approximately 15 hrs per week beginning 11.08.2023. Your assignment will be concluding on 10.09.2023

Congratulations and welcome to the team!

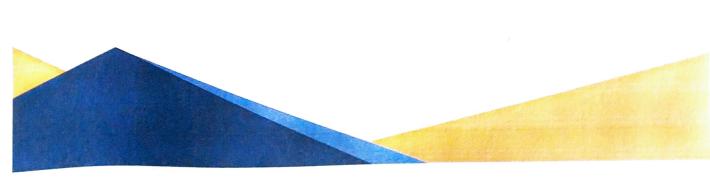
I accept the above offer, and will be begin on: 11.08.2023.

Mr. Aravind Kumar

R& D Engineer

SENGALURD

hr@exposysdata.com www.exposysdata.com



VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"WIRELESS COMMUNICATION"

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

BACHELOR OF ENGINEERING

in ELECTRONICS & COMMUNICATION ENGINEERING

> Submitted by: AIZAZ AHMED S 1MV20EC008 Internship carried out at HB HALLI, KARNATAKA

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE Sir MVIT, Bengaluru-562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADE VARAYA EDUCATIONAL TRUST BENGALURU-562157

2023-2024 SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AIZAZ AHMED S (1MV20EC0008), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Intel Infotech in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report

during the academic year 2023 - 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

Head of the Pereartment Flectronics & Communications Engineeri Bangalore External Viva - M VIT 562

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krishnadovarayanagar, Hunasamaranahalii Inter Signature of Princi Babgalore-562 15

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

Signature with Date

1. Dr.R. Simdanazum 2. Manjunatho Siddappe

29/5

DECLARATION

I AIZAZ AHMED S, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

AIZAZ AHMED S

Date:

1MV20EC008



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: AJAY KUMAR N 1MV20EC009

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AJAY KUMAR N (1MV20EC0009), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator **Dr. Sasmita Mohapatra**

Professor

Dept. of ECE

Signature of HOD **Dr. V. G. Supriya** Professor & Head Sulant

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnaosvaluys of Brincipal maranahalli International Arakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Dept of ECE artment Electronics & Communications Engineering Sir M VIT Esternat Niva 562 157

Name of the Examiners

Signature with Date

1. Pr. R. Sundarageur

5122

2. Manjunatha Siddepa

20/J/24

DECLARATION

I AJAY KUMAR N, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

AJAY KUMAR N

1MV20EC009

Date:



INTERNSHIP REPORT

ON

"INTERNET OF THINGS (IOT)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

АЛТЕЅН

PRAKASH

1MV20EC010

Internship carried out at

EXPOSYS DATA LABS BENGALURU- 560064

Internship Coordinator: Dr. Sasmita Mohapatra, Professor, Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Aravind Kumar R&D Engineer EXPOSYS DATA LABS Bengaluru-560064





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-5621572023-2024

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AJITESH PRAKASH, a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from EXPOSYS DATA LABS in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic vear 2023 - 2024.

Signature of the Internship Coordinator

Signature of HOD

PRINCIPAL SIR M. VISVESVARAYA-INSTITUTE OF-TECHNOLOGY Krishnadgyanyer of Principal International Airport Road, Bangalore-562 157

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Dr. V. G. Supriya

Head of the Department Electronics & Communications Engineering Sir MVIT, Bengaluru Sir M VIT Bangalore 562 157

Prof. Rakesh S.G.

Principal

External Viva

Name of the Examiners

1. DY R: Sundergums 2. Manjunatha Siddappe.

Signature with Date

Exposys Data Labs



INTERNSHIP OFFER LETTER

Dear AJITESH PRAKASH,

Congratulations and welcome to EXPOSYS DATA LABS!

Pursuant to your application and the discussions we had with you, we are happy to offer you a position at EXPOSYS DATA LABS., hereafter referred to as EXPOSYS DATA LABS.

You will be designated as Intern IOT Developer with a performance based after successful completion of 1 month internship period based on performance you are eligible for fulltime position at Exposys Data Labs.

For this position, your major duties will be including application process, Technical support. Your schedule will be approximately 15 hrs per week beginning 13.08.2023. Your assignment will be concluding on 12.09.2023

Congratulations and welcome to the team!

I accept the above offer, and will be begin on: 13.08.2023.

Mr. Aravind Kumar

PENGALURU

R& D Engineer

hr@exposysdata.com www.exposysdata.com



INTERNSHIP REPORT

ON

"SMART PARKING SYSTEM USING ARDUINO"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

AKSHAT GUPTA

1MV20EC011

Internship carried out at

VARCONS TECHNOLOGIES 213,2nd FLOOR,18 M G ROAD, ULSOOR BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Spoorthi H.C Director, Varcons Technologies Bengaluru-560001

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AKSHAT GUPTA(1MV20EC011), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from VARCONS TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Dapatra

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnedeva International Arport Port, Bangalore-562 157

Professor & Head Principal partment Siectronics & Communications Engineering Sir MVIT, Bengaluru Head O'Dept. of EC Dir M VIT Bangalore 562 157

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sumelangum 2. Manjunatha Soddappe

29/11/24

Hanjune 286hi



CERTIFICATE OF INTERNSHIP

This is to certify that **AKSHAT GUPTA** whose USN is **1MV20EC011**, has completed their **Embedded Systems** Internship organised and handled by **Var-cons Technologies** from **13**th **August**, **2023** to **20**th **September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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contact@varconstech.com

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INTERNSHIP REPORT

ON

Smart Car Parking System Using Arduino Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

AMYA VERMA

1MV20EC012

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Amya Verma (1MV20EC012), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 -2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of theptDefreetment Strongers & Communications Engineering Bir M VIT Bangalore 562 157

PRINCIPAL Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of Principal Signature of

> Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

Dr. R. Sundarogum

2. Maujunatha Siddoppa

Signature with Date

29/5/24



CERTIFICATE OF INTERNSHIP

This is to certify that Amya Verma whose USN is 1MV20EC012, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM AND IoT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

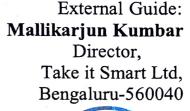
ANANYA SINGH

1MV20EC013

Internship carried out at

TAKE IT SMART (OPC) PVT LTD VIJAYANAGAR BENGALURU-560040

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANANYA SINGH (1MV20EC013), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from TAKE IT SMART (OPC) PVT LTD in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Protessor & Head

SIR M. VISVESVARAVA INSTITUTE OF TECHNOLO Krishnedevarayanagor, Hunasamaranahall Intern**Signature of Principal**

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Dept of ECE Head of the Department Tectronics & Communications Engineerin Cir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. De Harish S

2. Dr. Sainita Mohapatra

Signature with Date

DECLARATION

I ANANYA SINGH, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: ANANYA SINGH 1MV20EC013



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ANISHA KUMARI

1MV20EC014

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANISHA KUMARI (1MV20EC014), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Leve SIR M. VISVESVARAYA IN Krishro inature of Signature of the Internship Coordinator Signature of HOD International Aimort aranahalli Prof. Rakesh S.C. Dr. Sasmita Mohapatra Dr. V. G. Supriya Professor & Headtment Professor Principal Head of the Dept. of ECE ons Engineering Dept. of ECE Sir MVIT, Bengaluru "lectronics & Co 562 157 moniore **External Viva** Name of the Examiners Signature with Date 1. Dr. Harish S. 2. Dr: Samite Mohapatora



CERTIFICATE OF INTERNSHIP

This is to certify that Anisha Kumari whose USN is 1MV20EC014, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: ANJAN KUMAR M L 1MV20EC015

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024 SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANJAN KUMAR M L (1MV20EC015), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD **Dr. V. G. Supriya** Professor & Head

Sir M VIT External Viva

PRINCIPAL

SR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Kriskrander of Brincipal International Airport Read, palgalore-562 15 Prof. Rakesh S.G.

Principal

Head of the Depertment Sir MVIT, Bengaluru Electronics & Communications Engineering

Name of the Examiners

1. DR Harish S.

2. Dr. Saemita Mohapatra

Signature with Date

562 157

1 29105/24 dora -

DECLARATION

I ANJAN KUMAR M L, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embody report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

ANJAN KUMAR M L

Date:

1MV20EC015



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ANKIT KUMAR

1MV20EC016

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



Spoorthi H.C Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

External Guide:

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANKIT KUMAR (1MV20EC016), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krishnadevarayanagar, Hunasamaranahalli

International Autorite orth Planois ale-562 157

Sir MVIT, Bengaluru

Prof. Rakesh S.G.

Principal

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of Dept. Depertment Viectronics & Communications Engineering

In M VTF Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Hasish S. 2. Dr. Samita Mohapatore

Signature with Date

28105124



CERTIFICATE OF INTERNSHIP

This is to certify that Ankit Kumar whose USN is 1MV20EC016, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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re 💓

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INTERNSHIP REPORT

ON

"SMART PARKING SYSTEM USING ARDUINO"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ANUBHAB SARKAR

1MV20EC017

Internship carried out at

VARCONS TECHNOLOGIES 213,2nd FLOOR,18 M G ROAD, ULSOOR BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director, Varcons Technologies Bengaluru-560001



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANUBHAB SARKAR(1MV20EC017), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from VARCONS TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

External Viva

Head of the Head artmen. Tectronics Departmente Enginee: Sir M VIT Bangalore 562 157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Kristoredevaravaragar, Hunssonaranahalli Internationer Anguresof Principal-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1. Br. Harish S

2. Do, Saemita Mohapatra

Signature with Date



CERTIFICATE OF INTERNSHIP

This is to certify that Anubhab Sarkar whose USN is 1MV20EC017, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13^{th} August, 2023 to 20^{th} September, 2023.

The person to whom this certificate is addressed to has worked on a project titled "Smart Parking System" project using Arduino, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ANUPAM

1MV20EC018

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Spoorthi H.C Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANUPAM (1MV20EC018), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

SIR M. VISVESV Krishnad Signature of Principal nat Internationa oad. Bandalore-Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Ecepartment Sectronics & Communications Enginee. 562 17 Wr M VIT Bangalore

External Viva

Name of the Examiners

1 Dr. Harish S.

2. Dr. Samita Mohapatra

Signature with Date

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

Certificate of Internship

This is to certify that Anupam whose USN is 1MV20EC018, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: ANURAG R NAIK 1MV20EC019

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

SRI KRISHNADEVARAYA EDUCATIONAL TRUST SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANURAG R NAIK (1MV20EC019), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Head of the Department Electronics & Communications Engineeri Bir M VIT Bangalore 562 157

PRINCIPA SIR M. <u>VISVÈSVARAVA INSTITUT</u>E OF TECHNOLOG Krishnadevaraysnagar, Hunasamaranahalli Intern Signation of Round Balore-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1 Dr. Harish S.

2. Dr. Sainita Mohapotra

Signature with Date

29105/24

DECLARATION

I ANURAG R NAIK, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

ANURAG R NAIK

Date:

1MV20EC019



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ANURAG SINGH

1MV20EC020

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ANURAG SINGH (1MV20EC020), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

Head of the Department

WT Panealore 562 1="

Name of the Examiners

1 De Harish S.

2. Dr. Samite Mohapatora

Signature with Date

Mapana . 24

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Kristmadevarayanagar, Hunesamaranahalli Internati Signatore of Principal ore-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

DECLARATION

I ANURAG SINGH, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: ANURAG SINGH 1MV20EC020

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

APARNA C

1MV20EC021

Internship carried out at

INDIAN TECH-KEYS BANGALORE-560038

INTERNSHIP CO-ORDINATOR:

Dr. SASMITHA MOHAPATRA

PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. KOTRESH M DIRECTOR Indian Tech-Keys, Baiyappanahalli Bengaluru-560068



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that APARNA C (1MV20EC021), a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bangalore has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmitha Mohapatra Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Krishna Bangalore-562 Internation Prof. Rakesh S.G.

Professor & Head Principal Head of the Espartment Electronics & Communications Engineering Sir MVIT, Bengaluru Bangalore VIT Gir M

External Viva

Name of the Examiners

1. De Harish S

2 Dr. Sauneta Mahapatore

Signature with Date

ii

DECLARATION

I Aparna C, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmitha Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bangalore Date:24/05/2024 APARNA C 1MV20EC021

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Car Parking System Using Arduino Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

APOORV KUMAR

1MV20EC022

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that APOORV KUMAR (1MV20EC022), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Principal

Sir MVIT, Bengaluru

Signature of HOD

SIR M. VISVESVAL Krishnadevara Signature 669 FincipalDGY International Airport Rates Des. 157 Dr. V. G. Supriya

Professor & Head

Head of DeproEsceartment Electronics & Communications Engineeric

562 157 CONT VIT Rangalore

External Viva

Name of the Examiners

1. De Harish S

2. Dr. Samita Mohapatora



Certificate of Internship

This is to certify that Apoorv Kumar whose USN is 1MV20EC022, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Car Parking System Using Arduino**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, OLICK HERE



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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EYE GESTURE BASED SMART AUTOMATION"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ARANI GNANESH REDDY

1MV20EC023

Internship carried out at

"Inventeron Technologies and Business Solution LLP" BENGALURU-560023

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Sk Asim** MANAGER, Inventron Technologies Bengaluru-560023





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ARANI GNANESH REDDY (1MV20EC023), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from "Inventeron Technologies and Business Solution LLP" in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of the Department Pept. of ECE Plectronics & Communications Engineering Urr M VIT Bangalore 562 157

PRINCIPAL SKR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadavarayanagar, Hunasamaranahalli International Panpul Road, Brangabole 562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

External Viva

Signature with Date

1. Dr. Harish S.

2. Dr. Saimite Mohapatra

DECLARATION

I ARANI GNANESH REDDY, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

ARANI GNANESH REDDY 1MV20EC023

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ARMAN ARYAN

1MV20EC024

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Spoorthi H.C Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ARMAN ARYAN (1MV20EC024), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

PRINCIPAL SIR M. HISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnedevarayanagar, Hunasamaranahalli International Automotion Plansadarp-562 157

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Dept. of ECE

Head of the Department Pectronics & Communications Engineering M VIT BEnterhal Viva 62 157

Name of the Examiners

1. S& Harish S. 2. po: Sainta Mohapatra



CERTIFICATE OF INTERNSHIP

This is to certify that Arman Aryan whose USN is 1MV20EC024, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

ARUSHI GUPTA

1MV20EC025

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ARUSHI GUPTA (1MV20EC025), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of Pept Department Flectronics & Communications Enginee The M VIT Bangalore 562 1

External Viva

SIR M. VISV signature of Kristawa International Aireor Rakes R 39 0 ore-562 157

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Saemite Mohapontone 2. Dr. Herrish S

Varcons Technologies Pvt Ltd

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CERTIFICATE OF INTERNSHIP

This is to certify that Arushi Gupta whose USN is 1MV20EC025, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT ON "EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ARYA KUMARI

1MV20EC026

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU - 560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ARYA KUMARI (1MV20EC026), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of Internship Coordinator Signature of HOD Dr. Sasmita Mohapatra Professor Head Dept. of EC Dept. of ECE Sectronics & Communications Engineering

Dr. V. G. Supriya

- M VIT Rangalore

Professor & Head

Krishnadevan International ASIgnat Prof. Rakesh S. Principal irtment

Sir MVIT, Bengaluru

External Viva

Name of the Examiner

1. Dr. Saemita Mohapatra Dh Havis 2.

Signature with Date

562 157



CERTIFICATE OF INTERNSHIP

This is to certify that **ARYA KUMARI** whose USN is **1MV20EC026**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **smart parking system using IOT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: ARYAN SINGH 1MV20EC027

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

SRI KRISHNADEVARAYA EDUCATIONAL TRUST SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ARYAN SINGH (1MV20EC027), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of t Mectronics & Communications Engineering

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadovarayanagar, Hunasamaranahalii Internationignatione locer maripal pre-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Panalare 500 VIT

External Viva

Name of the Examiners

1. Dr. Samita Mohapatoa 2. Dr. Harish S

DECLARATION

I ARYAN SINGH, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

ARYAN SINGH 1MV20EC027

Date:

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI - 590 018



INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

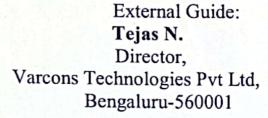
ASHISH KUMAR

1MV20EC028

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ASHISH KUMAR (1MV20EC028), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 -2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriva

Professor & Head

SIR M-HSHES InternSignature of Principal meranaha alore-562 1

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Read Bipt HEEFepartment Electronics & Communications Engineering Sir M VIT Pangaiore 562 157

External Viva

Name of the Examiners

1. Dr. Samita Mohapatora 2. Dr. Harish S



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CERTIFICATE OF INTERNSHIP

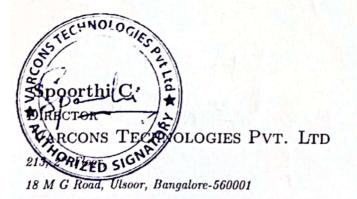
This is to certify that Ashish Kumar whose USN is 1MV20EC028, has completed their Machine Learning With Python (Research Based) Internship organised and handled by Varcons Technologies Pvt. Ltd from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Sentiment Analysis Of Lockdown In India During Covid-19: A Case Study, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highligting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI - 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

AVINASH HIREMATH

1MV20EC029

Internship carried out at

Take It Smart Pvt Ltd

Vijayanagar

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Mallikarjun Kumbar The Director, **Take It Smart Pvt Ltd**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AVINASH HIREMATH (1MV20EC029), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Take It Smart Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Head ofthe Department Electronics & Communications Engineer Sir M VIT Bangalore 562 15

PRINCIPAL Kristnadevarevanagas Hunesamaranahalli Internacenar August
Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. Saunita Prohapaton 2. Dr. Harith S

DECLARATION

I AVINASH HIREMATH, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

AVINASH HIREMATH 1MV20EC029



VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI - 590 018



INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

AYUSH KAUSHIK

1MV20EC030

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Tejas N. Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-362157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AYUSH KAUSHIK (1MV20EC030), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Signature of Principal Kish Prof. Rakesh S.G. International Principal

Sir MVIT, Bengaluru

Head of the Bepartment Electronics & Communications Engineering Sir M VIT Bangalore

External Viva

Name of the Examiners

1. Dr. Samite Mohapadra 2. Dr. Harish S.

T. B. 1.



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CERTIFICATE OF INTERNSHIP

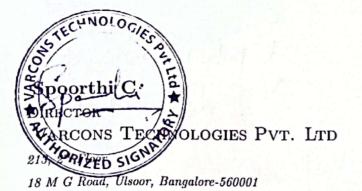
This is to certify that Ayush Kaushik whose USN is 1MV20EC030, has completed their Machine Learning With Python (Research Based) Internship organised and handled by Varcons Technologies Pvt. Ltd from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Sentiment Analysis Of Lockdown In India During Covid-19: A Case Study, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highligting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

AYUSH SINGH

1MV20EC031

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that AYUSH SINGH (1MV20EC031), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE



DA

Signature of HOD Dr. V. G. Supriya Professor & Head

SIR M. VISVESVI Krishnader Signature of Principal International Aleport Road, Bangalore International Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Bepartment Electronics & Communications Engineering 562 157 Str M VTT Bangalore

External Viva

Name of the Examiners

1. Dr. Sacmita Mohap 2. Dr. Harish S



Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that Ayush Singh whose USN is 1MV20EC031, has completed their Machine Learning With Python (Research Based) Internship organised and handled by Varcons Technologies Pvt. Ltd from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Sentiment Analysis Of Lockdown In India During Covid-19: A Case Study, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highligting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI - 590 018



INTERNSHIP REPORT

ON

"Interfacing DDR4 SDRAM on Kintex Evaluation Board"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

B KAVYA

1MV20EC032

Internship carried out at

CENTUM ELECTRONICS LTD BENGALURU-560064

Internship Coordinator: Dr. Sasmita Mohapatra Professor. Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Yogendra singh Manager, Centum Electronics Ltd. Bengaluru-560064



Centum Electronics Limited

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that B KAVYA (1MV20EC032), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Centum Electronics Limited in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

Head of the Department Siectronics & Communications Engineerin. Ser M VIT Bangalore 562 157

External Viva

SIR M. VISH Krishnadevarouture Internation Signature angalore-562 157 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1. Pr. Sasmite Mohapatora 2. De Harish

Signature with Date





11th September 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. B Knvya (USN NO: 1MV20EC032), a student of Sir M Visvesvaraya Institute of Technology has completed the internship from 11th August 2023 to 11th September 2023 at Centum Electronics Ltd in partial fulfilment of Bachelor of Engineering.

During the period, her conduct was good.

We wish her good luck and success in her future endeavours.

For Centum Electronics Limited

V.N.U.Shre

Authorized Signatory

Centum Electronics Limited # 44, KHB Industrial Area, Yelahanka New Town, Bangalore-560 106, Karnataka, India Tel +91-(0)80-4143-6000 Fax +91-(0)80-4143-6005 E-mail info@centumelectronics.com Web www.centumelectronics.com CIN - L85110KA1993PLC013869





INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM AND IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Balasetty Sravani

1MV20EC033

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internship Coordinator: Dr. Sasmitha Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mrs. Spoorthi C Director, Varcons Technologies, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Balasetty Sravani (1MV20EC033), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmitha Mohapatra

Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SHR M. VISVESVAR Krishnadewanate International At Bangalore-562 15: Prof. Ra

Principal

Sir MVIT, Bengaluru

Dept. of ECE Head of the Department

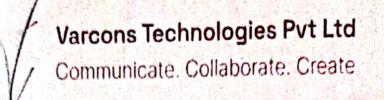
Moctronics & Communications Engineer =.40 . M VIT Bunealor

External Viva

Name of the Examiners

1. Dr. Samite Mohapos 2. Dr. Havish S





CERTIFICATE OF INTERNSHIP

This is to certify that Balasetty Sravani whose USN is 1MV20EC033, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Smart street light system. As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.



This certificate was generated using CLRUPPY COM





INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

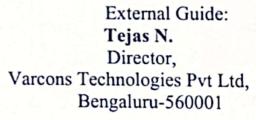
BHASKAR KUMAR SINHA

1MV20EC034

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157







DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that BHASKAR KUMAR SINHA(1MV20EC034), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE

Head of the Department Electronics & Communications Engineenne Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Samita Mohapatore 2. Dr. Harish C

Signature with Date

PRINCIP

Krishgadavorayarkagar, Hunasamaranahal

Intern Signature of Principabre-562 1

Sir MVIT, Bengaluru

Prof. Rakesh S.G.

Principal



DECLARATION

I BHASKAR KUMAR SINHA, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

BHASKAR KUMAR SINHA 1MV20EC034





INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: DARSHAN RAMADAS BHANDARI 1MV20EC039

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that DARSHAN RAMADAS BHANDARI (1MV20EC039), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriva

SHR M. VIS Krish Signature of P International Airport Road Ba Prof. Rakesh S.G. ingalore-562 157

Professor & Head Principal Head of ber enne Sir MVIT, Bengaluru is Engine "lectronics & Communica

External Viva

Name of the Examiners

Signature with Date

1. Dr: Shwetha V

3015124

Shrelle 30/5/24

DECLARATION

I DARSHAN RAMADAS BHANDARI, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

DARSHAN RAMADAS BHANDARI

Date:

1MV20EC039



INTERNSHIP REPORT

ON

"IOT BASED SMART PARKING SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

DEEPTHI

1MV20EC040

Internship carried out at

INVENTERON TECHNOLOGIES HEBBAL BENGALURU-560024

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr.Syed Asim Ahmed Co-Founder Inventeron Technologies Bengaluru-560024





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **DEEPTHI** (1MV20EC040), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INVENTERON TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Datator

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

Dept. of ECE

Head of the Department

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY Krishnødevarayanagar, Hunasamaranahaili International Airport Road, Bangalore-562 157

Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. R. Sundaregum

2. Dr. Shwethav

3015120 1.

Shoethe 30151

DECLARATION

I DEEPTHI, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: 03/04/2024

DEEPTHI 1MV20EC040



INTERNSHIP REPORT

ON

"REAL-TIME TRAFFIC USING IoT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

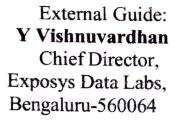
DEV PRAKASH

1MV20EC041

Internship carried out at

Exposys Data Labs, Singanayakanahalli, Yelahanka, BENGALURU-560064

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





EXPOSIS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that DEV PRAKASH (1MV20EC041), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from IOT Developer in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

CINCI

SIR M. VISVESV INSTITUTE OF TECHNOLOGY KrinhadesSignature of Dengalere-562 157 Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Head of Pert DEpartment

External Viva

Name of the Examiners

1. DY: R. Sundaregion

2. Dr. Shwetha.V

2015124

Shoetha3015/21

EXPOSYS) DATA LAN

Exposys Data Labs

Certificate of Internship

TO WHOM IT MAY CONCERN

This is to certify that **Mr. DEV PRAKASH** has completed internship programme on **"IOT Developer"** from 13.08.2023 to 12.09.2023.

He took keen interest in the work assigned and successfully completed it. During the period of internship, we found him to be punctual, hardworking and inquisitive.

We wish him luck and success in all his future endeavours.

Y Vishnuvardhan

Chief Director

WGALURD

hr@exposysdata.com www.exposysdata.com



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

Devika H A

1MV20EC042

Internship carried out at

VARACONS TECHNOLOGIES BENGALURU-560001

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: SPOORTHI. C VARACONS TECHNOLOGIES Bengaluru-560001

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2023 2024

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that DEVIKA H A (1MV20EC042), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varacon's Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head Head of Dept. of ECEartm. Vectronics & Communications Enginee. - M VIT Bangalore

External Viva

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krishnadevarayanagar, Hunesamaranahalli International Airport Road, Bangalora-562 15 Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. B. Sundaregum 2. Dr. Shwetha V

Shoetha zolstzy

CERTIFICATE

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that **Devika H A** whose USN is **1MV20EC042**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Patient Ward Using IOT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate. CRAKTE REERS.





contact*cyarconstech.com

This certificate was generated using (That WEY (1994



INTERNSHIP REPORT

ON

"Building an E-Learning Web application Platform"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

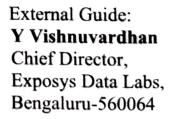
DHANUSH B C

1MV20EC043

Internship carried out at

Exposys Data Labs Yelahanka, Singanayakanahalli BENGALURU-560064

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





EXPOSYS DATA LABS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that DHANUSH B C (1MV20EC043), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Exposys Data Labs in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISV Krishnadev Signature of Principalalli International Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Dept. of ECE Head of the Department Alectronics & Communications Engineering br M VIT Bangalore 562 157

External Viva

Name of the Examiners

Signature with Date

Shoetha 30/5/24

1. Dr. R. Sundanceum

2. Dr. Shwetha V

EXPOSYS]

Exposys Data Labs

Certificate of Internship

TO WHOM IT MAY CONCERN

This is to certify that Mr. DHANUSH BC has completed internship programme on "Software Developer" from 12.08.2023 to 11.09.2023.

He took keen interest in the work assigned and successfully completed it. During the period of internship we found him to be punctual, hardworking and inquisitive.

We wish him luck and success in all his future endeavours.

Y Vishnuvardhan

Chief Director

FNGALURD

hr@exposysdata.com www.exposysdata.com





INTERNSHIP REPORT (18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

D JOSHNA

1MV20EC044

Internship carried out at

INDIAN TECH-KEYS

BANGALORE-560038

INTERNSHIP CO-ORDINATOR:

Dr. SASMITHA MOHAPATHRA

PROFESSOR, DEPT. OF ECE, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. KOTRESH M DIRECTOR Indian Tech-Keys, Baiyappanahalli Bengaluru-560068



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU 2023-2024

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that D JOSHNA (1MV20EC044), a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bangalore has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. SASMITHA MOHAPATHRA

Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Head of the Department Tectronics & Communications Engineer Bir M VIT Bangalore 562 157

PRINCIPAL ana Signature of Principal naranal ed. Bandalore-562 Prof. Rakesh S.G

Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. R. Sundareguss

2 Dr. Shwetha V

210/5124

Sheetea 2015/24

DECLARATION

I D JOSHNA, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr.SASMITHA MOHAPATHRA, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bangalore Date: D JOSHNA 1MV20EC044



INTERNSHIP REPORT

ON

"APPLICATION DEVELOPMENT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: DILEEP G C 1MV20EC045

Internship carried out at TELE INDIA OFFICE, BENGALURU-562149

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Raghuram Director, Tele India Bengaluru- 562149





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

Krishnadevrayanagar, Hunasamaranahalli Banglore-562157

(Affiliated to Visvesvaraya Technological University, Belgavi)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



YEAR 2022-2023

CERTIFICATE

Certified that the 7th Semester Internship titled "APPLICATION DEVELOPEMENT" is a bonafide work carried out by Dileep G C (1MV20EC057) in partial fulfilment for the award of of Engineering in Department of ELECTRONICS AND of Bachelor degree COMMUNICATION ENGINEERING of the Visvesvaraya Technological University, Belagavi, during the year 2022-23. The internship report has been approved as it satisfies the academic requirements with respect to the Internship work prescribed for Bachelor of Engineering. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the course of Bachelor of Engineering.

Dr. Sasmita Mohapatra

Prof, Dept. of ECE

Sir MVIT Bangalore

Name of Examiner

1. Dr. R. Sundarspu 2. Dr. Shwethar V

Dr.Supriva

Prof. Rakesh International /Principaki, Bangalore-562

Head of the Department Flectronics & Spinivin BangloseEngineerit - M VIT Bangalore 562 157

Sir MVIT Banglore

2. Shoetha 3015/24

DECLARATION

I, Dileep G C, final year student of Electronics and Communication Engineering.

Sir M Visvesvaraya Institute of Technology, declare that the Internship has been successfully completed, in TELEINDIA NETWORKS Pvt Ltd. This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024.

Place: Bengaluru

Name: Dileep G C

Date: 22/09/2023

USN: 1MV20EC056



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

ENAM HABIBUR RAB

1MV20EC046

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Spoorthi H.C** Director,

Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ENAM HABIBUR RAB (1MV20EC046), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

potors

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Dept. of EGE ations Engineering VIT Bangalore SIT M

SIR M. VISVESVARAVA ISSTITUTE OF TECHNOLOG Krishnadeval Signature of Brincipal alli International Alport Rand, Bangalora 562 157

> Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. R. Sundaregun

2 Dr. Shwether V

3015/2

Shoetha 3015124





Date: 11th August, 2023

Name: Enam Habibur Rab USN: 1MV20EC046 Placement ID: 1108ES909

Dear Student,

We would like to congratulate you on being selected for the **Embedded Systems with IOT** Internship position with **Varcons Technologies**, effective Start Date **11th August**, **2023**, All of us are excited about this opportunity provided to you!

This internship is viewed as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts of **Embedded Systems with IOT** through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with you!.

Sincerely,

Spoorthi H C Director VARCONS TECHNOLOGIES 213, 2st Floor, 18 M G Road, Ulsoor, Bangalore-560001



INTERNSHIP REPORT

ON

"MANUFACTURING OF RAIL WHEELS, AXLES AND WHEEL SETS, ELECTRONICS LAB"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

G PAVITHRAN

1MV20EC047

Internship carried out at

RAIL WHEEL FACTORY YELAHANKA BENGALURU- 560064

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Ajit Kumar Tripathi Principal, TTC, Rail Wheel Factory Bengaluru-560064



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that G PAVITHRAN (1MV20EC047), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Rail Wheel Factory in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

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Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnesseyaranagar Punasamaranahalli International Airport Rose, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Dept of Department Stretronics & Communications Engineer Bir M VIT Bangalore 562 157

External Viva

Name of the Examiners

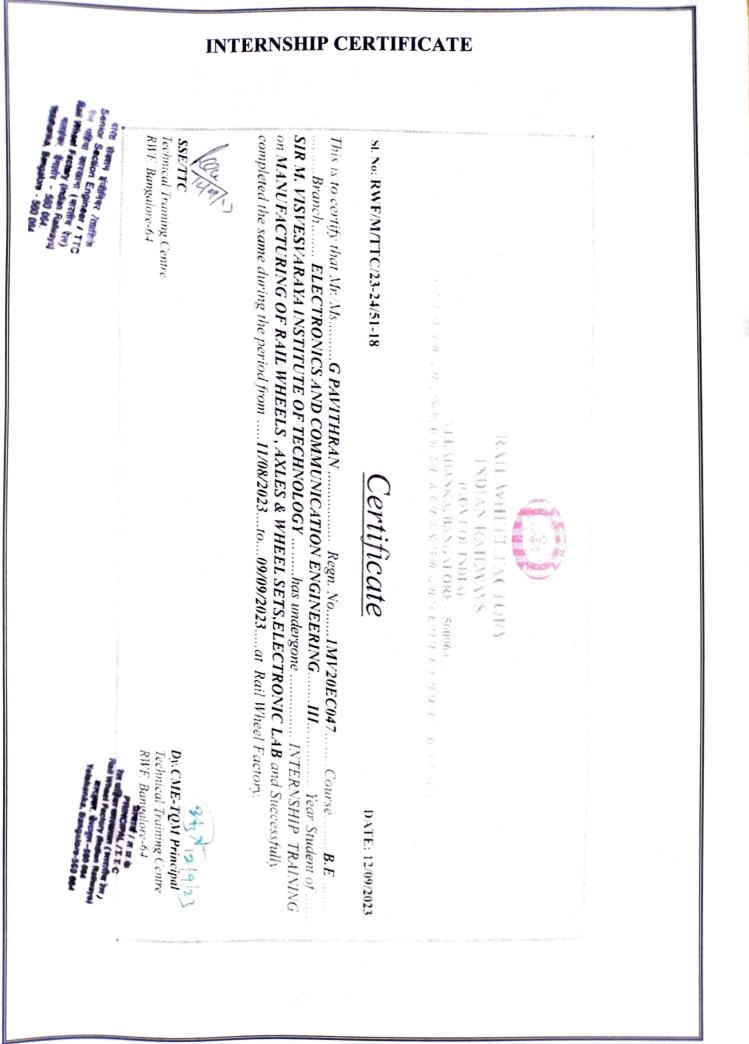
Signature with Date

1. DI-R. Sundarsgum

2. Or Shwetharv

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Shiretta 3015/24,





INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS AND INTERNET OF THINGS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

GAGANA R

1MV20EC048

Internship carried out at

KARUNADU TECHNOLOGIES PVT LTD HESARGHATTA BENGALURU-560090

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: HARISH N Guide, Karunadu Technologies, Bengaluru-560090





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that GAGANA R (1MV20EC048), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from KARUNADU TECHNOLOGIES PVT LTD in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

SIR M. VISVESVARAYA INSTI aranahalli tional Airport Road, Bangalore-562 157 Signature of Principal Interna

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head Dept of ECE partment Communications Engineer Sir M VIT Bangalore 562 17

External Viva

Name of the Examiners

1. IN R. Smoderager

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KTPT/INT/2023/00418



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Certificate of Completion







INTERNSHIP PROGRAM

EMBEDDED AND IOT

NN

THIS IS TO CERTIFY THAT

MR/Ms. GAGANA R.

FROM SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

HAS COMPLETED INTERNSHIP PROGRAM ON

EMBEDDED AND IOT

CONDUCTED FROM 16-AUG-2023 TO 16-SEPT-2023 AT

KARUNADU TECHNOLOGIES PVT. LTD.



Mahesh Deginal MD & CEO Karunadu Technologies Pvt. Ltd.







Horish, N GUIDE Karunadu Technologies Pvt, Ltd.

www.karunadutechnologies.com

E-mail : karunadutchnologies@gmail.com



INTERNSHIP REPORT

ON

"EYE GESTURE BASED SMART AUTOMATION"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

GALI SHASHIDHAR

1MV20EC049

Internship carried out at

"Inventeron Technologies and Business Solution LLP" BENGALURU-560023

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Sk Asim MANAGER, Inventron Technologies Bengaluru-560023





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that GALI SHASHIDHAR (1MV20EC049), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from "Inventeron Technologies and Business Solution LLP" in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of Depicof Department Electronics & Communications Engineers Sir M VIT Bangalore 562 157

External Viva

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli International Almort Port Pancaloge-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. R. Sundaragum

2. Dr. Shwetha V

30/5/24

8/12+10 30/5/24

DECLARATION

I GALI SHASHIDHAR, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

Date:

8

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GALI SHASHIDHAR 1MV20EC049



INTERNSHIP REPORT

ON

"LIGHT COMBAT AIRCRAFT(LCA) TEJAS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

GEETHA PRIYA CR

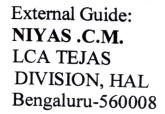
1MV20EC050

Internship carried out at

LCA TEJAS DIVISION, HAL BENGALURU-560008

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

)





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that GEETHAPRIYA CR(1MV20EC050), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from LCA TEJAS DIVISION, HAL in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Destationa

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor Dept. of ECE Suppo

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of the Department

Flectronics & Communications Engineer

External Viva

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOG Kristmadevarayanegas, Hunasamaranahalli International Almort Rood, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Or- R. Sundaraguna

2. Dr. Shwetha, V

301272

Shisetta 2015124.

CERTIFICATE

एल सी ए तेजस प्रभाग बंगालूर कॉम्प्लेक्स हिन्दुस्तान एरोनाटिक्स लिमिटेड उंग के गणा 1911 गणावानी पोग, केल्लून, 560.031 माग हुब (केक्स) : 080, 2232 3808



LCA TEJAS DIVISION BANGALORE COMPLEX HINDUSTAN AERONAUTICS LIMITED Post Box No. 3791. Marathahalli Post, Bengaluru. 560.037. india Ph. (JENTR) 1:080...2232.3812...2212.1811...2212.1595. ١

www.hal-india.com

No. LCA/HR/TM/46/2312/2023

Date: 30.09.2023

<u>CERTIFICATE</u>

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Geetha Priya C R, 7th Semester, BE (Electronics & Communication Engineering), Sri M Visvesvaraya Institute of Technology, Bangalore, has undertaken an Internship in partial fulfillment of her academic requirement at LCA Tejas Division from 31.08.2023 to 30.09.2023.

- Her conduct during the above training period was Good.
- 3. Wishing her all the best for future endeavors.

(Artika Upadhyày) Senior Manager (HR) LCA

पंजीकृत कार्यालय : 15 /1, कब्बन रोड, बेंगलूरु - 560 001, भारत Registered Office : 15 /1, Cubbon Road, Bengaluru - 560 001, India CIN: U35301KA 1963GO1001622



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

GIRISHREDY B

1MV20EC051

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that GIRISHREDDY B (1MV20EC051), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Chapator

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISVSSYARAKuresoff Pringinal NOLOGY Krishnedevarayanagar, Hunasamaranahalli Internationa Profet Rakesan Saldre-562 157

Principal

Sir MVIT, Bengaluru

Dept. of ECE of the Departr Communicati

External Viva

Name of the Examiners

1. Dr-Shwetha V

301.5124

Shoetha 30(5124

DECLARATION

I GIRISHREDY B, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: GIRISHREDDY B 1MV20EC051



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: HARSHA D GANGOLLI 1MV20EC052

> Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sasmita Mohapatra**

Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru-560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

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SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that HARSHA D GANGOLLI (1MV20EC052), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra Professor Dept. of ECE Jula

Signature of HOD Dr. V. G. Supriya

Head of Professor & Head Head of the Department Electronics & Continunications Engineerin Sir M VIT Bangalore 562 157

R M. VISVESVARAYA INSTITUTE OF recaratanahalli Kristonadevarayanagar, Hunassamaranahalli International atraori Road, Bangalore-562 157 International atraori Road, Bangalore-562 157

PRINCIP

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

Signature with Date

1. Pr-R. Stunderegum

2. Dr. Shwetha.V

30/57/26

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DECLARATION

I HARSHA D GANGOLLI, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

Date:

7

HARSHA D GANGOLLI

1MV20EC052



INTERNSHIP REPORT

ON

"TWITTER DATA ANALYSIS USING SENTIMENT ANALYSIS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

HARSHIT

1MV20EC053

Internship carried out at

Ideal Educraft Technologies BTM 2nd STAGE, BENGALURU-560076

Internship Coordinator: Dr. Sasmita Mohapatra Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



Hemanth Kumar

Director, Ideal Educraft Technologies Bengaluru-560076



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-5621572023-2024

External Guide:

2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that HARSHIT (1MV20EC053), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed internship from Ideal Educraft Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Signature of Principal

Prof. Rakesh S.G. OF TECHNOLO

JIT M. VISVESVARAYA INSTITUTE OF TECHNOLO

Electronics & Communications Enginedmernational Airport Road, Bangalore-562197, A Ma Banoplare

External Viva

Signature with Date

a 30/5/24

Name of the Examiners

1. Dr-R. Sundaregurn

2. Dr. Shwetha V

DECLARATION

I HARSHIT, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: 30/05/2024

HARSHIT 1MV20EC053



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Harshitha TA

1MV20EC054

Internship carried out at

VARACONS TECHNOLOGIES BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **SPOORTHI. C** VARACONS TECHNOLOGIES Bengaluru-560001

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that HARSHITHA T A(1MV20EC054), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varacon's Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra

> Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriva Professor & Head Head of Dept of ECE artmena Electronics & Communications Enginee. 562 157 Sir M VIT Bangalore

PRIN SIR M. VISVESVARAYA International Altport Rood, Bang Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. R. Sundarazin 2. Dr. Shiretha V

External Viva

CERTIFICATE

Varcons Technologies Pvt Ltd Communicate, Collaborate. Create

Certificate of Internship

This is to certify that **Harshitha Ta** whose USN is **1MV20EC054**. has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart patient ward**. As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLARK MARKE



www.wincenastech.com contact@varconstech.com

This certificate was generated using (TME TEFT WARE)



INTERNSHIP REPORT

ON

"APPLICATION DEVELOPMENT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

HIMANSHU S DAS

1MV20EC055

Internship carried out at

SERVICENOW PVT LTD GOLF LINKS,DOMLUR BENGALURU-560071

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT



Bengaluru-562157

External Guide: Mr. Janmajay Bhakuni Senior support manager, Servicenow,



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that HIMANSHU SEKHAR DAS(1MV20EC055), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from SERVICENOW in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

PRINCIPAL SHR M. VISVESVAR Krishnad Signature of Principal ahalli International Airport Road, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Head Opt of Ecopartment Sir MVIT, Bengaluru Flectronics & Communications Engineerin

Sir M VT Bangalore 562 1.

External Viva

Name of the Examiners

1. Dr. Shwetha V

30/5/25

Slevella 30/5/24

DECLARATION

I HIMANSHU SEKHAR DAS, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: 08 | 05 | 2024

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HIAMANSHU S DAS 1MV20EC055



INTERNSHIP REPORT ON "EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

HIMANSHU SHEKHAR

1MV20EC056

Internship carried out at

Varcons Technologies PvtLtd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator:

Dr. Sasmita Mohapatra Professor,

Dept. of ECE, Sir MVIT Ltd, Bengaluru-562157



External Guide:

Spoorthi H.C

Director, Varcons Technologies Pvt Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka) DEPARTMENT OF

ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that HIMANSHU SHEKHAR (1MV20EC056), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra Professor

Signature of HOD

Dr. V. G. Supriya Professor & Head Dept. of ECE "Incironics & Constitute to mons Engineers Head of the D The M VIT Bangalore 562 157

External Viva

Signature of Principal

Prof. Rakesh S.G. Principal Sir MVIT, Bengaluru

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevaravanggar, Hunasamaranahalli International Airport Road, Bangalore-562 157 Signature with Date

30/27 24

Name of the Examiners

Dept. of ECE

1. Or. R. Sundanaguna 2. Dr. Shwetha.V



Certificate of Internship

This is to certify that Himanshu Shekhar whose USN is 1MV20EC056, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE





www.varconstech.com

contact@varconstech.com

This certificate was generated using CERTIEFY.COM



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

Hitha S

1MV20EC057

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra**

Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Chethan Internship Coordinator, Varcons Technologies Pvt Ltd, Bengaluru-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Hitha S (1MV20EC057), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

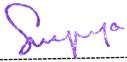


Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Associate Professor

Dept. of ECE



Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISVESWARAYA INSTITUTE OF TECHNOLOGY Krishnade International Rakesh Samalore-562 157

Principal

Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

Signature with Date

1. Dr. Shwetha V

30/5/24

Shella 3015124

DECLARATION

I Hitha S, student of the VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embody report of my internship work carried out by me under the guidance of Dr Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of the requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: Hitha S 1MV20EC057



INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

JAGAN MOHANTY

1MV20EC058

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that JAGAN MOHANTY (1MV20EC058), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

Dept. of ECE

PRINCIPAL SHR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevaravanagar, Hunasamaranak Internation Signature of Principat 562 157

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Shwetha V

3015124

Slavetha 3015124

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CERTIFICATE OF INTERNSHIP

This is to certify that Jagan Mohanty whose USN is 1MV20EC058, has completed their Machine Learning With Python (Research Based) In-internship organized and handled by Varcons Technologies Pvt. Ltd from 13th August, 2023 to 20th September, 2023

The person to whom this certificate is addressed to has worked on a project titled Sentiment Analysis Of Lockdown In India During Covid-19 : A Case Study, As part of the project, They designed the Machine Learning Model, Demonstrated and tested the working of the Model, Prepared a report highlighting its flaws by understanding the design briefs and client Specifications that were provided in the Proposal.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM AND IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

KAMYASHREE T

1MV20EC059

Internship carried out at

INVENTERON TECHNOLOGIES AND BUSINESS SOLUTIONS LLP BENGALURU-560023

Internship Coordinator: **Dr. Sasmitha Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Syed Asim Ahmed Co-Founder, INVENTERON TECH, Bengaluru-560023



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that KAMYASHREE T (1MV20EC059), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INVENTERON TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sasmitha Mohapatra

Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevenature of Primeinaranahalli International Airport Roed, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Flectronics & Communications Engineerin A MAR IN - ANALATE 562

Head Dentife Bo partment

External Viva

Name of the Examiners

1. ... Dr. Shwetha V

Stisetka 3015124

Reg. No : AAB9565



INVENTERON TECHNOLOGIES AND BUSINESS SOLUTIONS LLP

CERTIFICATE OF INTERNSHIP

This is to certify that Mr/Ms. _ KAMYASHBEE T

has completed internship on _ EMBEDDED SYSTEMS AND Tot

from 14 AUG 2023 to 14 SEP 2023 successfully.

We wish this intern all the best for future endeavours.

Managing Director

Managing Director

For Inventeron Technologies And Business Solutions LLP

www.inventeron.com

कौशल भारत-कुश्ज भारत Skill India

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National Skill Development

Raspberry PI



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: KARTIK NANDAGAON 1MV20EC060

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: Dr. Sasmita Mohapatra Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024 SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that KARTIK NANDAGAON (1MV20EC060), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator Dr. Sasmita Mohapatra Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Signature of Princ he et Prof. Rakes S.G. ore-562

Principal

Sir MVIT, Bengaluru Head of the DEpartment

"Inctronics & Communications Engineering

External Vivare 552 15

Name of the Examiners

30/5/2

1. DY: R. Juna Caraquin 2. DY: Shwetha: V

Slivetha 30/5/24

DECLARATION

I KARTIK NANDAGAON, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

KARTIK NANDAGAON

Date:

1MV20EC060



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

KAUSHAL KISHORE

1MV20EC061

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that KAUSHAL KISHORE (1MV20EC061), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt. Ltd. in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

Signature of HOD

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLO Krishnadevarayanagar, Hunasamaranahal Internasi galature of pri Rensalore-562 11

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157 External Viva

Name of the Examiners

Signature with Date

1. Dr-R. Sundaragun

2. Dr. Shwetha v

Jean 1 30/5(24

84×H2 20105124

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CERTIFICATE OF INTERNSHIP

This is to certify that Kaushal Kishore whose USN is 1MV20EC061, has completed their **Embedded Systems** Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Smart Parking Systems Using IoT, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

KISHOR K H

1MV20EC062

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that KISHOR K H (1MV20EC062), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

guld

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krisknadevarayanagar, Hunasamaranahalli International Airport Road, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal

Headept. of ECE Department Sir MVIT, Bengaluru Electronics & Communications Engineering

Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

- 1. Dr. R. Sundanger
- 2. Dr. Shwetha V.

30/0129

Shoetla 30/05/241

DECLARATION

I KISHOR K H, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

KISHOR K H 1MV20EC062



INTERNSHIP REPORT ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Krishna Upadhyay

1MV20EC063

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr Sasmita Mahapatra** Associate Professor,

Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Mr Chethan** Internship Coordinator, Varcons Technologies Pvt Ltd, Bengaluru-562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Krishna Upadhyay(1MV20EC063), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfilment of the requirements as prescribed by the VTU for the award of **Bachelor of Engineering** in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Alabator

Signature of the Internship Coordinator

Dr Sasmita Mahapatra

Associate Professor Dept. of ECE

Signature of HOD

Dr V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevar syanagar, Hunasamaranahalli International Signature of Barjacipal62 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Department

" ctronics & Communications Engineerin Dimpolore 562 15

External Viva

Name of the Examiners

30/0724

1. PTR: Sundenerum

2. Dr. Shoethav. Shoetla 30/05/24



CERTIFICATE OF INTERNSHIP

This is to certify that Krishna Upadhyay whose USN is 1MV20EC063, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE





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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM AND IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

LAKSHITHA G

1MV20EC064

Internship carried out at

INVENTERON TECHNOLOGIES AND BUSINESS SOLUTIONS LLP BENGALURU-560023

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Syed Asim Ahmed Co-Founder, INVENTERON TECH, Bengaluru-560023



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LAKSHITHA G (1MV20EC064), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INVENTERON TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISVES ATA BATPHIA OF DECHNOLOGY Krishnade International Airpart aces Bangalore-562 157

Principal

Sir MVIT, Bengaluru

Head dept of Bepartment Electronics & Communications Engineerir

7 - M VIT Pangalore 562 157

External Viva

Name of the Examiners

1. Dr. R. Sundaragum

2 Dr. Shwetha V

70/20/24

30/05/24

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N - S - D - C National Fransforming the skill landscape Skill Development Corporation



Managing Director

1 ~ 21 Managing Director



We wish this intern all the best for future endeavours.

For Inventeron Technologies And Business Solutions LLP

from 14 AUG 2023 to 14 SEP 2023 successfully.

has completed internship on <u>*CMBCDDCD*</u> SYSTEMS AND <u>IoT</u>

Reg. No : AAB9565

INVENTERON TECHNOLOGIES AND BUSINESS SOLUTIONS LLP

inventeron nothing but smart.

CERTIFICATE OF INTERNSHIP

This is to certify that MP/Ms. LAKSHITHA ° G



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Lakshmi S

1MV20EC065

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali

Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr Chethan Internship Coordinator, Varcons Technologies Pvt Ltd, Bengaluru-562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Lakshmi S (1MV20EC065), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOG Krishnadevarayanagar, Hunasamaranahalli International Airport Read, Bangalore-562 157

Signature of Principal

Prof. Rakesh S.G.

Principal

Head openerfectpartment Sir MVIT, Bengaluru Electronics & Communications Engineering

Bir M VTT Bangalore 562 157

External Viva

Name of the Examiners

1. PT-R. Sundaregum

2. Dr. Shusetha. V

30/8/24

& Locha 20 05124



CERTIFICATE OF INTERNSHIP

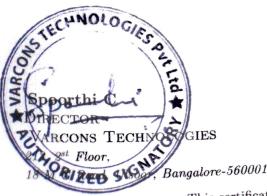
This is to certify that Lakshmi S whose USN is 1MV20EC065, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart parking system using IOT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in ELECTRONICS & COMMUNICATION ENGINEERING

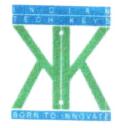
> Submitted by: LAVANYA P 1MV20EC066 Internship carried out at

SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LAVANYA P (1MV20EC066), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya

PRINCIPA SIR M. VISPERMARANCE HE TRIDE DEATECHNOLOGY Krishnadovarayanagar, Hunasamaranahalli International Airport Road, Bangalore-562 157

3-3-3-15024

Professor & Headmen Principal Head of the Department Sir MVIT, Bengaluru Electronics & Commun 562 157 Bangalore VIT Sir M **External Viva**

Name of the Examiners

Signature with Date

1. Dr. R. Sundazzun.

Shoetha Zolostzy

2. Dr. Shwetha, V

DECLARATION

I LAVANYA P, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali , Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

Date: 22/05/2024

LAVANYA P 1MV20EC066

the set of
VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

LIKHITH C K

1MV20EC067

Internship carried out at

INDIAN TECH-KEYS

BANGALORE-560038

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. KOTRESH M DIRECTOR Indian Tech-Keys, Baiyappanahalli Bengaluru-560068



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LIKHITH C K (1MV20EC067), a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bangalore has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year **2023** – **2024**.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of the Bepartment Petronics & Communications Engineering 562 157 VIT Bangalore · - M

InternSignature of Bringipaliore-562

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. Shwetha V

2015124

Shoeta

DECLARATION

I LIKHITH C K, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bangalore Date:30/05/2024 LIKHITH C K 1MV20EC067



INTERNSHIP REPORT ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

LIKHITH P

1MV20EC068

Internship carried out at INDIAN TECH-KEYS BANGALORE-560038

Internal Guide: Dr. SHEETAL BAGALI Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mr.KOTRESH M DIRECTOR Indian Tech-Keys, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LIKHITH P(1MV20EC068), a bonafide student of SIR M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

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Signature of the Guide Dr. Sheetal Bagali Associate Professor Department of ECE

Signature of HOD Dr.V.G.Supriya Professor & Head

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnad Signature of Principalnahalli International Airport Roed, Bangalore-562 157 Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru

Head of the the the the Contronics & Communications Engineering

External Viva

Name of the Examiners

1. Dr. Sundaragun 2. Dr. Shwetha V

8 10000000 30/5/24 Sheeka 3010st24

CERTIFICATE FROM THE INDUSTRY



Indian Tech-Keys

Born To Innovate

11, R M N Towers, Near SVR Metro Station, Bengaluru-560 038.

www.indiantechkeys.com +91 95385 05796

AICTE Corporate Id: CORPORATE5f869a739a3c81602656883

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT

LIKHITH PADAPATI

Bearing USN <u>1MV20EC068</u>, Student of Electronics and Communication Engineering, Sir M Visvesvaraya Institute of Technology, Bengaluru has successfully completed Internship at "ITK Innovation Lab", Bengaluru, KA-India during the period from 16-08-2023 to 16-09-2023.

Performance during Internship was excellent in the domain of Advanced Embedded IoT System Design and Development. Project during the Internship was demonstrating the desire to learn and critical thinking towards the problem solving in product development for various applications.

Keebresh & M

Mr.Kotresh Mundrugi Director,INDIAN TECH-KEYS



INTERNSHIP REPORT

ON

"INTERNET OF THINGS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

LIKITHA P

1MV20EC069

Internship carried out at

TECHNOFLY SOLUTIONS

Bengaluru-560040

Internal Guide:

Dr.Sheetal Bagali

Associate Professor Department of ECE Sir MVIT Bengaluru-562157 External Guide:

Mr.Abzal Nawaz Trainer

Technofly solutions Bengaluru-560040

Technof

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LIKITHA P (1MV20EC069), a bonafide studentof Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorilycompleted Industrial training from TECHNOFLY SOLUTIONS in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Guide **Dr.Sheetal Bagali** Associate professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Head of Depte of FE Fartment Flectronics & Communications Engineeri Ir M VIT Bangalore 562 157

SIR M. VISVSignature of P Krishnaderof Rakeshis.Gemaranahalii Internatio angalore-562/157 Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. B. Sundaragun. 2. Dr. Shwetha: V

3005/24

CERTIFICATE FROM THE COMPANY

From 13-08-2023 To 28-09-2023 in Embedded System Visvesvaraya institute of Technology has completed 1 **TechnoFly Solutions** Date : 28 09 23 This is to certify that LIKITHA P We wish you all the best in your future endeavors Internship Certificate Mob.: 9663476586, 9741150102 | www.technofly.in Technofly Solutions, Vijayanagar, Bangalore - 40 a student of months/weeks of Internship For TechnoFly Solutions lechno flv Sinn 705 Domain



INTERNSHIP REPORT

ON

"SMART STREET LIGHT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

M B VARALAKSHMI

1MV20EC070

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internal Guide: Guide Name: Sheetal Bagali, Designation:Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: Guide Name:Spoorthi C Designation: Director Varcons technologies, Bengaluru-560001



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that M B Varalakshmi (1MV20EC070), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 -2024.

Signature of the Guide Sheetal bagali Associate Professor Dept of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishmadevarayanagar, Hunasamaranahalli International Almort Road, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head deploteDepartment Mectronics & Communications Engineering M VIT Bangalore 562 15

External Viva

Name of the Examiners

Signature with Date

3015124

1. Dr. R. Sundanguns

2. Dr. Shwetha V



CERTIFICATE OF INTERNSHIP

This is to certify that M B Varalakshmi whose USN is 1MV20EC070, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart street light system**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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INTERNSHIP REPORT

ON

"Embedded Systems, Networking & Communication Products"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by: MALAKA BHASKAR REDDY

1MV20EC072

Internship carried out at

SPARR ELECTRONICS LIMITED

BENGALURU-560043

Internal Guide: **Guide Name: Sheetal Bagali**, Designation:Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: **Guide Name:Srinivasan K** Designation: Director Sparr Electronics, Bengaluru-560043





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MALAKA BHASKAR REDDY(1MV20EC072), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Sparr Electronics Limited in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Guide

Sheetal bagali

Associate Professor

Dept of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

INSTITUTE OF TECHNOLOGY SIR M sincipasamaranahalli, International Airport Road, Bangalore-562 154

Principal

Sir MVIT, Bengaluru

3-15126

Head of the Department "lectronics & Communications Engineer:-Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. R. Sundanagum. 2. Dr. Shwetta. V

30105/24

No. 414A, 7th Main, 1st Block, HRBR Layout, Banaswadi, Bangalore - 560 043.

Tel : +91-80-4127 8033 Tel/Fax : +91-80-4175 1561 Email : info@sparrl.com Web : www.sparrl.com

SPARR **ELECTRONICS** LIMITED AN ISO 9001 : 2015 COMPANY

INTERNSHIP LETTER

This is to certify that **Mr. Malaka Bhaskar Reddy**, a student of Sir M. Visvesvaraya Institute of Technology (Electronics and Communication Engineering), worked as a summer intern in our company for a period from April 6th 2023 to May 18th 2023.

While with us, he showed a keen interest to learn about the products manufactured and working with it, he has undergone through various departments to understand the manufacturing process, and worked well as part of a team during his tenure.

He deserves all encouragement and we wish him all the best for his future endeavors.

For SPARR ELECTRONICS LIMITED

SPARR ELECTRONICS LIMITED MOHANDAS UKKANDATH d CO

MUHANDAS UKKANDAT

Managing Director





INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

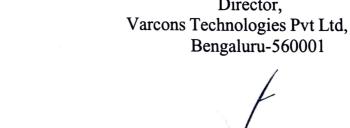
MANOBRATH DUTTA

1MV20EC073

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide:

Tejas N.

Director,

Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MANOBRATH DUTTA (1MV20EC073), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of HOD

Dr. V. G. Supriya

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishna Signature of Principalanahaili International Airport Road, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Professor & Head Head of Port Deceartment Siectronics & Communications Engineering M VIT Bangalore 562 157

External Viva

Name of the Examiners

3015124

Signature with Date

1. Dr-Rr Sundaregum

2. Dr. Shwethar.V

Shoutha 30/05/24

I, MANOBRATH DUTTA final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internship has been successfully completed, in "Varcons Technologies Private Limited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

Date :21/09/2023 Place : Bangalore USN : 1MV20EC073 NAME : MANOBRATH DUTTA

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM AND IoT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

MANSI PRIYA

1MV20EC074

Internship carried out at

Take It Smart (OPC) Pvt Ltd Vijayanagar BENGALURU-562157

Internal Guide: Dr. Sheetal Bagali, Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mallikarjun Kumbar Director, Take It Smart(OPC) Pvt Ltd Bengaluru-560040



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MANSI PRIYA (1MV20EC074), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Take It Smart (OPC) Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

Head of the Department

Contronics & Communications Engineering nealore

External Viva

Name of the Examiners

1. Dr. Samita Mohapotore 2. Dr. Harish S.

Signature with Date

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevaravanagar, Hunasamaranahalli International Airport Road, Bangalore-562 157

PRINCIPAL

Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

I MANSI PRIYA, student of VIII semester Bachelor of Engineerig, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagail, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: $29.5 \cdot 24$ MANSI PRIYA 1MV20EC074

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

MIHIR KUMAR SHARMA

1MV20EC075

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MIHIR KUMAR SHARMA (1MV20EC075), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Head of the sol septeartment Electronics & Constitutients Engineering Bangalore SIE M VIT

External Viva

PRINCIPAL R M VISVESVARAYA INSTITUTE OF TEC

Krishnadevarayanagar, Hunasama International Airport Road, Bangalors

Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Saemite Mohapatra 2. Dr. Harish S

Signature with Date

CERTIFICATE FROM THE INDUSTRY

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that Mihir Kumar Sharma whose USN is 1MV20EC075, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Automatic Car Parking using Arduino**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



Mr. Mila

www.varconstech.com

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"SKIN DISEASE ANALYSIS AND TREATMENT SUGGESTIONS USING IMAGE PROCESSING AND ANDROID APPLICATION"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

GEETHIKA SINGH.M

1MV20EC076

Internship carried out at INDIAN TECH-KEYS BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: Guide Name:Kotresh.M Designation: Director Indian tech-keys Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that GeethikaSingh.M (1MV20EC076), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 -2024.

Signature of the Coordinator

Dr. Sheetal Bagali Associate professor Dept of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevaraysnagar, Hunasamaranahalli Intern Signature of Principal ore-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Egepartment Electronics & Communications Engineering SIT N VIT Bangalore

External Viva

Name of the Examiners

1. Dr. samite Mohapatra 2. Dr. Harish S.

Signature with Date



Indian Tech-Keys Born To Innovate

11, R M N Towers, Near SVR Metro Station, Bengaluru-560 038.

www.indiantechkeys.com

+91 95385 05796

AICTE Corporate Id: CORPORATE5f869a739a3c81602656883

fo whom it may concern

THIS IS TO CERTIFY THAT

MITAYI SAIGEETHIKA SINGH

Bearing USN <u>1MV20EC076</u>, Student of Electronics and Communication Engineering, Sir M Visvesvaraya Institute of Technology, Bengaluru has successfully completed Internship at "ITK Innovation Lab", Bengaluru, KA-India during the period from 16-08-2023 to 16-09-2023.

Performance during Internship was excellent in the domain of Advanced Embedded IoT System Design and Development. Project during the Internship was demonstrating the desire to learn and critical thinking towards the problem solving in product development for various applications.

Keitresh & M

Mr.Kotresh Mundrugi Director,INDIAN TECH-KEYS

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"OVERVIEW OF NAVAL SYSTEMS (SONAR AND COMMUNICATION SYSTEM) - SBU"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

MOHITH G S

1MV20EC077

Internship carried out at

BHARAT ELECTRONICS LIMITED

BENGALURU-560013

INTERNSHIP CO-ORDINATOR:

Dr. SUPRIYA V.G. PROFESSOR & Head, Dept. of ECE, Sir MVIT

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. RANGASWAMY. D MANAGER (HR/NS) BEL, JALAHALLI

_ಭಾರತ್ ವಲೆಕಾನಕ್ಟ್ भारत इलेक्ट्रॉर्जिक्स BHARAT ELECTRONICS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MOHITH G S (1MV20EC077), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed BHARAT ELECTRONICS LIMITED, Industrial training from BENGALURU-560013 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

25/4/25

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Name of the Examiners

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of prodecpartment Meetr lies & Communications Engine A VIT Bangelore 56

External Viva

Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krishnadevarayanagar. Hunasamaranahalli International Airport Road, Bangalore-562 15 Signature with Date

1. Dr. Saemile Mohapetre 2. Dr. Harish S.

I MOHITH G S, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

lye fort . MOHITH G S

МОНІТН G S 1MV20EC077

Place: Bengaluru Date: 29 | 05 | 2024

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"SMART PATIENT WARD"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

MONIKA P

1MV20EC078

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internal Guide:

Dr. Sheetal Bagali

Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



Varcons Technologies Pvt Ltd
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

> BENGALURU-562157 2023-2024

External Guide:

Spoorthi C

Director Varcons technologies, Bengaluru-560001

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Monika P (1MV20EC078), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Guide **Dr.Sheetal bagali** Associate Professor

Dept of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

External Viva

Head of therefore partment Electronics & Communications Engineering Str M VIT Bangalore 562 157

PRINCIPAL SIR.M_VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarsyariagar, Hunasamaranahalli Interfactorduruport Rendo Bambalore-562 157

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Samite Mohapatra 2. Dr. Harish S.

Signature with Date



CERTIFICATE OF INTERNSHIP

This is to certify that Monika P whose USN is 1MV20EC078, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart patient ward using iot**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"NAVIAGTION AND STABILIZATION"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

MONISH GOWDA NS

1MV20EC079

Internship carried out at

BHARAT ELECTRONICS LIMITED

BENGALURU-560013

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. HS RAGHAVA MANAGER (HR/PDIC) BEL, JALAHALLI

ಭಾರತ್ ಎಲೆಕ್ಸಾನಕ್ಸ್ आरत इलेक्ट्रॉनिक्स BHARAT ELECTRONICS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MONISH GOWDA NS (1MV20EC079), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily BHARAT ELECTRONICS LIMITED, Industrial training from completed BENGALURU-560013 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head ment Head of the FT-ctronics & Communications Engineering

PRINCIPA SIR M. VISSESHARAUA Krishnadevart range International Actor Runes na 93 dore-562 157

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. Samite Mohapatra 2. Dr. Harish S.

Signature with Date

I MONISH GOWDA NS, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of **Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru** as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: MONISH GOWDA NS 1MV20EC079

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"EMBEDDED SYSTEMS AND INTERNET OF THINGS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

MONISH M

1MV20EC080

Internship carried out at

KARUNADU TECHNOLOGIES Pvt Ltd

BENGALURU-560090

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. HARISH N MANAGER Karunadu Technologies



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MONISH M (1MV20EC080), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from KARUNADU TECHNOLOGIES PRIVATE LIMITED, BENGALURU-560013 in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

1 25/4/24

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Integlatiature of Principal angalous Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE Head of the Department Flectronics & Communications Engineering SIF M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Saunite Mohaportona 2. Dr. Haxish S

Signature with Date

TITUTE OF TECH OLOG

Thasamara'

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

halli

2 15

1 MONISH M, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies a report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

MONISH M 1MV20EC080

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"SURFACE MOUNT TECHNOLOGY"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

NACHIKETH K V

1MV20EC081

Internship carried out at

SUPRAJIT ENGINEERING LIMITED

BENGALURU-561203

INTERNSHIP CO-ORDINATORS:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



Dr. V.G. SUPRIYA HEAD OF DEPARTMENT Dept. of ECE, Sir MVIT Bengaluru-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that NACHIKETH K V (1MV20EC081), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from SUPRAJIT ENGINEERING LIMITED, BENGALURU-561203 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISUE VARAVA INSTITUTE OF JEGHNOLOGY Krishnadevarayanager, Hunasamaranahalli Internationa Prof: Rakesh 9:0:e-562 157

RINCIPAL

Principal

Head of the Department Sir MVIT, Bengaluru Flectronics & Communications Engine Sir M VIT Engelore 562

External Viva

Name of the Examiners

1. Dr. Samite Mohapatra 2. Dr. Harish S.

Signature with Date

g. 5. 24

I NACHIKETH K V, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: NACHIKETH K V 1MV20EC081

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"OVERVIEW OF ELECTRONIC WARFARE AND AVIONICS (EW&A)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

NAVNEET KRISHNA

1MV20EC082

Internship carried out at

BHARAT ELECTRONICS LIMITED

BENGALURU-560013

INTERNSHIP CO-ORDINATORS:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157 Dr. V. G. SUPRIYA PROFESSOR & HEAD Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mrs. BINEETHA MANAGER (EW&A) BEL, JALAHALLI

आरत इलेक्टॉर्निक्स BHARAT ELECTRONICS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that NAVNEET KRISHNA (1MV20EC082), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from BHARAT ELECTRONICS LIMITED, BENGALURU-560013 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Depit of ECE Electronics & Communications Engineering VIT Bangalore ~.r M

PRINCIPA

SIR M. VISVESVARAYA INSTITUTE OF TECHNOI KrishneenaturenogaP. Hnotpernaranahall International Aimort Road, Bangalore-562 1

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. samite Mohapaton 2. Dr. Harish S.

Signature with Date

ii

1 NAVNEET KRISHNA, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

NAVNEET KRISHNA 1MV20EC082

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANASANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORTON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

NINGANAGOUDA G THIMMANAYKARA

1MV20EC083

Internship carried out at INDIAN TECH-KEYS BANGALORE-560038

Internal Guide: Dr. SHEETAL BAGALI Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mr.KOTRESH M DIRECTOR Indian Tech-Keys, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that NINGANAGOUDA G THIMMANAYKARA(1MV20EC083), a bonafide student of SIR M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilmentof the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2022 – 2023.

Signature of the Guide Dr. Sheetal Bagali Associate Professor Department of ECE

Signature of HOD Dr.V.G.Supriya Professor & Head Head OpatheriDaf Poetment Electronics & Communications Engineering Sir M VI7 Bangalore 562 157

External Viva

Siland

PRINCIPAL SKR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnao Signaturço of Brascipal Priahalli International Alport Road, Bangalore-562 157 Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Sarmite Mohapatoa 2. Dr. Harish S.

Signature with Date

CERTIFICATE FROM THE INDUSTRY

Indian Tech-Keys Born To Innovate

11, R M N Towers, Near SVR Metro Station, Bengaluru-560 038.

www.indiantechkeys.com +91 95385 05796

AICTE Corporate Id: CORPORATE5(869a739a3c81602656883

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT

NINGANAGOUDA G THIMMANAYKARA

Bearing USN <u>1MV20EC083</u>, Student of Electronics and Communication Engineering, Sir M Visvesvaraya Institute of Technology, Bengaluru has successfully completed Internship at " ITK Innovation Lab", Bengaluru, KA-India during the period from 16-08-2023 to 16-09-2023.

Performance during Internship was excellent in the domain of Advanced Embedded IoT System Design and Development. Project during the Internship was demonstrating the desire to learn and critical thinking towards the problem solving in product development for various applications.

Keetresh & M

Mr.Kotresh Mundrugi Director,INDIAN TECH-KEYS

12. 11 11/1

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"OVERVIEW OF NAVAL SYSTEMS (SONAR AND COMMUNICATION SYSTEM) - SBU"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

PAVAN TEJ PS

1MV20EC085

Internship carried out at

BHARAT ELECTRONICS LIMITED

BENGALURU-560013

INTERNSHIP CO-ORDINATOR:

EXTERNAL GUIDE:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



Mr. RANGASWAMY. D MANAGER (HR/NS) BEL, JALAHALLI

_ಭಾರತ್ ಎಲೆಕ್ರಾನಕ್ಟ್ भारत इलेक्टॉर्निक्स BHARAT ELECTRONICS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that PAVAN TEJ PS (1MV20EC085), a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from BHARAT ELECTRONICS LIMITED, BENGALURU-560013 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head



PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar: Huncsamaranahalli Internationsignature of Principal 562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Dept. of ECE

Birctronics & Commun options Engineenng

External Viva

Name of the Examiners

1. Dr. samete Mohapestoa 2. Dr. Harish S.

Signature with Date

I PAVAN TEJ PS, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: PAVAN TEJ PS 1MV20EC085

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"ADVANCED EMBEDDED AND IOT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: **P VISHAL KAUSHIK 1MV20EC086** Internship carried out at –

SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

SRI KRISHNADEVARAYA EDUCATIONAL TRUST SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **P VISHAL KAUSHIK (1MV20EC086)**, a bonafide student of **Sir M**. **Visvesvaraya Institute of Technology, Bengaluru** has satisfactorily completed Industrial training from **INDIAN TECH KEYS** in partial fulfilment of the requirements as prescribed by the **VTU** for the award of **Bachelor of Engineering** in **Electronics and Communication Engineering** and submitted this report

during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

PRINCIPAL

SIR M.-VISVESVARAYA INSTITUTE OF TECHNOLOGI Krishnadevarayanagar, Hunasamaranahalli Internationattatrpotti Reind Baagalore-562 157

Prof. Rakesh S.G.

Professor & Head Head of the Department, Principal Flectronics & Communications Engineerit Sir MVIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. R. Sundangum

29/15/24

Signature with Date

29Kby

2. Manjunatha Siddappa.

I P VISHAL KAUSHIK, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

Date:

P VISHAL KAUSHIK

1MV20EC086

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

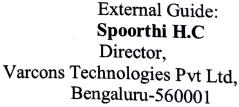
PIYUSH SINGH

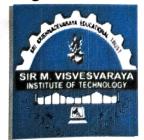
1MV20EC087

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **PIYUSH SINGH** (1MV20EC087), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Dept. of ECE

PRINCIPAL ISTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli SIR M. VISVESVA hature wice ine palore 562 157 Internatio

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Department

Electronics & Communications Engineerie 562 157 C - M VExternal Viva

Name of the Examiners

1. DY: R: Sundangum 2. Manjunatha Cidapia

Signature with Date

Para 28 kg



I PIYUSH SINGH, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: PIYUSH SINGH 1MV20EC087

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

PRACHI SAWARN

1MV20EC088

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru,M.G Road BENGALURU-562157

Internal Guide: **Dr. Sheetal Bagali,** Associate Professor, Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt. Ltd. Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2023-2024

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **PRACHI SAWARN** (1MV20EC088), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Guide

Sheetal Bagali

Associate Professor

Dept of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanegar, Hunasamaranchalli International Airport of Principal re-562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the Effepartment Flectronics & Communications Engineering M VIT Bangalore 562 15

External Viva

Name of the Examiners

1. DO: R: Suntasorquin

2. Manjunatas Siddappa

Signature with Date

29/shu

I PRACHI SAWARN, student of VIII semester Bachelor of Engineerig, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagail, Associate Professor Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: PRACHI SAWARN 1MV20EC088

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

PRANAV RAJ

1MV20EC089

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that PRANAV RAJ (1MV20EC089), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishmadevarayanagar, Hunasamaranahalli Interna Signature of Principal re-562 157

Prof. Rakesh S.G.

Principal

Head Dept of ECE partment Sir MVIT, Bengaluru Electronics & Communications Enginee Or M VIT Bangelore

External Viva

Name of the Examiners

1. Dr. R. Sindaregun 2. Adaptinatha Siddappa

Signature with Date

29/3/24

Play's salster



CERTIFICATE OF INTERNSHIP

This is to certify that **Pranav Raj** whose USN is **1MV20EC089**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE





www.varconstech.com contact@varconstech.com

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

PRIYANSHU HARSHA

1MV20EC090

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **PRIYANSHU HARSHA** (1MV20EC090), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of the partment

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli International Aircost Road, Bangalore-562-157

Signature of Principal

Prof. Rakesh S.G.

2915/24

Principal

Sir MVIT, Bengaluru Electronics & Communications Engineer SIT M VIT Bangalore

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Suntenaquin 2. Manjunatha Siddappa

*Panjurats



CERTIFICATE OF INTERNSHIP

This is to certify that **Priyanshu Harsha** whose USN is **1MV20EC090**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



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contact@varconstech.com

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

PRIYANSHU RAJ

1MV20EC091

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Spoorthi H.C Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that PRIYANSHU RAJ (1MV20EC091), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bageli Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head



SIR M. VISVESVARAYA INSTITUTE-OF-TECHNOLOGY Kristmedevanovanager, Hunasemaranahalli International Alternatives, Bargalere Bab 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

2915124

Dept. of ECE Head of the Department in atronics & Communications Engineering

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sunderszum

2. Mangunathe Villappo

nebilu

I PRIYANSHU RAJ, student of VIII semester Bachelor of Engineering, Department of Electronics & Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of D r. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: PRIYANSHU RAJ 1MV20EC091

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

RAGHVENDRA KUMAR 1MV20EC092

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: Dr. SHEETAL BAGALI Associate Professor,

Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that RAGHVENDRA KUMAR (1MV20EC092), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. SHEETAL BAGALI

Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Principal

SIR M. VISVESVARAYA

Internationa

PRINCIPAI

Krishnade Signature of Principarahalli

Bangalote-562 157

Sir MVIT, Bengaluru

29/5/2

Prof. Rakesh S.G.

Dept. of ECE Head of the Department Electronics & Communications Engineeries

-Ar VIT Bangalore 562 157

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sundaragum 2. Manjunata a Oddappa

+Tay 29kthe



CERTIFICATE OF INTERNSHIP

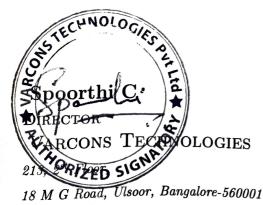
This is to certify that **Raghvendra Kumar** whose USN is **1MV20EC092**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"HUMAN DETECTION USING FMCW"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

RAJRAJESWARI R

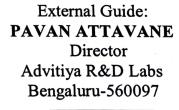
1MV20EC093

Internship carried out at

ADVITIYA R&S LABS Vidyaranyapur Bengaluru-560097

Internal Guide: Dr. SHEETAL BAGALI Associate Professor

Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157







BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Rajrajeswari R (1MV20EC093), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Advitiya R&D Labs in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Guide **Dr. Sheetal Bagali** Associate Professor Dept of ECE

Signature of HOD Dr. V. G. Supriva

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli International Airbort Road, Sangalore-562 157

Prof. Rakesh S.G.

Principal

Head of the Elepartment Sir MVIT, Bengaluru Electronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

Signature with Date

29/5/24

1. Dr. R. Sundaraginn 2. Manjunatra Siddappa...

Harian 296/2

1 Rajrajeswari R, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Prof. Pavan Attavane, Director, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

RAJRAJESWARI R 1MV20EC093

Date: 29-05-2024

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"Smart Parking System using IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

Rajshree Singh

1MV20EC094

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Ltd, Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **Rajshree Singh (1MV20EC094)**, a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE Souldale



FTECHNOLOGY SIR M. VISVI Krishnixie Signature of Principal Internation

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

29.15.124

Signature of HOD Dr. V. G. Supriya Professor & Head

Head of Depteof EEE artment "Inctronics & Communications Engineer - M VIT Bangalore 562 1=

External Viva

Name of the Examiners

Signature with Date

1. Dr. R. Sundaraguns

2. Manjunatta Sidappa...

INTERNSHIP OFFER LETTER



Date: 11th August, 2023

Name: Rajshree Singh USN: 1MV20EC094 Placement ID: TIEES0908033

Dear Student,

We would like to congratulate you on being selected for the Embedded Systems with IOT Internship position with Varcons Technologies, effective Start Date 11th August, 2023, All of us are excited about this opportunity provided to you!

This internship is viewed as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts of Embedded Systems with IOT through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with you!.

Sincerely,

Spoorthi H C Director VARCONS TECHNOLOGIES 213. 2st Floor, 18 M G Road, Ulsoor, Bangalore-560001

I Rajshree Singh, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

Rajshree Singh 1MV20EC094

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT (18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

REETHU K L

1MV20EC095

Internship carried out at

INDIAN TECH-KEYS BANGALORE-560038

INTERNSHIP CO-ORDINATOR:

EXTERNAL GUIDE:

Mr. KOTRESH M Director Indian Tech-Keys, Baiyappanahalli

Bengaluru-560068



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU 2023-2024

Dr. SHEETAL BAGALI Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **REETHU K L (1MV20EC095)**, a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bangalore has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Head Dept of ECE epartment

Electronics & Communications Engineeri Sir M VIT Bangalore 562

External Viva

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranaitalli International Alroot Road, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. R. Sundensenn. 2. Manjunatha Siddappa.

Signature with Date

29/5/24

+ 12 29/5/24

Π

I REETHU K L, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali , Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bangalore Date: REETHUKL 1MV20EC095

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

RISHABH SHARMA 1MV20EC096

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: Dr. SHEETAL BAGALI

Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **RISHABH SHARMA** (1MV20EC096), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. SHEETAL BAGALI

Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

SIR M. VISV Krishnad Signature of Brino palnahalli International Airport Road, Bangalore-562 157 Prof. Rakesh S.G.

Principal

Head Dept of EGE partment Sir MVIT, Bengaluru Electronics & Communications Engineering -- M VIT Bangalore 562 1-7

External Viva

Name of the Examiners

- 1. DY: R. Sund arezun

Signature with Date

2915124

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590 018



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

RITESH KUMAR RAI

1MV20EC097

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT

Bengaluru-562157

External Guide: Spoorthi H.C Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that RITESH KUMAR RAI (1MV20EC097), a bonafide student of Sir M. Visvesvarava Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of the DECERTMENT Tectronics & Communications Engineering M VIT Bangalore

External Viva

SIR M. VISAGENARIANE KIETPHINEOFATE Krishnadevarayanagar, Hunasamaranahalli Internationalogin Bakesh, Sakgalore-562 157

Principal

Sir MVIT, Bengaluru

29/5/24

Name of the Examiners

Signature with Date

1. Dr. R. Sundangum 2. Manjunethe Edappe

72/5/24

I RITESH KUMAR RAI, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

RITESH KUMAR RAI

Date:

1MV20EC097

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA, BELAGAVI – 590018



INTERNSHIP REPORT

ON

Smart Parking System using IOT

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

RITIK KUMAR DUBEY

1MV20EC098

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **RITIK KUMAR DUBEY** (1MV20EC098), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023-2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

SIR M-HS KrishrSignature of Principalaranahali alore-562 157 Internatio Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head of the offerartment lectronics & Communications Engineering Sir M VIT Bangalore 562 157

Signature of HOD

Dr. V. G. Supriya

Professor & Head

External Viva

Name of the Examiners

1. Dr. R. Sundaragun 2. Manjunathe Siddoppe

Signature with Date

29/5/24

28/24

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that **Ritik Kumar Dubey** whose USN is **1MV20EC098**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS (Smart Parking System using IOT)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

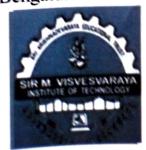
Rituraj Singh Rajawat

1MV20EC099

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Rituraj Singh Rajawat (1MV20EC099), a bonafide student of Sir M. Visvesvarava Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Dept. of ECE

SIR M. VISVE Krishn Signature of Principal International Air Rakesh S.G.lore-562 157

Principal Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineer STM VExternal Viva 562 15

Name of the Examiners

1. Dr. R. Sundano gum 2. Mangunatho Eddeppa

Signature with Date

29/5/24

2 ahhr

I Rituraj Singh Rajawat, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: Rituraj singh rajawat 1MV20EC099



INTERNSHIP REPORT

ON

"Sentiment Analysis of Lockdown During COVID-19 in USA"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

Rohit Anand

1MV20EC100

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Rohit Anand (1MV20EC100), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

International /

Signature of HOD

Dr. V. G. Supriya

Prof. Rakesh S.G.

Signature of Principal

Professor & Head

Principal

amaranahalli

562 157

Head of the Department

Sir MVIT, Bengaluru

Tectronics & Communications Engineering 562 157

M VIT Bangalore

External Viva

Name of the Examiners

1. Dr. R. Sundarazum 2. Manjunatea Siddoppa

Signature with Date

29/5/24

Anno

I Rohit Anand, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: Rohit Anand 1MV20EC100



INTERNSHIP REPORT (18ECI85)

ON

"OVERVIEW OF ELECTRONIC WARFARE AND AVIONICS (EW&A)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

ROHITH G

1MV20EC101

Internship carried out at

BHARAT ELECTRONICS LIMITED

BENGALURU-560013

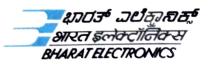
INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mrs. BINEETHA MANAGER (EW&A) BEL, JALAHALLI



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that ROHITH G (1MV20EC101), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorilycompleted Industrial training from BHARAT ELECTRONICS LIMITED, BENGALURU-560013 in partial fulfilment of the requirements as prescribed by theVTU for the award of Bachelor of Engineering in Electronics and CommunicationEngineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of the offerartment lectronics & Communications Engineerin 562 157

PRINCIPA TECHNOLOGY inasamaranahalli SIR M. VISV ure of Pencipal 562 157 Krishnada Internationa Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Sir M VIT Bangalore

Name of the Examiners

External Viva

Signature with Date

1. P.J. R. Sundarazum. 2. Manjunatha Sidappa

29/5/24

286

I ROHITH G, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. SheetalBagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: 29 5/24 ROHITH G 1MV20EC101



INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SATYAM

1MV20EC102

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SATYAM (1MV20EC102), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Dr. Sasmita Mohapatra

Professor

Dept. of ECE

PRINCIPAL INSTITUTE O

InternSignature of Principal re 502 15

Signature of the Internship Coordinator

Signature of HOD

Dr. V. G. Supriya

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Head of the Department Head of the Department Electronics & Communications Engineering Fir M VIT Bangalore 562 157

External Viva

Name of the Examiners

Boccon 29/5/24

Signature with Date

1. Dr. R. Sundanazim 2. Manjunatte Siddappa

Mar Dala

I, SATYAM final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internshiphas been successfully completed, in "Varcons Technologies Private Limited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

:

Contra del

Date :21/09/2023 Place : Bangalore USN : 1MV20EC102 NAME : SATYAM



INTERNSHIP REPORT

ON

"SMART STREET LIGHT SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHALINI K

1MV20EC103

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept of ECE, Sir MVIT Bengaluru-562157

External Guide: Guide Name:Spoorthi C Designation: Director Varcons technologies, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

2023-2024

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Shalini K (1MV20EC103), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 -2024

Signature of the Coordinator

Dr. Sheetal Bagali

Associate professor Dept of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head partment Head of the Debt of EC Sectronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

Signature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. R. Sundonagum 2. Manninatra Siddappe

Signature with Date

29 5124

2 2 Sm



CERTIFICATE OF INTERNSHIP

This is to certify that Shalini K whose USN is 1MV20EC103, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **smart street light system**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



contact@varconstec.b.com

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INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHANTANU KUMAR

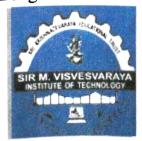
1MV20EC104

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



t

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHANTANU KUMAR (1MV20EC104), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar_Hunasamaranahalli International Airport Road, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of Dente of Repartment The tronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. R. Sundaragum 2. Manjunathe Sidappe

Signature with Date



Par 2016 prime

I SHANTANU KUMAR, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

Shantanu Kumar 1MV20EC104



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHANTANU KUMAR

1MV20EC104

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHANTANU KUMAR (1MV20EC104), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of Dente of Experiment The tronics & Communications Engineering Sir M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLOGY Krishnadevaravanagar_Humasamaranahalli International Airport Road, Bangalore-562 157 Signature of Principal

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Dr. R. Sundaragum. 2. Manjunathe Lithoppe

Signature with Date

29/5/24

par all ru

I SHANTANU KUMAR, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

Shantanu Kumar 1MV20EC104



INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHANTANU SINGH

1MV20EC105

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHANTANU SINGH (1MV20EC105), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of **Bachelor of Engineering** in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

der signaf or

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

Dr. V. G. Supriya

Professor & Head

Head dept of ECE partment Electronics & Communications Engineering Bir M VIT Bangalore 562 157

External Viva

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TER Krishnaderatayeneger. Signature of HOD

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

Signature with Date 29/5/24

1. Dr. R. Sundaragune 2. Manzunathe Eddeppe

2 than 28/6/44

I, SHANTANU SINGH final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internship has been successfully completed, in "Varcons Technologies Private Limited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

Date :21/09/2023 Place : Bangalore USN : 1MV20EC105 NAME : SHANTANU SINGH



INTERNSHIP REPORT

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

SHEIK TANZEEM

1MV20EC106

Internship carried out at INDIAN TECH-KEYS BANGALORE-560038

Internal Guide: Dr. SHEETAL BAGALI Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mr.KOTRESH M DIRECTOR Indian Tech-Keys, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

2023-24

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHEIK TANZEEM (1MV20EC106), a bonafide student of SIR M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilmentof the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2022 – 2023.

Signature of the Guide Dr. Sheetal Bagali Associate Professor Department of ECE

Signature of HOD **Dr.V.G.Supriya**

Professor & Head

Department of ECE Head of the Department Electronics & Communications Engineeric Sir M VIT Bangalore 562 157

External Viva

PRINCIPAL SIR M. VISVESVAPION OF TECHNOLOGY Krishnad Signature of Principal Analii International Signature Sangaloro-562 157 Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dt. R. Sundarazur

2. \$ 10 mounaite Stadage

Signature with Date

296/20

I SHIEK TANZEEM, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2022-2023.

SHEIK TANZEEM 1MV20EC106

Place: Bengaluru Date: 29 | 0 5 | 24 [Document title]

VISVESVARAYA TECHNOLOGICAL UNIVERSITY



BELAGAVI – 590018, Karnataka

INTERNSHIP REPORT

ON

"Social Media Sentiment Analysis" Submitted in partial fulfilment for the award of degree(18ECI85)

BACHELOR OF ENGINEERING IN

Electronics and Communication Engineering

Submitted by:

SHIVAM KUMAR

1MV20EC107 Internship carried out at Varcons Technologies Pvt Ltd Halasuru,M.G Road BENGALURU -560001

Conducted at Varcons Technologies Pvt Ltd



Department of Electronics and Communication Engineering Sir M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Approved by AICTE New Delhr, Affiliated to VTU, Belagavi, ISO 9001:2008 Certified) Off International airport road, krishnadevarayaNagar,

> Bengaluru - 562157 2022 - 2023

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHIVAM KUMAR (1MV20EC107), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Head of the Department Contronics & Commenceations Engineer 562 157 TIM VIT Bangalore

SIR M. VISVI shoesevaravan

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

External Viva

Name of the Examiners

Signature with Date

29/5/24

May 28/5/2

1. Dr. R. Sundanezum 2. Manjunatha Eddoppo

ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement ground my efforts with success.

I consider it is a privilege to express my gratitude and respect to all those who guided me in completion of Internship.

DECLARATION

I, Shivam Kumar final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internship has been successfully completed, in "Varcons Technologies PrivateLimited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

Date :21/09/2023

Place: Bangalore

USN: 1MV20EC107

NAME: Shivam Kumar



INTERNSHIP REPORT

ON

"Smart Parking System using IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHRISTI RAJ

1MV20EC108

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Ltd, Bengaluru-562157

External Guide: **Spoorthi H.C** Director, Varcons Technologies Pvt Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHRISTI RAJ (1MV20EC108), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Name of the Examiners

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Tectronics & Communications Engineering The M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli Internal Signature of Principalre-562 157

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

2205124

Dept. of ECE Head of the Department

External Viva

Signature with Date

1 DR Harish S

2. Dr. Saemita Mohapatra

I SHRISTI RAJ, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

SHRISTI RAJ 1MV20EC108



INTERNSHIP REPORT

ON

Smart Parking System using IOT Submitted in partial fulfillment of the requirements for the award of the degree

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHUBHRADEEP DAS

1MV20EC109

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHUBHRADEEP DAS (1MV20EC109), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya Professor & Head

Signature of Principal TUTE OF TECHNOLOGY KrishpadevBreofnRiakeshaSaGaranahalli Principal Principal International 41

Sir MVIT, Bengaluru

Head of the Deferment Electronics & Communications Engineerin SIL M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Do Sainita Dohapatra

2. Dr. Harish S.

Signature with Date

Varcons Technologies Pvt Ltd Communicate: Collaborate: Create

CERTIFICATE OF INTERNSHIP

This is to certify that Shubhradeep Das whose USN is 1MV20EC109. has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Smart parking using iot. As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate.





A LITE BARRIER N

contact @varconstech.com

This certificate was generated using ("ERTIFF') COM



INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHWETA KUMARI

1MV20EC110

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHWETA KUMARI (1MV20EC110), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Signature of HOD

Dr. Sheetal Bagali Associate Professor Dept. of ECE

SIR M VISVE

SIR M. VISVESVAPAN, PISTITUTE OF TECHNOLOG Krishnadever, Ser Munasamaranahalli Interna Signature of Principal Joing Joing 157

PRINCIPA

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Dr. V. G. Supriya

Professor & Head Head Obept. of ECE Electronics & Communications Engineering Str M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Harish S.

2. Dr. Samete Mohapatre

DECLARATION

I, SHWETA KUMARI final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internship has been successfully completed, in "Varcons Technologies Private Limited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

Date :21/09/2023 Place : Bangalore USN : 1MV20EC110 NAME : SHWETA KUMARI



INTERNSHIP REPORT

ON

"SMART STREET LIGHT SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

SHWETHA

1MV20EC111

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

nternal Guide: uide Name: Sheetal Bagali, esignation:Associate Professor ept of ECE, Sir MVIT engaluru-562157 External Guide: Guide Name:Spoorthi C Designation: Director Varcons technologies, Bengaluru-560001



Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHWETHA (1MV20EC111), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Guide Sheetal bagali

Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head Dept. of ECE Electronics & Communications Engineerity Sir M VIT Bangalore 562 157

External Viva

Sik M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishigoataneoof Principal anaranahalli International Atroort Roos, Bandatane 562 157 Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Halish

2. Dr. Saimite Mohapatra

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CERTIFICATE OF INTERNSHIP

This is to certify that Shwetha whose USN is 1MV20EC111, has completed their Embedded Systems Internship organised and handled by Varcons Tech- nologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart street light system**. As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.





INTERNSHIP REPORT

ON

"SMART PARKING SYSTEM USING ARDUINO"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SIDDHARTHA KUMAR

1MV20EC112

Internship carried out at VARCONS TECHNOLOGIES 213,2nd FLOOR,18 M G ROAD, ULSOOR BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157



External Guide: Spoorthi H.C Director, Varcons Technologies Bengaluru-560001

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SIDDHARTHA KUMAR(1MV20EC112), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from VARCONS TECHNOLOGIES in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head open of Ecepartment Electronics & Communications Engineerie Fr M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA HISTHUTE OF TECHNOU Krishnadevarayanagar, Hunasamaranaha International Arpert Princ, ipalgalore-562

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. De Harish

2 Dr. Saemite Mohapatora

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

Certificate of Internship

This is to certify that Siddhartha Kumar whose USN is 1MV20EC112. has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**. As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

"SMART STREET LIGHT SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SRI LAKSHMI A REDDY

1MV20EC113

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internal Guide: Guide Name: Sheetal Bagali, Designation:Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157

External Guide: Guide Name:Spoorthi C Designation: Director Varcons technologies, Bengaluru-560001



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SRI LAKSHMI A REDDY (1MV20EC113), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

19/3/24

Signature of the Guide Sheetal bagali Associate Professor Dept. of ECE

Signature of HOD **Dr. V. G. Supriya**

Professor & Head

Dept. of ECE Head of the Department Plectronics & Communications Engineer Sir M VIT Bangalore 562 157

External Viva

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGI Krish Stenatura (Standborg), Hunasamaranahalli International Asira (Stenatore), 562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1 De Harish S.

2. Do Samita Mohapatra

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that **Sri Lakshmi A Reddy** whose USN is **1MV20EC113**, has completed their **Embedded Systems** Internship organized and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Street Light System**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT (18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

SUBRAMANIAM G

1MV20EC115

Internship carried out at

INDIAN TECH-KEYS

BANGALORE-560038

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. KOTRESH M DIRECTOR Indian Tech-Keys, Baiyappanahalli Bengaluru-560068



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU 2023-2024

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SUBRAMANIAM G (1MV20EC115), a Bonafide student of Sir M. Visvesvaraya Institute of Technology, Bangalore has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head

Head of the feetpartment Electronics & Communications Engineeri-Sir M VIT Bangalore 562 157

ofPrincipalNOLOGY Prof. Rakesh StG: 362 157 Principal

Sir MVIT, Bengaluru

ii

External Viva

Name of the Examiners 1. Dr. Harish S. 2. Dr. saunita Mohapatra

DECLARATION

1 SUBRAMANIAM G, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bangalore Date: SUBRAMANIAM G 1MV20EC115



INTERNSHIP REPORT (18ECI85)

ON

"EMBEDDED SYSTEMS AND INTERNET OF THINGS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

SUDHEENDRA S KULKARNI

1MV20EC116

Internship carried out at

KARUNADU TECHNOLOGIES Pvt Ltd

BENGALURU-560090

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. HARISH N MANAGER Karunadu Technologies



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SUDHEENDRA S KULKARNI (1MV20EC116), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from KARUNADU TECHNOLOGIES in partial fulfillment of the PRIVATE LIMITED, BENGALURU-560013 requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

= 18/3/2024

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Dept. of ECE

SIR M. VISVESVARAYA INST KrishnaSignature of Principatanahalli

International Airport Rost, Bangalore-562 15 Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Signature with Date

Name of the Examiners

1. De Harish S. 2. Dr. Sasmite mohapator

DECLARATION

I SUDHEENDRA S KULKARNI, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies a report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: SUDHEENDRA S KULKARNI 1MV20EC116



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS (Smart Parking System using IOT)"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

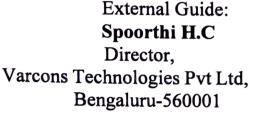
Sushant Kumar

1MV20EC117

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2022 202

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Sushant Kumar (1MV20EC117), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD Dr. V. G. Supriya Professor & Head Dept. of ECE

SIR M. VISVESVAL CONTROL OF Principal Kristmade Signature of Principal 157 International Aport Acual, Canoni 167

Principal Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineerin Sir M VIT Bangalore 562 11

Name of the Examiners

, De Harish S

2. Dr. Saemita Mohapatra

DECLARATION

I Sushant Kumar, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: Sushant Kumar 1MV20EC117

1.14



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in ELECTRONICS & COMMUNICATION ENGINEERING

> Submitted by: THASMEEN D 1MV20EC118 Internship carried out at

SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that THASMEEN D (1MV20EC118), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD International Algorithe of Brincipale-562 157

Dr. V. G. Supriya

Prof. Rakesh S.G.

PRINCIPAL

Krishnadevarayanagar, Hu

SVARAYA INSTITUTE OF TECHNOLOGY

inasamaranahalli

Head Bofesse & Despartment Principal Electronics & CephinkEngenous Enginesic MVIT, Bengaluru Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Sainite Mohapatore

DECLARATION

I THASMEEN D, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

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THASMEEN D

Place: Bengaluru Date: 93/05/24

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7

1MV20EC118



INTERNSHIP REPORT

ON

Smart Parking System using IOT

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

TUSHAR YADAV

1MV20EC119

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157 (Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka) DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that TUSHAR YADAV (1MV20EC119), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head open of Ecepartment

Bir M VIT Bangalore 562 157

External Viva

International Aircort Road, Bangaere Prof. Rakesh S.G. Principal

Signature of Principa

Sir MVIT, Bengaluru Flectronics & Communications Engineering

Name of the Examiners

1. De Harish

2. Dr. Samite Mohapart

Signature with Date

Krishna

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CERTIFICATE OF INTERNSHIP

This is to certify that Tushar Yadav whose USN is 1MV20EC119, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Smart Parking System using IoT, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

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INTERNSHIP REPORT

ON

Smart Parking System using IOT

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

UJJWAL KUMAR

1MV20EC120

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Spoorthi H.C** Director Varcons Technologies Pvt Ltd Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157 2023-2024

BENGALURU-562157 (Affiliated to Visvesvaraya Technological University, Belagavi,Karnataka) DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that UJJWAL KUMAR (1MV20EC120), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Head of Dept of Artment Electronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalii Internatio Signature of Pangapa-562 157

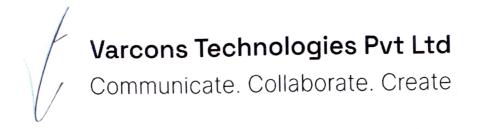
Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr Harish S.

2. Dr. Samita Mohabatoa



CERTIFICATE OF INTERNSHIP

This is to certify that Ujjwal Kumar whose USN is 1MV20EC120, has completed their Embedded Systems Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE





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INTERNSHIP REPORT

ON

"Embedded System"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: V Suchithra

1MV20EC121

Internship carried out at

Precimeasure Controls Pvt Ltd Dabaspete,nelamangala BENGALURU-562111

Internship coordinator **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External guide: Harish B. G Director, Precimeasure controls Pvt Ltd Bengaluru-562111 PRECIMEASURE

rotection and Beyond.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-56215

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

Department of Electronics and Communication Engineering



CERTIFICATE

This is to certify that V SUCHITRA (1MV20EC121), a bonafide student of SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU has satisfactorily completed industrial training from precimeasure control Pvt. Ltd. The report is in partial fulfillment of the requirements for the award of the degree of "Bachelor of Engineering" in Electronics and Communication Engineering from the Visvesvaraya Technological University, Belagavi, Karnataka, India, during the academic year 2023-2024.

Signature of Guide

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. Supriya V.G. Professor & Head

Head of the Department Flectronics & Communications Engineering Str M. VIT. Bangalore 562 157

Signating In Chipagipal SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krist Pedera Rightsger, Stonesemaranahaki Internetionel Arport Panet, Bangelore-562 157 Principant

Sir MVIT, Bengaluru

Name of the Examiners 1. Dr. Harish S. 2. Dr. Sasmite Mohapaton

External Viva

Signature with Date

ACKNOWLEDGEMENT

The joy and satisfaction that accompany the successful completion of any task would be incomplete without the blessings from the almighty and the people mentioned below who made it possible.

First and foremost, I offer my sincere phrases of thanks to **Prof. Rakesh S. G.**, Hon. Secretary, Sir MVIT, for providing help and support to carry out the internship.

I would like to express my gratitude to our **Principal**, **Prof. Rakesh S. G.** for providing me a congenial environment for engineering studies and also for having showed me the way to carry out this internship.

I consider it a privilege and honor to express my sincere thanks to **Dr. Supriya V.G.**, Professor and Head, Department of ECE for her support and invaluable guidance throughout the tenure of this internship.

I would like to thank my guide Dr. Sashmita Mohapatra, Professor, for the support, guidance, motivation, encouragement for the successful completion of this internship.

I would like to extend my gratitude to our internship coordinators Mr. Chethan for their support, encouragement and guidance during the entire internship.

I intend to thank all the teaching and non-teaching staffs of our Department of ECE for their immense help and co-operation.

Finally, I would like to express my gratitude to my parents and friends who always stood by me.

Shristi Rai



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEMS"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

VAIBHAV KUMAR

1MV20EC122

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Spoorthi H.C Director,

Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that VAIBHAV KUMAR (1MV20EC122), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Signature of HOD

Dr. V. G. Supriya

Professor & Head Head of Dept. of ECE Pectronics & Communications Engineering M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnad Signaturgao f Prinseipara nahalli International Airport Roed, Bangalore-562 157 Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru

Dr. Sheetal Bagali Associate Professor

Dept. of ECE

External Viva

Name of the Examiners

1. Dr. Harish

2. Dr. Sasmita Mohapaton

DECLARATION

I VAIBHAV KUMAR, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

VAIBHAV KUMAR

Date:

1MV20EC122



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: VARSHIKHA K V 1MV20EC123 Internship carried out at

SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that VARSHIKHA K V (1MV20EC123), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya

International Aligorit Road, Bangalore-562 Prof. Rakesh S. G.

PRINCIPAL

SIR M. VISVESVARAYA INSTITUTE OF TE

Krishnadevarayanagar

Head of the Department Principal Pr

External Viva

Name of the Examiners

, De Harish S.

2 Dr. Saimite Mohapaton

DECLARATION

I VARSHIKHA K V, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali , Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Varel ka.KV.

Place: Bengaluru Date: **23**|05|2024 VARSHIKHA K V 1MV20EC123



INTERNSHIP REPORT

ON

"SMART PARKING SYSTEM USING IOT"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

VIKAS SHIVASHANKAR BENAL

1MV20EC124

Internship carried out at

VARCONS TECHNOLOGIES PVT LTD BENGALURU-560001

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: **Spoorthi C** Director, Varcons Technologies Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Vikas Shivashankar Benal (1MV20EC124), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

SIR M. VISVESVATA Krishnek Internado:

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Signature of Principal

CIPAL

TF OF TECHNOLOGY

osameranahalli

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Dept. of ECE Head of the Department

Proctronics & Communications Engineering

External Viva

Name of the Examiners

, Dr. Harish S.

2. Dr. Saemita Mohapotor

DECLARATION

I VIKAS SHIVASHANKAR BENAL, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

VIKAS SHIVASHANKAR BENAL 1MV20EC124



INTERNSHIP REPORT

ON

"Stock Sentimental Analysis"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

YOGESH KUMAR

1MV20EC125

Internship carried out at

Varcons Technologies Pvt Ltd Halasuru, M.G Road BENGALURU-560001

Internship Coordinator: Dr. Sheetal Bagali Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: **Tejas N.** Director, Varcons Technologies Pvt Ltd, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that YOGESH KUMAR(1MV20EC125), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krightiedevareschager, Hunesemaranetalli Internationsignature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Head of the Department

Electronics & Communications Engineering Sir M VIT Bangalore 562-15

External Viva

Name of the Examiners

1. De Harish S.

2. Dr. Sagnita Mohapaton

DECLARATION

I, YOGESH KUMAR final year student of Electronics and communication Engineering, Sir M. Visvesvaraya Institute Of Technology – 562157, declare that the Internship has been successfully completed, in "Varcons Technologies Private Limited". This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2023-2024

Date :21/09/2023 Place : Bangalore USN : 1MV20EC125 NAME : YOGESH KUMAR



INTERNSHIP REPORT (18ECI85)

ON

"INDUSTRIAL AUTOMATION"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

NIRANJAN SRIDHAR

1MV20EC126

Internship carried out at

CONTEK AUTOMATION PVT. LTD.

BENGALURU-560043

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. RAJENDRA PAWAR DIRECTOR CAPL, HORAMAVU

ATION SIMPLIFIED

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that NIRANJAN SRIDHAR (1MV20EC126), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from CONTEK AUTOMATION PRIVATE LIMITED, BENGALURU-560043 in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication **Engineering** and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor

Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

Dept. of ECE Head of the Department electronics & Communications Engineer

PRINCIPAL Krishnadevarayanagar, Hunasama InternatSignature of Principalre-562 15

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

External Viva

Name of the Examiners

1. Os Harish S

2. Dr. Samite Mohapatore

Signature with Date

DECLARATION

I NIRANJAN SRIDHAR, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: NIRANJAN SRIDHAR 1MV20EC126



INTERNSHIP REPORT (18ECI85)

ON

"WAVE SOLDERING"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

R SHANMUKHA SRINIVAS

1MV20EC127

Internship carried out at

YSL ELECTRONICS PRIVATE LIMITED

BANGALORE-560064

INTERNSHIP CO-ORDINATOR:

Dr. SHEETAL BAGALI ASSOCIATE PROFESSOR, Dept. of ECE, Sir MVIT Bengaluru-562157



EXTERNAL GUIDE:

Mr. B. REDDY MANAGER (HR/NS) YSL Electronics, KHB Industrial Area, Bengaluru-560064



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **R SHANMUKHA SRINIVAS (1MV20EC127)**, a Bonafede student of **Sir M. Visvesvaraya Institute of Technology, Bangalore** has satisfactorily completed Industrial training from **YSL ELECTRONICS, BANGALORE-560064** in partial fulfilment of the requirements as prescribed by the **VTU** for the award of **Bachelor of Engineering** in **Electronics and Communication Engineering** and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

External Viva

Dept. of ECE Head of the Department Flectronics & Communications Engineer Or M VIT Bangalore 562 PRINCIPAL

SIR M. VISVESVARAVA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli Internatte Signature of Principale 562 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1. De Harish S.

2. Dr. Samite Mohapatra

Signature with Date

DECLARATION

I R SHANMUKHA SRINIVAS, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

SSNat

R SHANMUKHA SRINIVAS 1MV20EC127

Place: Bangalore Date: **30/05**/2024

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INTERNSHIP REPORT

ON

"SMART PATIENT WARD"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

VIJAY Y

1MV20EC128

Internship carried out at

VARCONS TECHNOLOGIES BENGALURU-560001

Internal Guide: Dr. SHEETAL BAGALI, ASSOCIATE PROFESSOR Dept of ECE, Sir MVIT Bengaluru-562157 External Guide: Spoorthi C Director Varcons technologies, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

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2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that VIJAY Y (1MV20EC128), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons technologies in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Guide

Dr. Sheetal Bagli

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1

Associate Professor

Dept of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

PRINCIPAL SIR M. <u>VISVESVARAYA INSTITUTE OF TECHNOLOGY</u> Krishnedevarayanagar, <u>Hunasamaranahalli</u> Internatic**Signature: OC**, <u>Bangaote-562</u> 157

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Head OPthe Bepartment Plectronics & Communications Engineering Sir M VIT Bangalore 562 15

Name of the Examiners

Dr. Saemite Mohapatra 1. Dr. Harish S 2.

External Viva

Signature with Date

ii





Date: 11th August, 2023

Name: VIJAY Y USN: 1MV20EC128 Placement ID: TIE0308ES158

Dear Student,

We would like to congratulate you on being selected for the Embedded Systems with IOT Internship position with Varcons Technologies, effective Start Date 11th August, 2023. All of us are excited about this opportunity provided to you!

This internship is viewed as being an educational opportunity for you, rather than a part-time job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts of **Embedded Systems with IOT** through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again. congratulations and we look forward to working with you!.

Sincerely,

Spoorthi H C Director VARCONS TECHNOLOGIES 213. 2st Floor, 18 M G Road, Ulsoor, Bangalore-560001



INTERNSHIP REPORT

ON

"ADVANCE EMBEDDED AND IoT INTERNSHIP"

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

BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by: BACHCHANAKALLAPPA H 1MV20EC129

Internship carried out at SIR MVIT COLLEGE, BENGALURU-562157

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr. Kotresh M Director, Indian TechKeys Bengaluru- 560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SRI KRISHNADEVARAYA EDUCATIONAL TRUST BENGALURU-562157 2023-2024

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that BACHCHANAKALLAPPA H (1MV20EC129), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECH KEYS in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali

Associate Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Prof. Rakesh S.G.

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOG Krishnadevaravanovar-Hureisamar

International Attack of Principal

Principal

Head of Professor & Head menu Clectronics & ConDeptrofECEs Engineers Sir MVIT, Bengaluru "r M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Samite Mohapaton

20105/24 m, s.g.

DECLARATION

I BACHCHANAKALLAPPA H, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru

BACHCHANAKALLAPPA H

Date: 30/05/2024

1MV20EC129



INTERNSHIP REPORT

ON

STUDY OF RESONANT CONVERTERS

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Bhavya M

1MV21EC400

Internship carried out at

MTRDC, DRDO, BENGALURU-560013

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Mr. K Mirjith Scientist 'F' MTRDC, DRDO Bengaluru-560013





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that BHAVYA M(1MV21EC400), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from MTRDC(DRDO) in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Unabatora

Signature of the Internship Coordinator

Dr. Sasmita Mohapatra

Professor Dept. of ECE

Signature of HOD

Dr. V. G. Supriya

Professor & Head

SIR M. VISVESVARAYA INS Krishnadevarayanagar, Hunasamaranahalli International Almort Signature of Principal 157

PRINCIPAI

Prof. Rakesh S.G.

Principal

Head Dept of ECE partment Communications Engineenin Sir MVIT, Bengaluru UNT . neglore 562 157

External Viva

Name of the Examiners

1. Dr. Samite Mohapaton 2. De Harish S

CERTIFICATE FROM THE INDUSTRY



सूक्ष्मतरंग नलिका अनुसंधान तथा विकास संगठन बी.ई.एल. कांप्लेक्स, जालहल्ली, बेंगलूरु – 560013 Microwave Tube Research and Development Centre BEL Complex, Jalahalli, Bangalore-560013, Karnataka EPABX: 080-22658096 Fax: 28381750/28386804/28386809 Web: http://drdo.gov.in

रका अनुसंधान तथा विकास संगठन,रवा मंत्रालय, भारत सरकार - Defence Research & Development Organization, Ministry of Defence, Government of India

Date: 19-Sep-2023

CERITIFCATE OF INTERNSHIP

This is to certify that Bhavya M. (College ID: 1MV21EC400) student of Sir M. Visveswaraya Institute of Technology has completed an internship at MTRDC, DRDO, effective from 14-Aug-2023 to 14-Sep-2023.

During the internship period, Bhavya M. demonstrated enthusiasm and commitment to learning. We believe she has gained valuable insights and practical exposure to basics of dc-dc converter topologies and testing methodologies.

We extend our best wishes to Bhavya M. for her future endeavors and trust that the skills and knowledge acquired during the time with us will serve as strong foundation for her professional journey.



.Mirjith Scientist 'F' MTRDC, DRDO

EPABX: 28380388, 28381155, 28382402, 28386807 Fax: 080-28381750/28386804/28386809 Web:www.drdo.org E-mail: director@mtrdc.drdo.in





INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

Doddamani Mehaboob Alum

1MV21EC402

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: Dr Sasmita Mahapatra Associate Professor,

Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Spoorthi H.C Internship Coordinator, Varcons Technologies Pvt Ltd, Bengaluru-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **Doddamani Mehaboob Alum(1MV21EC402)**, a bonafide student of **Sir M. Visvesvaraya Institute of Technology**, **Bengaluru** has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfilment of the requirements as prescribed by the VTU for the award of **Bachelor of Engineering** in **Electronics and Communication Engineering** and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator Dr Sasmita Mahapatra Associate Professor

Dept. of ECE

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Signature of HOD

PRINCIPAL SIR M. VISVESVARAYA-INSTITUTE-OF-TECHNOLOGY Krishnadevarayaragar, Hunasamaranaharii Inter Signatwre of Form Supalatore-562, 17.7

Dr V. G. Supriya

External Viva

Prof. Rakesh S.G.

Head of Dept. of ECE: Engineening Sir MVIT Bangalore 562 157

Name of the Examiners

1. Dr. Samite Mohapaton 2. Dr. Harish S.

Varcons Technologies Pvt Ltd Communicate. Collaborate. Create

CERTIFICATE OF INTERNSHIP

This is to certify that **Doddamani Mehaboob Alum** whose USN is **1MV21EC402**, has completed their **Embedded Systems** Internship organised and handled by Varcons Technologies from 13th August, 2023 to 20th September, 2023.

The person to whom this certificate is addressed to has worked on a project titled Smart Parking System using IoT, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE





www.varconstech.com

contact@varconstech.com

This certificate was generated using CERTIEFY.COM



INTERNSHIP REPORT

ON

"EMBEDDED SYSTEM"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

submitted by:

Gulam Gouse M

1MV21EC403

Internship carried out at

Varcons Technologies Pvt Ltd BENGALURU-560001

Internship Coordinator: **Dr Sasmita Mahapatra** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157

External Guide: Spoorthi H.C Internship Coordinator, Varcons Technologies Pvt Ltd, Bengaluru-562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that Gulam Gouse M (1MV21EC403), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Varcons Technologies Pvt Ltd in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr Sasmita Mahapatra

Associate Professor

Dept. of ECE

Signature of HOD

Dr V. G. Supriya

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Kistignature: of Principalsamaranahau International Airport Road, Bangalore-562 157

Prof. Rakesh S.G.

Professor & Head

Principal

Head of Depteof ECPartment Sir MVIT, Bengaluru Electronics & Communications Engineeric Sir M VIT Bangalore 562 157

External Viva

Name of the Examiners

1. Dr. Saemita Mohapatra

2 Dr. Haris



CERTIFICATE OF INTERNSHIP

This is to certify that **Gulam Gouse** whose USN is **1MV21EC403**, has completed their **Embedded Systems** Internship organised and handled by **Varcons Technologies** from **13th August**, **2023** to **20th September**, **2023**.

The person to whom this certificate is addressed to has worked on a project titled **Smart Parking System using IoT**, As part of the project, they worked with Advanced Microcontrollers and Sensor Interfaces. They interacted with these interfaces using embedded programming languages. The entire project was documented and necessary reports were submitted.

During the course of the internship, they demonstrated good design skills with a self-motivated attitude to learning new things. Their performance exceeded expectations and was able to complete the project successfully on time.

To verify this certificate, CLICK HERE



www.varconstech.com contact@varconstech.com

This certificate was generated using CERTIEFY.COM



INTERNSHIP REPORT

ON

"STUDY OF FABRICATION AND ASSEMBLY OF PCB PACKAGES"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

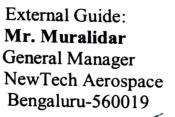
Keerthana A

1MV21EC405

Internship carried out at

NEWTECH AEROSPACE PRIVATE LIMITED BENGALURU-560019

Internship Coordinator: **Dr. Sasmita Mohapatra** Professor, Dept. of ECE, Sir MVIT Bengaluru-562157





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **KEERTHANA A(1MV21EC405)**, a bonafide student of **Sir M. Visvesvaraya Institute of Technology, Bengaluru** has satisfactorily completed Industrial training from **NewTech Aerospace Private Limited** in partial fulfillment of the requirements as prescribed by the **VTU** for the award of **Bachelor of Engineering** in **Electronics and Communication Engineering** and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator **Dr. Sasmita Mohapatra**

Professor Dept. of ECE

Signature of HOD Dr. V. G. Supriya

Head Brofesser & Headriment Electronics & DeptachEQEons Engineency Sir M VIT Bangalore 562 157

External Viva

Krishnadevarayanagar, Hunasamaranahalli International Anton Content and Conten

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Saimita Mchapatra 2. Dr. Harif S

CERTIFICATE FROM THE INDUSTRY



(An ISO 9001:2015 Certified Company)



29, 1st 'A' Cross, 3rd Main Road Hanumanthanagar, Bangalore - 560 019 Telefax : 060-24487770/71, Mob : +91 9449026360 E-mail . ntsbir@yahoo.co in / anand@ntsbir.com Info@ntsbir.com, Webiste : www.ntsbir.com

INTERNSHIP CERTIFICATE

Ref:017/2023-24

Dated 25/10/2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Miss. Keerthana A, bearing USN No. 1MV21EC405, BE- ECE student has carried out an internship on "Study on fabrication & assembly of PCB packages" in our organization from 1st Sep 2023 to 30th Sep 2023.

During the period of training she was keen, hardworking and displayed good conduct and character.

We wish her all success in her future endeavour.

Bangalore 560 019

C

Thanking you,

For Newtech Solutions

Authorized Signatory

PCB Design - Assembly & Testing - Software for Testing Electronic Circuits & Devices - Automatic Test Equipments Works : No. 69L, KIADB Aerospace Park, Unachuru, Jala Hobil, Bangalore North Dist, Bangalore-562 129.



INTERNSHIP REPORT

ON

"PMD INTEGRATED NETWORK CONFIGURATION FOR DATA TRANSFER AND CONTROL"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

LAKSHMI B S

1MV21EC406

Internship carried out at

ITC Meenukunte Hosur BENGALURU-562157

Internal Guide: Sheetal Bagali, Associate Professor, Dept of ECE, Sir MVIT Bengaluru- 562157



External Guide: Mr. Saumya Bhatt, Engineering dept. ITC Limited, Bengaluru- 562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that LAKSHMI B S (1MV21EC406), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from ITC Limited in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Guide Sheetal Bagali Associate professor Dept of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

Dept of ECE Head of the Department Electronics & Communications Engineer Str M VIT Bangalore 562 157

External Viva

SIR M. VISULEVADIA OF PHINCIPAL Krishnadevarayanagar, Hunasamaranahalii Internatiprebair Raikesh, Safgalore-562-457

> Principal Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Saemita Mohapaton 2. De Harish S.

Signature with Date

DECLARATION

I Lakshmi B S, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Prof. Sheetal Bagali, Associate professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date:

LAKSHMI BS 1MV21EC406

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANASANGAMA, BELAGAVI - 590 018



INTERNSHIP REPORT

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING

Submitted by:

MANOJ D P

1MV21EC407

Internship carried out at INDIAN TECH-KEYS BANGALORE-560038

Internal Guide: Dr. SHEETAL BAGALI Associate Professor Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mr.KOTRESH M DIRECTOR Indian Tech-Keys, Bengaluru-560001



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that MANOJ D P (1MV21EC407), a bonafide student of SIR M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from Indian Tech-Keys, Bangalore-560038 in partial fulfilmentof the requirements as prescribed by the VTU for the award of Bachelor of Engineeringin Electronics and Communication Engineering and submitted this report during the academic year 2022 - 2023.

Signature of the Guide Dr. Sheetal Bagali Associate Professor Department of ECE

Signature of HOD Dr.V.G.Supriya Professor & Head Head of thementer FEEtment Electronics & Communications Engineeri 562 157 Bangalore

SRM VSignature of Principal Prof. Rakesh S. G.galore-502 15 Principal Sir MVIT, Bengaluru

External Viva

VTT

Name of the Examiners

1. Dr. Sasmita Mohapatra

2. De Harich

Signature with Date

DECLARATION

I MANOJ D P, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sheetal Bagali, Associate Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2022-2023.

Place: Bengaluru Date: 28/3/2023 MANOJ D P 1MV21EC407



INTERNSHIP REPORT

ON

"PMD INTEGRATED NETWORK CONFIGURATION FOR DATA TRANSFER AND CONTROL"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

SHASHIKALA R

1MV21EC408

Internship carried out at

ITC Meenukunte Hosur BENGALURU-562157

Internal Guide: Sheetal Bagali, Associate Professor, Dept of ECE, Sir MVIT Bengaluru- 562157



External Guide: Mr. Saumya Bhatt, Engineering dept. ITC Limited, Bengaluru- 562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that SHASHIKALA R (1MV21EC408), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from ITC Limited in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023

-2024.

Name of the Examiners

Signature of the Guide **Sheetal Bagali** Associate professor Dept of ECE

Signature of HOD Dr. V. G. Supriya

Professor & Head

Head Off off CEDepartment Flectronics & Communications Engine 562 IF Bir M VIT Bangalore

PRINCIPAL ARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli Bangalore-562 157 Internationature of Principal

Prof. Rakesh S.G.

Principal Sir MVIT, Bengaluru

External Viva

1. Dr. Saemita Mohapatora

2. De Harish S.

Signature with Date

Rhapat20.5.24

DECLARATION

I Shashikala R, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Prof. Sheetal Bagali, Associate professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: SHASHIKALA R 1MV21EC408



INTERNSHIP REPORT(18ECI85)

ON

"ADVANCED EMBEDDED SYSTEM AND IoT DESIGN"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

TEJASWINI K

1MV21EC409

Internship carried out at

SIR MVIT COLLEGE, BENGALURU-5602157

Internship Coordinator: **Dr. Sheetal Bagali** Associate Professor, Dept. of ECE, Sir MVIT Bengaluru-562157 External Guide: Mr.Kotresh M Director, Indian Techkeys Bengaluru-560038





DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY SIR KRISHNADEVARAYA EDUCATUIONAL TRUST BENGALURU-562157 2023-2024

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that **TEJASWINI K** (1MV21EC409), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from INDIAN TECHKEYS in partial fulfillment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 – 2024.

Signature of the Internship Coordinator

Dr. Sheetal Bagali Associate Professor Dept. of ECE

Signature of HOD **Dr. V. G. Supriya**

Professor & Head Head of the Department Plectronics & Communications Engineering Sir M VIT Bangalore 562 157

External Viva

PRINCIPAL SIR M. VISVESVARAYA-INSTITUTE OF TECHNOLO Krishnastevarayenogat, Hunasamaranahal International Aligor Acta Principale-562 1

Prof. Rakesh S.G.

Principal

Sir MVIT, Bengaluru

Name of the Examiners

1. Dr. Saunete Mahapaton 2. Dr. Harish S.

Signature with Date 1. Illaford 3015.24 CHA. L.I.

[2]

DECLARATION

I TEJASWINI K, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Dr. Sasmita Mohapatra, Professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfillment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place: Bengaluru Date: 30/05/2024 Igwinik TEJASWIN I K 1MV21EC409



INTERNSHIP REPORT

ON

"PMD INTEGRATED NETWORK CONFIGURATION FOR DATA TRANSFER AND CONTROL"

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

BACHELOR OF ENGINEERING

in

ELECTRONICS & COMMUNICATION ENGINEERING Submitted by:

VISHALA S S

1MV21EC410

Internship carried out at

ITC Menukuntee Hosur BENGALURU-562157

Internal Guide: Sheetal Bagali, Associate Professor. Dept of ECE, Sir MVIT Bengaluru-562157



External Guide: Mr.Saumya Bhatt, Engineering dept. ITC Limited. Bengaluru-562157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SIRM.VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

2023-2024

SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY BENGALURU-562157

(Affiliated to Visvesvaraya Technological University, Belgavi, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that VISHALA SS (1MV21EC410), a bonafide student of Sir M. Visvesvaraya Institute of Technology, Bengaluru has satisfactorily completed Industrial training from ITC Limited in partial fulfilment of the requirements as prescribed by the VTU for the award of Bachelor of Engineering in Electronics and Communication Engineering and submitted this report during the academic year 2023 - 2024.

Signature of the Guide **Sheetal Bagali** Associate professor Dept of ECE

Signature of HOD

Dr.V.G. Supriya

ExternalViva

Signature of Principal

Prof.RakeshS.G. Head of the partment Principal Head of the partment Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Electronics & Communications Engineet Krishnadevarayanagangalinasamaranahalli, E OF TECHNOLOGY 562 1 Sinternational Airport Road, Bangalore-562157. Or M VIT Bangalore

Name of the Examiners

1. Dr. Saemete Mohapoton 2. Dr. Harish S

Signature with Date

Shap 2015.24

DECLARATION

l Vishala S S, student of VIII semester Bachelor of Engineering, Department of Electronics and Communication Engineering, Sir M. Visvesvaraya Institute of Technology, Bengaluru embodies report of my internship work carried out by me under the guidance of Prof. Sheetal Bagali, Associate professor, Sir M. Visvesvaraya Institute of Technology, Bengaluru as partial fulfilment of requirement for the award of Bachelor of Engineering in Electronics & Communication by Visvesvaraya Technological University, Belagavi during the academic year 2023-2024.

Place:Bengaluru

Date:

VISHALASS 1MV21EC410



MINI-PROJECT (21ECMP67) REPORT on "MULTI-TASKING ROBO"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

DANESH KHYADI DEEKSHITHA G MUTTU B NAIK NISHMITHA PINTO 1MV21EC028 1MV21EC030 1MV21EC051 1MV21EC058

Under the Guidance of

MS. BHUVANESWARI N Assistant Professor, Dept. of ECE



SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC)

Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "MULTI-TASKING ROBO" carried out by Mr. DANESH KHYADI(1MV21EC028), Ms. DEEKSHITHA G(1MV21EC030), Mr. MUTTU B NAIK(1MV21EC051), Ms. NISHMITHA PINTO(1MV21EC058), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Bhuvaneswari N Assistant Professor Dept of ECE Sir MVIT, Bengaluru

Shapateor

Dr. Sasmita Mohapatra Professor and Head Dept of ECE,

Sir MVIT, Bengaluru Head of the Department Electronics & Communications Engineerie

Pir M VIT Basealore 562 157

SIR M VISVE

Krishpade Internation Prof. Rakesh S.G.

> Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"PRE-PROCESSING AND FEATURE EXTRACTION TECHNIQUES FOR HYPERSPECTRAL IMAGE DATASET"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING Submitted by

Ayush Kumar Jha J Chetan Vinayaka Manoj Sudhir Kulkarni Mayank Tripathi 1MV21EC 021 1MV21EC 039 1MV21EC 044 1MV21EC 045

Under the Guidance of

Mrs. Santhoshini S Assistant professor

(Department of Electronics & Communication)



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "PRE-PROCESSING AND HYPERSPECTRAL **TECHNIQUES** IMAGE FEATURE EXTRACTION FOR Jha(1MV21EC021), Chetan DATASET" by Mr./Ms. J carried out Ayush Kr. Kulkarni(1MV21EC044), Mayank Vinayaka(1MV21EC039), Sudhir Manoj Tripathi(1MV21EC045) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mrs. Santhoshini S Assistant professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECH Krishnadevarayanagar, Hunasamaran International Atroprt Rood, Bangalore-5 Principal Sir MVIT, Bengaluru

Head of the Department

"Inctronics & Communications Engineerity VIT Bangalore 562 15



MINI-PROJECT (21ECMP67) REPORT

on

"Real-time wireless Embedded electronics for Soldier

Security"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS AISHWARYA K R G S CHINMAYI N NANDISH NITHIN KUMAR USN 1MV21EC009 1MV21EC035 1MV21EC052 1MV21EC059

rf

Under the Guidance of

Name of the Guide PRAVEENA.N Asst. Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Real-time wireless Embedded electronics for Soldier Security" carried out by Mr./Ms. AISHWARYA K R (1MV21EC009),G S CHINMAYI (1MV21EC035),N NANDISH (1MV21EC052), NITHIN KUMAR(1MV21EC059) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Praveena N Asst. Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head of Dept. of ECE, Sir MVIT

Head of the Department Tectronics & Communications Engineerin Sir M VIT Bangalore 562 157 PRINCIPAL SIR M. VISVÈSVARA A HETTE OF TECHI Krishaddevarevenegar, humasorranen International at port Rome Bangakore de Prof. Rakesh S.G. Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"Development of an Immersive 3D Holographic

Display System"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

PALLAVI KUMARI SUMANA KS 1MV21EC064 1MV21EC107

Under the Guidance of

Santhoshini S Asst. Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Development of an Immersive 3D Holographic Display System" carried out by Ms. Pallavi Kumari students of the bonafide S (1MV21EC107), (1MV21EC064). Sumana Κ Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belagavi during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Santhoshir

Asst. Professor

Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra

Professor and Head

SIR M. VISVESVANATA INSTITUTE OF TECHNOLO Krishnadevpratagaar, Hunasamaranahall International Aliport Road, Bangalore-562 15

VIT Dept. of ECE, Sir MVITnent Sir MVIT, Bengaluru Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT on "Digital Altimeter"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

AMRUTA ARUN SALALLI MEENAKSHI B BASAVAJYOTHI C MAITHRI K V 1MV21EC012 1MV21EC047 1MV21EC022 1MV21EC043

Under the Guidance of Dr. R. Sundaraguru Professor / Dept. of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157

2023-24

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempe Gowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the mini-project (21ECMP67) work entitled "DIGITAL ALTIMETER" carried out my Ms. Meenakshi B (1MV21EC047), Ms. Amruta A S (1MV21EC012), Ms. Maithri K V(1MV21EC043), Ms. Basavajyothi C(1MV21EC022) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfilment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya_Technology University, Belgaum during the year 2023-24. It is certified that all correction/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfied the academic requirements for Mini-project work prescribed for the said Degree.

Dr. R. Sundaraguru Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Stint

Prof. R HBINGIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLIGY Krietungenagar, Hunasemaranaha Integrational Argent Road, Bangalore-562 157

Bengaluru

Head of the Department Electronics & Communications Engineerity Str M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT On

"SENSOR BASED INDIAN COIN SEGREGATION"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

SINCHANA C SUSHMA R VARSHA K L VINUTHRA K 1MV21EC098 1MV21EC109 1MV21EC117 1MV21EC122

Under the Guidance of

Dr. R. Sundaraguru Professor / Dept. of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Bengaluru-562157

2023-24

(Affiliated to VTU-Belagavi, Approved by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the mini-project (21ECMP67) work entitled "SENSOR BASED INDIAN COIN SEGREGATION" carried out by Ms Sinchana C (1MV21EC098), Ms Sushma R (1MV21EC109), Ms Varsha K L (1MV21EC117), Ms Vinuthra K (1MV21EC122) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication of the Visvesvaraya Technological University, Belagavi during the year 2023-24. 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 for Mini-Project work prescribed for the said degree.

m 1 08/24

Dr R Sundaraguru Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"Wireless Technology for healthcare"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Divyanshu Gupta Harsh Gupta Ayush Patel Pranav 1MV21EC034 1MV21EC037 1MV21EC020 1MV21EC062

Under the Guidance of

Dr Poongothai C Associate Professor Dept. of ECE



SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Wireless Technology for healthcare "carried out by Mr. Divyanshu Gupta (1MV21EC034), Mr. Harsh Gupta (1MV21EC037), Mr. Ayush Patel (1MV21EC020) and Mr. Pranav (1MV21EC062) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr Poongothai C

Associate Professor

Dept. of ECE, Sir MVIT

Rupotos

Dr. Sasmita Mohapatra

Professor and Head

SIR Mrpfs Wakesh S GIPAL SIR Mrpfs Wakesh S GIPAL Krishnadevarayanagar Hunasamararan Inter Rainginal Bangalore-base

Head Option Engineering Electronics & Communications Engineering Sir M VIP Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"HOUSEHOLD WASTE MANAGEMENT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS CHAITRA.N DIVYA INDU.Y.V P.RAJEEV USN 1MV21EC027 1MV21EC033 1MV21EC038 1MV21EC063

Under the Guidance of

Name of the Guide Dr.V.G.SUPRIYA Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "HOUSEHOLD WASTE MANAGEMENT" carried out by Ms. Chaitra.N(1MV21EC027), Ms.Divya(1MV21EC033), Ms.Indu.y.v(1MV21EC038),Mr.P.Rajeev(1MV21EC063)the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr.V.G.Supriya ⁷ Professor Dept. of ECE, Sir MVIT

Alabotra

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Head of the Department

Sir M VIT Bangalore 562 157

Prof.Rakesh S.G. Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT on "NON-INVASIVE GLUCOSE MONITORING

SYSTEM"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

BINDUSHREE H S DIPANJANA DAS KAVYASHREE C ASHA P 1MV21EC026 1MV21EC032 1MV21EC042 1MV22EC402

Under the Guidance of

Ms. Krishnapriya S Sharma Associate Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "NON-INVASIVE GLUCOSE MONITORING SYSTEM" carried out by Ms.BINDUSHREE H S(1MV21EC026), Ms. DIPANJANA DAS(1MV21EC032), Ms.KAVYASHREE C(1MV21EC042) and Ms.ASHA P(1MV22EC402) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms.Krishnapriya S Sharma Associate Professor, Dept. of ECE, Sir MVIT

PRINCIPA Dept. of ECE, Sir MVIT Head of the Department Sin MVIT; Bengaluru Head of the Department Sin MVIT; Bengaluru Profs Rakesh SIGTE OF TECHNOLOGY

Electronics & Communications Engineering Sir M VT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT on "Face recognition using IOT"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Basaveshappa U Osman Bin Ali Jashwanth Gowda S Nishanth P R 1MV21EC023 1MV21EC061 1MV21EC041 1MV21EC057

Under the Guidance of

Mrs. Rajeshwari K.N. Assistant Professor Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Face recognition using IOT" carried out by Mr. Basaveshappa U(1MV21EC023), Mr. Osman Bin Ali(1MV21EC061), Mr. Jashwanth Gowda S(1MV21EC041), Nishanth P R(1MV21EC057) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mrs. Rajeshwari K.N. Assistant Professor Dept. of ECE, Sir MVIT

Jora

Dr. Sasmita Mohapatra Head of the providence of Sir MVIT, Bengaluru Professor and Head

M VIT Rangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHN 1667 Krishnadevarayanagar, Hunasamarana halli International Amort Road, Bangalore-562 157 Principal



MINI-PROJECT (21ECMP67) REPORT

on

"LPG LEAKAGE DETECTION MONITORING SYSTEM"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

MUKUND ANANT KULKARNI ABHISHEKA B DINESH M 1MV21EC050 1MV22EC400 1MV22EC404

Under the Guidance of MS. KRISHNAPRIYA S SHARMA ASSOCIATE PROFESSOR Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "LPG Leakage Detection carried out by Mr. Mukund Kulkarni(1MV21EC050), Dinesh Monitoring System" M(1MV22EC404) and Abhisheka B(1MV22EC400) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

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Ms. Krishnapriya S Sharma, Associate Professor Dept. of ECE, Sir MVIT

Shapato

Dr. Sasmita Mohapatra, Professor and Head Dept. of ECE, Sir MVIT Head of the Department

Internati Prof Rakesh S G, Principle

Sir MVIT, Bengaluru

Electronics & Communications Engineer Sir M VIT Bangalore 562 15



MINI-PROJECT (21ECMP67) REPORT on "IoT Based Camouflage Robot"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Shivam Maurya Vikas Vishwakarma Yojit Sahu Tejus 1MV21EC088 1MV21EC119 1MV21EC124 1MV21EC112

Under the Guidance of

Ms. Geetha V Assistant Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "IoT based camouflage robot" carried out by Mr. Shivam Maurya(11MV21EC088), Vikas Vishwakarma(1MV21EC119), Yojit Sahu(1MV21EC124), Tejus(1MV21EC112) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

heek

Ms. Geetha V Assistant Professor Dept. of ECE, Sir MVIT

or she

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Rakesh S Prof

SIR M. VISVESVAKIAA INSTITUTE OF TECHNOLOGY Krishnadevarayanagat, Hunasamarananalli International Atroort Road, Bangakore-56, 157

Head of the Department

Sir M VIT Pangalore 562



MINI-PROJECT (21ECMP67) REPORT on "IoT Based Camouflage Robot"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Shivam Maurya Vikas Vishwakarma Yojit Sahu Tejus 1MV21EC088 1MV21EC119 1MV21EC124 1MV21EC112

-F

Under the Guidance of

Ms. Geetha V Assistant Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

<u>CERTIFICATE</u>

Certified that the Mini-project (21ECMP67) work entitled "IoT based camouflage robot" carried out by Mr. Shivam Maurya(11MV21EC088), Vikas Vishwakarma(1MV21EC119), Yojit Sahu(1MV21EC124), Tejus(1MV21EC112) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Geetha V Assistant Professor Dept. of ECE, Sir MVIT

or glass

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

SIR M. VISVESVANDAL Krishpadevarayanagat, Hunasamarana International Atreat Road, Bangalore-56

Head of the Department Electronics & Communications Engineering

Sir M MET Bangalore 562 1



MINI-PROJECT (21ECMP67) REPORT

on

"SMART DOORBELL USING RASPBERRY PI"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS Rachana Gowda L Ramya T S Sai Raksha Sindhu R USN 1MV21EC075 1MV21EC078 1MV21EC083 1MV21EC099

Under the Guidance of

Ms. Seema S. Assistant Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Smart Doorbell using Raspberry Pi" carried out by Ms. Rachana Gowda L(1MV21EC075),Ms. Ramya T S(1MV21EC078), Ms. Sai Raksha(1MV21EC083) and Ms. Sindhu R(1MV21EC099) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Seema S. Assistant Professor Dept. of ECE, Sir MVIT

Phapetro

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Prof. RakeshCSFAL SIR M. VISVESVINNYA INSTITUTE OF TI Krishusiciowa Alreori Road, Bangalor International Alreori Road, Bangalor

Head of the Department International Aliport Road, Bangalou Silectronics & Communications Engineering Sir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"Efficiency of Energy in Battery Management System in Electric Vehicle's"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Shrutik R C Samarth S Kittur Swaroop S.S Vinith S Shetty 1MV21EC094 1MV21EC085 1MV21EC110 1MV21EC121

Under the Guidance of

Dr. G Shashibhushan Assistant Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled " Efficiency of Energy in Battery Management System in Electric Vehicle's " carried out by Vinith S Shetty (1MV21EC121), Samarth S Kittur (1MV21EC085), Shrutik R C (1MV21EC080) and Swaroop S.S (1MV21EC110), the bona fide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr. G Shashibhushan

Assistant Professor

Dept of ECE Sir MVIT, Bengaluru

Dr. Sasmita Mohapatra Professor & Head

Dept of ECE

Krishnadevarav**prine inal** International Airport Roed, Banda

Sir MVIT, Bengaluru

Sir MVIT, Bengaluru Head of the Department loctronics & Communications Engineeric " M VIT Bangalore 562 15



MINI-PROJECT (21ECMP67) SYNOPSIS

on

"Ambulance Navigation through traffic signals without any obstacles using RFID"

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

BACHELOR OF ENGINEERING IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS Reuben Raj

Vamshi Krishna Kota Rishetha Varun B Raj <u>USN</u> <u>1MV21EC079</u> <u>1MV21EC114</u> <u>1MV21EC129</u> <u>1MV21EC118</u>

Under the Guidance of

Dr. V. G. Supriya Professor Dept. of ECE, Sir MVIT



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Ambulance Navigation through traffic signal without any obstacles using RFID" carried out by Mr. Reuben Raj(1MV21EC079), Mr. Vamshi Krishna(1MV21EC114), Ms. Kota Rishetha(1MV21EC129), Mr. Varun B Raj(1MV21EC118), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr. V. G. Supriya V Professor Dept. of ECE, Sir MVIT

Reporter

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Head of the Department Electronics & Communications Engine

Prof. Rakesh SCIPAL SIR M. WISCEPARAYA INSTITUTE OF TECHNOLOGY KriSina WWISCEPARAYA INSTITUTE OF TECHNOLOGY International Airport Road, Bangalors-562 157



MINI-PROJECT (21ECMP67) REPORT

on

"Wireless Technology in Traffic Management"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ABHISHEK GOWDA D N

DARSHAN SM JAFAR SAADIQ M NAGESH V KATTIMANI 1MV21EC005 1MV21EC029 1MV21EC040 1MV21EC053

Under the Guidance of

Dr. Poongothai C. Associate Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Wireless technology in traffic DN(1MV21EC005), Mr. ABHISHEK GOWDA by management "carried out DARSHANSM(1MV21EC029), Mr. JAFAR SAADIQ M(1MV21EC040), Mr. NAGESH V KATTIMANI(1MV21EC053) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr. Poongothai C. Associate Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHN DLOGY Krishpadev Rakesh'S. Cunasomarana halli International Amort Road, Bangalore-56: 157 Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering Sir M VIT Bangalore 562 157

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI -590018



MINI-PROJECT (21ECMP67) REPORT

on

"Smart Health Monitoring System from Remote

Location"

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

BACHELOR OF ENGINEERING IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS

Abhishek Srivastava Amit Ankit Josh Om Singh USN

1MV21EC007 1MV21EC011 1MV21EC013 1MV21EC060

<u>Under the Guidance of</u> Mr. R NATARAJA Associate Professor, ECE Department



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Smart Health Monitoring System from Remote Location "carried out by Mr. Abhishek Srivastava(1MV21EC007), Mr. Amit(1MV21EC011),Mr.Ankit Josh(1MV21EC013),Mr.Om Singh(1MV21EC060) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr.R.Nataraja Associate Professor Dept. of ECE,SMVIT

Probation

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE,SMVIT

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TEC Krishnadevarayanagar, Hunasamara Internationa Provinciana Bread Provinciana

> Principal SMVIT,Bangalore



MINI-PROJECT (21ECMP67) REPORT

on "Metal Detection"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS ANUSHKA AGARTANIYA NILANJANA DAS

USN 1MV21EC017 1MV21EC056

Under the Guidance of

Name of the Guide MS. VIJAYALAKSHMI S. Asso. Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Metal Detection" carried out by Mr./Ms. ANUSHKA AGARTANIYA(1MV21EC017), NILANJANA DAS(1MV21EC056) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023 -24. 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 for Mini-Project work prescribed for the said Degree.

Ms.Vijavalakshmi S. Assoc. prof. Dept. of ECE, Sir MVIT

offe

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

OF TECHNOLOG Krishgad anabe no surbaranahalli International Atroort Road, Bangalore-562 157



MINI-PROJECT (21ECMP67) REPORT

on

"Event Management System using RFID"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS Pradeepthi J Shilpa B Shivani S K Prema H V USN 1MV21EC067 1MV21EC087 1MV21EC089 1MV22EC407

Under the Guidance of

Dr. Sasmita Mohapatra

Professor and Head,

Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "EVENT MANAGEMENT SYSTEM USING RFID" carried out by Ms. Pradeepthi J(1MV21EC067), Shilpa B(1MV21EC087), Shivani S K (1MV21EC089), Prema H V(1MV22EC407) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Shaperton

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

SIR M. USVISSIANA INSTITUTE OF TECHNO Krishadovissiana internetion internetional Internesina Avenue, Bengaluru

Head of the Department Electronics & Compuncations Engineering Sir M VIT Bangalore 562 150



MINI-PROJECT (21ECMP67) REPORT

on

"Raspberry Pi Based Fire and Smoke Alert System"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Roshni Das Shreedhi Gupta Suhas Kattimani Yash Raj 1MV21EC080 1MV21EC091 1MV21EC105 1MV21EC123

Under the Guidance of

Ms. Seema S. Assistant Professor, Dept. of ECE



SRI KRISHNADEVARAYA EDUCATIONAL TRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Raspberry Pi Based Fire and Smoke Alert System" carried out by Yash Raj (1MV21EC123), Suhas Kattimani (1MV21EC105), Roshni Das (1MV21EC080) and Shreedhi Gupta (1MV21EC091), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Siemazery

Assistant Professor Dept of ECE Sir MVIT, Bengaluru

Bropertore

Dr. Sasmita Mohapatra Professor & Head

Dept of ECE

Sir MVIT, Bengaluru

PRINCIPAL SIR M. VISVĖSVARAYA INSTITUTE OF TECHNOL Krishnadevarayanagar, Hunasamaranaha International Aliport Road, Bangalare-562 1 Prof. Rakesh S. G. 57

Principal

Sir MVIT, Bengaluru

Head of the Department Floctronics & Communications Engineering VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"IOT based Energy in Dual Battery Management

System in EV"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Bhaskar Mondal	- 1MV21EC024
Abhishek Kumar	- 1MV21EC006
Abhyudaya Dubey	- 1MV21EC008
Aman Kumar	- 1MV21EC010

Under the Guidance of

Dr. G. Shashibhushan Assistant Professor Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "IOT based Energy in Dual Battery Management System in EV" carried out by Mr. Bhaskar Mondal (1MV21EC024), Mr. Abhishek Kumar (1MV21EC006), Mr. Abhyudaya Dubey (1MV21EC008) and Mr. Aman Kumar (1MV21EC010), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr. G. Shashibaushan Assistant Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Principal



MINI-PROJECT (21ECMP67) REPORT

on

"WIRELESS CHARGING FOR ELECTRIC

VEHICLES"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

-A SHREYA RAKSHITHA NAYAK SINDHUR SAI ANNE VIKSHITHA V 1MV21EC001 1MV21EC077 1MV21EC100 1MV21EC120

Under the Guidance of

Mr. Phanindar Ravi P Assistant professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "WIRELESS CHARGING FOR ELECTRIC VEHICLES" carried out by Ms. A Shreya(1MV21EC001), Ms. Rakshitha Nayak(1MV21EC077), Mr. Sindhur Sai Anne(1MV21EC100), Ms. Vikshitha V(1MV21EC120) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mr. Phaninear Ravi P Assistant Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TE Krishnadevarayanagar, Hunasama International APPRARest, SaGgalore

Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT on "IOT Based Fall Detection System"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS Chinthana S N Shreya Nandani Sahil J Jadhav Jatin Sharma USN 1MV21EC125 1MV21EC092 1MV21EC082 1MV21EC130

Under the Guidance of

Praveena N Assistant Prof., Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "IOT Based Fall Detection System" N(1MV21EC125), carried Chinthana out by Ms. S Ms. Shreya Nandani(1MV21EC092), Mr. Sahil J Jadhav(1MV21EC082), Mr. Jatin Sharma(1MV21EC130), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Praveen N Assistant Professor Dept. of ECE, Sir MVIT

Malootro

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Prof. Rakesh S.C. SIR M. VISVESVARAYA INSTITUTE OF TEO Kristna cevarayanagar, Hunaseman Intensiti M. Alloof Prisa Intensitional

Head of the Department

Electronics & Communications Engines Str M VIT Bangadore 562 15



MINI-PROJECT (21ECMP67) REPORT on "IOT Based Fall Detection System"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS Chinthana S N Shreya Nandani Sahil J Jadhav Jatin Sharma USN 1MV21EC125 1MV21EC092 1MV21EC082 1MV21EC130

Under the Guidance of

Praveena N Assistant Prof., Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "IOT Based Fall Detection N(1MV21EC125), Ms. by Ms. Chinthana Shreya System" carried out S Mr. Jatin Nandani(1MV21EC092). Mr. Sahil J Jadhav(1MV21EC082). Sharma(1MV21EC130), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Praveen N Assistant Professor Dept. of ECE, Sir MVIT

Autotro

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

Prof. Rakesh Structure SIR I WOVESHAVA INSTITUTE OF TH Kristing Wovesharagar, Hunssenar SIR MVLL, Bongalustigator

Head of the Department

Str M VIT Bangalore 562 15



MINI-PROJECT (21ECMP67) REPORT

on

"SOLAR WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION

Submitted by

Sreenivasa Heggade D Sri Rama Chaithanya Shashank S Thilak Chandar R 1MV21EC103 1MV21EC104 1MV21EC081 1MV21EC113

Under the Guidance of

Shilpa Chippalakatti Assistant Professor, Dept. of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Bengaluru-562157

2023-24

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) (Krishnadevarayanagar, Hunasamaranahalli, Bengaluru – 562 157)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled " SOLAR WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM "carried out by Mr. Sreenivasa Heggade D (1MV21EC103), Mr.SriRamaChaithanya (1MV21EC104), Mr. Shashank S (1MV21EC081), Mr Thilak Chandar R (1MV21EC113) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Shilpa Chippalakatti Assistant professor Dept. of ECE, Sir MVIT

Roberton 8' 34 M. VISVESV

Professor and Head Dept. of ECE, Sir MVIT

PRINCIPAL

Dr. Sasmita Mohapatra Intern Prof. Rakesh S. O. galore-5 Principal Sir MVIT, Bengaluru

Head of the Department Flectronics & Communications Enginee

' UTT Burieplare F'



MINI-PROJECT (21ECMP67) REPORT

on

"ENHANCED UTILIZATION OF OFDM

BANDWIDTH"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

MITHIL DHONDI A. V. RISHI AASHVIK B. ANURAG W. 1MV21EC048 1MV21EC002 1MV21EC003 1MV21EC016



Under the Guidance of

Mr. Phanindar Ravi P. Assistant professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "ENHANCED UTILIZATION OF OFDM BANDWIDTH" carried out by Mr. Mithil Dhondi(1MV21EC048), Mr. A. V. Rishi(1MV21EC002), Mr. Aashvik B(1MV21EC003), Mr. Anurag W(1MV21EC016) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mr. Phanin

Assistant Professor Dept. of ECE, Sir MVIT

abotra

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Head of the Department

Electronics & Communications Engineering Sir M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARMA NSUITUTE OF TECHNOLOGY Krishnadeverayanagar, Hunasan aranahalli International PAPSIR Road, Bangalore-562 157 Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) SYNOPSIS on

"IOT BASED WOMEN SAFETY SYSTEM"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME Vinayak Hippargi Praveen kumar N Sujan H V Sanjay G USN 1MV22EC411 1MV22EC406 1MV21EC106 1MV21EC086

Under the Guidance of

Ms Vijayalakshmi S Associate Professor



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled " IOT based on women's safety system" carried out by Mr. Vinayak Hippargi(1MV22EC411), Mr. Sujan H V (1MV21EC106), Mr. Praveen Kumar N (1MV22EC406), Mr. Sanjay G.(1MV21EC086) the Bonafede students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Vijava Associate **R**rofessor Dept. of ECE, Sir MVIT

Shapatna

Dr. Sasmita Mohapatra Professor and Head

Prof. Rake 6 S.G SIR M. V Principal INS Dept. of ECE, Sir MVIT

Head of the Department Electronics & Communications Engineer M VIT Bangalore



MINI-PROJECT (21ECMP67)REPORT

on

"Machine Learning Algorithm For Chronic Kidney

Disease Prediction"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

PriyanshuKumar Shubham Bharti Saket Suman Sumit Singh

- 1MV21EC072 - 1MV21EC095 - 1MV21EC084 - 1MV21EC108

Under the Guidance of

Mrs.Shilpa Chippalakatti Assistant Professor Dept. of ECE



SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Bengaluru-562157 2023-24 SRIKRISHNADEVARAYAEDUCATIONALTRUST

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Machine Learning Algorithm for Chronic Kidney Disease Prediction" carried out by Mr. Saket Suman(1MV21EC084), Shubham Bharti(1MV21EC095), Priyanshu Kumar(1MV21EC072), Sumit Singh(1MV21EC108), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mrs. Shilpa Chippalakatti Asst. Professor Dept. of ECE, Sir MVIT Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT Prof. Rakesh S.G Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"Identification of a Person using Finger Image"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ANSHU KUMAR ROY- 1MV21EC024DHIRAJ RAI-1MV21EC031NEERAJ KUMAR-1MV21EC054

Under the Guidance of

Mrs.Geetha .V Assistant Professor Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Identification Of a Person Using Finger Image" carried out by Mr. ANSHU KUMAR R0Y (1MV21EC015), Mr. DHIRAJ RAI (1MV21EC031), and Mr. NEERAJ KUMAR (1MV21EC054), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mrś.Geetha.V Assistant Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNOLIGY Krishnadevarayanagar, Hunasamaranahai Internation Profes RakesheSr Galore-562 157 Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"Design and performance analysis of NoC

Routing algorithms"

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

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Pratik Raj	- 1MV21EC068
Priyanshu Kumar Verma	- 1MV21EC073
Purushuttam Kumar	- 1MV21EC074
Shoaib Khan	- 1MV21EC090

Under the Guidance of

Ms. Seema Sreekumar

Assistant Professor

Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Design and performance analysis of NoC Routing algorithms" carried out by Pratik Raj (1MV21EC068), Priyanshu Kumar Verma (1MV21EC073), Purushuttam Kumar(1MV21EC074) and Shoaib Khan (1MV21EC090) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms Seema Sr **Assistant Professor** Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Head of the Departme

M VIT Bangalore 562 157

SIR M. VSProf. Rakesh S G Krishna Principal ed. Bangalore-56 Dept. of ECE, Sir MVIT, International Autom Sir MVIT, Bengaluru Electronics & Communications Engineering

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Design and performance analysis of NoC Routing algorithms" carried out by Pratik Raj (1MV21EC068), Priyanshu Kumar Verma (1MV21EC073), Purushuttam Kumar(1MV21EC074) and Shoaib Khan (1MV21EC090) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms Seema Sr Assistant Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Head of the Departme Electronics & Communications Engineering

M VIT Bangalore 562 157

SIR M. V. Prof. Rakesh Krishne Principal Dept. of ECE, Sir MVIT, International Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"Industry Released Water Pollution Alarming

System"

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

BACHELOR OF ENGINEERING IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

Shubham Murarka Sombhit Sarkhel Rajveer Singh Preetam S.

7

1MV21EC097 1MV21EC101 1MV21EC076 1MV21EC070

Under the Guidance of

Mr. Natraja R. Associate Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Industry Released Water Pollution Alarming System" carried out by Preetam S. (1MV21EC070), Rajveer Singh (1MV21EC076), Shubham Murarka (1MV21EC097) and Shreedhi Gupta (1MV21EC101), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Mr.'Natraja R.

Associate

Professor Dept of ECE Sir MVIT, Bengaluru

Dr. Sasmita Mohapatra Professor & Head

Dept of ECE

PRINCIPAL SIR M. VISVÈSVARAYA INSTITUTE OF TECHNO Krishnadevarayanagar, Hunasemaranah International Atport Road, Bangalore-562 Prof. Rakesh S. G.

Principal

Sir MVIT, Bengaluru

Sir MVIT, Bengaluru Head of the Department Stectronics & Communications Engineering Sir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"LNA Design for Improving Image Resolution"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS MANAV SHARMA UTKARSH KUMAR UJJWAL SHUBHAM JAIN

USN 1MV21EC126 1MV21EC116 1MV21EC115 1MV21EC096

Under the Guidance of

Ms. Shalini P Associate Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "LNA Design for Improving Image "carried Resolution Manav Sharma(1MV21EC126), Utkarsh out by Kumar(1MV21EC116), Ujjwal(1MV21EC115), Shubham Jain(1MV21EC096) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree

REELO

Ms. Shalini P Associate Professor Dept. of ECE, Sir MVIT

Shaperton

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECH Krishnadovarayanagar, Hunasamara InternatioRactipBakeshi, Sacgalore-Principal Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering Bir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) REPORT

on

"DESIGN & ANALYSIS OF LOW PROFILE ULTRA-WIDE BAND

ANTENNA FOR RADAR"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS

PAVAN KUMAR N PRITHVI R PATIL SHREYAS Y S. TARUN V 1MV21EC065 1MV21EC071 1MV21EC093 1MV21EC111

USN

Under the Guidance of

DR. SASMITA MOHAPATRA Professor



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "DESIGN AND ANALYSIS OF LOW PROFILE ULTRA WIDE BAND ANTENNA FOR RADAR" carried out by Mr. Pavan Kumar N (1MV21EC065), Prithvi R Patil (1MV21EC071),Shreyas Y S (1MV21EC093) and TARUN V (1MV21EC111) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Dr. Sasmita Mohapatra Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT

SIR M. VISVESVARAYA INSTITUTE OF TE Krishnadevarayanagar, Hunasama International Aliport Road, Bangalor Prof. Rakesh S G Princinal

Principal Sir MVIT, Bengaluru

Head of the Department Plectronics & Communications Engineering Bir M VIT Bangalore 562 157



MINI-PROJECT (21ECMP67) SYNOPSIS

on

"DESIGN OF OWC USING MODIFIED DUOBINARY

RZ FOR BENGALURU RAINY CONDITIONS"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ARPITA S BHAT HANSIKA G A MONISHA D R RAGHAVENDRA 1MV21EC018 1MV21EC036 1MV21EC049 1MV22EC408

Under the Guidance of : Vijayashri V. Belgaonkar Assistant Professor Dept of ECE, Sir MVIT Bengaluru-562157



Design of OWC using MDRZ for Bengaluru Rainy Conditions

SRI KRISHNADEVARAYA EDUCATIONAL TRUST SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled " Design of OWC Using Modified Duobinary RZ For Bengaluru Rainy Conditions" carried out by Ms. Arpita S Bhat(1MV21EC018), Ms. Hansika G A (1MV21EC036), Ms. Monisha D R (1MV21EC049), Mr. Raghavendra(1MV21EC408) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree

Vijayasiiri'V. Belgaonkar Assistant Professor Dept. of ECE, Sir MVIT

Pakater

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE. Sir MYTTNENI Head of the Department Hectronics & Communications Engineering Citectronics & Communications Engineering Cite M VIT Bangalore 562 157

PRINCIPAL SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY Krishnadevarayanagar, Hunasamaranahalli International, /Rankesneysagar, Bangalore-562 157

Principal Sir MVIT, Bengaluru



MINI-PROJECT (21ECMP67) REPORT

on

"COLOR AND SHAPE IDENTIFICATION MACHINE"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS:

USN:

AKHIL KUMAR CHINNARAJ P G M ABDUL KADRI SINAN SANGMESH 1MV22EC401 1MV22EC403 1MV22EC405 1MV22EC410

Under the Guidance of

Ms. BHUVANESWARI N ASSISTANT PROFESSOR DEPT OF ECE





MINI-PROJECT (21ECMP67) REPORT

on

"COLOR AND SHAPE IDENTIFICATION MACHINE"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

NAME OF THE STUDENTS:

USN:

AKHIL KUMAR CHINNARAJ P G M ABDUL KADRI SINAN SANGMESH 1MV22EC401 1MV22EC403 1MV22EC405 1MV22EC410

Under the Guidance of

Ms. BHUVANESWARI N ASSISTANT PROFESSOR DEPT OF ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru - 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "COLOR AND SHAPE IDENTIFICATION MACHINE" carried out by Mr. Akhil Kumar(1MV22EC401), Chinnaraj P(1MV22EC403), G M Abdul Kadri Sinan(1MV22EV405), Sangmesh(1MV22EC410), the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Bhuvaneswari N

Assistant Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra

Professor and Head

Dept. of ECE, Sir MVIT

SIR M. VI Prof. Rakeshi S.G. FTE Krishnadevarayar agar, Hunasamar International Road, Bangalore

Sir MVIT, Bengaluru

Head of the Department Electronics & Communications Engineering

Sir M VIT Bangalore 562 15



MINI-PROJECT (21ECMP67) REPORT on "Mixer Block Of GPR"

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

BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

ANKIT KUMAR	- 1MV21EC014
ABHINAV RAJ	- 1MV21EC004
KUMAR GAURAV	- 1MV21EC127
KUSHAGRA ANSHU	- 1MV21EC128

Under the Guidance of

Ms. Shalini.P Associate Professor, Dept. of ECE



(Affiliated to VTU-Belagavi, Recognized by AICTE and Accredited by NBA & NAAC) Krishnadevarayanagar, Off Kempegowda International Airport Road, Hunasamaranahalli, Bengaluru – 562 157

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Mini-project (21ECMP67) work entitled "Mixer Block Of GPR" carried out by Mr./Ms. Ankit Kumar(1MV21EC014), Abhinav Raj(1MV21EC004), Kumar Gaurav(1MV21EC127),Kushagra Anshu(1MV21EC128) the bonafide students of Sir M. Visvesvaraya Institute of Technology in partial fulfillment for the award of Bachelor of Engineering in Electronics and Communication Engineering of the Visvesvaraya Technological University, Belgaum during the year 2023-24. 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 for Mini-Project work prescribed for the said Degree.

Ms. Sh Associate Professor Dept. of ECE, Sir MVIT

Dr. Sasmita Mohapatra Professor and Head Dept. of ECE, Sir MVIT PRINCIPAL SIR M. VISVESVARAYA HISTITUTE OF TECHNO Krishnadevarayanagar, Hunasamaranah Internation Prof. Rakesh S.G.galore-562 Principal Sir MVIT, Bengaluru