

CERTIFICATE OF INTERNSHIP



TEQUED LABS
RESEARCH AND INNOVATION HUB

RECOGNIZED BY
#startupindia

CERTIFICATE OF INTERNSHIP

THIS IS TO CERTIFY THAT

Prasad Chanda

has successfully completed 1 Month Internship in
Cyber Security and Ethical Hacking
from 1st September 2022 to 30th September 2022 at Tequed Labs, Bangalore
and has worked on a project titled

DICTIONARY ATTACK USING MD5-HASH

INTERNSHIP ID : TLS22AUG0227

Supreeth Y S
CEO
Tequed Labs

CERTIFICATE OF INTERNSHIP



TEQUED LABS
RESEARCH AND INNOVATION HUB

RECOGNIZED BY
#startupidia

CERTIFICATE OF INTERNSHIP

THIS IS TO CERTIFY THAT

Sampritha R

has successfully completed 1 Month Internship in
Cyber Security and Ethical Hacking
from 1st September 2022 to 30th September 2022 at Tequed Labs, Bangalore
and has worked on a project titled

DICTIONARY ATTACK USING MD5-HASH

INTERNSHIP ID : TLS22AUG0228

A handwritten signature in black ink, appearing to read "Supreeth Y S".

Supreeth Y S
CEO
Tequed Labs



CERTIFICATE OF INTERNSHIP



Certificate of Internship

TO WHOM IT MAY CONCERN

We believe that our team is our biggest strength and we take pride in hiring the best and the brightest. We were confident that you would play a significant role in the overall success of the venture with AiROBOSOFT.

Upon the recommendation of the Academic Council, AiROBOSOFT Products And Services LLP Reg no: AAS-7147 hereby certify that "Yogesh G(1KT19EC027)" student of Sri Krishna Institute of technology, has successfully completed **Internship** in the field of **Internet of Things Architecture and Embedded Systems Development** from 25th August 2022 to 25th September 2022.

At the time of internship, we found the candidate sincere, hardworking and fully devoted. We wish all the success in the future.

Director

(AiROBOSOFT Products and Services)

AiROBOSOFT Products and Services LLP



No - 4, 3rd Floor, 5th A Main Rd, Adjacent to
Bangalore Baptist Hospital, Vinayaka nagar,
Hebbal, Bengaluru - 560024.



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hr@airobosoft.com



+918884399089

CERTIFICATE OF INTERNSHIP



Certificate of Internship

TO WHOM IT MAY CONCERN

We believe that our team is our biggest strength and we take pride in hiring the best and the brightest. We were confident that you would play a significant role in the overall success of the venture with AiROBOSOFT.

Upon the recommendation of the Academic Council, AiROBOSOFT Products And Services LLP Reg no: AAS-7147 hereby certify that "CHANDANA P(1KT19EC004)" student of Sri Krishna Institute of Technology, has successfully completed **Internship** in the field of **Internet of Things Architecture and Embedded Systems Development** from 25th August 2022 to 25th September 2022.

At the time of internship, we found the candidate sincere, hardworking and fully devoted. We wish all the success in the future.

Director

(AiROBOSOFT Products and Services)

AiROBOSOFT Products and Services LLP



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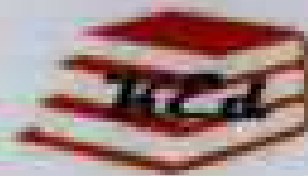


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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. A. SANTHOSH

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"

in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner/Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. AKHANSHA CHAKRABORTY

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. BHOOMIKA . S

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
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CERTIFICATE OF COMPLETION

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Mr./Ms. BINDU .N

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner/Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. CHAITHANYA KRISHNA - B

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. CHAITRA . B . R

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner/Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. CHETHAN GOWDA - M - V

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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CERTIFICATE OF COMPLETION

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Mr./Ms. CHETHANA - H

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
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from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner/Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. DANUSH - V

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. DARSHAN . S

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner/Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. DARSHAN SADASHIVA

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. HARSH KUMAR SINGH

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. HARSHITHA · B·S

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. HARSHITHA . H . N

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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RV COLLEGE OF ENGINEERING®
(Autonomous Institution affiliated to VTU, Belagavi)
RV Vidyaniketan Post, Mysuru Road, Bengaluru - 560 059



Friendship Certificate

This is to certify that Mr./Ms. *Hrishaab N., 1KT21A1020*, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during September - October, 2022 (4 weeks).

C. A. Hanthi

Kandamangala

K. N. Subramanyam



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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. KAVANA N.

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. LIKHITHA - M

In recognition of his / her successful completion of Summer Internship Program on
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from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
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CERTIFICATE OF COMPLETION

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Mr./Ms. MEGHANA . P

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"DRONE TECHNOLOGY"
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CERTIFICATE OF COMPLETION

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Mr./Ms. MEGHANA .V.H

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Friendship Certificate

This is to certify that Mr./Ms. Mohammad Ehtesham, 1KT22A1027, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during October - November, 2022 (4 weeks).

C. A. Hirth

Kandagannanarayana

E. Ramanya

Dr. Chandrashekhara Hirth

Dr. Kandagannanarayana

Dr. E. Ramanya



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CERTIFICATE OF COMPLETION

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Mr./Ms. NANDITHA - N

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Internship Certificate

This is to certify that Mr./Ms. Neha V R, IKT21A1029, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during October - November, 2022 (4 weeks).

C. A. Hanthi

Kudaganur

Srinivasan



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Internship Certificate

This is to certify that Mr./Ms. Prathiksha N, IKT21A1031, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during October - November, 2022 (4 weeks).

C.A. Hrushika

Kandamangala

Srinivasan

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CERTIFICATE OF COMPLETION

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Mr./Ms. PRIYANKA . V. H

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Internship Certificate

This is to certify that Mr./Ms. *Shamant R.*, *IKT21A1034*, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during October - November, 2022 (4 weeks).

C. A. Hanth

Kandagannan

K. Manjunath

Dr. Chandrashekhara Hanumanth

Head,
Department of IT

Dr. Kandagannan Venkata R.

Head,
Department of AI & ML

Dr. K. S. Subramanyam

Head, CSTA



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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. SINCHANA - N

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CERTIFICATE OF COMPLETION

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Mr./Ms. T. GOWTHAM SAI

In recognition of his / her successful completion of Summer Internship Program on
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from **12th October 2022 to 30th October 2022**

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Internship Certificate

This is to certify that Mr./Ms. Usha B S , IKT21A1042, II Semester B.E. Artificial Intelligence and Machine Learning of Sri Krishna Institute of Technology, Bengaluru has satisfactorily completed Internship on 'Sensors and Sensor Application Development', during October - November, 2022 (4 weeks).

C. A. Hirth

Kandamannur

S. Ramanaidu

Dr. Chandrashekhara Hirthalli

Dr. Hanumanthappa Dhanu B

Dr. M. M. Subramanya



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CERTIFICATE OF COMPLETION

THIS CERTIFICATE IS PRESENTED TO

Mr./Ms. VARSHA MATHUR

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

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Owner/Founder
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CERTIFICATE OF COMPLETION

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Mr./Ms. VARSHA . R

In recognition of his / her successful completion of Summer Internship Program on
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from **12th October 2022 to 30th October 2022**

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CERTIFICATE OF COMPLETION

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Mr./Ms. VENU GOPAL .S .R

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

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SUMMER INTERNSHIP PROGRAM



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CERTIFICATE OF COMPLETION

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Mr./Ms. VIDYASHREE . M . G

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"DRONE TECHNOLOGY"
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from **12th October 2022 to 30th October 2022**

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CERTIFICATE OF COMPLETION

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Mr./Ms. YASHASWINI . G. S

In recognition of his / her successful completion of Summer Internship Program on
"DRONE TECHNOLOGY"
in association with **Skill Development Cell, Sri Krishna Institute of Technology**
from **12th October 2022 to 30th October 2022**

Mr. K Uday Bhargav
Owner / Founder
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Sri Krishna Institute of Technology

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CERTIFICATE


OF COMPLETION


IS PRESENTED TO

Amar Kumar Chaudhary

Online Examination System (SKIT)

has completed the internship in our Organization from the period of 1st Aug 2022 to 1st Sep 2022.


Dr. Hemalatha K L
Professor and HOD
Dept. of ISE, SKIT


Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT



Ref: Zeta/23/Intern/Certi-013

Date: 10/03/2023

CERTIFICATE OF INTERNSHIP

This is to Certify that **Ms. ANJU M** bearing USN:1KT19IS004, Dept. of Information Science & Engineering of **SRIKRISHNA INSTITUTE OF TECHNOLOGY, BENGALURU** have successfully undergone an Internship Program of 4 weeks dated from **01-02-2023 to 04-03-2023** on **PYTHON FULL STACK WEB DEVELOPMENT** along with project title **"Inventory Management System using Django Framework"**.

During the tenure of Internship with us, she was found Punctual, Hardworking, Inquisitive, outgoing personality and works well as a team. She performed excellent and was able to complete the project successfully on time.

We wish her every success in career and future endeavors.

Regards

Director



ZetaCoding Innovative Solutions.

Place: Bengaluru





Ref: Zeta/23/Intern/Certi-016

Date: 10/03/2023

CERTIFICATE OF INTERNSHIP

This is to Certify that Ms. SAHANA M bearing USN:1KT19IS019, Dept. of Information Science & Engineering of SRIKRISHNA INSTITUTE OF TECHNOLOGY, BENGALURU have successfully undergone an Internship Program of 4 weeks dated from 01-02-2023 to 04-03-2023 on MACHINE LEARNING along with project title "*Fake News Prediction using Machine Learning*".

During the tenure of Internship with us, she was found Punctual, Hardworking, Inquisitive, outgoing personality and works well as a team. She performed excellent and was able to complete the project successfully on time.

We wish her every success in career and future endeavors.

Regards

Director

ZetaCoding Innovative Solutions.

Place: Bengaluru





ZETACODING INNOVATIVE SOLUTIONS

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Ref: Zeta/23/Intern/Certi-017

Date: 10/03/2023

CERTIFICATE OF INTERNSHIP

This is to Certify that **Ms. SOWNDARYA T** bearing USN:1KT19IS023, Dept. of Information Science & Engineering of **SRIKRISHNA INSTITUTE OF TECHNOLOGY, BENGALURU** have successfully undergone an Internship Program of 4 weeks dated from **01-02-2023 to 04-03-2023** on **MACHINE LEARNING** along with project title *"Sales Prediction through Advertisement using Machine Learning"*.

During the tenure of Internship with us, she was found Punctual, Hardworking, Inquisitive, outgoing personality and works well as a team. She performed excellent and was able to complete the project successfully on time.

We wish her every success in career and future endeavors.

Regards

Director

ZetaCoding Innovative Solutions.

Place: Bengaluru





Ref: Zeta/23/Intern/Certi-014

Date: 10/03/2023

CERTIFICATE OF INTERNSHIP

This is to Certify that Ms. PALLAVI N bearing USN:1KT19IS015, Dept. of Information Science & Engineering of SRIKRISHNA INSTITUTE OF TECHNOLOGY, BENGALURU have successfully undergone an Internship Program of 4 weeks dated from 01-02-2023 to 04-03-2023 on DATA SCIENCE along with project title "*Exploratory Data Analysis on Student Performance In Examination*".

During the tenure of Internship with us, she was found Punctual, Hardworking, Inquisitive, outgoing personality and works well as a team. She performed excellent and was able to complete the project successfully on time.

We wish her every success in career and future endeavors.

Regards

Director

ZetaCoding Innovative Solutions.

Place: Bengaluru





No. 83, GSVP, 5th main road, Mathikere Extension,
Bengaluru, Karnataka, India, Pin code 560054
www.rcilabs.co

Friday, April 21st, 2023

Intelergy India Private Limited,
3rd Floor, RC Square,
4, HMT Main Rd,
Mathikere, Bengaluru, Karnataka 560054

To whom it may concern:

SUB: Letter of ongoing Internship

We are glad to inform you that Mr. Saurav Anand, from Sri Krishna Institute of Technology, has been doing his internship at Intelergy India Private Limited since September 2023.

During this time, Mr. Saurav Anand is displaying professional traits during his Internship period and is managing to complete all assigned tasks as requested. He was hardworking, dedicated, and committed. It is a pleasure having him with us.

His association with us is fruitful.

For Intelergy India Private Limited,


Raghu Raman Sekhar
Director

CERTIFICATE CODE: PSEFSWD3609



Prinston Smart Engineers
Engineering, Maintenance & Training Services



Internship Certificate

This Certificate is proudly presented to

Vijay Mahato Tharu

For successful completion of internship in "SOFTWARE AUTOMATION TESTING"
with Grade "A" from October 6th to November 6th, 2021.

Usn : 1KT18IS016

College: SRI KRISHNA INSTITUTE OF TECHNOLOGY

Certificate
of
Excellence



UDYAM - DL-08-0031663



Authorized Signatory

www.prinstonsmart.com



Sri Krishna Institute of Technology

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IS PRESENTED TO

Anushka Seth

Online Examination System (SKIT)

has completed the internship in our Organization from the period of 1st Aug 2022 to 1st Sep 2022.


Dr. Hemalatha K L
Professor and HOD
Dept. of ISE, SKIT


Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT



ZETACODING INNOVATIVE SOLUTIONS

A Unit of Grandem Educational Inst

Ref: Zeta/23/Intern/Certi-012

Date: 10/03/2023

CERTIFICATE OF INTERNSHIP

This is to Certify that **Ms. SNEHA N** bearing USN:1KT19IS022, Dept. of Information Science & Engineering of **SRIKRISHNA INSTITUTE OF TECHNOLOGY, BENGALURU** have successfully undergone an Internship Program of 4 weeks dated from **01-02-2023 to 04-03-2023** on **PYTHON FULL STACK WEB DEVELOPMENT** along with project title "**Multispecialty Hospital Management System using Django Framework**".

During the tenure of Internship with us, she was found Punctual, Hardworking, Inquisitive, outgoing personality and works well as a team. She performed excellent and was able to complete the project successfully on time.

We wish her every success in career and future endeavors.

Regards

Director



ZetaCoding Innovative Solutions.

Place: Bengaluru





Sri Krishna Institute of Technology

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CERTIFICATE

OF COMPLETION

IS PRESENTED TO

Rajesh D Bobade

SKIT Video Conference Web App

has completed the internship in our Organization from the period of 20th Feb 2023 to 18th Mar 2023.

Dr. Hemalatha K L
Professor and HOD
Dept. of ISE, SKIT

Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT



Sri Krishna Institute of Technology

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CERTIFICATE

OF COMPLETION

IS PRESENTED TO

Milan Kumar

Online Examination System (SKIT)

has completed the internship in our Organization from the period of 1st Aug 2022 to 1st Sep 2022.

A handwritten signature in blue ink, appearing to read 'Hemalatha', is written over the printed name.

Dr. Hemalatha K L
Professor and HOD
Dept. of ISE, SKIT
Head of the Department
Information Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

A handwritten signature in red ink, appearing to read 'Veena', is written over the printed name.

Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT



Sri Krishna Institute of Technology

(Approved by AICTE, Accredited by NAAC, Affiliated to VTU, Karnataka)

CERTIFICATE


OF COMPLETION

IS PRESENTED TO

Shamanth S

SKIT Video Conference Web App

has completed the internship in our Organization from the period of 20th Feb 2023 to 18th Mar 2023.


Dr. Hemalatha K L
Professor and HOD
Dept. of ISE, SKIT


Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT



Sri Krishna Institute of Technology

(Approved by AICTE, Accredited by NAAC, Affiliated to VTU, Karnataka)

CERTIFICATE

OF COMPLETION

IS PRESENTED TO

Prajwal R

SKIT Video Conference Web App

has completed the Internship in our Organization from the period of 20th Feb 2023 to 18th Mar 2023.

Dr. Hemalatha R L
Professor and HOD
Dept. of ISE, SKIT

Mrs. Veena M Naik
Internship Co-Ordinator
Dept. of ISE, SKIT

Ref: Zeta/23/Intern/Of-04B

Date: 09/02/2023

To
Ms. Pallavi N
Dept. of ISI,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Pallavi N,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with ZetaCoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards


Director



ZetaCoding Innovative Solutions.

Place: Bengaluru





Ref: Zeta/23/Intern/Off-047

Date: 09/02/2023

To
Ms. Anju M
Dept. of ISE,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Anju M,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with ZetaCoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards


Director

ZetaCoding Innovative Solutions.

Place: Bengaluru



📍 #6, 2nd Floor, 1st Cross, KHB Colony, Gandhi Nagar,
Yelahanka, Bengaluru-560064, Karnataka, INDIA.

☎ +91-8867845719 / +91-8050759790

🌐 www.zetacoding.com ✉ info@zetacoding.com





Ref: Zeta/23/Intern/Off-049

Date: 09/02/2023

To
Ms. Harshitha J
Dept. of ISE,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Harshitha J,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with ZetaCoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards

Director

ZetaCoding Innovative Solutions.

Place: Bengaluru



Ref: Zeta/23/Intern/Off-051

Date: 09/02/2023

To
Ms. Soundarya T
Dept. of ISE,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Soundarya T,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with ZetaCoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards


Director



ZetaCoding Innovative Solutions.

Place: Bengaluru

◆ #6, 2nd Floor, 1st Cross, KHB Colony, Gandhi Nagar,
Yelahanka, Bengaluru-560064, Karnataka, INDIA.

☎ +91-8867845719 / +91-8050759790

🌐 www.zetacoding.com ✉ info@zetacoding.com





Ref: Zeta/23/Intern/Off-046

Date: 09/02/2023

To
Ms. Sneha N
Dept. of ISE,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Sneha N,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with Zetacoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards

R. Rama
Director



ZetaCoding Innovative Solutions.

Place: Bengaluru





ZETACODING INNOVATIVE SOLUTIONS

Ref: Zeta/23/Intern/Off-050

Date: 01/02/2023

To
Ms. Sahana M
Dept. of ISL,
Sri Krishna Institute of Technology,
Bengaluru.

OFFER OF INTERNSHIP

Dear Sahana M,

Based on your application and subsequent interview that we had with you, we are pleased to offer you the position of "Project Intern", at ZetaCoding Innovative Solutions, Bengaluru as follows.

Your internship starts from 13th February 2023 to 18th April 2023. On the date of appointment on the role, the company will review your performance of your internship with a view to confirm your employment with the company.

Office timing is from 9:00am to 5:00pm (Monday to Friday). You will sign a confidential agreement with us and this internship cannot be converted as an employment or an offer of employment with ZetaCoding Innovative Solutions.

This offer is open and valid to one week from the date of offer. You are requested to send us a signed copy as confirmation of the same immediately.

Thank You,

Regards


Director



ZetaCoding Innovative Solutions.

Place: Bengaluru



SRI KRISHNA INSTITUTE OF TECHNOLOGY


No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



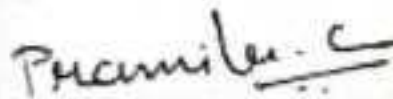
CERTIFICATE

This is to certify that **Ms. HARSHITHA S (1KT18CS022)** have successfully completed **Internship** in partial fulfilment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

 28/4/23

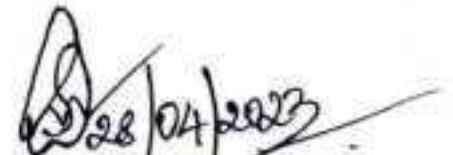
INTERNAL GUIDE

Mrs. Gnaneshwari T R
Asst. Professor
Dept of CSE, SKIT



EXTERNAL GUIDE



Mrs. Pramila.C
Senior Engineer
KGTII, Bangalore

 28/04/2023

HEAD OF THE DEPARTMENT

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT

External Examiners

Sl. No	Name	Signature	Date
1.	Rashmi KT		24/5/23
2.	Naveen HS		24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney hills, Chikkabanavara P.O., Bengaluru – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the Internship titled " Education Event Scheduler Site " carried out by Mr. Kanhaiya Lal Das, bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of Bachelor of Engineering in CSE under Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all correction/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85)

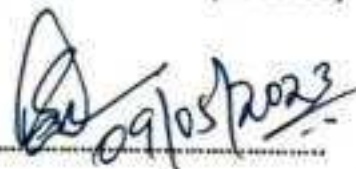


Signature of the External Guide

Mrs. Spoorthi C

Director

Varcons Technology PVT.Ltd


09/05/2023

Signature of the Internal Guide

Dr. Shantharam Nayak

Professor and HOD

Dept. of CSE, SKIT


09/05/2023

Signature of the HOD

Dr. Shantharam Nayak

Professor and HOD

Head of the Department
Dept. of CSE, SKIT Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Viva:

Name of the Examiner

Signature with Date

1.  Rashmi KT

1.  24/5/23

2.  Navaneeth HS

2.  24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR. KARTHIK S.V (IKT18CS027)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**Software Development using Python**” in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Signature of the Guide

Mrs. Aruna R
Assistant Professor
Dept. of CSE, SKIT

Signature of the External Guide

Mr. Abhinav Kumar
Head and Director
K-AKA Technology Services

Signature of the HOD

Dr. Shantharam Nayak
Head of the Department
Professor & Head
Computer Science & Engg.
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore 560 090

EXTERNAL EXAMINERS

Name of Examiner

Signature with date

1 Rathna KT

RJ 24/5/23

2 Naveen HS

Naveen HS 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

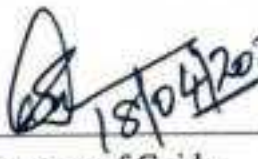
No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

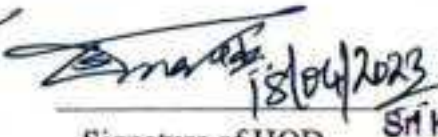
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR. KUMAR AKASH (1KT18CS028)** have successfully completed **Internship (18CSI85)** on **PYTHON WITH MACHINE LEARNING** in partial fulfilment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.


Signature of Guide
Dr. Shantharam Nayak
Professor & HOD


Signature of HOD
Dr. Shantharam Nayak
Head of the Department
Professor & HOD
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090


Signature of Principal
Dr. Mahesha K
Principal
Sri Krishna Institute of Technology
29, Hesaraghatta Main Road,
Chimney Hills, Chikkabanavara (Post)
Bangalore-560 090.

External Examination

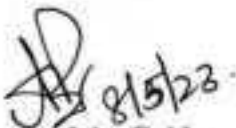
S. No.	Name of Examiners	Signature with Date
1.	Rashmi K.T.	 24/5/23
2.	Naveen HS	 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering



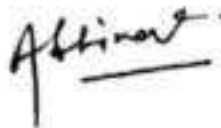
CERTIFICATE

This is to certify that **MR. RANGANATH SAGAR.S (IKT18CS055)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**Software Development using Python**” in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.



Signature of the Guide

Mrs. Aruna R
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide

Mr. Abhinav Kumar
Head and Director
K-AKA Technology Services

EXTERNAL EXAMINERS



Signature of the HOD

Dr. Shantharam Nayak
Professor & Head

Head of Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

Name of Examiner

Signature with date

1 Rashmi K.T

24/5/23

2 Naveen HS

24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering

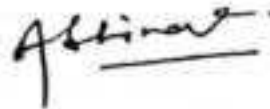


CERTIFICATE

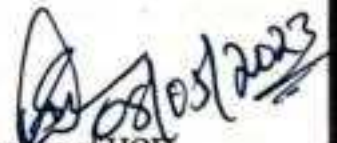
This is to certify that, **Abhijith.M (IKT18CS002)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**Software Development using Python**" in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.



Signature of Guide
Mrs Aruna R
Assitant Professor
Dept. of CSE, SKIT



Signature of Extrenal Guide
Mr Abhinav Kumar
Head and Director
K-AKA Technology Services



Signature of HOD
Dr Shantaram Nayak
Professor and Head
Dept. of CSE, SKIT
Department
Computer Science & Engg.
Sri Krishna Institute of Technol
Bangalore-560 090

External Examiners

Name of the Examiners

1. Rajhmu B.T.

2. Naveen H.S.

Signature with Date

Raj 24/5/23

Naveen 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Aakash Tyagi(IKT19CS001)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide

Mr. Imran Ulla Khan
Assistant Professor
Dept. of CSE, SKIT

External Guide

Dr. Latha T K
IT Manager
YHills

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg
Sri Krishna Institute of Techno
Bangalore-560 090

External Examination

Name of the Examiners

1. S. KUMARAN

2. _____

Signature with Date

S. K. V. S. R. 22/05/22

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Aasif Raja(1KT19CS002)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT

Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore - 560 090

External Examination

Name of the Examiners

1. _____

2. _____

Signature with Date



CERTIFICATE

It is certified that the internship entitled "**TEMPLATE ONLINE RESUME CREATOR WEBSITE**" as a part of "18CS185" Internship, is a bonafied work carried out by **ABHINAND G (IKT19CS003)**, bonafide student of **Sri Krishna Institute of Technology** in partial fulfilment for the award of the degree of Bachelor of Engineering in **Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections / suggestions indicated for the Assessment have been incorporated in the report deposited in the department library. The Internship Project Report has been approved as it satisfies the academic requirements in respect to the Internship Project Report prescribed for the said degree.


26/5/23


04/05/2023



Signature of the Guide

Prof. Varsha Jituri

Assistant Professor
Department of CSE, SKIT

Signature of the HOD

Dr. Shantaram Nayak

Professor and Head
Head of the Department
Department of CSE, SKIT # 28
Computer Science & Engg
Sri Krishna Institute of Technology
Bangalore-560 090

Signature of Principal

Dr. Mahesh Kumar

Principal
Sri Krishna Institute of Technology
28, Main Road,
Chimney Hill, Belagavi (Pos),
Bangalore-560 090.

Name of the Examiners

1. ...Raahvi...107

2. ...Naveen...111

Signature with Date

1.  24/5/23

2.  24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Abhishek Prasad (1KT19CS004)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Sushma.m 3/4/23
Internal Guide

Ms. Sushma M
Assistant Professor
Dept. of CSE, SKIT



External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

1. _____
2. _____

Signature with Date

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR. ABHISHEK V (IKT19CS005)** have successfully completed **Internship** in partial fulfilment of VIII Semester to award the bachelor's degree in **computer science and engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.


Signature of the guide

Mrs. Aruna R
Assistant Professor
DEPT. of CSE, SKIT


Signature of External guide

Mr. Mahesh Deginal
Senior Developer
Karunadu Bangalore




Signature of HOD

Dr. Shantaram Nayak
Professor & Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

EXTERNAL VIVA

S. No.	Name	Signature	Date
1.	Rashmi K.T		24/5/23
2.	Narven HS		24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Alshwarya Abhishek (IKT19CS006)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Sushma.m 03/4/23
Internal Guide

Ms. Sushma M
Assistant Professor
Dept. of CSE, SKIT



External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

03/04/2023

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

Signature with Date

1. _____

2. _____

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Ajay Anand (IKT19CS007)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Sushma M 3/4/23
Internal Guide

Ms. Sushma M
Assistant Professor
Dept. of CSE, SKIT

External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore - 560090

External Examination

Name of the Examiners

Signature with Date

1. _____

2. _____

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **AKSHAY ANAND (IKT19CS009)** a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**ARTIFICIAL INTELLIGENCE**" in fulfillment for 8th Semester B.E in Computer Science and Engineering of Visvesvaraya Technological University.

Sowmya C V
5/3/23

Internal Guide

Prof. Sowmya C V
Assistant Professor
Dept. of CSE, SKIT



External Guide

Mr. Sai Sumanth
SkillDzire
Hyderabad

Shantharam Nayak

Head of Department

Dr. Shantharam Nayak

Professor and Head

Head of the Department
Dept. of CSE, SKIT

Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. *S. KUMARAN*.....

2.....

Signature with Date

S. K. Jayaram
..... 22/05/2023

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that ANJALI A R (IKT19CS010), a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "FRONT-END WEB DEVELOPMENT" in fulfilment for 8th Semester B.E in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Sowmya C V
2/5/23

Internal Guide

Prof. Sowmya C V
Assistant Professor
Dept. of CSE, SKIT

Vijay B R

External Guide

Mr. Vijay B R
MeVi Technologies
Bangalore

Shantharam Nayak
2/5/2023

Head of Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. *S. Kumaran*.....

2. *Veena M. Naik*.....

Signature with Date

S. Kumaran
..... 02/05/2023

Veena M. Naik
..... 02/05/2023

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Ankit kumar (IKT19CS011)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"MACHINE LEARNING WITH PYTHON"** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23


Internal Guide

Mr. Imran Ulla khan
Assistant Professor
Dept. of CSE, SKIT



External Guide

Dr. Latha T K
IT Manager
YHills, Noida


Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

1. S. Anand

2. _____

Signature with Date

S. Anand
20/05/20

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,
Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that ANUP KUMAR TIWARI (IKT19CS012), a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "WEB DEVELOPMENT" in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide

Mr. Imran Ulla Khan
Assistant Professor
Dept. of CSE, SKIT

External Guide

Mr. Nischal Aremanda
IT Manager
YHills, Noida

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

Signature with Date

1. S. Kumar

S. Shantharam
22/05/2023

2. _____

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney hills, Chikkabanavara P.O., Bengaluru - 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the Internship titled "Education Event Scheduler Site" carried out by Mr. Arijit Haldar, bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of Bachelor of Engineering in CSE under Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all correction/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85)



Signature of the External Guide

Mrs. Spoorthi C

Director

Varcons Technology PVT.Ltd

Signature of the Internal Guide

Mrs. Rashmi K T

Asst. Professor

Dept. of CSE, SKIT

Signature of the HOD

Dr. Shantharam Nayak

Professor and HOD

Head of the Department
Computer Science and Engg.
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090.

External Viva:

Name of the Examiner

1. S. Kumar
2. Veena M. Naik

Signature with Date

1. S. Kumar 28/05/2023
2. Veena M. Naik 22/05/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney hills, Chikkabanavara P.O., Bengaluru - 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the Internship titled " **Education Event Scheduler Site** " carried out by Mr. **Bashudev Kumar Yadav**, bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering in CSE** under Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all correction/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85)



Signature of the External Guide

Mrs. Spoothi C

Director

Varcons Technology PVT.Ltd

Signature of the Internal Guide

Mrs. Rashmi K T

Assistant Professor

Dept. of CSE, SKIT

Signature of HOD

Dr. Shantharam Nayak

Professor and HOD
Head of the Department
Dept. of CSE, SKIT

Sri Krishna Institute of Technology
Bangalore-560 090

External Viva:

Name of the Examiner

1. **S. Kumar**

2.

Signature with Date

1. **S. Kumar** 20/05/2023

2.

SRI KRISHNA INSTITUTE OF TECHNOLOGY
No.29, Hesaraghatta Main Road, Chimney hills, Chikkabanavara P.O., Bengaluru – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the Internship titled " **Education Event Scheduler Site** " carried out by **Mr. Deepak Kumar Sharma**, bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering in CSE** under Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all correction/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85)



Signature of the Internal Guide

Mrs. Spoorthi C

Director
Varcons Technologies PVT. LTD

Signature of the Internal Guide

Mrs. Rashmi KT

Asst. Professor
Dept. of CSE, SKIT, B'lore

Signature of the HOD

Dr. Shantharam Nayak

Professor and Head

Head of the Department
Dept. of CSE, SKIT, B'lore
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Viva:

Name of the Examiner

1. S. Kumar

2.

Signature with Date

1. S. Kumar 22/5/2023

2.

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney hills, Chikkabanavara P.O., Bengaluru – 560090

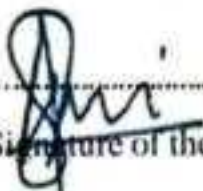
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the Internship titled “ **Full Stack Web Development on Cake Delivery Portal** ” carried out by **Mr. Dilip H K**, bonafide student of Sri Krishna Institute of Technology, in partial fulfillment for the award of **Bachelor of Engineering in CSE** under Visvesvaraya Technological University, Belagavi, during the year 2022-2023. It is certified that all correction/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (18CSI85)


Signature of the External Guide

Ms. Farheen Farhath

Director

Prinston Smart Engineers
Training Services




Signature of the Internal Guide

Mrs. Rashmi K T

Assistant Professor

Dept. of CSE, SKIT


Signature of the HOD

Dr. Shantharam Nayak

Professor and HOD
Head of the Department
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090

External Viva:

Name of the Examiner

1.
2.

Signature with Date

1.
2.

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **GS AKASH (1KT19CS023)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the **Internship** work on "ARTIFICIAL INTELLIGENCE" in fulfilment of VIII Semester B.E in **Computer Science and Engineering of Visvesvaraya Technological University, Belagavi** during the year **2022-23**.





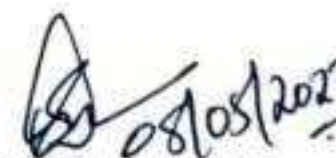
Internal Guide

Mrs. Aruna R
Assistant Professor
Dept. of CSE, SKIT

External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

Head of Department


Dr. Shantharam Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. Rashmi K.T

2. Naveen H

Signature with Date

Resh 24/5/23

Naveen H 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090


Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **GURU PRASAD H C (1KT19CS024)** a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**ARTIFICIAL INTELLIGENCE**” in fulfilment for 8th Semester B.E in Computer Science and Engineering of Visvesvaraya Technological University.

Savita B Patil
9/5/23
Internal Guide
Prof. Savita B Patil
Assistant Professor
Dept. of CSE, SKIT


Sai Sumanth
External Guide
Mr. Sai Sumanth
Skill Dzire
Hyderabad

Shantharam Nayak
Head of Department
Dr. Shantharam Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

.....

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,


Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering

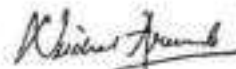


CERTIFICATE

This is to certify that **HARSH THAKUR (IKT19CS026)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“WEB DEVELOPMENT”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23


Internal Guide

Mr. Imran Ulla Khan
Assistant Professor
Dept. of CSE, SKIT



External Guide

Mr. Nischal Aremanda
IT Manager
YHills, Noida


Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore, India

External Examination

Name of the Examiners

1. S. K. M. A. S.

2. _____

Signature with Date

S. K. M. A. S.
20/05/2023

SRI KRISHNA INSTITUTE OF TECHNOLOGY

Hesaraghatta Main Road, Bengaluru – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Ms.HARSHITHA D (1KT19CS027)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

Sushma on 10/4/23
Signature of the Guide

Ms.SUSHMA M
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide

Arjun
Director
Willka Soft Technologies

EXTERNAL VIVA

16/04/2023
Signature of the HOD

Dr. Shantaram Nayak
Professor & Head
Dept. of CSE, SKIT
ment
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

Name of Examiner

Signature with date

1

2

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Himanshu Kumar (1KT19CS029)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**MACHINE LEARNING WITH PYTHON**” in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide

Mrs. Rashmi KT
Assistant Professor
Dept. of CSE, SKIT

External Guide

Mr. Rehan Fazal Khan
IT Manager
SkillDzire

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

1. S. Kumar

2. _____

Signature with Date

S. Anjaney
29/05/2023

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **JEEVAN GOWDA B (1KT19CS030)** a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**ARTIFICIAL INTELLIGENCE**" in fulfilment for 8th Semester B.E in Computer Science and Engineering of Visvesvaraya Technological University.

Savita B Patil
9/5/23

Internal Guide

Prof. Savita B Patil
Assistant Professor
Dept. of CSE, SKIT



External Guide

Mr. Sai Sumanth
Skill Dzire
Hyderabad

Shantharam Nayak
09/05/2023

Head of Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

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2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **JYOTIKA PRIYADARSHY (IKT19CS031)** a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**FRONT-END WEB DEVELOPMENT**" in fulfilment for 8th Semester B.E in Computer Science and Engineering of Visvesvaraya Technological University.

Sowmya C V
2/5/23

Internal Guide

Prof. Sowmya C V
Assistant Professor
Dept. of CSE, SKIT

Vijay B R

External Guide

Mr. Vijay B R
MeVi Technologies
Bangalore

Shantharam Nayak

Head of Department

Dr. Shantharam Nayak

Professor and Head

Head of the Department
Dept. of CSE, SKIT

Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1. *S. Shantharam*.....

S. Shantharam
22/05/2023

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering

5



CERTIFICATE

This is to certify that **MS.LAVANYA B M (1KT19CS036)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

Signature of the Guide

Mr. Lokesh H D
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide

Arun
Director
Willka Soft Technologies

Signature of the HOD

Dr. Shantaram Nayak
Professor & Head
Head of the Department
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090

EXTERNAL VIVA

Name of Examiner

1 **S. Kumar**

2 **Veena M. Naik**

Signature with date

S. Kumar
22/11/23

db
22/11/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that LAVANYA GN (IKT19CS037), a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “Red Hat Enterprise Linux–Configure SSH Key” in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

AR 8/5/23

Internal Guide
Mrs. Aruna R
Assistant Professor
Dept. of CSE, SKIT

Pramila C

External Guide
Mrs. Pramila C
Senior Engineer
KGTI Bangalore

Shantaram 08/05/2023

Head of Department
Dr. Shantaram Nayak
Professor and Head
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. *Rashmi* *K.T*

2. *Naveen HS*

Signature with Date

Rashmi 24/5/23
.....

Naveen HS 24/5/23
.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

Hesaraghatta main road, Bengaluru - 560090


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING





CERTIFICATE

This is to certify that the Internship entitled "FULL STACK WEB DEVELOPMENT" carried out by LIKITHA H(IKT19CS038), a bonafied student of Sri Krishna Institute of Technology, Bengaluru in partial fulfilment for the award of Bachelor of Engineering in Computer Science & Engineering of the Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The Project report has been approved as it satisfies the academic requirements with respect of Internship prescribed for the course Internship/ Professional Practice(18CSI85).


Internal guide
Mr. Lokesh H D
Asst. Professor
Dept. of. CSE, SKIT



External guide
Ms. Spoorthi C
Director
Varcons Technologies Pvt. Ltd.


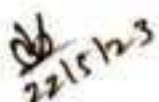

Signature of HOD
Dr. Shantharam Nayak
Professor & HOD
Dept. of. CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bengaluru-560 090

EXTERNAL VIVA

Name of the Examiners

1. S. Kumar
2. Veena M. Naik

Signature with date


22/15/23

22/15/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post


Bengaluru-560090

Department of Computer Science and Engineering





CERTIFICATE

This is to certify that **MANISHANKAR S (IKT19CS039)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“SALES PREDICTION USING REGRESSION ANALYSIS”** in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023


Internal Guide
Dr. Deepak S Sakkari
Professor
Dept. of CSE, SKIT

For Inventeron Technologies And Business Solutions LLP


External Guide
Mr. Syed Ahmed
Senior Developer
Inventeron, Bangalore


Head of Department
Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Computer Science & IT
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

.....

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MANJULA A (1KT19CS040)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“Red Hat Enterprise Linux–Managing Firewalls”** in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Savita B Patil
18/04/23

Internal Guide
Mrs. Savita B Patil
Assistant Professor
Dept. of CSE, SKIT


Pramila C

External Guide
Mrs.Pramila. C
Senior Engineer
KGTI Bangalore

Shantaram Nayak
18/04/2023

Head of Department
Dr. Shantaram Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

.....

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MANOJ C V (1KT19CS041)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**INDUSTRIAL SAFETY MONITORING SYSTEM USING IOT**” in fulfillment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23.

For Inventeron Technologies And Business Solutions LLP

Internal Guide

Dr. Deepak S Sakkari

Professor

Dept. of CSE, SKIT

External Guide

Mr. Syed Ahmed

Senior Developer

Inventeron, Bangalore

Head of Department

Dr. Shantharam Nayak

Professor and Head

Dept. of CSE, SKIT

Head of the Department
Computer Science & Engg
Sri Krishna Institute of Techno
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

.....

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bangalore-560090

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING




CERTIFICATE

It is certified that the internship entitled "**TEMPLATE ONLINE RESUME CREATOR WEBSITE**" as a part of "18CS185" Internship, is a bonafied work carried out by **MOHAMMED ANAS (IKT19CS042)**, bonafied student of **Sri Krishna Institute of Technology** in partial fulfilment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections / suggestions indicated for the Assessment have been incorporated in the report deposited in the department library. The Internship Project Report has been approved as it satisfies the academic requirements in respect to the Internship Project Report prescribed for the said degree.



Signature of the Guide
Prof. Varsha Jituri
Assistant Professor
Department of CSE, SKIT



Signature of the HOD
Dr. Shantaram Nayak
Professor and Head
Head of the Department
Department of CSE, SKIT # 29
Sri Krishna Institute of Technology
Bangalore-560 090



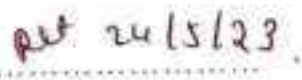
Signature of Principal
Dr. Mahesha K. Prasad
PRINCIPAL
Sri Krishna Institute of Technology
29, Desai Chetty Main Road,
Chimney Hills, Channarayana (Post)
Bangalore-560 090.

Name of the Examiners

1. 

2. 

Signature with Date

1. 

2. 

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Ms.MONIKA M M (IKT19CS043)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

Sushma.m 10/4/23
Signature of the Guide

Ms.SUSHMA M
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide

Arjun
Director
Willka Soft Technologies

EXTERNAL VIVA

Shantaram Nayak 16/04/2023

Signature of the HOD

Dr. Shantaram Nayak
Professor & Head
Dept. of CSE, SKIT
Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

Name of Examiner

Signature with date

1

2

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Mrinal Kumari(IKT19CS044)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide

Mrs. Rashmi K T
Assistant Professor
Dept. of CSE, SKIT

External Guide

Dr. Latha T K
IT Manager
YHills

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

Signature with Date

1. _____

2. _____

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **M S MONICA (IKT19CS045)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“FULL-STACK WEB DEVELOPMENT”** in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Internal Guide

Dr. Deepak S Sakkari
Assistant Professor
Dept. of CSE, SKIT



External Guide

Ms. Nandini S
HR-Manager
Bengaluru

Head of Department

Dr. Shantharam Nayak
Professor & Head
H Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1...P...Gopala Krishna
2 Mrs. Savita B. Patil

Signature with Date

.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

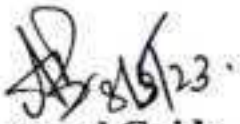
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MUSKAN (IKT19CS046)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the **Internship** work on "ARTIFICIAL INTELLIGENCE" in fulfilment of VIII Semester B.E in **Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi during the year **2022-23**.




Internal Guide
Mrs. Aruna R
Assistant Professor
Dept. of CSE, SKIT

External Guide
Mr.Rehan Fazal Khan
IT Manager
SkillDzire


Head of Department
Dr. Shantharam Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

- Rahmi ET
- Naveen HS

Signature with Date

RS 24/5/23
Naveen HS 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29,Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post,

Bangalore 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Muskan(1KT19CS047)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**FULL STACK JAVA DEVELOPMENT**" in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Sowmya C V
21/5/23

Internal Guide

Mrs. Sowmya C V
Assistant Professor
Dept.ofCSE,SKIT

Suman Shekhar

External Guide

Mr. Suman Shekhar
IT Manager
YHills

Dr. Shantharam Nayak
22/05/2023

Head of the Department

Dr. Shantharam Nayak
Professor and Head Of
Dept. of CSE,SKIT
Computer Science & Engg.
Sri Krishna Institute of Technolo
Bangalore-560 090

External Examination

Name of the Examiners

- S. KUMARAN
- Veena M. Alaik

Signature with Date

S. K. Kumaran
22/05/2023
Veena M. Alaik
22/05/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **NAGALAKSHMI B G (1KT19CS049)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"RED HAT ENTERPRISE LINUX – USER , GROUP & PERMISSIONS"** in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Savita B Patil
15/10/23

Internal Guide

Mrs. Savita B Patil
Assistant Professor
Dept. of CSE, SKIT

Pramila C
15/10/23

External Guide

Mrs. Pramila C
Senior Engineer
KGTTI, Bangalore

Shantaram Nayak
18/10/2023

Head of Department

Dr. Shantaram Nayak

Professor and Head

Head of the Department
Dept. of CSE, SKIT

Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

Signature with Date

1.....

.....

2.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post


Bengaluru-560090


Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **NAVEEN KUMAR B (IKT19CS051)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"Red Hat Enterprise Linux-Managing Logical Volumes"** in fulfillment for 8th Semester B.E. in Computer Science and Engineering of **Visvesvaraya Technological University, Belagavi** during the year 2023.


Internal Guide
Prof. Varsha Jituri
Assistant Professor
Dept. of CSE, SKIT


External Guide
Mrs. Pramila. C
Senior Engineer
KGTTI Bangalore


Head of Department
Dr. Shantaram Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. Rashmi K.T.
2. Alavreen HS

Signature with Date

Rt 24/5/23

Alavreen HS 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that NAVYA R S (IKT19CS053), a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "FRONT-END WEB DEVELOPMENT" in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide
Dr. Deepak S Sakkari
Professor
Dept. of CSE, SKIT

External Guide
Mr. VIJAY B R
IT-Manager
Bangalore

Head of Department
Dr. Shantharam Nayak
Professor & Head

Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1.....

2.....

Signature with Date

.....

.....

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Nirmal Shekhar(IKT19CS055)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“MACHINE LEARNING WITH PYTHON”** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

Internal Guide

Dr. Shantharam Nayak
Professor and HOD
Dept. of CSE, SKIT

External Guide

Dr. Latha T K
IT Manager
YHills

Head of the Department

Dr. Shantharam Nayak
Professor and HOD
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

1. S. Kumar
2. _____

Signature with Date

S. Kumar
22/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR.NISHANTH R (IKT19CS056)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

Signature of the Guide
Mr. Lokesh H D
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide
Arjun
Director
Willka Soft Technologies

Signature of the HOD
Dr. Shantaram Nayak
Professor & Head
Dept. of CSE, SKIT Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

EXTERNAL VIVA

Name of Examiner

1. **S. KUMARAN**
2. **Veena M. Nair**

Signature with date

S. K. Nair
22/11/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Heeraghatta Main Road, Chimney Hills, Chikkabanasuru Post
Bangalore-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR.P SANDEEP KUMAR(IKT18CS057)** have successfully completed **Internship** in partial fulfilment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.



Signature of the Guide

Mr.Imran Ulla Khan
Assistant Professor
Dept. of CSE, SKIT



Signature of the External Guide

Mr. Mahesh Deginal
Senior Developer
Karunadu Bangalore



Signature of the HOD

Dr. Shantharam Nayak
Professor & Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

EXTERNAL VIVA

S. No.	Name	Signature	Date
1.	Rashmi K.T		24/5/23
2.	Naveen HJ		24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR. PEERIAH.G (IKT⁹CS59)** have successfully completed **Internship** in partial fulfilment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.


Signature of the Guide

Dr. Shantharam Nayak
Professor & Head
Dept. of CSE, SKIT


Signature of the External Guide

Mr. Mahesh Deginal
Senior Developer
Karunadu Bangalore


Signature of the HOD

Dr. Shantharam Nayak
Professor & Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

EXTERNAL VIVA

S. No.	Name	Signature	Date
1.	Rashmi KT		24/5/23
2.	Naveen HS		24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **PRAJWAL H V (IKT19CS062)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “ **ULTRASONIC SENSOR GLASSES FOR BLIND USING IOT** ” in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23

For Inventeron Technologies And Business Solutions LLP

Internal Guide

Dr. Deepak S Sakkari

Professor

Dept. of CSE, SKIT

External Guide

Mr. Syed Ahmed

Senior Developer

Bangalore

Head of Department

Dr. Shantharam Nayak

Professor & Head

Head of the Department
Dept. of CSE, SKIT

Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. S. KUMARAN

2. Veena M. Naik

Signature with Date

S. Kumaran
22/5/23

V. M. Naik
22/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY
Hesaraghatta Main Road, Bengaluru – 560090
Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **MR. PRASHANTH H M (IKT19CS064)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.

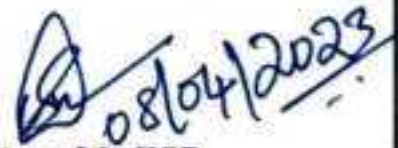
For Invention Technologies And Business Solutions LLP


Managing Director

Signature of the External Guide

Mr. Syed Ahmed
Director
Invention Technologies


EXTERNAL VIVA


08/04/2023

Signature of the HOD

Dr. Shantharam Nayak
Professor & Head
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090


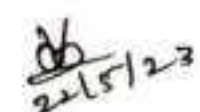
Signature of the Guide


Mrs. Lokesh H D
Assistant Professor
Dept. of CSE, SKIT

Name of Examiner

- 1 **S. Kumanan**
- 2 **Veena M. Naik**

Signature with date


22/5/23

22/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **PRATHIBHA B (1KT19CS065)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"IRIS FLOWER CLASSIFICATION USING DECISION TREE CLASSIFIER"** in fulfillment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Internal Guide

Dr. Deepak S Sakkari
Professor
Dept. of CSE, SKIT

For Inventerion Technologies And Business Solutions LLP

External Guide

Mr. Syed Ahmed
Senior Developer
Inventerion, Bangalore

Head of Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT

External Examiners

Name of the Examiners

1. P. Gopala Krishna
2. Mrs. Savitha B. Paul

Signature with Date

.....

.....

Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technol
Bangalore-560 090.

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **PREETHI PANDEY(1KT19CS066)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on “**Kyphosis Disease Prediction Using Deep Neural Networks**” in fulfilment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.

Internal Guide

Dr. Deepak S Sakkari
Professor
Dept. of CSE, SKIT

for Invention Technologies And Business Solutions LLP

External Guide

Mr. Syed Ahmed
Senior Developer
Inventeron, Bangalore

Head of Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT

Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560-090

External Examiners

Name of the Examiners

1.....P. Gopakrishna
2.....Mrs. Savita K. Patil

Signature with Date

.....

.....
25/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,
Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Priyanshu Kumar (1KT19CS067)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"EMERGENCY MEDICAL SERVICES(EMS)"** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23.

Internal Guide
Dr. Shantharam Nayak
Head of Department
Dept. of CSE, SKIT

External Guide
Mr. Rakesh K Sadasivan
Founder
Rakshak Safety Solutions

Head of the Department
Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Sri Krishna Institute of Technology,
Bangalore-560 090

External Examination

Name of the Examiners

1. S. Kumar
2. _____

Signature with Date

S. Kumar
22/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post
Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **RADHA G (IKT19CS068)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“Red Hat Enterprise Linux–Managing Logical Volumes”** in fulfilment for 8th Semester B.E. in Computer Science and Engineering of **Visvesvaraya Technological University, Belagavi** during the year 2023.

Internal Guide
Miss. Varsha Jituri
Assistant Professor
Dept. of CSE, SKIT

External Guide
Mrs. Pramila. C
Senior Engineer
KGTI Bangalore

Head of Department
Dr. Shantaram Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. Rashmi K.T.
2. Alavrees HS

Signature with Date

Rashmi K.T. 24/5/23
Alavrees HS 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Chimney Hills, Hesaraghatta Main Road,

Chikkabanavara Post, Bangalore – 560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **Rahul N (IKT19CS069)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **"EMERGENCY MEDICAL SERVICES(EMS)"** in fulfillment for 8th semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23.


05/05/2023

Internal Guide

Dr. Shantharam Nayak
Head of Department
Dept. of CSE, SKIT



External Guide

Mr. Rakesh K Sadasivan
Founder
Rakshak Safety Solutions


05/05/2023

Head of the Department

Dr. Shantharam Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examination

Name of the Examiners

1. S. KUMARAN

2. _____

Signature with Date

S. Kumaran
22/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **REVATI S N (1KT19CS070)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the **Internship** work on **"MYSQL USING SPRING BOOT"** in fulfilment of VIII Semester B.E in **Computer Science and Engineering** of Visvesvaraya Technological University, Belagavi during the year **2022-23**.

SKIT
21/05/23
Internal Guide
Mrs. Shruthi N G
Assistant Professor
Dept. of CSE, SKIT

Nishu
External Guide
Mr. Pradeep
Verzeo, Bangalore

21/05/2023
Head of Department
Dr. Shantharam Nayak
Professor and Head
Head of the Department
Dept. of CSE, SKIT
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

- P. Gopale Krishna
- Mrs. Savita B. Das

Signature with Date -

G. Gopale Krishna
Savita B. Das
23/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post

Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE


This is to certify that **ROHAN YADAV C (IKT19CS072)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the **Internship** work on **“PREDICTING STUDENT UNIVERSITY ADMISSION USING LOGISTIC REGRESSION”** in fulfilment of VIII Semester B.E in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the year **2022-23**.


Internal Guide

Mr. Imran Ulla Khan
Assistant Professor
Dept. of CSE, SKIT



External Guide
Mr. Syed Ahmed
Inventeron Technologies
Bangalore


24/5/2023

Head of Department

Dr. Shantharam Nayak

Professor and Head

Head of the Department
Computer Science & Engg.
Dept. of CSE, SKIT
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of the Examiners

1. Rashmi K.T
2. Naveen H

Signature with Date

Rt 24/5/23
Naveen 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post
Bengaluru-560090.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **V.RUDRATEJA REDDY (1KT19CS073)** have successfully completed **Internship** in partial fulfillment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-2023**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.



Internal Guide

Mr.Imran Ulla Khan
Assistant Professor
Dept.of CSE,SKIT

External Guide

Mrs.Sunitha
SkillDzire Pvt Ltd
Bangalore

Head of Department

Dr.Shantharam Nayak
Professor and Head

Dept.of CSE,SKIT

Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Name of Examiners

1. Rashmi BT-
2. Plareen H-

Signature with Date

Put 24/5/23-
NO-75 24/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesarghatta Main Road, Chimney Hills, Chikkbanavara Post

Bengaluru-560090

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that **RUJUTHA M (IKT19CS074)**, a bonafide student of Sri Krishna Institute of Technology, has successfully completed the internship work on "**Kyphosis Disease Prediction Using Deep Neural Networks**" in fulfillment for 8th Semester B.E. in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2023.


13/4

Internal Guide

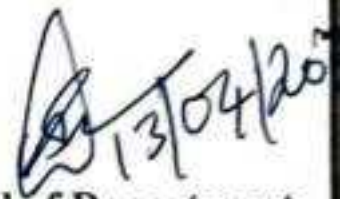
Dr. Deepak S Sakkari
Professor
Dept. of CSE, SKIT

for Investors Technology And Business Solution LLP



External Guide

Mr. Syed Ahmed
Senior Developer
Inventeron, Bangalore


13/04/2023

Head of Department

Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT

Sri Krishna Institute of Technology
Bangalore-560 090

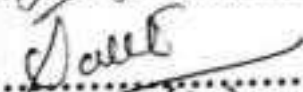
External Examiners

Name of the Examiners

1. P. Gopala Krishna
2. Mrs. Savita B. Patil

Signature with Date


23/04/23


25/5/23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

No.29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post


Bengaluru-560090

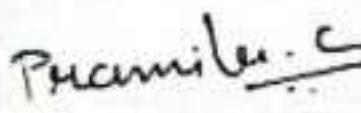
Department of Computer Science and Engineering



CERTIFICATE

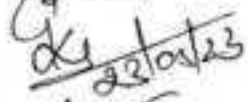
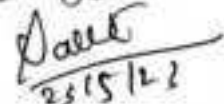
This is to certify that Ms. SAHANA R (1KT19CS075) have successfully completed **Internship** in partial fulfilment of VIII Semester to award the bachelor's degree in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2022-23**. The Internship Report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the Bachelor of Engineering Degree.


INTERNAL GUIDE
Mrs. Shruthi N G
Asst. Professor
Dept of CSE, SKIT


EXTERNAL GUIDE
Mrs. Pramila.C
Senior Engineer
KGTTI, Bangalore


HEAD OF THE DEPARTMENT
Dr. Shantharam Nayak
Professor and Head
Dept. of CSE, SKIT
Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

External Examiners

Sl. No	Name	Signature	Date
1.	P. Gopala Krishna		23-05-23
2.	Mrs. Savita. B. Paul		23-5-23

SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bangalore-560090

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

It is certified that the internship entitled "SGPA/CGPA CALCULATOR SITE" as a part of "18CS185" Internship, is a bonifide work carried out by **SAMEER.A (IKT19CS099)**, bonafied student of **Sri Krishna Institute of Technology** in partial fulfilment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections / suggestions indicated for the Assessment have been incorporated in the report deposited in the department library. The Internship Project Report has been approved as it satisfies the academic requirements in respect to the Internship Project Report prescribed for the said degree.

Signature of the Guide

Prof. Lokesh H D

Assistant Professor

Department of CSE, SKIT

Signature of the HOD

Dr. Shantaram Nayak

Professor and Head

Department of CSE, SKIT

Head of the Department
Computer Science & Engg.
Sri Krishna Institute of Technology
Bangalore-560 090

Signature of Principal

Principal

Sri Krishna Institute of Technology

29, Hesarachatta Main Road,

Chimney Hills, Chikkabanavara (Post)

SKIT, Bangalore

Name of the Examiners

1.

2.

Signature with Date

1.

2.

SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bangalore-560090

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



CERTIFICATE

It is certified that the internship entitled "**TEMPLATE ONLINE RESUME CREATOR WEBSITE**" as a part of "18CS185" Internship, is a bonafied work carried out by **SANGEERTH BABU KV (1KT19CS077)**, bonafied student of **Sri Krishna Institute of Technology** in partial fulfilment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections / suggestions indicated for the Assessment have been incorporated in the report deposited in the department library. The Internship Project Report has been approved as it satisfies the academic requirements in respect to the Internship Project Report prescribed for the said degree.

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10/4/23

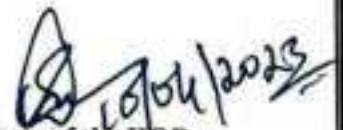
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For Inventeron Technologies And Business Solution LLP


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It is certified that the internship entitled "SGPA/CGPA CALCULATOR SITE" as a part of "18CS185" Internship, is a bonafied work carried out by **VAIJAYANTH BHARADWAJ U R (1KT19CS099)**, bonafied student of Sri Krishna Institute of Technology in partial fulfilment for the award of the degree of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is certified that all corrections / suggestions indicated for the Assessment have been incorporated in the report deposited in the department library. The Internship Project Report has been approved as it satisfies the academic requirements in respect to the Internship Project Report prescribed for the said degree.

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For Inventeron Technologies and Business Solutions LLP


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BELGAUM – 590018

KARNATAKA



**AN INTERNSHIP REPORT ON
“SIMULATION ANALYSIS OF FIBER BRAGG GRATING AND
APPLICATION IN BIOSENSORS”**

Submitted in partial fulfillment of the requirement for the award of Degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

Submitted by

SAVIN PAUL (1KT19EC023)

Under the guidance of:

SHWETHA R

Asst. Professor,

Department of Electronics and Communication Engineering,
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2022-23

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Certified that the Internship report entitled "SIMULATION ANALYSIS OF FIBER BRAGG GRATING AND APPLICATION IN BIOSENSORS" is Presented by, SAVIN PAUL-1KT19EC023 in partial fulfillment for the award of degree of Bachelor of Engineering in Electronics And Communication of the Visvesvaraya Technological University, Belgaum during the year 2022-23. It is certified that all corrections, suggestions indicated for assessment have been incorporated in the report deposited in the departmental library. The internship report has been approved as it satisfies the academic requirements in aspect of presentation prescribed for Bachelor of Engineering degree.

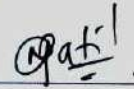


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COMPANY CERTIFICATE



CERTIFICATE OF INTERNSHIP

This Internship programme certificate is proudly awarded to

SAVIN PAUL

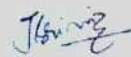
of SKIT, BANGALORE for satisfactorily completing the internship programme on SIMULATION ANALYSIS OF FIBER BRAGG GRATINGS AND APPLICATION IN BIOSENSORS under the mentorship of DR.VIVEKANAND MISHRA, PROFESSOR, AU BANGALORE under **IEEE PHOTONICS SOCIETY** from July to December 2022



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SAC
IEEE Photonics Society
Bangalore Chapter



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DECLARATION

I, SAVIN PAUL (1KT19EC023), of final semester of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Sri Krishna Institute of Technology, Bengaluru – 560090, declare that the work entitled **“SIMULATION ANALYSIS OF FIBER BRAGG GRATING AND APPLICATION IN BIOSENSORS”** has been successfully completed under the guidance of (SHWETHA R) ELECTRONICS AND COMMUNICATION ENGINEERING . This dissertation work is submitted to **Visvesvaraya Technological University** in partial fulfilment of the requirements for the award of Degree of Bachelor of Engineering in Department name during the academic year 2022- 2023. Further the matter embodied in the internship report has not been submitted previously by anybody for the award of any degree or diploma to any university.

PLACE: BENGALURU
DATE: 26/05/2023

SAVIN PAUL (1KT19EC023)

EXECUTIVE SUMMARY

IEEE Bangalore was established in 1977 and is one of the most vibrant and dynamic Section across Asia Pacific (IEEE Region 10) Region. Over the years the strength of the section has grown steadily and currently the Section membership stands more than 7200. This membership is spread across various sectors and is a nice blend of Industry, Academia and Research organizations. Section Conducted 200+ Technical Activities in the year 2014, 480+ Technical Activities in the year 2015 and 780+ Technical Activities in the year 2016 with the help of Student branches and society chapters. IEEE Bangalore Section won the prestigious MGA Outstanding Large Section Award and R10 Distinguished Large Section Award for the year 2013.

Bangalore Section has 1 Subsection (Mangalore), 19 Society Chapters (very few section across globe have these many society chapters) and 2 affinity groups .The Chapters carry out focused activities in the respective area by way of conducting technical talks under DLT, Seminars, Tutorials, workshops etc. Apart from the Chapters two affinity groups viz. Young Professionals and Women In Engineering (WIE) also carry out related activities. IEEE Bangalore and IEEE Princeton and Central New Jersey Sections had signed a MoU as sister sections. Section has 66 active and dynamic student branches. Student Branches have been in the forefront for conducting various activities for benefit of its student members. Section regularly conduct Annual Branch counselors meeting.

ACKNOWLEDGEMENT

It gives me immense pleasure and a great sense of deepest gratitude in expressing my heartfelt thanks to all the concerned people without whom the successful completion of this Internship would not have been possible.

I would like to profoundly thank the **Management of Sri Krishna Institute of Technology [SKIT]**, for providing such a healthy environment for the successful completion of my Internship.

I would like to express my sincere thanks to **Dr. Mahesha K**, Principal of Sri Krishna Institute of Technology for his encouragement that motivated me for the successful completion of this Internship.

I wish to express my gratitude to **Dr. Nagana Gouda C Patil**, Professor and HOD, Department of ELECTRONICS and COMMUNICATION Engineering, Sri Krishna Institute of Technology, Bengaluru, for his valuable suggestions and support.

It gives me great pleasure in placing a record of deep sense of gratitude to my guide Prof. **SHWETHA R**, Assistant Professor, Department of Electronics and communication engineering for her expert guidance, initiative and encouragement that led me through my Internship.

I would like to express my gratitude to my external guide **Dr. Vivekananda Mishra, IEEE Bangalore section** for their constant support, expert guidance and for providing a good learning environment.

I would like to thank all the teaching and non-teaching staff members in our **Department of Electronics and communication**, Sri Krishna Institute of Technology, Bengaluru, for their support.

SAVIN PAUL (1KT19EC023)

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Chapter-1

ABOUT THE ORGANIZATION

1.1 HIGHLIGHTS

- Business Name: IEEE Bangalore section
- Business Address: Dr. Rajkumar Road, Malleshwaram, Bangalore, Karnataka, India
- Email: chair@ieeebangalore.org
- Tel: 180010334533
- Website: <https://ieeebangalore.org/>
- Area of Operation: Bangalore



Fig.1.1: Company Logo

Digging into the IEEE organization records uncovered a letter dated 15 Dec 1971, from Emily Sirjane, Manager, Membership services to Mr HB Shah, Bombay informing the approval of the petition to establish Bangalore Subsection of the India Section on 14 Dec 1971. The letter goes on to add that the territory of the new Subsection was all the state of Mysore. Mr PN Hiriannaiah, founder secretary/treasurer of Bangalore Section recounting the establishment of Bangalore subsection and initial activities said, "IEEE Bangalore sub-section was established at the instance of the then India Section and the initiative of two senior members, Mr L Subramanyam of Bombay Section and Dr HV Gopalakrishnan. When they thought about it, they wanted a firm ground to start and a dynamic person with professional attitude to take over the chairmanship. Hence Mr Ravi L. Kirloskar was approached and he not only accepted to become Chairman, but also contributed to its growth. He attended all the committee meetings and gave both secretarial help and financial support. The India Section found the growth

phenomenal. Bangalore sub-section was asked to host Annual Convention and Exhibition (ACE) during 1975, which turned out to be very successful with technical sessions at the premises of the Institute of Engineers and the exhibition at Banquet Hall of Vidhana Soudha.”

The number of members as on 31 Dec 1976 was 313 consisting of 240 higher grade members and 73 student. In comparison, as on 31 Dec 2000, membership stands at 1657 (Higher grade: 1188 and Students: 469). The higher grade members include 4 Fellows, 99 Senior members, 744 members and 341 Associate Members. There were 18 Life members in the higher grade members. IEEE Fellows who have belonged to the Section include Dr.M Ramamoorthy, Dr. M Vidyasagar, Prof MAL Thathachar, Prof LM Patnaik, Dr. Paulraj and Prof N Viswanadham and Prof. VU Reddy. Several IEEE awards for technical excellence were won by several members. Some of the notable awardees include by Prof LM Patnaik, Dr Anurag Kumar and Dr Kumar N Sivarajan.

Mr Ravi L Kirloskar became the Chairman of the India Council after Mr FC Kohli’s term. Later Mr PN Hiriyannaiah succeeded him. Prof. HP Khincha, Chairman of the Section during 1986-87 has been Secretary of Region 10, Chair of India Council and also held several IEEE Headquarters posts. Prof. H.P.Khincha, Prof. Lawrence Jenkins, Mr S Parameswaran, Prof. K Rajgopal, Mr SV Sankaran, Dr Surendra Pal and Mr KN Srinivasan were awarded IEEE Millenium medals. GOLD group was awarded IEEE Gold leadership recognition award during 2001. Several members received awards and recognition from other professional societies such as IETE.

The past 40 years constitute a period of strong growth in membership and a consolidation in activities. The Section is in very good financial health, and good precedents and traditions have ensured that it functions in a smooth and consistent manner. We have been fortunate in attracting a dedicated and talented group of volunteers to serve on the Executive Committee. Their involvement has guaranteed the type and quantum of technical activities that are mandated by the large and diverse membership, and holds out hope for the successful and fruitful operation of the Section in the future. Major concerns remain, the most important being the health and growth of student branches, and the establishment and running of society chapters. These are some of the challenges to inspire future office-bearers. The Section can look forward to becoming the leading IEEE section of India in the next 40 years.

Chapter-2

ABOUT THE DEPARTMENT

2.1 BACKGROUND AND CONTEXT

FBGs are typically used as a selective wave-length reflector. Fiber Bragg grating acts as spectral filters based on the Bragg reflection principle. The light usually reflects the narrow wavelength and sends all other wavelengths. When light is spread by periodic rotation of regions of the upper and lower refractive index, it is partially reflected in each interface between those regions. The power of coupling, and hence the reflection and transmission spectra at an angle of inclination, fiber geometry, and the refractive index (RI) of the surrounding medium are affected. There are a number of parameters in which FBG spectra have been shown, such as change in refractive index, bending of fibers, period of grating, excitation conditions, temperature, and length of fiber. The fiber Bragg grating separator (FBG) is an optical device that periodically changes the refractive index along the direction of propagation at the heart of the fiber. The basic property of FBGs is that they reflect the light in a narrow band centered around Bragg wavelength. There is a different structure of FBG such as uniform, chirped, slanted and long period. When light diffuses through FBG in a narrow band of wavelength, the total reflection occurs at the Bragg wavelength and the other wavelength is not affected by the Bragg derivation except for some side lobes present in the reflection spectrum. These side lobes can be suppressed using the coding technique. The reflection range depends on the length. In order to achieve high-efficiency long-range fiber connections, WDM is introduced.

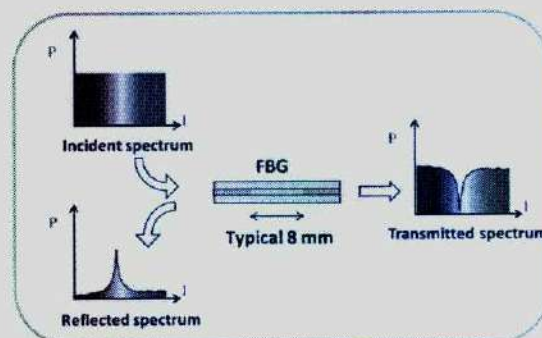


Fig 2.1: Working principle of FBG

Manufacture

Fiber Bragg gratings are created by "inscribing" or "writing" systematic (periodic or a periodic) variation of refractive index into the core of a special type of optical fiber using an intense ultraviolet (UV) source such as a UV laser. Two main processes are used: *interference* and *masking*. The method that is preferable depends on the type of grating to be manufactured. Although polymer optic fibers starting gaining research interest in the 2000s, germanium-doped silica fiber is most commonly used. The germanium-doped fiber is photosensitive, which means that the refractive index of the core changes with exposure to UV light. The amount of the change depends on the intensity and duration of the exposure as well as the photo sensitivity of the fiber. To write a high reflectivity fiber Bragg grating directly in the fiber the level of doping with germanium needs to be high. However, standard fibers can be used if the photo sensitivity is enhanced by pre-soaking the fiber in hydrogen.

Interference

This was the first method used widely for the fabrication of fiber Bragg gratings and uses two-beam interference. Here the UV laser is split into two beams which interfere with each other creating a periodic intensity distribution along the interference pattern. The refractive index of the photosensitive fiber changes according to the intensity of light that it is exposed to. This method allows for quick and easy changes to the Bragg wavelength, which is directly related to the interference period and a function of the incident angle of the laser light.

Sequential writing

Complex grating profiles can be manufactured by exposing a large number of small, partially overlapping gratings in sequence. Advanced properties such as phase shifts and varying modulation depth can be introduced by adjusting the corresponding properties of the subgratings. In the first version of the method, subgratings were formed by exposure with UV pulses, but this approach had several drawbacks, such as large energy fluctuations in the pulses and low average power. A sequential writing method with continuous UV radiation that overcomes these problems has been demonstrated and is now used commercially. The photosensitive fiber is translated by an interferometrically controlled air bearing borne carriage. The interfering UV beams are focused onto the fiber, and as the fiber moves, the fringes move along the fiber by translating mirrors in an interferometer.

Chapter-3

INTERNSHIP OBJECTIVES

3.1 The major objectives of internship are:

- To expose students to a particular job and a profession or industry.
- To provide students with opportunity to develop skills in the field of interest.
- To assist students in gaining vital work-related experience and building strong resume for bright career.
- To help students in developing business contacts i.e. creating network contacts.
- To help students potentially land permanent or contractual jobs from host company.
- To develop familiarity of current technologies, tools and implementation strategies.
- To introduce application areas, current practices and research activities.
- To understand Applications and Implementation strategies.

CHAPTER 4

ACTIVITES PERFORMED

The activities performed during the internship are:

4.1 Basic model and analysis

The analysis of the fiber Bragg grating are investigated to obtain a maximum reflectivity and minimum bandwidth, we discuss more than one case of different models of fiber Bragg grating; we will discuss in this section two models of fiber Bragg grating:

1. Uniform fiber bragg grating
2. Apodized fiber bragg grating

4.1.1 Uniform fiber bragg grating

The basic structure of the uniform fiber Bragg grating is illustrated in figure. As shown in figure, the refractive index of the core is modulated by a period of Λ . When light is transmitted through the fiber which contains a segment of FBG, part of the light will be reflected. The reflected light has a wavelength equals to the Bragg wavelength so that it is reflected back to the input while others are transmitted. The term uniform means that the grating period, Λ , and the refractive index modulation, δn , are constant over the length of the grating. A grating is a device that periodically modifies the phase or the intensity of a wave reflected on, or transmitted through it. The equation relating the grating spatial periodicity and the Bragg resonance wavelength is given by $\lambda_B = 2n_{eff}\Lambda$. Where n_{eff} the effective mode is index and Λ is the grating period.

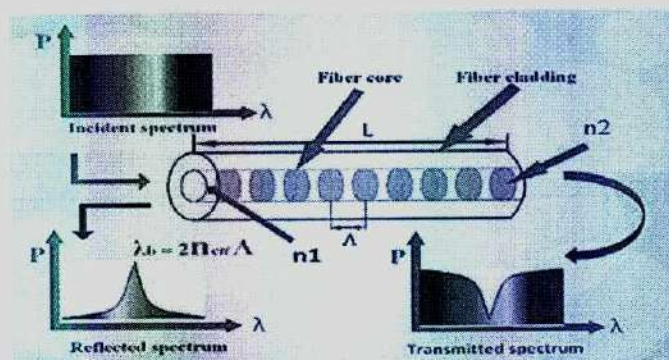


Fig.4.1.1: Basic structure of uniform grating

4.2 The proposed system

The proposed system aims to achieve maximum Reflectivity, narrow bandwidth without side lobes by using cascaded FBGs. It consists of four cascaded FBGs with four units. The reflectivity of each unit is derived related to of the first unit, where the reflected signal of each unit is the input signal for the new unit. This section shows a proposed model for cascaded n stages of FBGs. Analysis of this model is done by coupling theory. T Matrix 2×2 where FBG is divided into sections. Each section is shown in figure 4.2 where T is the length of each section and Λ is the space between reflected planes of each section where:

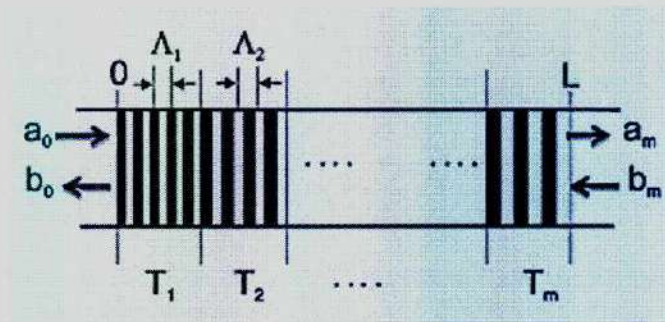


Fig.4.2: Fiber Bragg grating sections

4.3 Requirement Specifications

Software Used: Optiwave OptiGrating - Integrated Optical Grating Design Software

OVERVEIW: OptiGrating is a user friendly design software for modelling integrated and fiber optic devices that incorporate optical gratings.



Fig.4.3: OptiGrating Software

CHAPTER 5

WORK SAMPLES

5.1 Simulation results and discussion

5.1.1 Cascaded uniform fiber bragg grating

We will simulate the spectral characteristics of the cascaded uniform fiber Bragg grating as in figure. In this simulation the modulation index, $d_n = 0.0003$ and grating length $L = 5$ mm. from figure we noted that as the number of cascade of fiber Bragg grating is increased the bandwidth is decreased and the side lobes are also decreased but reflectivity is decreased.

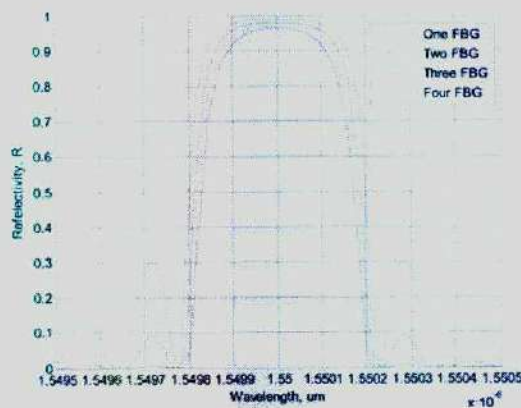


Fig 5.1.1 Reflectivity spectrum for four stage uniform fiber Bragg grating

5.1.2 Hamming apodized cascaded fiber Bragg grating

We will simulate the spectral characteristics of the cascaded Hamming apodized fiber Bragg grating as

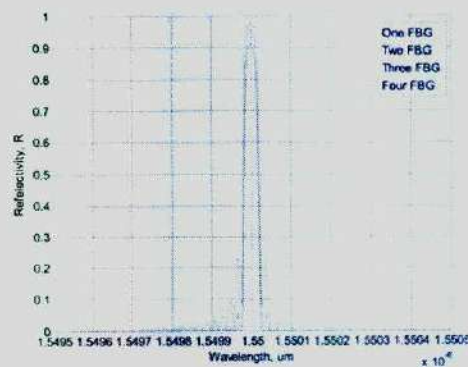


Fig 5.1.2 Reflectivity spectrum for four stage Hamming Apodized fiber Bragg grating.

5.1.3 Barthan apodized cascaded fiber Bragg grating

We will simulate the spectral characteristics of the cascaded Barthan apodized fiber Bragg grating as

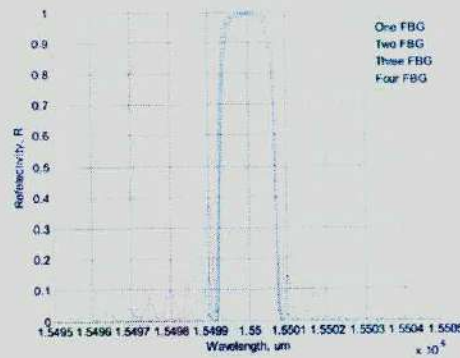


Fig 5.1.3 Reflectivity spectrum for four stage Barthan Apodized fiber Bragg grating.

5.1.4 Proposed apodized cascaded fiber Bragg grating

We will simulate the spectral characteristics of the cascaded Proposed apodized fiber Bragg grating as

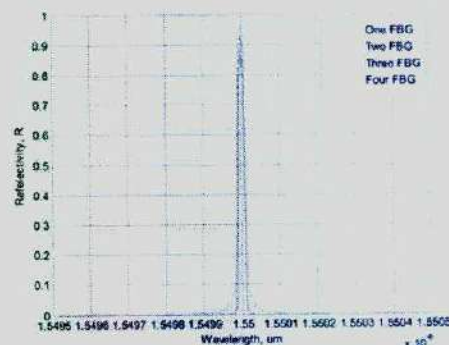


Fig 5.1.4 Reflectivity spectrum for four stage Proposed Apodized fiber Bragg grating.

In this simulation the modulation index, $d_m = 0.0003$ and grating length $L = 5$ mm. from we noted that as the number of cascade of fiber Bragg grating is increased the bandwidth is decreased and the side lobes are also decreased but reflectivity is decreased for three cascaded units from fiber Bragg grating the reflectivity, $R = 90\%$ and bandwidth = 0.0084 nm but side lobes is decreased and for four cascaded units from fiber Bragg grating the reflectivity, $R = 87\%$, bandwidth = 0.0081 nm and approximately no side lobes. Then we concluded that Reflectivity, $R = 87\%$, bandwidth = 0.0081 nm and the minimum side lobes is achieved at the fourth unit of cascaded fiber Bragg grating.

CHAPTER 6**REFLECTION NOTES**

I thoroughly enjoyed my internship and now have very valuable experience under my belt. I know this will help when looking for jobs and needing references. I was dreading it in the beginning, but now I am so happy it was required. As much as the curriculum changes, I hope that class remains constant. We all know that practical experience is the best, and internships give students that hands-on experience they need. I feel that quality internships are essential to develop key skills that you can't get in a classroom. Skills such as multitasking, communicating, learning to deal with diversity, and dealing with deadlines are different when you are working for someone else, not yourself like you do in college. Internships are also a great way to network with people in the industry. My boss and co-workers were great about giving me contacts and referring me to open positions in the industry. I learned about the various policies followed in the company and their work culture.

In IEEE Bangalore section I learned that, continuous practice can make the tasks easier, reduce the commitment of errors and hence the activities are performed smoothly. The internship provided me with the opportunity to gain hands on work experience which I did not get from the class room. I got a chance to prove the worth of my qualification and to show that I am capable of performing the role I had been assigned. Most of the important aspects that I have learned is to active listening, clarify your doubts without any hesitation and pay attention when others are talking. Body language is most essential aspect in corporate world, the way we walk, talk, greet and sit everything matters. Time management is important in the workplace to get higher productivity. It is important to build healthy and dedicated working environment. Time management is the way that we organize and plan, 'time spent on specific activities. Spending a time, learning about time management techniques will have huge benefit.

CONCLUSION

As a conclusion, can say that this internship was a great experience. Thanks to IEEE Bangalore section, which helped acquired deeper knowledge concerning my technical skills, but also personally benefited. Currently fiber bragg grating has enormous prosperity in optical fiber communication . There are huge opportunities available for the students who want to work in this field. With the rapid advent of industry, the demand of electronics and communication engineers is increasing, and this has created a huge job opportunity for the aspirants in the upcoming days.

Fiber Optics are basically used in the transfer of data and information and is more commonly used in the field of telecommunications. It is also used in networking when the area of networking is very vast. In recent times, however, the use of fiber optics technology is used in the transfer of industry data and systems of communication. Industrial data have been usually very intricate and extensive which needs to be transported error free and that is why the use of fiber optics is becoming very useful in this industry. Moreover, the use of fiber optics technology in the transfer of industrial data is extremely advantageous as it allows the transfer of high volume of data which is free of noise and is characterized by electrical isolation. The use of fiber optics technology is also very common in the commercial telecommunications systems.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590018



Internship Report

on

Automated Greenhouse

**For the requirement of 4th Semester B.E in Information Science and
Engineering**

Submitted By

CHINMAYLN(1KT21IS011)

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CERTIFICATE

This is to certify that **CHINMAYLN(1KT21IS011)** student of Sri Krishna Institute of Technology, have successfully completed the Internship on “**Automated Greenhouse**” impartial fulfillment for 4th semester B.E in Artificial Intelligence and Machine Learning of Visvesvaraya Technological University, Belagavi during the year 2022-2023.


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ACKNOWLEDGEMENT

Any achievement does not depend solely on the individual effort but on the guidance, encouragement and co-ordination of intellectuals, elders and friends. A number of personalities, in their own capacities have helped us carrying out this mini project work. We would like to take this opportunity to thank them all.

This completion of mini project work brings a sense of satisfaction, but it is nevercomplete withoutthanking the person responsible for its successful completion.

Firstly ,I would like to thank our Management for all the support. I extend my deep sense of sincere gratitude to Principal **Dr.Mahesha K**,SKIT,Bangalore,for providing us an oppurtunity to continue our higher studies.

I express my sincere gratitude to **Dr. Hemaltha.L**, professor and HOD, Departmentof Artificial Intelligence and Machine Learning, Sri Krishna Institute of Technology, Bangalore, for her valuable suggestions and support.

I extend my special in-depth, sincere gratitude to my guide **Mrs.Vani.B.A** Assistant Professor, Department of Artificial Intelligence and Machine Learning, Sri Krishna Institute of Technology, Bengaluru, for her constant support and valuable guidance for completion of the mini project work.

I would like to thank all the teaching and non-teaching staff members in my Department of Artificial Intelligence and Machine Learning, Sri Krishna Institute of Technology, Bengaluru, for their support finally, we thank our parents and friends for their moral support.

Name of student

CHINMAYLN (1KT21IS011)

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ABSTRACT

This project is aimed at developing an Automated Green House that helps manage the crops planted by a farmer. It helps in monitoring the plants closely. It helps the farmer in taking care of the plants remotely. This device can also be used by amateurs who have zero experience in taking care of plants. The device is modular so can even be implemented both in small scale and in large scale. The greenhouse, a crucial component of agricultural infrastructure, has been instrumental in the advancement of modern agriculture by providing plants with a healthy environment. Manually monitoring and managing the many settings is challenging. Maintaining production quality is another important responsibility. This study proposes an automated greenhouse monitoring and control system that uses a variety of sensors, including temperature, soil moisture, light, photoionization, and soil moisture sensors, to collect potential environmental parameters of the greenhouse and integrate Arduino Uno R3 (to store and process data). The goal is to create a system that would concentrate exclusively on the cultivation of papaya, cucumber, tomato, and brinjal. The outcomes will be a fully comprehensive

CHAPTER 1

INTRODUCTION

In this fast moving world we don't have time to spend on others not even with ourselves. The Earth's atmospheric temperature is increasing we have created a solution for both, this Solution is the Automated Green house which can take care of the plant all by itself. No need to spend time on watering plants and the environment gets the benefit too.

1.1 GREEN HOUSE EFFECT

- The greenhouse is a system for environmental modification and management that allows plants to be grown in climates and seasons that would not otherwise be well suited for their growth.
- Greenhouses can be used to grow many different kinds of plants with a wide range of environmental requirements from tender rainforest plants to desert succulent and just about everything in between.
- The purpose of this course is to familiarize you with the various systems, and the day to day management, of the greenhouse environment. And, to help you maintain more or less optimal conditions for growth of whatever type of plant or plants you choose to grow in your greenhouse.
- Our goal is to present the information in such a way that it is useful to anyone wishing to acquire greenhouse management skills— whether you are a student, an entry level professional, or an amateur gardener
- The information presented in this course is provided from the point of view of John Kumpf, who has been a professional greenhouse manager for over 40 years at the research and teaching greenhouses of the Department of Floriculture and Ornamental Horticulture at Cornell University. Over the years, John has worked closely with a long line of Cornell Floriculture Professors, greenhouse staff, students, and others, to facilitate their research and teaching objectives by providing the highest possible quality of greenhouse grown plant material.

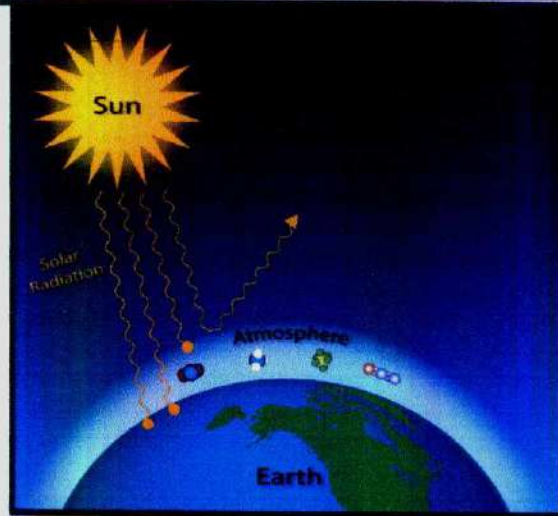


Fig. -1.1 Green House Effect

1.2 PRELUDE

- The environmental factors that must be understood and managed for the production of quality plant material in the greenhouse include both the above and below ground physical environment as well as the biotic environment. The physical environment includes light, water, temperature, inorganic nutrients necessary for plant growth. The **biotic environment** includes the plants themselves as well as the insects, microorganism and other creatures.

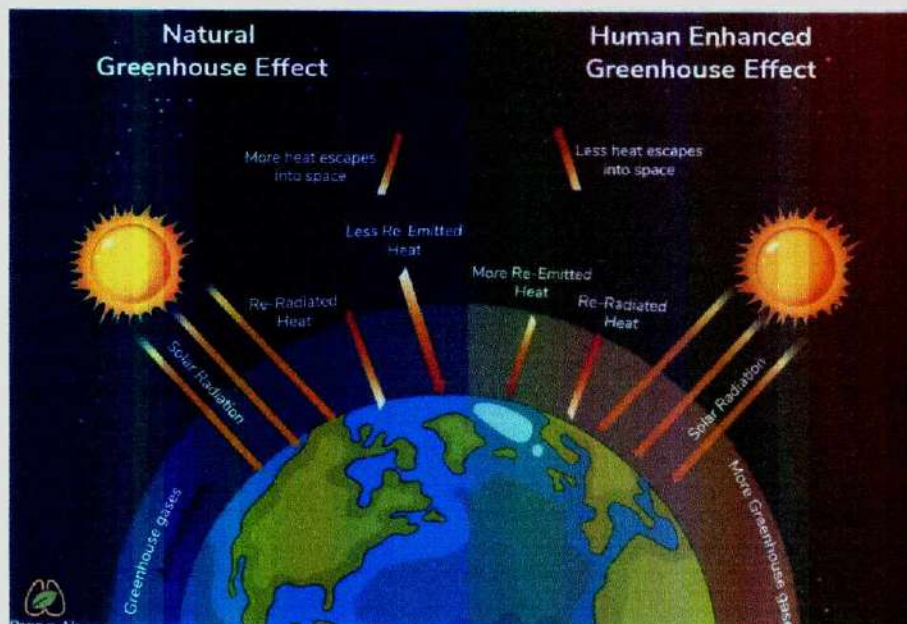


Fig.1.2 Human enhanced Green house effect

The word **greenhouse** can be used interchangeably with the terms **glasshouse** and **hothouse**, depending on the building's material and heating system. Buildings today are more commonly referred to as *greenhouses* because they can be constructed of a variety of materials, like wood and polyethylene plastic. A glasshouse, on the other hand, is a

more traditional style of greenhouse that is only constructed with panes of glass to allow light into the building.¹ The term *hothouse* implies that the greenhouse is heated through artificial means; however, both heated and unheated structures can be defined generally as greenhouses. Greenhouses can range in size from small sheds to industrial-sized buildings and enormous glasshouses. The smallest example is a miniature greenhouse known as a **cold frame**, typically used at home. Whereas large commercial greenhouses are **high tech** production facilities for vegetables, flowers or fruits. The glass greenhouses are filled with equipment including screening installations, heating, cooling, and lighting.

1.3 OBJECTIVE

To gauge and keep an eye on the many greenhouse factors, such as temperature, soil moisture, light, and dangerous gasses, and to make adjustments as necessary to meet the needs of the crop in order to maximize and accelerate growth Yield.

1. To maintain greenhouse temperature at roughly 26.625 °C (which is average optimal Temperature for crops chosen)
2. To maintain a greenhouse's ideal soil moisture percentage at 63.75 (which is average optimal humidity for crops chosen) keep the researched vegetable species' estimated light compensation level of 6 J cm² per day.
3. To automatically water the plants whenever moisture content in the soil falls low.

1.4 LITERATURE SURVEY

Greenhouse Using an Arduino system, a monitoring and control system, 2019 This study aims to support small-scale farmers' convenience and ease of plant growth. Small farmers will be able to grow healthy crops all year long with little oversight according to the suggested method. Monitor changes in temperature, humidity, and light intensity using this system.[2] The creation of an automated system for managing a greenhouse.

The automation system demonstrates how it might reduce yearly water usage. Automation must also take into account the needs of the plants and not merely focus on lowering water usage. Only the benefits of the automated system in terms of lowering consumables, like water, have been mentioned in this study.

Microcontroller-Based Intelligent System for Monitoring and Controlling the Environment in Greenhouses The monitoring and control system for greenhouse farming is described in this

research as being straightforward and intelligent. With a sensor array and autonomous operation, the system tracks crucial greenhouse parameters in real-time.

Analysis and Prediction of Crop Greenhouse Parameters Journal of Computer Applications International, IEEE. The parameters of the crops' greenhouses are examined using a variety of sensors. Cucumber, tomatoes, brinjals, papaya, and other crops were chosen for analysis. The necessary ideal range of greenhouse characteristics for each of these crops is also taken into account simultaneously.

CHAPTER 2

SYSTEM REQUIREMENTS

2.1 SOFTWARE REQUIREMENTS

The software mainly used here is arduino code editor using this the code was edited. The software was used to run codes directly on the uno board. It was used to dump codes on it.

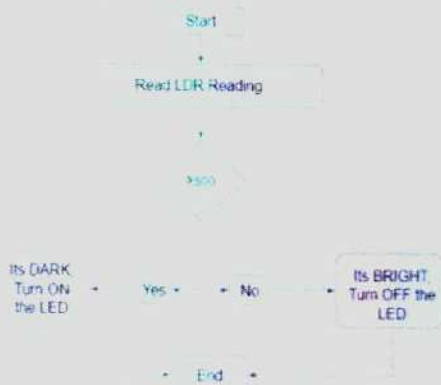


Fig.:2.2 Light Sensor Working

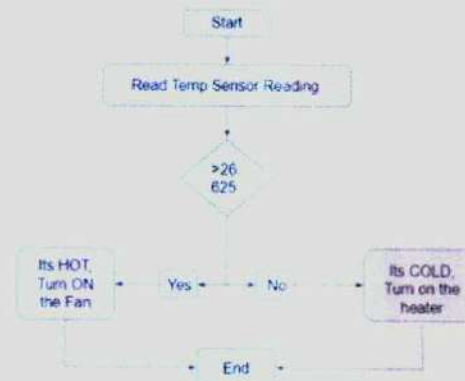


Fig.:2.3 Temp Sensor Working

The Temperature and Light sensors are dependent on the external factors and they need module to be installed to run on the arduino.

2.1 HARDWARE REQUIREMENTS

1. *Temperature Sensor:* The system automatically activates the fan when the temperature exceeds a predetermined or critical level. On the other hand, the fan automatically shuts off if the detected temperature falls within the usual range or below the set level. a temperature sensor, in which the IC LM35 serves as the main component, has been employed.
2. *The LM35 gadget operates between 55 and 150 degrees Celsius.:* he operational voltage ranges from 4V to 30V, with the ideal temperature ranges being 18o-24oC (64o-75oF) and 30°F to 54°F (1°C to 12°C).
3. *Light Sensor:* In a greenhouse system, light intensity is another key factor. Crop growth requires the right amount of light intensity. Changing light levels could have a negative impact on plant growth and reduce production. The light sensor module has an LDR

- that measures light intensity. Low light intensity is addressed by the use of artificial lights.
4. **Humidity Sensor:** For the production of any crop, relative humidity is a crucial climate parameter. The greenhouse system that has been proposed has been implemented using humidity sensor units, or HSU-07 Series. It operates between 0 and 7 volts. -20 to +60 °C is the operating temperature range. Operating humidity is 20 to 90% relative humidity, specifically 80%. Ratio of Humidity
 5. **Soil Moisture Sensor:** The soil's moisture content was ascertained using a soil moisture sensor. The amount of moisture in the soil can be determined by inserting two soil moisture sensor probes into the ground.
 6. **Electric motor pump:** The Motor pump is used an actuator to pump water from its source towards the plants.
 7. **Arduino Uno R3** is used. It has 6 analogue inputs, a 16 MHz crystal oscillator, 14 digital input/output pins (six of which can be used as PWM outputs), a USB port, a power jack, an ICSP header, and a reset button. All of these modules are required to support the microcontroller, which can then connect to the computer through a USB cable or be powered initially by a battery or an AC-to-DC adapter.
 8. **LCD (Liquid Crystal Display) Module:** Used to display the parameters to the user. In this system, we have used a 20×4 LCD and its operating voltage is 5.



Fig:2.1 Adruino R3

CHAPTER 3

IMPLEMENTATION

CODE

The code given below is implemented to the interfacing and working of all components present in this project:-

```
#include<DHT.h>
#include<LiquidCrystal_I2C.h>
DHT dht(2, DHT11);
int temp;
int humidity;
const int Moisture_pin =A0;
int r=7;
int sens=8;
const int LED_SENSOR_PIN=8;
const int LED_PIN=3;
const int analog_THRESHOLD=1000;
int analogValue;
LiquidCrystal_I2C lcd(0x27,16,2);
void setup()
{
dht.begin();
lcd.init();
lcd.backlight();
pinMode(sens,INPUT);
pinMode(7,OUTPUT);
Serial.begin(9600);
Serial.println("Measuring soil Moisture level");
pinMode(Moisture_pin,INPUT);
pinMode(LED_PIN,OUTPUT);
delay(1000);
}
```

```
void loop()
{
  delay(1000);
  temp = dht.readTemperature();
  humidity = dht.readHumidity();
  lcd.setCursor(0,0);
  lcd.print("Temp:");
  lcd.print(temp);
  lcd.print("C");
  lcd.setCursor(0,1);
  lcd.print("HUMIDITY:");
  lcd.print(" % ");
  int Moisture_level= map(analogRead(Moisture_pin),0,1023,100,0);
  if(digitalRead(sens)==HIGH)
  {
    digitalWrite(7,HIGH);
    delay(1000);
  }
  else
  {
    digitalWrite(7,LOW);
    delay(1000);
  }
  analogValue= analogRead(LED_SENSOR_PIN);
  if(analogValue<analog_THRESHOLD)
  {
    digitalWrite(LED_PIN,HIGH);
  }
  else
  {
    digitalWrite(LED_PIN,LOW);
  }
}
```

CHAPTER 4

RESULTS

The following results were obtained after the code implementation



Fig:4.1 Automated Greenhouse

The following results were obtained from the Automated Greenhouse

- The LCD display displays the humidity and temperature inside the Greenhouse
- The Motor pump waters the plants whenever the moisture content in the soil is shown to be low
- The Fan turns on whenever the temperature is low.
- The light bulb turns on whenever the light intensity is known to be low.

CONCLUSION

In this study, a streamlined, clever monitoring and controlling system for greenhouse farming is described. The greenhouse gas level as well as changes in temperature, humidity, and light intensity could all be tracked by the greenhouse's monitoring and control system. Based on the many changes in the environment, the various sensors were able to adjust. This study aims to support small-scale farmers convenience and ease of plant growth. Small farmers will be able to grow healthy crops all year long with little oversight according to the suggested method.

Since temperature is the most important factor to consider while monitoring a greenhouse, this project will help us control the temperature. The technology turns on the fan automatically when the temperature exceeds a preset or critical threshold. On the other hand, the fan automatically shuts off if the detected temperature falls within the usual range or below the set level.

Crop yield is influenced by humidity levels, which can be measured and tracked in the system. For healthy plant growth, soil moisture is crucial. Using a soil moisture sensor, it has been determined. The amount of light present is crucial in a greenhouse setup. Crop growth requires the right amount of light intensity. Variations in light intensity may negatively impact plant development and reduce output. To fix the low light intensity issue within the greenhouse, artificial lights are utilized.

Artificial lights automatically come on when a defined level of light intensity is compared to a lower level. The artificial lights automatically turn off when the ambient light intensity is within a typical range.

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SUMMER INTERNSHIP (21INT36)



DRONES FOR AWARENESS

PROJECT REPORT

Submitted by

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1KT21AI011
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1KT21ME003

Under the guidance of
Mr. K Uday Bhargav
Founder - GenEd Technologies

Along with partial fulfilment as Internship Opportunity by
DRONE INTERNSHIP 2021-22

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01 - INTRODUCTION

Significance of Drones

Drones (Unmanned Aerial Vehicles) is an electronic device which is remote control based aircraft used to achieve device vertical flight with stability. Drones are used in a wide variety of endeavors including search and rescue, surveillance, traffic monitoring, weather monitoring, geographical mapping, agriculture and firefighting. Also reduces the cost of micro controller so that general public can design their own drone. Drones generally include a frame, flight control boards, motors, electronic speed controllers, a transmitter, a receiver, battery. It is also called as a Quadcopter. Drones also have the ability to hover and maintain its balance and stability. Drone can accept load disturbance up to 500g or 1Kg depending on the materials used and its state along with its flight capacity using the propellers. Maximum operated time of drone can be around 6 minutes using 3200mAh battery but generally that is not the case, its operation/ flight time can be improved by implementing certain automation algorithms that use logic and predetermined flight patterns to lower the battery used and stress managed by the system.

A Quadcopter or a drone is an aerial vehicle that uses four motors for lift, steer and stabilize. Unlike other aerial vehicles, the drone can achieve vertical flight in a more stable condition as regarding to its smaller size among other various factors that contribute. Furthermore, due to the drone's cycle design, it is easier to construct and maintain. As the technology becomes more advanced and more accessible to the public, many engineers and researchers have started designing and implementing drones for different uses. Also known as quadrotor, a helicopter with four rotors. The rotors are directed upwards and they are placed in a square formation with equal distance from the center of mass of the drone. The drone is controlled by adjusting the angular velocities of the rotors which are spun by electric motors. Drone is a typical design for small UAV because of the simple structure. Drones are used in surveillance, search and rescue, construction inspections and several other applications.

Goal of our project

One of the important application is creating Awareness. Awareness is a much needed application when it comes to the security and prevention of various critical things including harsh weather and rescue of flood survivors to name a few. Also used for surveillance, for security operations in the army. In the past, helicopters were used for these types of missions. Recently, Drones are utilized for surveillance missions. The Unmanned Aerial Vehicles are helpful to observe, analyse and get information and transfer it to base station. UAVs are able to perform missions with high level complexity and at the same time, they requires less human operator involvement due to their autonomous behaviour.

02 - PROBLEMS IDENTIFIED

**from self-driven public surveys*

Our TEAM ALPHA have conducted a survey that shows many things our proposed project can solve. One of the many problems we found is for creating awareness when huge displays or loudspeakers cannot reach or in the critical situations when these cannot be used and addressing a huge group of victims and show them the path to save their lives or atleast get to a safe place or to find a source of food and place for refuge when natural calamities or man-made ruin situations occur. Also to address the problems that occur when no route available to save the victims of disasters like house on fire.

The cruciality of safe and economic social infrastructure lies in the fact that unsafe conditions can cause regrettable accidents leading to the loss of life and other resources.

Natural calamities and disasters may not be in control of humankind. Notwithstanding can control the aftermath effects of these unfortunate occurrences to some extent. It is not a palpable and perspicuous task to offer relief for the wounded and injured on account of the disaster.

2.1 - SOLUTIONS PROPOSED

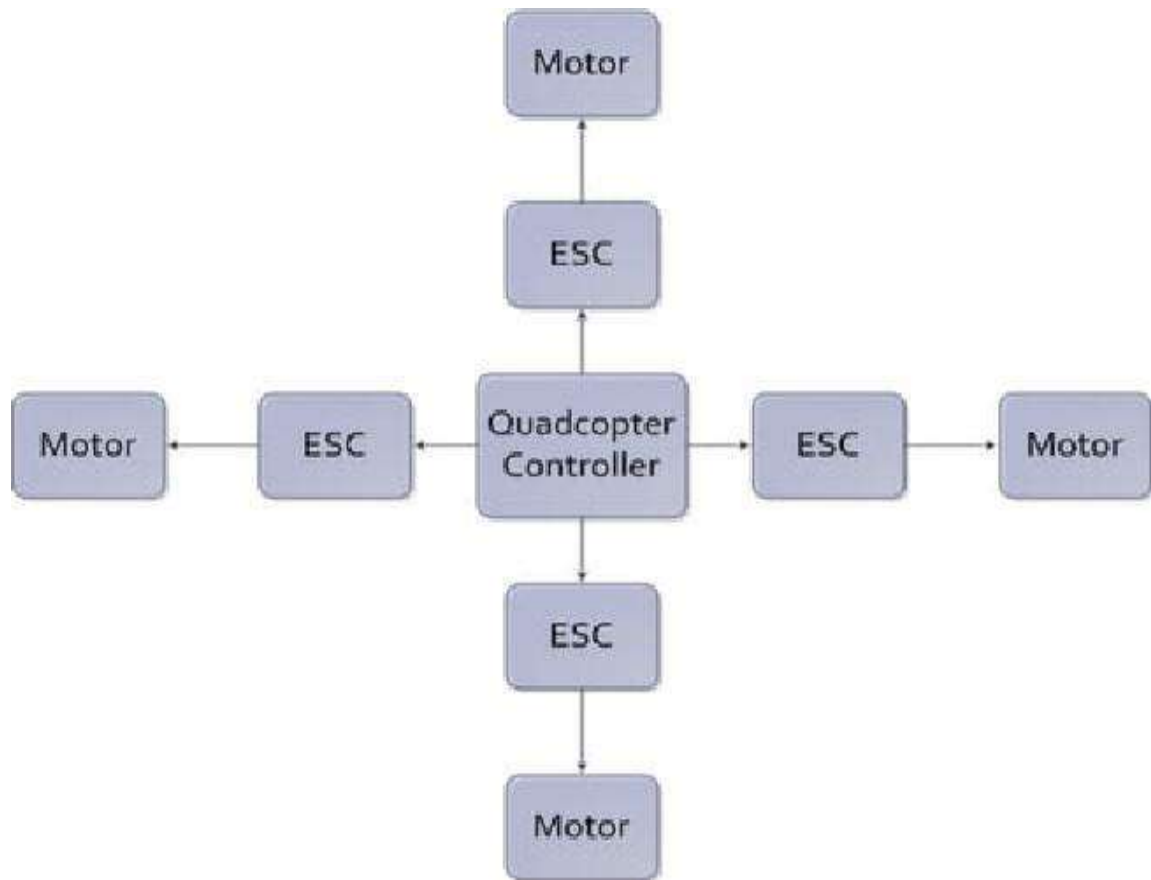
Drones can become a very significant part of a rescue operation through many functions that these UAVs have to offer. Includes pre-recorded announcements that can be played repetitively and further, these can be flid in a pre-trained flight path which the drone follows and efficiently and perfectly lands on the exact spot where it was lifted off or to a new location.

As a second point, we would like to mention the usage of heavy-glow LED notice panels for carrying a visual message using the airways where other means are inaccessible at a certain location. This would hugely help the lost people and the people to be rescued to know that there are other looking for them and they shall be rescued. Furthermore, in the same situations, they can be modified and addons can be used even to receive the messages from victims too.

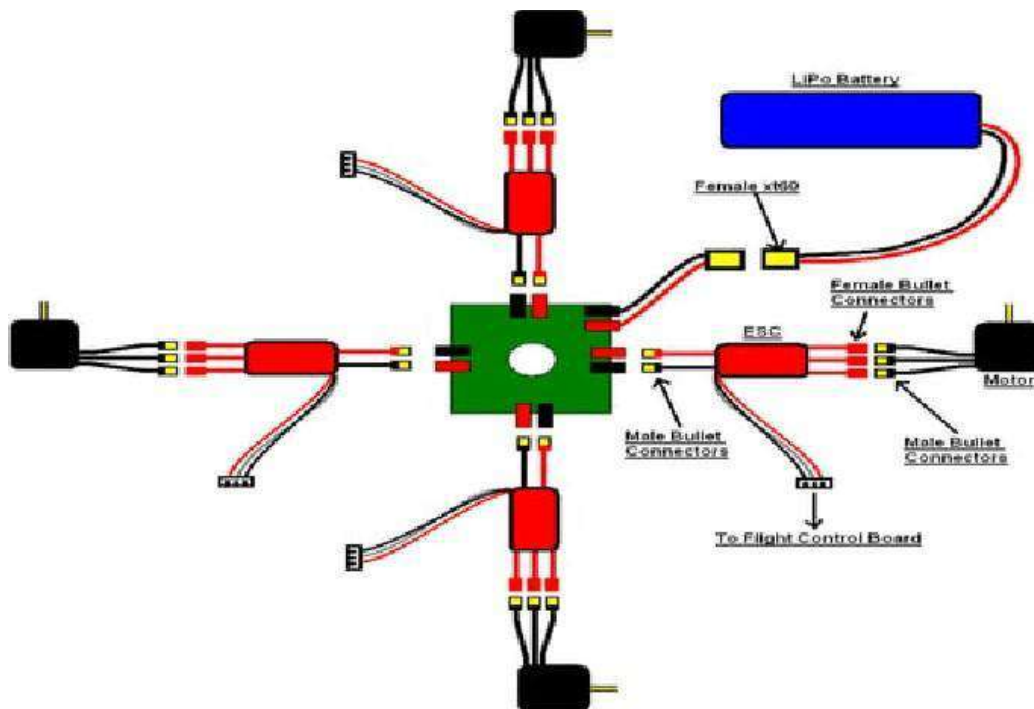
Timely checks for public infrastructure maintenance through features that drones have to offer does save time, effort and cost massively. In this way, the cost can be saved and used in other crucial parts of mission/work.

These drones can also be used as a grand additional welcome method for guests when welcoming them into the venue. Using flowers, glitter, color papercuts and many more

03 - BLOCK DIAGRAM & BASIC LAYOUT



A basic schematic representation of the project in the view of a flowchart.



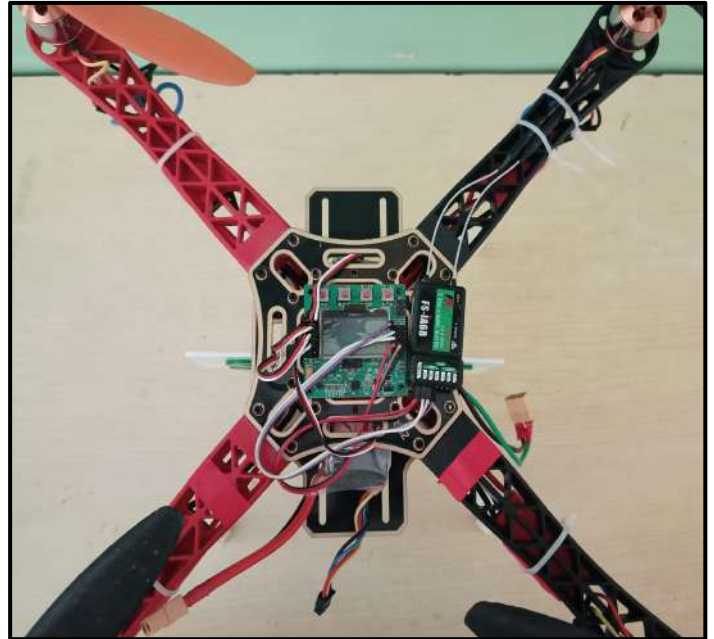
A basic graphical layout of a simple drone circuit.

04 - COMPONENTS USED

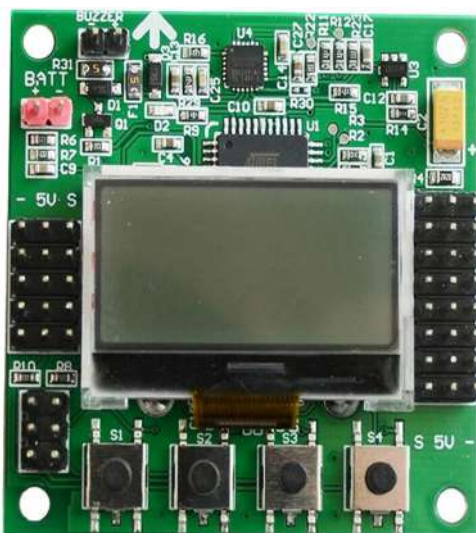
The great things that made this project possible

01 - The Frame.

The most important part of the drone is its skeleton that holds everything intact -- Frame. As the name indicates, the copter has 4 arms. The frame should be light as well as rigid to host a LIPO battery, 4 BLDC motors, 4 ESC, controller. Good to go for a readily available stronger Carbon Fiber material such frame which is easy to assemble. The frame arms are made of ultra strength material to survive any crash. The frame boards are high strength compound PCB frames, which makes wiring of ESCs and battery more safe and easier. Different colour codes helps know the orientation of the Drone. which we have implemented using the color codes RED and BLACK to indicate forward and backward faces of the drone.`



02 - KK Board.



The most common control board widely used is KK control board. The models available are KK2.0, KK2.1.5 &KK2.1HC. The KK2.1.5 Multi-rotor controller manages the flight of multi-rotor Aircraft (Tricopters, Quadcopters etc). Its purpose is to stabilize the aircraft during flight. It is easy for the beginner to start with and has firmware predefined in it. While activating or turning off the board there is beep from the piezo buzzer of KK2.1.5. It has inbuilt gyroscope, 6050MPU, and auto level function. This board has 8 motor outputs, 5 control inputs, an LCD display, polarity protected voltage sensor input, an ISP header, six-axis accelerometers or gyro and a piezo output. The user signals from KK board are processed by ATMEL 664PA IC and then passed to the ESCs for action.

03 - The BLDC Motor.

High speed operation – A BLDC motor can operate at Speeds above 10, 000 rpm under loaded and unloaded conditions.

Responsiveness – Inner rotor Brushless DC motors have low rotor inertia, allowing them to accelerate, decelerate, reverse direction quickly.

High Power density – BLDC motors have the highest running torque per cubic inch of any DC motor

High Reliability – BLDC motors do not have brushes, meaning they are more reliable and have life expectancies of over 10,000 hours. This results in fewer instances of replacement or repair overall down time for your project.



04 - ESCs.



Electronic Speed Controllers (ESC) are an essential component of modern drones that offer high power, high frequency, high resolution 3 phase AC power to the motors in an extremely compact miniature package. These craft depend entirely on the variable speed of the motors driving the propellers.

This wide variation and fine RPM control in motor/prop speed gives all of the control necessary for a drone (and all multirotor) to fly. The ESCs are simply a brushless motor controller board with battery input and a three phase output for the motors. For the control it is usually just a simple PPM signal (similar to PWM) that ranges from 1ms (min speed–turn off) to 2ms(max speed) in pulse width, The frequency of the signals does also vary a lot from controller to controller.

05 - Transmitter-Receiver Set.

You need a RC Transmitter (2.4 GHz RC radio transmitter) to direct the quadcopter direction and position, A 2.4-GHz RC radio receiver on the quadcopter receives commands from the RC transmitter on the ground. (One way link). You get a Receiver along with the corresponding Transmitter. The transmitter is the hand-held controller you use to remotely control your craft. The transmitters have two sticks, two trim buttons or a slider per stick, a number of switches, a display, and a power button. Transmitters and receivers need a frequency range to operate and the new frequency range is 2.4 GHz, with digital spectrum modulation 2.4 GHz is the Radio band which needs no license to operate.



06 - The Propellers.



A propeller is a specific type of fan wings that converts rotational motion into thrust and transmit the generated power. Drone propellers provide lift for the aircraft by spinning and creating an airflow, which results in a pressure difference between the top and bottom surfaces of the propeller. This accelerates a mass of air in which one direction, providing lift which counteracts the force of gravity. Drone propeller blades are most commonly constructed from plastic or carbon fiber. Propellers are devices that transform rotary motion into linear thrust. The drone propeller provides lift for the aircraft by spinning and creating an airflow, which results in a pressure difference between the top and bottom surfaces of the propeller.

07 - Batteries.

Lithium Polymer—LIPO are a type of rechargeable battery that has taken the electric RC world by storm, especially for Quadcopters. They are the main reason electric flight is now a very viable option over fuel powered models. LI- Po batteries are light in weight & hold huge power in a small package. They have high discharge rates to meet the need of powering quadcopters. Remember LiPo batteries are much expensive & have life time of only 300 to 400 charge cycles. Special care to be taken to Charge, discharge or store the LiPo. Because of the volatile electrolyte used in LiPo they can burst or catch fire easily when mishandled.

RC LiPo battery packs will have at least two or more cells hooked up in series to provide higher voltages, So a 11.1 v battery, which is widely used , has 3 cells x 3.7 volts. Capacity indicates how much power the battery pack can hold and is indicated in milliamp hours (mAh).

A 3200mAh would be completely discharged in one hour with a 3200 milliamp load placed on it. If this same battery had an 1100 milliamp load placed on it, it would take 2 hours to drain down.

To increase your flight time use more capacity battery like 3000mAh, Li-Po batteries can be found in packs of everything from a single cell (3.7V) to over 10 cells (37V). The cells are usually connected in series, making the voltage higher but giving the same amount of amp-hours.

Discharge rate is simply how fast a battery can be discharged safely, In the RC LiPo battery world it is called the "C" rating, Remember to never discharge a LiPo battery below 80% of its Overall Capacity.



05 - THE FINAL PRODUCT & WORKING

"Quality is not how good the product is, but it is what the user gets out of it"



Our final product of the Drone Awareness Project in real.

Working. Our Secret.

As the Lithium-Polymer battery is plugged into the power distribution board of drone, FCB is turned ON. Before this, the Transmitter should be in ON condition, if not ERROR can occur in FCB and it may declare an unsafe state. Resulting in malfunction condition in the FCB board. The algorithms baked into the FCB board at the manufacture time, protects the board by not accepting commands when the board it switched to UNSAFE state. It just refuses to get ARMED. After switching ON the FCB and the Transmitter, the Receiver test is done to make every channel that is Aileron, Throttle, Elevator, Rudder, Aux equal to " 0 ". The FCB board display then switched to ARMED and that is when the system is ready for accepting commands for takeoff and land thereafter. Now on completing the receiver test, the K.K 2.1.5 board can be ARMED so that all 4 motors rotate with equal orientation and speed.

It is primarily important to remember and fix the propellers in a particular method required for it to manage its altitude effectively. Now increase the throttle using Transmitter (controller) to stabilize the motor's speed and take a flight.

After the drone is made ready to take off, we can have a rugged but lightweight drone suitable material attached to the base of the drone. The message board to be suspended to the lightweight support material used. The message to be noticed must be large enough so as to be noticed from the targets(people) on the ground as that is the primary goal of this project, to deliver the required information/message from the person ready to help to the person in need of the help.

06 - POSSIBLE FURTHER ENHANCEMENTS

A small note on how to utilize our drone effectively for particular use cases.

The project that we have developed, does address most of the difficult scenarios that we found to be almost next to impossible without our solutions.

But We understand all use case situations probably will not be the same so this note is for knowledge of the user to feel free to add further addons to best suit their particular situation they are going through and to promote that our drone can be the best solution for them along with the proper materials used with this product.

Generally, usually the drone are meant for non-humidified atmosphere for efficient flight. Our project being water resistant enough, we recommend to have a waterproof case for the main part of the drone i.e, the logic boards (referring to the KK board and Receiver along with ESCs) as they rarely may malfunction in case of humidity more than the specified limit.

All limitations and Safety Precautions of the drone shall be included when we release this product out to the public. Rules and regulation to be followed for safe and effective use. We have thought of user safety to include this note as we will not be in any way responsible for the use our product might be used for.

The unique character and ability of drones to safely access remote, inaccessible regions for information gathering or delivery open up a whole new world of possibilities for mankind to use drones. With the advancement of technology, today, drones integrated with machine learning solutions are capable of precisely mapping natural features, as well as, performing reconnaissance and border surveillance as well. Modern-day drones are also increasingly to monitor ecologically fragile areas and keep it safe from human trespassing.

With the evolution of regulations, our future forecast includes drones headed for new heights in the business world too. The same safety, efficiency and cost benefits that appeal to the military make drones attractive for a wide range of business and civil government functions. The \$125 billion market opportunity we forecast over the next few years is just the tip of the iceberg. Drones' full economic potential is likely to be multiple times that number, as their ripple effects reverberate through the economy.

Besides the simple entertainment factor of remote-controlled vehicles, personal drones have in the past most often been used for still and video photography -- the devices can achieve vantage points that are difficult or impossible to access otherwise. Potential applications for personal drones include home security, child monitoring and the creation of virtual tours, among a great number of other possibilities. Programmable drones are expected to create a further market for specialized Android or IOS Mobile apps.

07 - COST STRUCTURE

Detailed Estimate of Overall Project Cost Structure

Sl. No.	Component	Cost (in Rs.)
01	Carbon Fiber Frame <i>Rs. 400 * 2 Sets of 2 arms each</i>	800/-
02	KK Board <i>Rs. 500 * 1 Board</i>	500/-
03	Transmitter & Receiver Set <i>Model: FS-i6 Single Set - Rs. 5000</i>	5,000/-
04	BLDC Motors <i>Rs. 500 * 4 Motors</i>	2,000/-
05	ESCs <i>Rs. 200 * 4 Units</i>	800/-
06	Connecting Probes <i>Rs. 50 * 2 Sets</i>	100/-
07	Li-Po Battery <i>Rs. 700 * 3 Batteries of 3.7V each</i>	2,100/-
08	Propellers <i>Rs. 50 * 4 Units</i>	200/-
	Total Estimate <i>*Including the add-on cost of PVC Hollow Unit and Message Board</i>	13,500/-

08 - CONCLUSION

Small three dots to our story...

Drones are essentially flying robots. Their naturalization into the environment -- sometimes referred to as ubiquitous robotics -- is enabled by the combination of networking, robotics and artificial intelligence (AI).

In the past, UAVs have most often been associated with the military. However, recent technological advances have led to an increasing number of applications for drones in other industries as well as the consumer market.

We have plentiful evidence that drones are a useful - and increasingly widely used - technology for collecting spatial and operational data in support of humanitarian operations. Many public surveys have found that newer generations have chosen willingly to integrate drones into their day-to-day operations. It is obvious that drone technology is an important part of the future of warfare and is set to become a big commercial industry. The fact that drone capabilities pose a threat to the liberties of people around the globe is also apparent. Legislating on drones now is of paramount importance because it sets the necessary limitations to protect rights as drones are used in the future.

The above report can also be downloaded digitally and the associated files can be viewed by scanning the provided QR Code.



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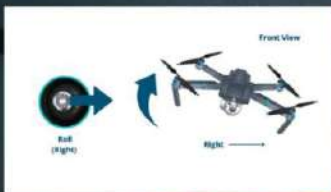
Team: HUMAN CYBORGS

How to fly a Drone?



There are four main drone controls: roll, pitch, yaw, throttle.

Roll(right stick) - Roll moves your drone left or right. When you push the stick to the left, the propellers will be pushing air to the right, forcing the drone to fly to the left.



If you push the stick to the right, the propellers will be pushing air to the left, forcing the drone to fly to the right

Pitch(right stick) - pitch is done by pushing the right stick forward or backward. When the right stick is pushed forward the back of the drone will pitch up causing the air to push the drone forward.



If the right stick is pulled backward, the front of the drone will pitch up causing the air to push the drone backward.

Yaw(left stick) - Yaw is typically used at the same time as throttle during continuous flight. This allows the pilot to make circles and patterns.

Throttle(left stick) - When flying, you will have the throttle engaged constantly. To engage the throttle, push the left stick forward, to disengage pull it backwards.