

Ref No: HR / 28-03-2022 / 01

Date: 12<sup>th</sup> May 2022

Spurthi B A  
Yeshwanthpur Police Quarters  
Bengaluru - 560022

Confidential!!

### Offer Letter

Congratulations, Spurthi!!!

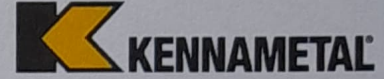
We are pleased to inform you that you have been selected for "IT Trainee" program in Kennametal Shared Services Pvt. Ltd (KSSPL).

Through this program, you will go through diverse experiences to expand your perspectives, develop functional expertise and accelerate career development. This program will be for a duration of 1 year. You will undergo various trainings as a part of this program, wherein you will gain knowledge of what it takes to run IT Operations for a global organization like Kennametal, various IT and business processes, corporate culture and values. The program constitutes classroom trainings, online self-learnings as well as hands-on work assignments. On satisfactory completion of the training period, you will be placed in the Professional [Specialist] cadre of the company. During the 1-year IT Trainee Program, your Compensation break up will be as below:

<b>Annual Guaranteed Cash [AGC]:</b>	<b>Rs. 3,30,000</b>
<i>[AGC includes Basic Salary and applicable allowances]</i>	
<b>Retirals:</b>	<b>Rs. 21,700</b>
<i>[Applicable Provident Fund by Employer]</i>	
<b>Cost To the Company [CTC]:</b>	<b>Rs. 3,51,700</b>

In addition, you will also be eligible for the following benefits as per the company policy:

- Sodexo Food card – Rs. 1,100 per month
- Broadband reimbursement - max of Rs. 1,250 per month on actuals
- Medical Insurance coverage – sum insured of Rs. 3,00,000 per family per annum
- Personal Accident coverage – sum insured of Rs. 2,00,000
- Term Life Coverage - sum insured of Rs. 2,00,000



- Annual Leave as per the company policy & any other benefit policy which you will be eligible for or amended by the company from time to time.

You will receive a detailed appointment letter after you join the Company. You are requested to return a signed copy of this offer letter as a token of your acceptance.

We welcome you and look forward to a long and successful association.

Yours sincerely,

For & Behalf of Kennametal Shared Services Pvt. Ltd.

*M. S. Brundhabhan*

**Brundhabhan M S**  
Director – KSSPL

*Manu Kidave*

**Manu Kidave**  
General Manager Human Resources

*SPURTHI*

13-05-2022

Candidate Signature & Date

Name: SPURTHI, B. A

Sensible Intelligence Pvt. Ltd.  
Offer of Appointment



Sanjana Srinivas

30.07.2022

To  
Sanjana Srinivas  
Flat no 116, Mahaveer rich apartment, agb layout,  
chikkabanavara, bangalore-560090

Dear Sanjana

Congratulations !

Welcome to Sensiable ! We are impressed with your credentials and are pleased to extend you this Offer of Appointment as Executive - Engineer for our IOT Business in India. Your work location would be Bangalore

### 1. DATE OF APPOINTMENT

Your date of appointment is effective from the date of joining which shall be 1st August 2022, but no later than 15 days from this date.

### 2. COMPENSATION AND BENEFITS

You will be paid Compensation and Benefits including Deferred Compensation as stipulated in **Annexure A** attached herewith.

### 3. SALARY REVIEW

Your Compensation and Benefits will be reviewed periodically as per the company policy. Your increments in the grade are discretionary and will be subject to and, on the basis of effective performance and results during the period of your employment.

### 4. LEAVE, HOLIDAYS & WORKING HOURS

You will be entitled to leave, holidays and working hours as applicable to your category of employees and location of posting. Current Company policy is 15 days Annual Leave and 10 days of sick leave.

### 5. RETIREMENT

Your retirement age is 58 years.

### 6. TRANSFER

You will be liable to transfer in such capacity as the Company may from time to time determine to any other location, department, establishment, factory or branch of the company or subsidiary, associate or affiliate of the company. In such a case you will be governed by the terms and conditions of service applicable to the new assignment.

## **7. PROBATION PERIOD.**

You will be on probation for a period of Six (6) months from the date of joining. The Company may in its sole discretion extend your probation period based on your performance, conduct and/or other factors as the company may deem fit. You shall continue to be on probation, till your services are confirmed by the Company in writing. During such period of probation, your services may be terminated upon one week's notice or pay in lieu thereof, by the Company, at its sole discretion, without assigning any reason. However, in case of misconduct or non-compliance of any company policies on your part, your services may be terminated forthwith without any notice period by the Company.

## **8. TERMINATION OF SERVICE**

We hope your association with us will be a very long one. However, your employment with the Company can be terminated by Sixty (60) days notice in writing from either side, or Sixty (60) days pay in lieu of notice, as may be determined by the Company. However, in the event of any discrepancy or untrue information found in your application form or resume, willful neglect of your duties, breach of trust, gross indiscipline or any other serious dereliction of duties that may be prejudicial to the interests of the Company, the Company has the discretion to terminate your services forthwith or with such notice as it deems fit and without any notice pay whatsoever.

## **9. RESPONSIBILITIES**

In view of your office, you must effectively perform to ensure results and you will be expected to work extra hours to achieve this whenever the job requires.

## **10. TRAVEL**

You will be required to travel on Company's business and you will be reimbursed travel expenses for this as per the Company's travel policies.

## **11. EMPLOYMENT AGREEMENT**

Your appointment is subject to your execution of the Employment Agreement on your joining Sensiable Intelligence Pvt. Ltd.

Look forward to having you on-board

Yours sincerely,



**For Sensiable Intelligence Pvt. Ltd.**

**CTO, Akshay DR**

## Annexure A: Salary Stack up – Sanjana Srinivas

### Fixed Component of Salary

2022-23	Per Annum Rs	Per Month Rs
Basic	180,000	15,000
House Rent allowance	180,000	15,000
Conveyance allowance	19,200	1,600
Medical allowance	15,000	1,250
Special allowance	50,800	4,233
Employer's contribution to PF	21,600	1,800
Additional Allowance		
<b>Total 1 (Monthly)</b>	<b>4,66,600</b>	<b>38,883</b>
Bonus	8,400	700
<b>Variable Pay</b>	<b>8,400</b>	<b>700</b>
<b>TOTAL 2</b>	<b>4,75,000</b>	<b>39,583</b>
<b>Total CTC</b>	<b>475,000</b>	<b>39583</b>

### Reimbursement

You will be reimbursed for local conveyance, outstation travel, boarding and lodging undertaken for customer meetings as per the Travel policy of the company.

### The above compensation items will have tax applicability as per current and future tax laws in India

You agree to abide by all the Company rules, regulations, instructions, policies, practices and procedures that the Company may amend from time to time and to indemnify the Company for any loss suffered as a consequence of a breach by you of the Company's rules, regulations, instructions, policies, practices and procedures

I accept your offer of employment and I shall be joining duty on \_\_\_\_\_

Place :  
Date :

Signature :  
Name :

## Annexure - B

### OBLIGATIONS ON CONFIDENTIALITY AND NON-SOLICITATION

1. In consideration of the opportunities, training and access to new techniques and know-how that will be made available to me by Company during my employment, I confirm that I am bound by a confidentiality covenant. As part of this covenant, I agree to comply with Company's Policy on Privacy & Confidentiality and Policy on Conflict of Interest and maintain as secret and confidential all Confidential Information (as set out in the said Policy) and shall not use or divulge or disclose any such Confidential Information except as may be required under obligation of law or as may be required by Company and in the course of my employment. Such covenant shall endure during the course of my employment with Company and thereafter (irrespective of the circumstances of, or the reason for, the termination of my employment with Company).

2. I understand that this obligation applies to all such information that Company believes is confidential and in this respect I shall be guided by the Policies of Company, in particular the Policy on Privacy & Confidentiality and Policy on Confidential Information.

3. In connection with my employment and during the term of my employment I shall disclose and assign to Company as its exclusive property, all Intellectual Properties developed or conceived by me solely or jointly with other employees of Company. I also confirm that I accept the Security Guidelines relating to Intellectual Property of Company and shall take all steps as may be necessary to comply with the same.

4. I shall respect and safeguard the trade secrets and confidential information of my former employers and will not disclose to Company or use in Company's business or activities, or cause Company or its employees, directly or indirectly to use, any information or material that is confidential to any former employer, unless such information or material is no longer confidential or written consent of such former employer has been obtained. I confirm that this clause extends to the intellectual property rights or proprietary information or information which could potentially be proprietary or of the nature of intellectual property that my previous employer has in relation to my employment with him.

5. I hereby acknowledge and recognize being in possession of Confidential & Proprietary Information of highly competitive nature of the business of Company and accordingly agree that:

(a) During the period of employment and for a period of Six (6) months following termination of my employment, I shall not directly or indirectly disclose information, intellectual property documentation or any other company secret, in any kind of engagement with a Competitor whether such engagement shall be as an employer, officer, director, owner, employee, partner, consultant, advisor or as any other participant.

"Competitor" means any and all enterprises engaged in the business of LED Lights, embedded software and lighting automation solutions, and furniture business.

(b) I understand that the above clause is not meant to prevent me from earning a living or fostering my career and only to prevent Competitor from gaining any unfair advantage from my knowledge of Confidential & Proprietary Information about the Company.

(c) I agree that violation of this Non-Compete clause will cause irreparable harm to Company. Therefore, in the event of violation of this clause by me, I agree to pay Company such sums as would be equivalent to my gross remuneration during the last twelve (12) months of service with the Company. I also understand that Company may, at its discretion, proceed against him/her for injunctive or other suitable reliefs.

## NON SOLICITATION OBLIGATION

1. I shall not solicit, induce or encourage any employee of Company to terminate their employment with Company or to accept employment with any competitor, supplier or any customer with whom I have a connection;
2. I shall not take steps where-in a customer or vendor of Company is solicited, induced or encouraged to move his existing business with Company to any other party or to terminate his business relationship with Company.
3. Both the above shall apply during my employment with Company and, for a period of six (6) months from the termination of my employment with Company (irrespective of the circumstances of, or the reasons for, the termination).

## GENERAL COVENANTS

1. I confirm that if any of the provisions of this Agreement are declared or found to be void or unenforceable due to any reason whatsoever, the remaining provisions of this Agreement shall continue in full force and effect. I shall make best endeavors to ensure that the spirit of this agreement is preserved in my acts and omissions.
2. This Agreement shall be governed by the laws of India and the jurisdiction of Courts at Bangalore alone would apply.
3. I confirm that if there are any agreements that I have entered into, whether oral or written, which prescribes obligations in conflict with the provisions of this Agreement or the Policies of Company, I shall bring them to the notice of Company prior to my joining Company.
4. I understand that this agreement does not in any manner imply or guarantee my employment with the Company for any period whatsoever. My employment with the Company is dependent upon my observance of the terms and conditions of my employment and satisfactory observance of all policies of the Company by me.

## CONSEQUENCES OF VIOLATION

1. In the event of violation of any of the terms and conditions of this Agreement by me, I shall indemnify Company for any loss caused to Company. I am aware that Company may at its sole discretion take either one or more or all of the following actions against me;
  - (a) Cancel my appointment;
  - (b) Terminate the Special Incentives and Bonus granted to me in entirety;
  - (c) Claim damages from me to the extent of losses incurred by Company on account of the violation of this agreement which I hereby undertake to pay;

I understand that the terms of this agreement can be specifically enforced and Company may approach a competent Court/Authority for relief/remedial action against any act of commission or omission against the terms of the agreement, which shall be in addition to the amounts payable by me under this agreement.

I accept these terms and conditions

Place :  
Date :

Signature :  
Name :



11-08-2022

To

Puneeth Kumar

Dear Puneeth,

Congratulations !

Welcome to CognitiveClouds Software Pvt Ltd ! We are pleased to extend you this Offer of Employment as **Associate Software Engineer**. Your work location would be Bangalore.

### 1. DATE OF APPOINTMENT

Your date of employment is effective from the date of joining which shall be **1st September 2022**. The offer has to be accepted and signed within 7 pm by 12th August 2022, without which the offer letter stands cancelled.

### 2. WORKING HOURS

In view of your office, you must effectively perform to ensure delivery of results and you will be expected to work extra hours to achieve this whenever the job requires. The working hours are from 9:30 am - 6:30 pm, this is subject to change based on the client project.

### 3. RESPONSIBILITIES

You are required to upskill to the new technologies as and when required and demonstrate it by delivering results.

### 4. EMPLOYMENT AGREEMENT

Your appointment is subject to your execution of the Employment Agreement on your joining with CognitiveClouds Software Pvt Ltd.

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## 5. COMPENSATION

Your Annual CTC is **INR 5LPA ( 4 LPA fixed and 1 lakh Performance and Retention bonus)**

## 6. WORRY-FREE BENEFITS ( Exclusive of CTC ) :

- a. Family Health Insurance
- b. Personal Accident Insurance
- c. Gratuity

## 7. SALARY REVIEW

Your Compensation will be reviewed as per the company policy. Your increments in the grade are discretionary and will be subject to and, on the basis of effective performance and results during the period of your employment.

## 8. REMOTE POLICY (Work from Home)

If you are permitted to work remotely, You must have stable Electricity, backup with Uninterrupted Power Supply (UPS) or working generator and stable high speed internet connection in addition to a dongle as a backup. It is your responsibility to make alternate arrangements to ensure your productivity and availability during work hours and beyond as required for your project. Personal internet connection is the employee's responsibility and will not be reimbursed by the Company.

Look forward to having you on-board.

### **Authorized Signatory**

**Praveen Gopinath**  
COO

This is an electronically generated letter and does not require a signature.

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**Table-1**

<b>Particulars</b>	<b>Monthly INR</b>	<b>Annual INR</b>
Basic Salary	13,300.00	159,600.00
Dearness Allowance	2,660.00	31,920.00
House Rent Allowance	5,300.00	63,600.00
Conveyance Allowance	1,600.00	19,200.00
Medical Allowance	1,250.00	15,000.00
Special Allowance	7,627.00	91,524.00
Employer Provident Fund	1,596.00	19,152.00
Bonus		100,000.00
<b>Cost to Company ( CTC)</b>	<b>33,333.00</b>	<b>500,000.00</b>

Please note that Rs.1,00,000 is a Performance and Retention Bonus which will be paid on 1st October 2023, provided you have not submitted your resignation on or before 30th September 2023. If leaves taken are for a period of 30 days or more, Bonus payout will also extend based on the leave period.

The above compensation items will have tax applicability as per current and future tax laws in India.

You agree to abide by all the Company rules, regulations, instructions, policies, practices and procedures that the Company may amend from time to time and to indemnify the Company for any loss suffered as a consequence of a breach by you of the Company's rules, regulations, instructions, policies, practices and procedures.

I accept your offer of employment and I shall be joining duty on \_\_\_\_\_

Place :

Signature :

Date :

Name :

Date: 29th March 2022

Dear Sanjana,

Greeting from ENMAZ Engineering Services Pvt. Ltd. It is with great pleasure that I welcome you to our organization. I am very excited to have you on board with us! I think the work you will be doing in our organization will add to your technical skills helping you in your future endeavors.

The details of your internship are as follows

Start Date: 4th April 2022

End Date: Internship is minimum for a period of 6 months and can be extended based on discussion with your reporting supervisor

Schedule: You are expected to contribute at minimum 8 hours per day

Project: ENMAZ is a new age Industrial IoT solution provider. We work on end to end industrial IoT Solution. You shall be included in the core development team who are working on various live industry projects.

We very much look forward to working with you.

Warm Regards,



Akshay D R

Co-Founder and CEO

Date: 29th March 2022

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We very much look forward to working with you.

Warm Regards,



Akshay D R

Co-Founder and CEO



## OFFER LETTER

Dear Harshitha M,

We are pleased to inform you that you have successfully completed the selection process conducted by AI Involved Technologies Pvt Ltd for the role of Technical Support Trainee role. This letter is to confirm that we intend to offer you this role on the following terms:

### Until Graduation

- Position: Technical Support Trainee
- Joining date: 18/04/2022
- Notice Period: 15 days compulsory
- Timing: 4 AM to 1 PM
- Compensation: 10000/month

### Post Training

- Position: Technical Support Engineer
- Compensation: as per industry standard at the time of conversion
- Additional Terms and Conditions as mentioned in the client contract

### Terms & Conditions

1. All the tasks assigned to you will be confidential and unauthorized sharing of any part or portion of the work to 3rd party will be dealt with strictly.
2. The company may require you, at any time, to perform any other administrative, managerial, supervisory, technical, or other functions and you will be bound to carry out such functions
3. Rest as mentioned in the client confidential letter agreement.

We take pleasure in welcoming you to our organization and look forward to a mutually beneficial association. We wish you all the best in your career.

For AI Involved Technologies Pvt. Ltd.

Authorized Signatory

Sudip Chandra Gupta  
CEO & Founder  
AI Involved Technologies Pvt Ltd  
Bangalore



AI Involved Technologies Pvt Ltd.

AI Involved and Evolved

Gundappa Road, Ramakrishnappa Layout, Nagashettyhalli, Bengaluru – 560094

+91- 9902497961 

info@aivolved.in 

www.aivolved.in 

### Confirmation of Offer Acceptance

I confirm my acceptance of the terms of this offer and agree to abide by these. Further, I recognize that the terms and conditions of this offer of employment are subject to review and change in accordance with AI Involved Technologies Private Limited's policies. Additionally, the terms and conditions of this offer of employment will always be subject to the amendments as may be made by AI Involved Technologies Private Limited from time to time.

---

**Harshitha M**

Place:

Date:



## OFFER LETTER

Dear Harshitha M,

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2. The company may require you, at any time, to perform any other administrative, managerial, supervisory, technical, or other functions and you will be bound to carry out such functions
3. Rest as mentioned in the client confidential letter agreement.

We take pleasure in welcoming you to our organization and look forward to a mutually beneficial association. We wish you all the best in your career.

For AI Involved Technologies Pvt. Ltd.

Authorized Signatory

Sudip Chandra Gupta  
CEO & Founder  
AI Involved Technologies Pvt Ltd  
Bangalore





AI Involved Technologies Pvt Ltd.

AI Involved and Evolved

Gundappa Road, Ramakrishnappa Layout, Nagashettyhalli, Bengaluru – 560094

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www.aivolved.in 

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### Confirmation of Offer Acceptance

I confirm my acceptance of the terms of this offer and agree to abide by these. Further, I recognize that the terms and conditions of this offer of employment are subject to review and change in accordance with AI Involved Technologies Private Limited's policies. Additionally, the terms and conditions of this offer of employment will always be subject to the amendments as may be made by AI Involved Technologies Private Limited from time to time.

---

**Harshitha M**

Place:

Date:



## OpenSense Labs

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

**Date: 04-Mar-2022**

### **BETWEEN**

**OpenSense Labs Private Limited** represented by CEO - Vidhatanand

V Hereafter referred to as "the Company"

### **AND**

**Md Junaid Nayeem R/O Moazzam Chuck,Pansallah Chowk, Bhagalpur, Bihar -**

**813113** Hereafter referred to as "the Intern"

**Program of Study:** OpenSense Labs Internship Program. ALL

PARTIES AGREE TO THE TERMS OF THIS AGREEMENT AS

FOLLOWS:

**"During the internship period his monthly stipend is Rs.15,000 based on**

**his performance we will offer him full time opportunity with the revised**

**salary package of 8 LPA"**

### **Article 1**

The Internship program aims at providing vocational training and/or employment in technology Industry to all Interns. It helps building technical skills which will be identified as valuable work experience in institutions, international organizations, representations, and companies.

It provides Interns with the opportunity to:

- Shift from their academic program to a full fledged employment environment and do so swiftly. ● Add skills that make them a valuable member of the workforce of the future.
- Introduce them to the work culture of an organization and its functional aspects, which are extremely fruitful to their growth.
- Help build better soft skills and develop overall personality.
- Build more effective written and communication skills.
- Develop self-awareness to enable them to make a successful transition between their academic qualifications and chosen career.



**OpenSense Labs**

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

For the purposes of this agreement, the Intern is not considered an employee of the company and this contract cannot be linked to a full-time employee contract. **Article 2**

The internship lasts for a maximum of “**agreed period**” unless extended by the Company. It will start from **8-Jul-2021** at OpenSense Labs, Delhi.

### **Article 3**

The Intern’s work assignment is established by mutual agreement between the Company and the Intern and will provide the following:

#### ***The objective of the Internship:***

The objective of the internship would be to give workable knowledge to the Interns in order to fulfill the company-specific objectives.

#### ***Working Hours:***

During the internship, the Intern is to comply with the Company’s policy concerning working hours. The Company’s days of work are Monday through Friday, and its established working hours are 9 hours, including 1-hour break for lunch.

The company offers 1 leave per month during the entire internship period. Also, the company agrees to 2 days of additional holidays through the internship period as sick leave.

### **Article 4**

Initial 45 Days of the internship will be unpaid. Post successful completion of the first 45 Days, the company will provide paid internship with a monthly stipend to be decided on the basis of the Intern’s performance.

Reimbursement of any expenses, which have TDS applicability, will be deducted at the hands of the Intern.

## Article 5

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**OpenSense Labs**

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

In case of non-compliance of its obligations by one of the parties, either in the case of misbehavior or of non-attendance without a proper justification from the Intern, the other party can end the contract, with immediate effect, after a formal demand notified in writing to the party failing and not followed by effect within 2 days. **Article 6**

The Company will write a report on both the personal and professional performance of the Intern during the internship and submit this to them at the end of the internship. Based upon a satisfactory performance recommendation and a satisfactory performance report, the Interns will be offered with a full-time position. After receiving the offer letter from the company the Intern is mandatory to work for the company for a period of **20 months** from the date of joining as a full time employee. In case if the Intern fails to accept the offer letter post Internship program offered by the Company, the Intern is liable to repay the entire amount to the company invested in the Internship, stipend paid to him/her during the Internship Program which can sum up to **INR 1,00,000**.

## Article 7

A successful completion of the internship followed by subsequent full time employment of minimum **20 months**, the intern will be entitled to a **INR 1,00,000** as a loyalty bonus. This will also be directly linked to productivity and the Company will have the right to withhold it.

### **Acknowledgements and Integration:**

The intern understands he/she has the right to discuss this Agreement with only undersigned authority, and that to the extent desired, he/she has availed himself/herself of this opportunity. Candidate further acknowledges that he/she has carefully read and fully understands the provisions of this Agreement, and that he/she is voluntarily entering into it without any duress or pressure from the Company. The intern also understands and acknowledges that this Agreement is the entire agreement between him/her and the Company with respect to this subject matter, and the intern acknowledges that the Company has not made any other statements, promises or commitments of any kind (written or oral) to cause the intern to agree to the terms of this Agreement.

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**OpenSense Labs**

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

**For OpenSense Labs Private Limited**

**Vidhatanand V**

**CEO**

To,

**Vidhatanand V**

Chief Executive Officer

OpenSense Labs Pvt Ltd

I have read, understood and agreed to the contents of this letter that represents the terms and conditions of my employment with the Company.

**Md Junaid Nayeem**

Signature : *Junaid Nayeem*

Date : 14<sup>th</sup> March,2022

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## OpenSense Labs

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

**Date: 04-Mar-2022**

### **BETWEEN**

**OpenSense Labs Private Limited** represented by CEO - Vidhatanand

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- Help build better soft skills and develop overall personality.
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- Develop self-awareness to enable them to make a successful transition between their academic qualifications and chosen career.





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#### ***The objective of the Internship:***

The objective of the internship would be to give workable knowledge to the Interns in order to fulfill the company-specific objectives.

#### ***Working Hours:***

During the internship, the Intern is to comply with the Company’s policy concerning working hours. The Company’s days of work are Monday through Friday, and its established working hours are 9 hours, including 1-hour break for lunch.

The company offers 1 leave per month during the entire internship period. Also, the company agrees to 2 days of additional holidays through the internship period as sick leave.

### **Article 4**

Initial 45 Days of the internship will be unpaid. Post successful completion of the first 45 Days, the company will provide paid internship with a monthly stipend to be decided on the basis of the Intern’s performance.

Reimbursement of any expenses, which have TDS applicability, will be deducted at the hands of the Intern.

## Article 5

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**OpenSense Labs**

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

In case of non-compliance of its obligations by one of the parties, either in the case of misbehavior or of non-attendance without a proper justification from the Intern, the other party can end the contract, with immediate effect, after a formal demand notified in writing to the party failing and not followed by effect within 2 days. **Article 6**

The Company will write a report on both the personal and professional performance of the Intern during the internship and submit this to them at the end of the internship. Based upon a satisfactory performance recommendation and a satisfactory performance report, the Interns will be offered with a full-time position. After receiving the offer letter from the company the Intern is mandatory to work for the company for a period of **20 months** from the date of joining as a full time employee. In case if the Intern fails to accept the offer letter post Internship program offered by the Company, the Intern is liable to repay the entire amount to the company invested in the Internship, stipend paid to him/her during the Internship Program which can sum up to **INR 1,00,000**.

## Article 7

A successful completion of the internship followed by subsequent full time employment of minimum **20 months**, the intern will be entitled to a **INR 1,00,000** as a loyalty bonus. This will also be directly linked to productivity and the Company will have the right to withhold it.

### **Acknowledgements and Integration:**

The intern understands he/she has the right to discuss this Agreement with only undersigned authority, and that to the extent desired, he/she has availed himself/herself of this opportunity. Candidate further acknowledges that he/she has carefully read and fully understands the provisions of this Agreement, and that he/she is voluntarily entering into it without any duress or pressure from the Company. The intern also understands and acknowledges that this Agreement is the entire agreement between him/her and the Company with respect to this subject matter, and the intern acknowledges that the Company has not made any other statements, promises or commitments of any kind (written or oral) to cause the intern to agree to the terms of this Agreement.



**OpenSense Labs**

630, Lane Number 3, West End Marg, Saidulajab, Saket, New Delhi

**For OpenSense Labs Private Limited**

**Vidhatanand V**

**CEO**

To,

**Vidhatanand V**

Chief Executive Officer

OpenSense Labs Pvt Ltd

I have read, understood and agreed to the contents of this letter that represents the terms and conditions of my employment with the Company.

**Md Junaid Nayeem**

Signature : *Junaid Nayeem*

Date : 14<sup>th</sup> March,2022



Ref No: **HR / 28-03-2022 / 01**

Date: **3<sup>rd</sup> Jun 2022**

Priyanka P S  
No.7, 4<sup>th</sup> cross  
Sampangiramaiah layout  
Bonemill, Bangalore - 560073

Confidential!!

### **Offer Letter**

*Congratulations, Priyanka !!!*

*We are pleased to inform you that you have been selected for "IT Trainee" program in Kennametal Shared Services Pvt. Ltd (KSSPL).*

*Through this program, you will go through diverse experiences to expand your perspectives, develop functional expertise and accelerate career development. This program will be for a duration of 1 year. You will undergo various trainings as a part of this program, wherein you will gain knowledge of what it takes to run IT Operations for a global organization like Kennametal, various IT and business processes, corporate culture and values. The program constitutes classroom trainings, online self-learnings as well as hands-on work assignments. On satisfactory completion of the training period, you will be placed in the Professional [Specialist] cadre of the company. During the 1-year IT Trainee Program, your Compensation break up will be as below:*

<b>Annual Guaranteed Cash [AGC]:</b>	<b>Rs. 3,30,000</b>
<i>[AGC includes Basic Salary and applicable allowances]</i>	
<b>Retirals:</b>	<b>Rs. 21,700</b>
<i>[Applicable Provident Fund by Employer]</i>	
<b>Cost To the Company [CTC]:</b>	<b>Rs. 3,51,700</b>

*In addition, you will also be eligible for the following benefits as per the company policy:*

- *Sodexo Food card – Rs. 1,100 per month*
- *Broadband reimbursement - max of Rs. 1,250 per month on actuals*
- *Medical Insurance coverage – sum insured of Rs. 3,00,000 per family per annum*
- *Personal Accident coverage – sum insured of Rs. 2,00,000*
- *Term Life Coverage - sum insured of Rs. 2,00,000*



- Annual Leave as per the company policy & any other benefit policy which you will be eligible for or amended by the company from time to time.

You will receive a detailed appointment letter after you join the Company. You are requested to return a signed copy of this offer letter as a token of your acceptance.

We welcome you and look forward to a long and successful association.

Yours sincerely,

For & Behalf of Kennametal Shared Services Pvt. Ltd.

A handwritten signature in blue ink, appearing to read 'M. S. Brundhabhan'.

**Brundhabhan M S**  
Director – KSSPL

A handwritten signature in blue ink, appearing to read 'Manu Kidave'.

**Manu Kidave**  
General Manager Human Resources

**Candidate Signature & Date**

Name:

25 April 2022

### INTERNSHIP LETTER

Dear **RESHMA RAJEEV**,

With reference to your application and the subsequent interview you had with us, we have pleasure in informing you that you have been selected to the position of **Technical Intern** in a part-time temporary role at Li2-Technologies Private Limited. Your internship appointment will be valid for **two months**.

Your role will be to assist the R&D team in developing courseware and hardware / software modules in the area of AI, IoT, Embedded Systems, 3D Printing and Robotics. Additionally, you will be required to build courseware and detailed documentation of the work. Please note that this is an educational internship and you will not be offered any remuneration. However, any incidental expenses incurred for the purpose of office duty shall be reviewed and approved on a case basis.

Your appointment will be governed by the terms and conditions of internship that are in vogue as per company policy. You will also be governed by other rules and regulations in vogue and those may change from time to time.

Your working hours will be 9:30 am to 6:30 pm (Monday to Friday)

The work done by you shall solely belong to the company and shall be deemed confidential business data. No sharing or dissemination of this work shall be permitted.

At the time of accepting this offer, please submit the following documents:

- ⇒ Photocopy of your certificates and mark sheets in support of your educational qualifications, any valid ID proof (Passport, Aadhaar, PAN, Driving License) and your residing and permanent address proof
- ⇒ Originals of the above documents for HR verification

You shall report to duty on or before **April 26, 2022**. Note that the internship will be hybrid with remote working as well as working from our designated office / client location. We will be informing on the date and timings of any visits and shall be scheduled after confirmed appointment / permissions.

We welcome you to our organization and trust that your association with us will be a happy and mutually rewarding one.

Wishing you the very best!

Yours sincerely,

**For LI2-TECHNOLOGIES PRIVATE LIMITED**

Digital s/d

Janvi P Rao  
**Director (HR)**



25 April 2022

### INTERNSHIP LETTER

Dear **RESHMA RAJEEV**,

With reference to your application and the subsequent interview you had with us, we have pleasure in informing you that you have been selected to the position of **Technical Intern** in a part-time temporary role at Li2-Technologies Private Limited. Your internship appointment will be valid for **two months**.

Your role will be to assist the R&D team in developing courseware and hardware / software modules in the area of AI, IoT, Embedded Systems, 3D Printing and Robotics. Additionally, you will be required to build courseware and detailed documentation of the work. Please note that this is an educational internship and you will not be offered any remuneration. However, any incidental expenses incurred for the purpose of office duty shall be reviewed and approved on a case basis.

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- ⇒ Originals of the above documents for HR verification

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We welcome you to our organization and trust that your association with us will be a happy and mutually rewarding one.

Wishing you the very best!

Yours sincerely,

**For LI2-TECHNOLOGIES PRIVATE LIMITED**

Digital s/d

Janvi P Rao  
**Director (HR)**

Date: 11th-January -2022

To,

Suhas P S,

Dear Suhas P S,

**Internship Offer Letter:**

Further to our discussions, we are pleased to offer you the position of Intern, with **Infoweave Analytics Pvt. Ltd.** Your internship with the Company will be on 17-January-2022 for a duration of 6 months. The Notice Period would be 30 Days if you quit internship within 6 months.

You will be paid an internship fee of INR 25,000\*/- per month for the duration of internship.

On your date of joining, you are requested to report at **Infoweave Analytics Pvt. Ltd.** # 42,3<sup>rd</sup> Floor, Brigade Software Park, Tower B, 27<sup>th</sup> Cross Road, Banashankari Stage 2<sup>nd</sup>, Bangalore – 560070. to complete the joining formalities between 10:00 am to 10:30 am the following documents:

1. Four recent passport size photographs
2. Copies of documents in support of educational qualifications along with the originals (the originals will be returned after verification)
3. NOC from College / Institution (if required)
4. Copy of your PAN card
5. Address Proof
6. NOC From College.

By signing & accepting this Offer letter, you confirm your desire and ability to join services of the Company by **[17-January-2022]**.

We take this opportunity to welcome you on board and wish you a long and successful association with Infoweave Analytics Pvt. Ltd

Best wishes,

**Authorized Signatory**

**Name: Pramod Shivalilingappa**

**HR Manager**

**Date: 17- January-2022**

With the signature below, I accept this offer for internship with Infoweave Analytics Pvt. Ltd.

**Signature:**

**Candidate's Name: Suhas P S**



Date: 11th-January -2022

To,

Suhas P S,

Dear Suhas P S,

**Internship Offer Letter:**

Further to our discussions, we are pleased to offer you the position of Intern, with **Infoweave Analytics Pvt. Ltd.** Your internship with the Company will be on 17-January-2022 for a duration of 6 months. The Notice Period would be 30 Days if you quit internship within 6 months.

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1. Four recent passport size photographs
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3. NOC from College / Institution (if required)
4. Copy of your PAN card
5. Address Proof
6. NOC From College.

By signing & accepting this Offer letter, you confirm your desire and ability to join services of the Company by **[17-January-2022]**.

We take this opportunity to welcome you on board and wish you a long and successful association with Infoweave Analytics Pvt. Ltd

Best wishes,

**Authorized Signatory**

**Name: Pramod Shivalilingappa**

**HR Manager**

**Date: 17- January-2022**

With the signature below, I accept this offer for internship with Infoweave Analytics Pvt. Ltd.

**Signature:**

**Candidate's Name: Suhas P S**

AVSOM DIGITAL SOLUTIONS  
INTERNSHIP OFFER LETTER

22 Nov2021

Vijay Bajadoliya  
#269, Bhavani nagar,  
Channayanakana palya,  
Bangalore north, 560073

Dear Vijay Bajadoliya

We are pleased to offer you an internship at our company in **Website and Application Development** department at our Avsom Digital Solutions office. Your internship shall commence on **22/11/2021** and shall end on **22/02/2022 (3 Months)**. The terms and conditions of your internship with the Company are set forth below:

1. Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
1. You are eligible for a stipend of Rs 4000/- during the Term which shall be paid on completion of the tasks assigned to you during your internship to the satisfaction of the Company.
1. Your timings will be from **9.30AM to 6.30PM** Monday to Saturday.
1. You will sign a confidentiality agreement with the company before you commence your internship.
1. The internship cannot be construed as an employment or an offer of employment with Avsom Digital Solutions.

Please confirm your acceptance of the terms of this offer by 22/11/2021 failing which, we have the right to cancel the internship. We look forward to having you on our team! If you have any questions, please feel free to reach out to us.

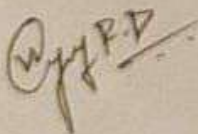
For AVSOM DIGITAL SOLUTIONS (OPC) PVT. LTD.

Sincerely,

Accepted By

Name: Vijay Bajadoliya

Director  


Signature: 

AVSOM DIGITAL SOLUTIONS  
INTERNSHIP OFFER LETTER

22 Nov2021

**Chaithanya G**

#808 2nd cross, Triveni road,  
Yeshwantpur, Bangalore-560022

Dear Chaithanya G

We are pleased to offer you an internship at our company in **Search Engine Optimization** department at our Avsom Digital Solutions office. Your internship shall commence on **22/11/2021** and shall end on **22/02/2022 (3 Months)**. The terms and conditions of your internship with the Company are set forth below:

1. Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
1. You are eligible for a stipend of Rs 4000/- during the Term which shall be paid on completion of the tasks assigned to you during your internship to the satisfaction of the Company.
1. Your timings will be from **9.30AM to 6.30PM** Monday to Saturday.
1. You will sign a confidentiality agreement with the company before you commence your internship.
1. The internship cannot be construed as an employment or an offer of employment with Avsom Digital Solutions.

Please confirm your acceptance of the terms of this offer by 22/11/2021 failing which, we have the right to cancel the internship. We look forward to having you on our team! If you have any questions, please feel free to reach out to us.

Sincerely,

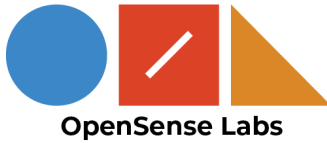
Name: *Chaithanya G*

Signature: *Chaithanya G*

Accepted By

For AVSOM DIGITAL SOLUTIONS (OPC) PVT. LTD.

*[Signature]*  
DIRECTOR



**OpenSense Labs**  
630, Lane Number 3, West End Marg,  
Saidulajab, Saket, New Delhi

Date: 30-Sep-2021

**TO WHOM IT MAY CONCERN**

**Certificate Of Completion Of Internship**

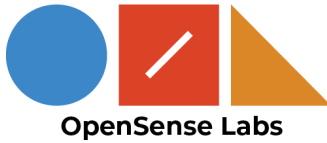
This is to certify that **Mr. Md Junaid Nayeem** has completed his internship with **OpenSense Labs Pvt. Ltd.** from **16<sup>th</sup> August, 2021** to **30<sup>th</sup> September, 2021**.

As a part of his internship, he has worked on Front-end Development.

Kind Regards,

  
  
**Kanika Bhatia**

People Operations Manager  
OpenSense Labs



**OpenSense Labs**  
630, Lane Number 3, West End Marg,  
Saidulajab, Saket, New Delhi

---

Date: 30-Sep-2021

**TO WHOM IT MAY CONCERN**

**Certificate Of Completion Of Internship**

This is to certify that **Mr. Md Junaid Nayeem** has completed his internship with **OpenSense Labs Pvt. Ltd.** from **16<sup>th</sup> August, 2021** to **30<sup>th</sup> September, 2021**.

As a part of his internship, he has worked on Front-end Development.

Kind Regards,

  
  
**Kanika Bhatia**

People Operations Manager  
OpenSense Labs

No.A.HR/509/ 89 /2021

October 29<sup>th</sup>, 2021

## CERTIFICATE

This is to certify that **Ms. Tanuja M K**, USN 1KT18CS084 a bonafide BE(Computer Science and Engineering) student of Sri Krishna Institute of Technology has successfully completed her Internship at Aircraft Division, HAL, Bangalore from 20.09.2021 to 19.10.2021.

2. We wish her All the Best, Good Luck and Success in her future endeavors.

**Ms. Tanuja M K**,  
BE(Computer Science and Engineering),  
Sri Krishna Institute of Technology,  
Bangalore.

  
(Arockia Jothi B)  
Senior Manager (HR)

ಬಿ ಅರೋಕ್ಯ ಜ್ಯೋತಿ, B AROCKIA JOTHI  
ವರಿಯ ಪ್ರಬಂಧಕ (ಹಿ ಸಿ)-ಆಯರ್ಕ್ರಾಫ್ಟ್ ಪ್ರಭಾಗ  
Senior Manager (HR) Aircraft Division  
ಆಯರ್ಕ್ರಾಫ್ಟ್ (ಹಿ ಸಿ), HAL (AC)

ನೋಂದಾಯಿತ ಕಛೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರೋಡ್, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ

पंजीकृत कार्यालय : 15 /1, कबुन रोड, बेंगलूरु - 560 001, भारत

Registered Office : 15 /1, Cubbon Road, Bengaluru - 560 001, India

ಸಿ ಐ ಎನ್ / ಸಿ ಆರ್ ಇ / CIN: L35301KA1963GOI001622 ಇ / ई / E : hr\_ac@hal-india.co.in

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

EMPOWERED BY INNOVATION



#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090

Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Anup Raj** Bachelor of Engineering in Computer Science and Engineering, **USN-1kT18cs007**, **Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Fish Weight Using Multi Linear Regression
2. Prediction of Loan Using Knn Algorithm
3. Diabetes Prediction Using Logistics Algorithm
4. Prediction of T-Shirt Size Using Decision Tree Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNILKUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

*Mahesh*  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

### Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyanarayapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com





Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Fish Weight Using Multi Linear Regression
2. Prediction of Loan Using Knn Algorithm
3. Diabetes Prediction Using Logistics Algorithm
4. Prediction of T-Shirt Size Using Decision Tree Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNILKUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

*Mahesh*  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

### Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyanarayapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com

**DIGIADD**  
Technologies

## *Certificate of Completion*

This Certifies that Mr/ Ms. YASHASWINI . D.

A student of SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bearing USN No: 1KT18CS091 has successfully completed his/her internship from  
06.09.21 to 05.10.21 at DIGIADD Technologies under the guidance of Ms. DHANVASHREE . K.M.

We found him/her sincere, hardworking, dedicated and result oriented. We wish all the best for  
his/her future Endeavour.



Srithar P.  
Manager



Project Guide

September 24, 2021



9:39 PM



Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Sumanth G L** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt18cs078**, **Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



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Kereguddadahalli, Bengaluru-560090Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



Tools



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**ACRANTON TECHNOLOGIES PRIVATE LIMITED**

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#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



Tools



Mobile View



Share



PDF to DOC



Edit on PC



Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Bi Bi Fathima** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt19cs400, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chan dana L. S  
Director  
Acranton Technologies Pvt Ltd



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
**KARUNADU TECHNOLOGIES PRIVATE LIMITED**

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttesbasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/705

Date: 23-Nov-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. TULSI PRASAD NAGMANI from Sri Krishna institute of technology (CSE) bearing USN: 1KT18CS085 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python And Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Buying Amagazine Using Svm Algorithm.
2. Prediction of A Person Having Diabites or Not Using Logistics Regression Algorithm.
3. Prediction of Real Estate Price Using Linear Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

Sunil  
SUNILKUMAR

GUIDE

Karunadu Technologies Pvt.Ltd.



MAHESH DEGINAL

Managing Director

Karunadu Technologies Pvt.Ltd.



**Registered Office:**

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyaranyapura, Bengaluru - 560064 .  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. SOURAV ANAND from Sri Krishna Institute of Technology (CSE) bearing USN-1KT18CS071 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Car Brands Using KNN Algorithm.
2. Prediction of Laptop Price In Laptop Pricing Dataset By Using Multiple Linear Regression Algorithm.
3. Prediction of Person Hired or Not In Marks Dataset Using Logistic Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Dataset Using Decision Tree Algorithm.

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Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
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**KARUNADU TECHNOLOGIES PRIVATE LIMITED**

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Fish Weight Using Multi Linear Regression
2. Prediction of Loan Using Knn Algorithm
3. Diabetes Prediction Using Logistics Algorithm
4. Prediction of T-Shirt Size Using Decision Tree Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNILKUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

*Mahesh Deginal*  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

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*Sunil*  
SUNILKUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

*Mahesh*  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com

**DIGIADD**  
Technologies

## *Certificate of Completion*

This Certifies that Mr/ Ms. YASHASWINI . D.

A student of SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bearing USN No: 1KT18CS091 has successfully completed his/her internship from  
06.09.21 to 05.10.21 at DIGIADD Technologies under the guidance of Ms. DHANVASHREE . K.M.

We found him/her sincere, hardworking, dedicated and result oriented. We wish all the best for  
his/her future Endeavour.



Srithar P.  
Manager



Project Guide

September 24, 2021



9:39 PM



Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Sumanth G L** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt18cs078**, **Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



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PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



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PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



Tools



Mobile View



Share



PDF to DOC



Edit on PC



Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Bi Bi Fathima** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt19cs400, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chan dana L. S  
Director  
Acranton Technologies Pvt Ltd



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**KARUNADU TECHNOLOGIES PRIVATE LIMITED**

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Guttesbasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/705

Date: 23-Nov-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. TULSI PRASAD NAGMANI from Sri Krishna institute of technology (CSE) bearing USN: 1KT18CS085 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

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Sunil  
SUNILKUMAR

GUIDE

Karunadu Technologies Pvt.Ltd.



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Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

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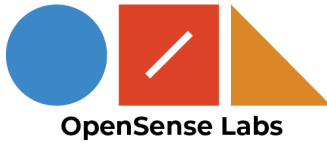
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MAHESH DEGINAL  
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**OpenSense Labs**  
630, Lane Number 3, West End Marg,  
Saidulajab, Saket, New Delhi

---

Date: 30-Sep-2021

**TO WHOM IT MAY CONCERN**

**Certificate Of Completion Of Internship**

This is to certify that **Mr. Md Junaid Nayeem** has completed his internship with **OpenSense Labs Pvt. Ltd.** from **16<sup>th</sup> August, 2021** to **30<sup>th</sup> September, 2021**.

As a part of his internship, he has worked on Front-end Development.

Kind Regards,

  
  
**Kanika Bhatia**

People Operations Manager  
OpenSense Labs





**OpenSense Labs**  
630, Lane Number 3, West End Marg,  
Saidulajab, Saket, New Delhi

---

Date: 30-Sep-2021

**TO WHOM IT MAY CONCERN**

**Certificate Of Completion Of Internship**

This is to certify that **Mr. Md Junaid Nayeem** has completed his internship with **OpenSense Labs Pvt. Ltd.** from **16<sup>th</sup> August, 2021** to **30<sup>th</sup> September, 2021**.

As a part of his internship, he has worked on Front-end Development.

Kind Regards,

  
  
**Kanika Bhatia**

People Operations Manager  
OpenSense Labs

No.A.HR/509/ 89 /2021

October 29<sup>th</sup>, 2021

## CERTIFICATE

This is to certify that **Ms. Tanuja M K**, USN 1KT18CS084 a bonafide BE(Computer Science and Engineering) student of Sri Krishna Institute of Technology has successfully completed her Internship at Aircraft Division, HAL, Bangalore from 20.09.2021 to 19.10.2021.

2. We wish her All the Best, Good Luck and Success in her future endeavors.

**Ms. Tanuja M K**,  
BE(Computer Science and Engineering),  
Sri Krishna Institute of Technology,  
Bangalore.

  
(Arockia Jothi B)  
Senior Manager (HR)

ಬಿ ಅರೋಕ್ಯ ಜ್ಯೋತಿ, B AROCKIA JOTHI  
ವರಿಯ ಪ್ರಬಂಧಕ (ಹಿ ಸಿ)-ಆಯರ್ಕ್ರಾಫ್ಟ್ ವಿಭಾಗ  
Senior Manager (HR) Aircraft Division  
ಆಯರ್ಕ್ರಾಫ್ಟ್ (ಹಿ ಸಿ), HAL (BO)

ನೋಂದಾಯಿತ ಕಛೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರೋಡ್, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ

पंजीकृत कार्यालय : 15 /1, कबुन रोड, बेंगलूरु - 560 001, भारत

Registered Office : 15 /1, Cubbon Road, Bengaluru - 560 001, India

ಸಿ ಐ ಎನ್ / ಸಿ ಆರ್ ಇ / CIN: L35301KA1963GOI001622 ಇ / ई / E : hr\_ac@hal-india.co.in

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Anup Raj** Bachelor of Engineering in Computer Science and Engineering, **USN-1kT18cs007**, **Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Fish Weight Using Multi Linear Regression
2. Prediction of Loan Using Knn Algorithm
3. Diabetes Prediction Using Logistics Algorithm
4. Prediction of T-Shirt Size Using Decision Tree Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNILKUMAR  
GUIDE  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
Karunadu Technologies Pvt.Ltd.

*Mahesh*  
MAHESH DEGINAL  
Managing Director  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
Karunadu Technologies Pvt.Ltd.

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0583

Date: 07-Oct-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that Mr/Ms. AJIT KUMAR SINGH from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS006 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Fish Weight Using Multi Linear Regression
2. Prediction of Loan Using Knn Algorithm
3. Diabetes Prediction Using Logistics Algorithm
4. Prediction of T-Shirt Size Using Decision Tree Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNILKUMAR  
GUIDE  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
Karunadu Technologies Pvt.Ltd.

*Mahesh*  
MAHESH DEGINAL  
Managing Director  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
Karunadu Technologies Pvt.Ltd.

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CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com

**DIGIADD**  
Technologies

## *Certificate of Completion*

This Certifies that Mr/ Ms. YASHASWINI . D.

A student of SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bearing USN No: 1KT18CS091 has successfully completed his/her internship from  
06.09.21 to 05.10.21 at DIGIADD Technologies under the guidance of Ms. DHANYASHREE . K.M.

We found him/her sincere, hardworking, dedicated and result oriented. We wish all the best for  
his/her future Endeavour.



Srithar P.  
Manager



Project Guide

September 24, 2021



9:39 PM



Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Sumanth G L** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt18cs078**, **Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



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PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



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PAN: AAQCA6874R, TAN: BLRA27788F

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Chandan U** Bachelor of Engineering in Computer Science and Engineering, USN-1KT18CS012, Sri Krishna Institute of Technology, has successfully completed his internship from 12-AUG-2021 to 17-SEP-2021 on Machine Learning with Python at ACRANTON TECHNOLOGIES PVT LTD, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acraanton Technologies Pvt Ltd



Tools



Mobile View



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Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

**SUB: Internship Completion Certificate**

This is to certify that, a student **Bi Bi Fathima** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt19cs400, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chan dana L. S  
Director  
Acranton Technologies Pvt Ltd



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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/705

Date: 23-Nov-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. TULSI PRASAD NAGMANI from Sri Krishna institute of technology (CSE) bearing USN: 1KT18CS085 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python And Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Buying Amagazine Using Svm Algorithm.
2. Prediction of A Person Having Diabites or Not Using Logistics Regression Algorithm.
3. Prediction of Real Estate Price Using Linear Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

Sunil  
SUNILKUMAR

GUIDE

Karunadu Technologies Pvt.Ltd.



MAHESH DEGINAL

Managing Director

Karunadu Technologies Pvt.Ltd.



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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that **Mr/Ms. SOURAV ANAND** from Sri Krishna Institute of Technology (CSE) bearing USN-1KT18CS071 has successfully completed internship programme at **Karunadu Technologies Private Limited** from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Car Brands Using KNN Algorithm.
2. Prediction of Laptop Price In Laptop Pricing Dataset By Using Multiple Linear Regression Algorithm.
3. Prediction of Person Hired or Not In Marks Dataset Using Logistic Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Dataset Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

**Registered Office:**

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. SOURAV ANAND from Sri Krishna Institute of Technology (CSE) bearing USN-1KT18CS071 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Car Brands Using KNN Algorithm.
2. Prediction of Laptop Price In Laptop Pricing Dataset By Using Multiple Linear Regression Algorithm.
3. Prediction of Person Hired or Not In Marks Dataset Using Logistic Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Dataset Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



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Gutibasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that **Mr/Ms. SOURAV ANAND** from Sri Krishna Institute of Technology (CSE) bearing **USN-1KT18CS071** has successfully completed internship programme at **Karunadu Technologies Private Limited** from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Car Brands Using KNN Algorithm.
2. Prediction of Laptop Price In Laptop Pricing Dataset By Using Multiple Linear Regression Algorithm.
3. Prediction of Person Hired or Not In Marks Dataset Using Logistic Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Dataset Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

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support@karunadutechnologies.com, Website: www.karunadutechnologies.com



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Ref No: KTPT/INT/2021/0587

Date: 07-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that Mr/Ms. **SOURAV ANAND** from Sri Krishna Institute of Technology (CSE) bearing USN-1KT18CS071 has successfully completed internship programme at **Karunadu Technologies Private Limited** from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Car Brands Using KNN Algorithm.
2. Prediction of Laptop Price In Laptop Pricing Dataset By Using Multiple Linear Regression Algorithm.
3. Prediction of Person Hired or Not In Marks Dataset Using Logistic Regression Algorithm.
4. Prediction of Person Survived or Not In Titanic Dataset Using Decision Tree Algorithm.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

*Sunil*  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

*MAHESH*  
MAHESH DEGINAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Dimple Kanwar** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt18cs015, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Eshwari** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS016**, **Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

No.A.HR/509/ 90 /2021

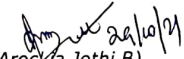
October 29<sup>th</sup>, 2021

## CERTIFICATE

This is to certify that **Ms. Sugandha R**, USN 1KT18CS075 a bonafide BE(Computer Science and Engineering) student of Sri Krishna Institute of Technology has successfully completed her Internship at Aircraft Division, HAL, Bangalore from 20.09.2021 to 19.10.2021.

2. We wish her All the Best, Good Luck and Success in her future endeavors.

**Ms. Sugandha R**,  
BE(Computer Science and Engineering),  
Sri Krishna Institute of Technology,  
Bangalore.

  
(Arockia Jothi B)  
Senior Manager (HR)

ಶ್ರೀ ಅರೋಕಿಯಾ ಜೋತಿ / B. AROCKIA JOTHI  
ವರದಿ ಪ್ರಾಧಿಕಾರ (ಸಿ.ಸಿ.) - ಆವರಣ ಪ್ರಭಾಗ  
Senior Manager (HR) - Aircraft Division  
ಏರ್‌ಲೈನ್ (ಬಿ.ಸಿ.) / HAL (BC)

ನೋಂದಾಯಿತ ಕಛೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ  
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Registered Office : 15/1, Cubbon Road, Bengaluru - 560 001, India

ಓ ಐ ಎಸ್ / ಸಿ ಆರ್ ಎನ್ / CIN:L35301KA1963GOI001622 ಇ / ई / E : hr\_ac@hal-india.co.in



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Hessaraghatta Main Road, Bangalore-560090, Website: [www.rinamp.com](http://www.rinamp.com), Mobile:  
8210120413, 8210865681, Landmark: Near to Sapthagiri College of Engineering.

Ref No: RTPL/2021/IB104

Date: 15 September 2021

To

**Mr. Mohammad Hussain**

**Sri Krishna Institute of Technology-560090**

**Bangalore, Karnataka**

### Sub: Certificate of Completion of Internship

This is to certify that **Mr. Mohammad Hussain**, Student of B.E. – CSE has completed his internship with us, from **15 August 2021** to **15 September 2021**.

As Part of his internship, he has worked as full stack resource in **Design, Development, Deployment and Maintenance phase of web application project “Product Catalogue Management System”** having experience in **Development of web application based on three layer Architecture Client Side, Server Side, data Storage including Requirement gathering from Clients directly, UI, DB design and maintenance, Session Management ,Way to maintain the Load balancing which was based on Financial Services.**

During this tenure with us, we found **Mr. Mohammad Hussain**, Sincere and Result oriented.

We wish **Mr. Mohammad Hussain**, all the best for his future endeavors.

Mr. MK Pande,  
Director & Technical Head



**Rinamp Technology Private Limited**

**Bangalore-560090**

### Registered Office:

#16, First Floor MIVA Complex, Opp: PK Bakery, Kirloskar Layout, Hessaraghatta Main Road, Bangalore-560090, Website: [www.rinamp.com](http://www.rinamp.com), Email: [info@rinamp.com](mailto:info@rinamp.com), Mobile: 8210120413, 8210865681

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

EMPOWERED BY INNOVATION



#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090

Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

**Date:** 30<sup>th</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **DURGA PRASAD N** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT16CS030, Sri Krishna Institute Of Technology**, has successfully completed his internship from **23<sup>rd</sup> Aug 2021 to 29<sup>th</sup> Sep 2021** on **Web Applications** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He worked on the web project. During the period of his internship program with us he found punctual, hardworking and inquisitive.

We wish him good luck.



**Chandana L S**  
Director  
Acranton Technologies Pvt Ltd



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0594

Date: 07-Oct-2021

To Whomsoever It May Concern

CERTIFICATE

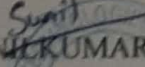
This is to certify that Mr/Ms. GAURAV KUMAR from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS017 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Salary Greater Than 50k Using Knn
2. Prediction of Red Wine Quality Using Svm Algorithm
3. Prediction of Customer Would Buy The Magazine or Not Using Logistics Regression
4. Prediction of Weight In Height Weight Predictor Using Linear Regression Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGNAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyananyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

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To Whomsoever It May Concern

CERTIFICATE

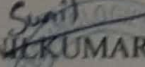
This is to certify that Mr/Ms. GAURAV KUMAR from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS017 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

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1. Prediction of Salary Greater Than 50k Using Knn
2. Prediction of Red Wine Quality Using Svm Algorithm
3. Prediction of Customer Would Buy The Magazine or Not Using Logistics Regression
4. Prediction of Weight In Height Weight Predictor Using Linear Regression Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGNAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyananyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F,

---

Date: 21<sup>th</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **SANJAY M D** Bachelor of Engineering in Computer Science and Engineering, **USN -1KT18CS063, Sri Krishna Institute of Technology**, has successfully completed his internship from **12<sup>th</sup> AUG 2021 to 17<sup>th</sup> SEP 2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT. LTD., BANGALORE.**

He worked on the Machine Learning project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



87926 97647 / 80501 04212

[www.takeitsmart.in](http://www.takeitsmart.in)

[info@takeitsmart.in](mailto:info@takeitsmart.in)

## TAKE IT SMART (OPC) PVT. LTD

Ref No: 2021/07/28

Date:30/09/2021

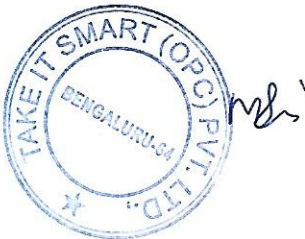
### To Whom It May Concern

This is to Certify that **Miss/Mr. LAVANYA.J** Bearing **USN 1KT18CS031** is a Bonafide Student of **SRI KRISHNA INSTITUTE OF TECHNOLOGY** STUDYING **COMPUTER SCIENCE ENGINEERING** has Undertaken Internship in **"FULL STACK WEB DEVELOPMENT"** with us from **30<sup>th</sup> AUGUST 2021 to 30<sup>th</sup> SEPTEMBER 2021.**

During the period of her/ his Internship program with us, she/ he had been exposed to different processes and was found diligent, hardworking and inquisitive.

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

For, Take it smart (OPC) Pvt.Ltd



**Mr. MALLIKARJUN KUMBAR**  
DIRECTOR

# 1274 2nd Floor, Sanitary Core,  
3rd phase, Yelahanka New Town,  
Bengaluru, Karnataka - 560 064.



TAKE IT SMART



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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Lohit Vijayrao Kulkarni** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS033, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD, Bangalore.**

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



# CERTIFICATE OF COMPLETION

This certifies that

**Manjunath y**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna”**

**USN:** 1KT18CS034

**Institution Name:** Sri Krishna institute of technology

**Internship ID:** TLS21A011

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**Supreeth Y S, CEO**

---

**Aditya S K, CTO**

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **NAVYASHREE K** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT17CS046, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



# CERTIFICATE OF COMPLETION

This certifies that

**Prajwal D.C**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna College”**

**USN:** 1kt18cs048

**Institution Name:** Sri krishna institute of technology

**Internship ID:** TLS21A106

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**



# CERTIFICATE OF COMPLETION

This certifies that

**Preethu S**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna College”**

**USN:** 1KT18CS050

**Institution Name:** Sri Krishna Institute of Technology

**Internship ID:** TLS21A010

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**Supreeth Y S, CEO**

---

**Aditya S K, CTO**





# CERTIFICATE OF COMPLETION

This certifies that

**Pruthvi Kumar A**

has completed one month Internship on **Full Stack Web Development** from 16th August to 15th September 2021 at Tequed Labs and has worked on a Project Titled **“XBuilds Pro”**

**USN:** 1KT18CS051

**Institution Name:** Sri Krishna Institute Of Technology

**Internship ID:** TLS21A711

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**Supreeth Y S, CEO**

---

**Aditya S K, CTO**



# CERTIFICATE OF COMPLETION

This certifies that

**PUNEETH KUMAR V H**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Travel”**

**USN:** 1KT18CS052

**Institution Name:** SRI KRISHNA INSTITUTE OF TECHNOLOGY

**Internship ID:** TLS21A487

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**



Quant Masters

# Certificate of Excellence

NAYANA R

is hereby awarded this certificate of excellence for the successful completion  
of **Artificial Intelligence and Machine Learning** Internship conducted by  
Quant Masters Technologies Pvt. Ltd.  
from 01/09/2021 to 28/09/2021.

**HIMANSHU SHARMA**

Founder & Managing Director  
Quant Masters Technologies Pvt. Ltd.

Date of Issue: 23-10-2021

Certificate ID: QMIEXCCERT\_00233

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Dimple Kanwar** Bachelor of Engineering in Computer Science and Engineering, **USN-1kt18cs015, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Eshwari** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS016**, **Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

No.A.HR/509/ 90 /2021

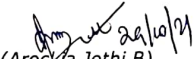
October 29<sup>th</sup>, 2021

## CERTIFICATE

This is to certify that **Ms. Sugandha R, USN 1KT18CS075** a bonafide BE(Computer Science and Engineering) student of Sri Krishna Institute of Technology has successfully completed her Internship at Aircraft Division, HAL, Bangalore from 20.09.2021 to 19.10.2021.

2. We wish her All the Best, Good Luck and Success in her future endeavors.

**Ms. Sugandha R,**  
BE(Computer Science and Engineering),  
Sri Krishna Institute of Technology,  
Bangalore.

  
(Arockia Jothi B)  
Senior Manager (HR)

ಬಿ ಆರೋಕ್ಯಾ ಜೋತಿ / B. AROCKIA JOTHI  
ವರದಿ ಪ್ರಬಂಧಕ (ಸಿ ಸಿ) - ಆವರಣ ಪ್ರಭಾಗ  
Senior Manager (HR) - Aircraft Division  
ಏರ್‌ಲೈನ್ (ಬಿ ಸಿ) / HAL (BC)

ನೋಂದಾಯಿತ ಕಛೇರಿ : ೧೫/೧, ಕಬ್ಬನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-೫೬೦೦೦೧, ಭಾರತ  
पंजीकृत कार्यालय : 15/1, कब्बन रोड, बंगलूरु - 560 001, भारत  
Registered Office : 15/1, Cubbon Road, Bengaluru - 560 001, India

ಓ ಐ ಎನ್ / ಸಿ ಆರ್‌ಇ / CIN: L35301KA1963GOI001622 ಇ / ई / E: hr\_ac@hal-india.co.in



## RINAMP Technology Private Limited

#16, First Floor MIVA Complex, Opp: PK Bakery, Kirloskar Layout,  
Hessaraghatta Main Road, Bangalore-560090, Website: [www.rinamp.com](http://www.rinamp.com), Mobile:  
8210120413, 8210865681, Landmark: Near to Sapthagiri College of Engineering.

Ref No: RTPL/2021/IB104

Date: 15 September 2021

To

**Mr. Mohammad Hussain**

**Sri Krishna Institute of Technology-560090**

**Bangalore, Karnataka**

### Sub: Certificate of Completion of Internship

This is to certify that **Mr. Mohammad Hussain**, Student of B.E. – CSE has completed his internship with us, from **15 August 2021** to **15 September 2021**.

As Part of his internship, he has worked as full stack resource in **Design, Development, Deployment and Maintenance phase of web application project “Product Catalogue Management System”** having experience in **Development of web application based on three layer Architecture Client Side, Server Side, data Storage including Requirement gathering from Clients directly, UI, DB design and maintenance, Session Management ,Way to maintain the Load balancing which was based on Financial Services.**

During this tenure with us, we found **Mr. Mohammad Hussain**, Sincere and Result oriented.

We wish **Mr. Mohammad Hussain**, all the best for his future endeavors.

Mr. MK Pande,  
Director & Technical Head

**Rinamp Technology Private Limited**

**Bangalore-560090**



### Registered Office:

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PAN: AAQCA6874R, TAN: BLRA27788F

---

**Date:** 30<sup>th</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **DURGA PRASAD N** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT16CS030, Sri Krishna Institute Of Technology**, has successfully completed his internship from **23<sup>rd</sup> Aug 2021 to 29<sup>th</sup> Sep 2021** on **Web Applications** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He worked on the web project. During the period of his internship program with us he found punctual, hardworking and inquisitive.

We wish him good luck.



**Chandana L S**  
Director  
Acranton Technologies Pvt Ltd





ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

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Ref No: KTPT/INT/2021/0594

Date: 07-Oct-2021

To Whomsoever It May Concern

CERTIFICATE

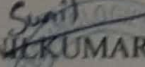
This is to certify that Mr/Ms. GAURAV KUMAR from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS017 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Salary Greater Than 50k Using Knn
2. Prediction of Red Wine Quality Using Svm Algorithm
3. Prediction of Customer Would Buy The Magazine or Not Using Logistics Regression
4. Prediction of Weight In Height Weight Predictor Using Linear Regression Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGNAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyananyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0594

Date: 07-Oct-2021

To Whomsoever It May Concern

CERTIFICATE

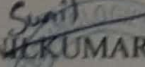
This is to certify that Mr/Ms. GAURAV KUMAR from Sri Krishna Institute of Technology (CSE) bearing USN- 1KT18CS017 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Python and Machine Learning . During the course he/she was trained and he/she carried out projects on

1. Prediction of Salary Greater Than 50k Using Knn
2. Prediction of Red Wine Quality Using Svm Algorithm
3. Prediction of Customer Would Buy The Magazine or Not Using Logistics Regression
4. Prediction of Weight In Height Weight Predictor Using Linear Regression Algorithm

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
SUNIL KUMAR  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGNAL  
Managing Director  
Karunadu Technologies Pvt.Ltd.

Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyananyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

EMPOWERED BY INNOVATION



#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana Mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090

Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F,

---

Date: 21<sup>th</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **SANJAY M D** Bachelor of Engineering in Computer Science and Engineering, **USN -1KT18CS063, Sri Krishna Institute of Technology**, has successfully completed his internship from **12<sup>th</sup> AUG 2021 to 17<sup>th</sup> SEP 2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT. LTD., BANGALORE.**

He worked on the Machine Learning project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



87926 97647 / 80501 04212

[www.takeitsmart.in](http://www.takeitsmart.in)

[info@takeitsmart.in](mailto:info@takeitsmart.in)

## TAKE IT SMART (OPC) PVT. LTD

Ref No: 2021/07/28

Date:30/09/2021

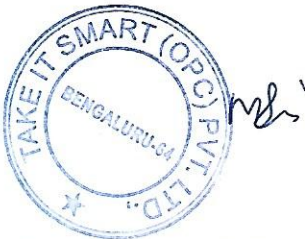
### To Whom It May Concern

This is to Certify that **Miss/Mr. LAVANYA.J** Bearing **USN 1KT18CS031** is a Bonafide Student of **SRI KRISHNA INSTITUTE OF TECHNOLOGY** STUDYING **COMPUTER SCIENCE ENGINEERING** has Undertaken Internship in **“FULL STACK WEB DEVELOPMENT”** with us from **30<sup>th</sup> AUGUST 2021 to 30<sup>th</sup> SEPTEMBER 2021.**

During the period of her/ his Internship program with us, she/ he had been exposed to different processes and was found diligent, hardworking and inquisitive.

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

For, Take it smart (OPC) Pvt.Ltd



**Mr. MALLIKARJUN KUMBAR**  
DIRECTOR

# 1274 2nd Floor, Sanitary Core,  
3rd phase, Yelahanka New Town,  
Bengaluru, Karnataka - 560 064.



TAKE IT SMART

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Lohit Vijayrao Kulkarni** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS033, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD, Bangalore.**

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



# CERTIFICATE OF COMPLETION

This certifies that

**Manjunath y**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna”**

**USN:** 1KT18CS034

**Institution Name:** Sri Krishna institute of technology

**Internship ID:** TLS21A011

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
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Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **NAVYASHREE K** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT17CS046, Sri Krishna Institute of Technology**, has successfully completed her internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

She has worked on the Machine Learning with Python project. During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090

Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



# ACRANTON TECHNOLOGIES PRIVATE LIMITED

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#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
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Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd

# ACRANTON TECHNOLOGIES PRIVATE LIMITED

EMPOWERED BY INNOVATION



#1/10, 1<sup>st</sup> floor, opp Gangadharaiah Kalyana mantappa, Chikkabanavara main road,  
Kereguddadahalli, Bengaluru-560090

Website: [www.acranton.com](http://www.acranton.com), E-mail: [info\\_blr@acranton.com](mailto:info_blr@acranton.com)

PAN: AAQCA6874R, TAN: BLRA27788F

---

Date: 21<sup>st</sup> Sep 2021

To Whom So Ever It May Concern

## **SUB: Internship Completion Certificate**

This is to certify that, a student **Pawan Kumar Singh** Bachelor of Engineering in Computer Science and Engineering, **USN-1KT18CS046, Sri Krishna Institute of Technology**, has successfully completed his internship from **12-AUG-2021** to **17-SEP-2021** on **Machine Learning with Python** at **ACRANTON TECHNOLOGIES PVT LTD**, Bangalore.

He has worked on the Machine Learning with Python project. During the period of his internship program with us he was found punctual, hardworking and inquisitive.

We wish him good luck.



Chandana L S  
Director  
Acranton Technologies Pvt Ltd



# CERTIFICATE OF COMPLETION

This certifies that

**Prajwal D.C**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna College”**

**USN:** 1kt18cs048

**Institution Name:** Sri krishna institute of technology

**Internship ID:** TLS21A106

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**



# CERTIFICATE OF COMPLETION

This certifies that

**Preethu S**

has completed one month Internship on **Full Stack Web Development** from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled **“Krishna College”**

**USN:** 1KT18CS050

**Institution Name:** Sri Krishna Institute of Technology

**Internship ID:** TLS21A010

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**



# CERTIFICATE OF COMPLETION

This certifies that

**Pruthvi Kumar A**

has completed one month Internship on **Full Stack Web Development** from 16th August to 15th September 2021 at Tequed Labs and has worked on a Project Titled **“XBUILDS PRO”**

**USN:** 1KT18CS051

**Institution Name:** Sri Krishna Institute Of Technology

**Internship ID:** TLS21A711

---

**Supreeth Y S, CEO**

---

**Aditya S K, CTO**

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore - 562162 Nelamangala Bangalore North

(Engineers, Architects or Appointed)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. Rajdeep Debbarma (1KT18CV0 Krishna Institute of Technology. Has successfully completed (September 2021 to 30 September 2021) of internship program of Residential and commercial buildings in our organization work site, during the period of for internship program with punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |



(Manjunath A)

Manjil

19) Student of Sri  
4 weeks (from 01  
m on construction  
n at Nelamangala  
us He has found  
able of

## INTERNSHIP CERTIFICATE.

### **YOUNG INDIA BUILDERS AND PLANNERS**

(Engineers, Architects & Approved Valuers)

Head office: Door. No: 25, Kunchitigara Sangha, Ranganatha College Complex,  
R.T. Road, SIRSA-572137, TUMKUR DL TUDA Reg. No: 22/2005/06

To Whom So Ever It May Concern

### **EXPERIENCE CERTIFICATE**

*This is to certify that Mr. GUPTA AADITYA DAYARAM (1KT19CV404) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) Of internship program on construction of Residential and commercial buildings in our organization at Sirsa work site, during the period of for inter ship program with us He has found punctual and hard working*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

*(Naveen.S.V)*

Naveen S.V  
Managing Partner | Young India Builders Pvt. 7899576781

# NE NETHRA ENTERPRISES

**Super Grade Electrical, Contractors and Engineers**

**Specialist in : EHT, HT, LT & Civil Works**

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Tel : 080-28391061, Mob : +91 9448711991, +91 9731556036

E-mail : netrhaenterprise@gmail.com

7/10/2021

To whomsoever it may concern

Mr. Satish.A (IKT16CV086) from Sri Krishna Institute of Technology has successfully completed his Internship at NETHRA ENTERPRISES for the duration of 4 weeks from 6/9/2021 to 6/10/2021.

**We wish him all the best for his future endeavors.**

**Thank you**

*Prashanth*  
PROJECT ENGINEER







Ref: INTN/SE/006/2021-22

30<sup>th</sup> Sep 2021

Date: .....

**To Whomsoever It May Concern**

This is to certify that **Mr. Namlung Hang Rai** bearing **USN: 1KT16CV055** has been under Internship Training Program from **01/09/2021** To **30/09/2021** under our supervision at site. During this period, his involvement and punctuality in the work sounds satisfactory.

Thanking You



**CHETHAN J**  
CJ Consultancy & Constructions  
Chartered Engineer & Contractor  
Tumakuru- 572105

# DHARANI CONSTRUCTIONS

NO.11/A, 17<sup>TH</sup> CROSS, CIBA THOTA CHURCH ROAD, LAGGERE, NEAR BEST SCHOOL, BANGLORE-560058

REG NO: 30/69/CE/0041/2016

DATE: 30.09.2021

## CERTIFICATE

This is to certify that Mr. Quazi Md Iftequaruddin Siddiqui, Student of Sri Krishna Institute of Technology, Bangalore, Bearing USN 1KT15CV053 Studying B.E. Civil Engineering(Final Year) has successfully completed his Internship training program for the year 2020-2021 under DHARANI CONSTRUCTIONS, and has undergone internship training program subject related to our building construction work.

During this internship period he was trained in field work related and has undergone 30 days i.e. 360hours duration of training.

During the internship program we found he was good learner. We wish him all the success for his future assignments.

*C. Dharam*  
DHARANI CONSTRUCTIONS  
No. 11/A, 17<sup>TH</sup> CROSS, CIBA THOTA  
Church Road, Laggere, Near B-Best School  
Bangalore - 560 058

# CERTIFICATE

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Tel : 080-28391061, Mob : +91 9448711991, +91 9731556035

E-mail : netrhaenterprise@gmail.com

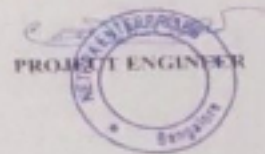
7/10/2021

To whomsoever it may concern

Miss. Tejaswini R (IKT19CV411) from Sri Krishna Institute of Technology has successfully completed her Internship at NETHRA ENTERPRISES for the duration of 4 weeks from 6/9/2021 to 6/10/2021.

We wish her all the best for her future endeavors.

Thank you



We Undertake all kinds of Civil and Electrical Works



# C G ASSOCIATES

CIVIL ENGINEERS & STRUCTURAL CONSULTANTS  
BBMP Reg No BCC/BL-3/SE-0349/19-20

KUMAR C G  
BE Civil, M Tech Structural  
9880088925  
cgkstru76@gmail.com  
GST : 29BUMPK2564E1ZE

DATE : \_\_\_\_\_

## To Whom So Ever It May Concern

### EXPERIENCE CERTIFICATE

This is to certify that Mr. HARISHA V (1KT18CV402) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) of internship program on construction of Residential building in our organization at Bagalagunte work site, during the period of for inter ship program with us He has found punctual and hard working

His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.

For C.G. ASSOCIATES

PROPRIETOR

KUMAR. C.G B.E.(Civil), M.Tech (Stru) MSTE  
BCC/BL-3/SE-0349/19-20

C. G Associates  
(Kumar C.G)

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross adarsh nagar layout , arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

***This is to certify that Ms. ADITI SARKAR(1KT19CV400) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of Internship program on construction of Residential and commercial buildings in our organization at Nelamangala work sit, during the period of for Internship program with us She has found punctual and hard working***

***Her service is found to be Excellent here, and she is capable of shouldering any responsibilities in similar field***

Thanking you



(Manjunath A)

*Manjunath*

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# SRI KRISHNA INSTITUTE OF TECHNOLOGY


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

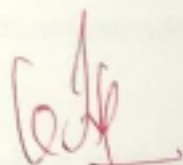
## Department of Civil Engineering



## CERTIFICATE

This is to certify that the Internship report submitted by **Mr. AISHWARYA (1KT18CV001)**, a bonafide student of **Sri Krishna Institute of Technology**, in partial fulfillment for the award of **Bachelor of Engineering in Civil Engineering** of the **Visvesvaraya Technological University, Belagavi**, during the academic year **2021-22**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report of the Internship practice has been approved as it satisfies the academic requirements in respect of Internship prescribed for the said Degree.

  
**Signature of the Internal Guide**  
**Mr. MANJUNATH. V**  
Assistant. professor  
Department of Civil Engineering

  
**Signature of the HOD**  
**Dr. HARISH V**  
Head of the Department  
Department of Civil Engineering

### EXTERNAL VIVA

Name of the Examiners

Signature with date

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

\_\_\_\_\_

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

\_\_\_\_\_

# YOUNG INDIA BUILDERS

(Engineers, Architects &  
Head office: Door. No: 25, Kunchitigara S  
R.T. Road, SIRRA-572137, TUMKUR

To Whom So Ever

EXPERIENCE

*This is to certify that Miss. SHWETHA K (1K  
Sri Krishna Institute of Technology. Has successful  
September 2021.) Of internship program on construction  
organization at Sira work site, during the period of  
punctual and hard working  
Her service is found to be Excellent  
responsibilities in similar field.*

AS AND PLANNERS

(Approved Valuers)  
Jha, Ranganatha College Complex,  
TUDA Reg. No: 22/2005/06

My Concern

CERTIFICATE

(1028) Student of  
completed 4 weeks (from 01 September 2021 to 30  
of Residential and commercial buildings in our  
for internship program with us She has found  
and she is capable of shouldering any



## DHARANI CONSTRUCTIONS

NO.11/A, 17<sup>TH</sup> CROSS, CIBA THOTA CHURCH ROAD, LAGGERE, NEAR BEST SCHOOL, BANGLORE-560058

REG NO: 30/69/CE/0041/2016

DATE: 30.09.2021

### CERTIFICATE

This is to certify that Mr. Tamchi Changriang, Student of **Sri Krishna Institute of Technology**, Bangalore, Bearing USN **1Kt18cv418** Studying B.E. Civil Engineering(Final Year) has successfully completed his Internship training program for the year 2020-2021 under **DHARANI CONSTRUCTIONS**, and has undergone internship training program subject related to our building construction work.

During this internship period he was trained in field work related and has undergone 30 days i.e. 360hours duration of training.

During the internship program we found him as good learner. We wish him all the success for his future assignments.

*C. Dharani*

DHARANI CONSTRUCTIONS  
No. 11/A, 17th Cross, CIBA Thota  
Church Road, Laggere, Near B-Best School  
Bangalore - 560 058



# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross adarsh nagar layout , arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

***This is to certify that Mr. NISHANT BHATTARAJ (1KT18CV014) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work sit, during the period of for internship program with us He has found punctual and hard working***

***His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field***

Thanking you

(Manjunath A)

# INTERNSHIP CERTIFICATE



**NAVSIDEE**  
The Right Choice

DATE : 02/10/2021  
PLACE : BANGALORE

TO WHOM IT MAY CONCERN


This is to certify that Mr. Rahul Kumar Yadav bearing USN No. 1KT18CV018, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.

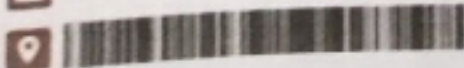
For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Hesaraghatta Main Road,  
Mallasandra, T.Desarhally Post,  
Bangalore-560057

 7204021022

 [contact@navsidee.com](mailto:contact@navsidee.com)



# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore - 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. SUCHITH GOWDA J (1KT18CV030) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



(Manjunath A)

Manjunath

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |



**NAVSIDEE**  
The Right Choice

DATE : 02/10/2021  
PLACE : BANGALORE

### TO WHOM IT MAY CONCERN


This is to certify that Mr. Khemraj Bohora bearing USN No. 1KT18CV010, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.

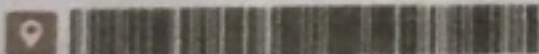
For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Hesaraghatta Main Road,  
Mallasandra, T.Desarhally Post,  
Bangalore-560057

 7204021022

 contact@navsidee.com



## DHARANI CONSTRUCTIONS

NO.11/A, 17<sup>TH</sup> CROSS, CIBA THOTA CHURCH ROAD, LAGGERE, NEAR BEST SCHOOL, BANGLORE-560058

REG NO: 30/69/CE/0041/2016

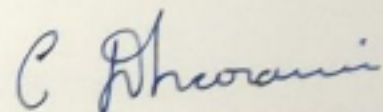
DATE: 30.09.2021

### CERTIFICATE

This is to certify that **Mr. Umesh Bahadur Thapa**, Student of **Sri Krishna Institute of Technology**, Bangalore, Bearing USN **1Kt17cv055** Studying B.E. Civil Engineering(Final Year) has successfully completed his Internship training program for the year 2020-2021 under **DHARANI CONSTRUCTIONS**, and has undergone internship training program subject related to our building construction work.

During this internship period he was trained in field work related and has undergone 30 days i.e. 360hours duration of training.

During the internship program we found he was good learner. We wish him all the success for his future assignments.



DHARANI CONSTRUCTIONS  
NO. 11/A, 17th Cross, CIBA THOTA  
CHURCH ROAD, LAGGERE, NEAR B-BEST SCHOOL  
BANGLORE - 560058

# NE NETHRA ENTERPRISES

Super Grade Electrical, Contractors and Engineers

Specialist in : EHT, HT, LT & Civil Works

Office : #2148/A, Pipeline Road, Prashanth Nagar, T. Dasarahalli, Bangalore - 560 057.

Tel : 080-28391061, Mob : +91 9448711991, +91 9731556036

E-mail : netrhaenterprise@gmail.com

7/10/2021

To whomsoever it may concern

Mr. Kushal.M.A (1KT16CV039) from Sri Krishna Institute of Technology has successfully completed his Internship at NETHRA ENTERPRISES for the duration of 4 weeks from 6/9/2021 to 6/10/2021.

We wish him all the best for his future endeavors.

Thank you









## COMPANY PROFILE



### *CG ASSOCIATES*

CIVIL ENGINEERS & STRUCTURAL CONSULTANTS  
BDM\* Reg. No. PCCOIL-3/25E-034978/20

**CG Associates Pvt Ltd** and contracting company in India that has executed construction work for some of the most significant projects in the country. Company has steadily attained substantial client's satisfaction and value addition for our projects. With an impressive track record of one of the fast growing company and several projects due for completion, we are all geared up to set new benchmarks in the upcoming future. The man behind the company, whose vision and proactive execution have brought us where we are, is our Managing Director, Mr. KUMAR C G. He has expertise in multi storied buildings.

**VISION:** To be world-class construction company committed to total customer satisfaction, by building on their strengths that are innovative designs, quality of materials, timely completion, and highest standard of workmanship.

**MISSION:** To strengthen their position as a leading engineering consultancy and contracting company. And to uphold the highest standards of business ethics and lead the way in fulfilling corporate social responsibilities.

#### **Specialization:**

- ✓ Residential Constructions
- ✓ Commercial & Institutional Constructions
- ✓ Road Constructions
- ✓ Infrastructure Development



# C G ASSOCIATES

CIVIL ENGINEERS & STRUCTURAL CONSULTANTS  
BBMP Reg No BCC/BL-3 B/SE-0340/19-20

👤 KUMAR C G  
📞 BE Civil, M Tech Structural  
☎ 9860088925  
✉ cgkstru76@gmail.com  
GST : 29BUMPK2564E1ZE

DATE : \_\_\_\_\_

To Whom So Ever It May Concern

*EXPERIENCE CERTIFICATE*

This is to certify that Mr.GAGAN C J (IKT17CV013) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) of internship program on construction of Residential building in our organization at Bagalagunte work site, during the period of for inter ship program with us He has found punctual and hard working

His session is found to be Excellent here and he is capable of shouldering any

Since:1985

# NE NETHRA ENTERPRISES

Super Grade Electrical, Contractors and Engineers

Specialist in : EHT, HT, LT & Civil Works

Office : #2148/A, Pipeline Road, Prashanth Nagar, T. Dasarahalli, Bangalore - 560 057.

Tel : 080-28391061, Mob : +91 9448711991, +91 9731556036

E-mail : netrhaenterprise@gmail.com

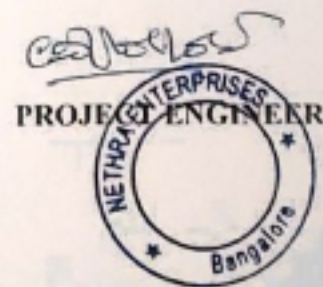
7/10/2021

To whomsoever it may concern

Miss. Kavyashree.N (1KT18CV009) from Sri Krishna Institute of Technology has successfully completed her Internship at NETHRA ENTERPRISES for the duration of 4 weeks from 6/9/2021 to 6/10/2021.

We wish her all the best for her future endeavors.

Thank you



We Undertake all kinds of Civil and Electrical Works

## INTERNSHIP CERTIFICATE.

### **YOUNG INDIA BUILDERS AND PLANNERS**

(Engineers, Architects & Approved Valuers)

Head office: Door. No. 25, Kunchitigara Sangha, Ranganatha College Complex,  
R.T. Road, SIRA-572137, TUMKUR DL TUDA Reg. No: 22/2005/08

To Whom So Ever It May Concern

### EXPERIENCE CERTIFICATE

*This is to certify that Mr. YASHWANTH M P (1KT17CV433) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) Of internship program on construction of Residential and commercial buildings in our organization at Sira work site, during the period of for inter ship program with us He has found punctual and hard working*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

(Naveen.S.V)

Naveen S V  
Managing Partner / Young India Builders Pl. 7899576781

## YOUNG INDIA BUILDERS AND PLANNERS

(Engineers, Architects & Approved Valuers)  
Head Office: Door. No. 25, Kunchitigara Sangha, Ranganatha College Complex,  
R.T. Road, SIRA-572137, TUMKUR Dt. TUDA Reg. No. 22/2005/06

To Whom So Ever It May Concern

### EXPERIENCE CERTIFICATE

*This is to certify that Mr. PRADEEP KUMAR B (1KT17CV030) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) Of internship program on construction of Residential and commercial buildings in our organization at Sira work site, during the period of for inter ship program with us He has found punctual and hard working His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*



Navin S V  
Managing Partner Young India Builders and Planners

INTERNSHIP CERTIFICATE.

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

---

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

**This is to certify that Mr. BANU PRAKASH H R(1KT19CV402) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.**

**His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.**

Thanking you,

(Manjunath A)

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

## COMPANY PROFILE



### *CG ASSOCIATES*

CIVIL ENGINEERS & STRUCTURAL CONSULTANTS  
BEMP Reg No PCCBL-3 RSE-0349/19-20

**CG Associates Pvt Ltd** and contracting company in India that has executed construction work for some of the most significant projects in the country. Company has steadily attained substantial client's satisfaction and value addition for our projects. With an impressive track record of one of the fast growing company and several projects due for completion, we are all geared up to set new benchmarks in the upcoming future. The man behind the company, whose vision and proactive execution have brought us where we are, is our Managing Director, Mr. KUMAR C G. He has expertise in multi storied buildings.

**VISION:** To be world-class construction company committed to total customer satisfaction, by building on their strengths that are innovative designs, quality of materials, timely completion, and highest standard of workmanship.

**MISSION:** To strengthen their position as a leading engineering consultancy and contracting company. And to uphold the highest standards of business ethics and lead the way in fulfilling corporate social responsibilities.

#### **Specialization:**

- ✓ Residential Constructions
- ✓ Commercial & Institutional Constructions
- ✓ Road Constructions
- ✓ Infrastructure Development

# INTERNSHIP CERTIFICATE

## **YOUNG INDIA BUILDERS AND PLANNERS**

(Engineers, Architects & Approved Valuers)

Head office: Door. No: 25, Kunchitigara Sangha, Ranganatha College Complex,  
R.T. Road, SIRA-572137, TUMKUR Dt. TUDA Reg. No: 22/2005/08

**To Whom So Ever It May Concern**

### **EXPERIENCE CERTIFICATE**

*This is to certify that Mr. NANDAN R (1KT19CV406) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021.) Of internship program on construction of Residential and commercial buildings in our organization at Sira work site, during the period of for inter ship program with us He has found punctual and hard working*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

*Naveen S.V*  
(Naveen.S.V)

Naveen S V  
Managing Partner Young India Builders Pl. 7899576781



# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross adarsh nagar layout , arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. PRAJWAL DM (1KT17CV420) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work sit, during the period of for internship program with us He has found punctual and hard working*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field*

Thanking you



Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. Darshan S (1KT15CV015) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |



**Reliable Consultants & Constructions**

**Dedicated to Quality**



**Certificate of Internship**

Date: 27/09/2021

To Whom So Ever It May Concern

This letter is to certify that Ms. Charitha Patel A, student of Sri Krishna Institute Of Technology, Bangalore has successfully completed her Civil Internship program with Reliable Consultants and Constructions - Bangalore. The internship tenure was for 4 weeks starting from 30<sup>th</sup> August 2021 to 25<sup>th</sup> September 2021.

During the span, we found her punctual and hardworking person. The Feedback and evaluation proved that she learned keenly.

This Internship program was for Civil/Diploma Students from Reliable Consultants and Constructions, Bangalore in association with ParvaM ConsulTech Private Limited, Bangalore.

We wish her a bright future.

Hanumantha T  
Founder



#699/E, 3rd Floor, Maralingappa Complex,  
2nd Stage, 11th Block, Near Kabab Factory,  
Nagarbhavi Layout Bengaluru - 560072



+91 96112-52554  
+91 76766-40502



info.rccbengaluru@gmail.com  
www.rccbengaluru.com

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. CHETHAN KUMAR K Y (1KT18CV006) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



(Manjunath A.)

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

Manag



**L&T Construction**  
Buildings & Factories

B&F IC/BLCL-HR/Training  
22<sup>nd</sup> Oct 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. ROHAN R**, student of Sri Krishna Institute of Technology, has completed his Internship at our Prestige Song of South Job site, from 8th Sep 2021 to 6th Oct 2021

He has been found sincere and hardworking to the best of our knowledge & satisfaction during his tenure over here.

We wish him all the best for his future endeavors.

Thanking you,  
Yours faithfully,  
For, L&T Construction

(TANMAY BANERJEE)  
HR MANAGER  
BUILDING & FACTORIES IC

Larsen & Toubro Limited, Construction  
Regional Office : # 19, 1st & 2nd Floor,  
Kumara Krupa Road, Bangalore - 560 001, INDIA  
Tel : +91-80-4010 0000 Fax : +91-80-2225 5127  
License No CIR - L98229MH19+9PLC004768

Head Office :  
Mount Poonamallee Road, Maripattanam,  
PB No. 579, Chennai - 600 005, INDIA.  
Tel : +91-44-2252 6000, 2259 7000  
Fax : +91-44-2249 3317 www.Lntecc.com

Registered Office : L&T House, N.M. Jey, Ballard Estate, Mumbai - 400 001, INDIA



**NAVSIDEE**  
The Right Choice

DATE : 02/10/2021  
PLACE : BANGALORE

CONTENTS

## TO WHOM IT MAY CONCERN

This is to certify that Mr. MD Shamshad Alam bearing USN No. 1KT18CV013, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.


For, Navsidee construction company Ltd.

Authorised Signature

### NAVSIDEE CONSTRUCTIONS

# 23, Rengappa Layout,  
Hesaraghatta Main Road,  
Mallasandra, T.Desarahalli Post,  
Bangalore-560057

 7204021022

 contact@navsidee.com



# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arsisankunte Tumkur Road Bangalore - 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. Bibek Sinha (1KT19CV403) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for Internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



(Manjunath A)

A handwritten signature in blue ink, appearing to read 'Manjunath A', positioned below the printed name.

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# INTERNSHIP CERTIFICATE



**S.K CONSTRUCTIONS**

#B165, 1<sup>st</sup> Floor, DDUTTL, Tumkur road, near CPC logistics

Yeshwanthapur, Bengaluru-560022

GSTIN 29ASVPC4425A1ZU

Tel:8553128097

Email: skconstructions.sk@gmail.com

Date: 06/10/2021

## CERTIFICATE

This is to certify that Mr. **OM PRAKASH SAH** bearing USN: **1KT17CV028** 7<sup>th</sup> Semester B.E in Civil Engineering in Sri Krishna Institute of Technology has undergone Internship training in our organization for a period of 1 months from (03<sup>rd</sup> September 2021 to 05<sup>th</sup> October 2021).

He has worked on a project titled "Bengaluru Business Signature Park" at Bhuvanahalli gate, Devanahalli Taluk, Bengaluru Rural District.

He was found sincere and hardworking during this tenure.



**Rohith R**  
Project Manager  
S K Constructions  
+91-8553128097  
skconstructions.sk@gmail.com



**DHARANI CONSTRUCTIONS**  
NO.11/A, 17<sup>TH</sup> CROSS, CIBA THOTA CHURCH ROAD, LAGGERE, NEAR BEST  
SCHOOL, BANGLORE-560058

REG NO: 30/69/CE/0041/2016

DECLARATION

DATE: 30.09.2021

**CERTIFICATE**

This is to certify that **Mr. NILESH KUMAR**, Student of **Sri Krishna Institute of Technology**, Bangalore, Bearing USN **IKT18CV409**, Studying B.E. Civil Engineering (Final Year) has successfully completed his Internship training program for the year 2020-2021 under **DHARANI CONSTRUCTIONS**, and has undergone internship training program subject related to our building construction work.

During this internship period he was trained in field work related and has undergone 30 days i.e. 360hours duration of training.

During the internship program we found he was good learner. We wish him all the success for his future assignments.

*C. Dhavani*

**DHARANI CONSTRUCTIONS**  
No. 11/A, 17th Cross, CIBA THOTA  
Church Road, Laggere, Near B-Best School  
Bangalore - 560 058

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. SHARATH S P (1KT19CV410) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



(Manjunath A)

*Manjunath A*

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |



B&F IC/BLCL-HR/Training  
22<sup>nd</sup> Oct 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. SAMPATH GOWDA R**, student of Sri Krishna Institute of Technology, has completed his Internship at our Prestige Song of South Job site, from 8th Sep 2021 to 6th Oct 2021

He has been found sincere and hardworking to the best of our knowledge & satisfaction during his tenure over here.

We wish him all the best for his future endeavors.

Thanking you,  
Yours faithfully,  
For, L&T Construction

**(TANMAY BANERJEE)**  
**HR MANAGER**  
**BUILDING & FACTORIES IC**

# INTERNSHIP CERTIFICATE



DATE : 02/10/2021  
PLACE : BANGALORE

## TO WHOM IT MAY CONCERN


This is to certify that Mr. Shyam Kumar Sah bearing USN No. 1KT18CV029, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.

For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Hesaraghatta Main Road  
Mallasandra, T Dasarahalli Post,  
Bangalore-560057

 7204021022

 [contact@navsidee.com](mailto:contact@navsidee.com)



# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore – 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. ANJAN KUMAR M G (1KT18CV002) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



(Manjunath A)

Manjunath A

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore - 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

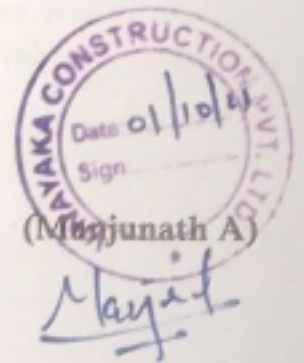
To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

*This is to certify that Mr. Rishikesh Patel (1KT18CV020) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for Internship program with us He has found punctual and hard working.*

*His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.*

Thanking you,



Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# VINAYAKA CONSTRUCTIONS

#11, 1<sup>st</sup> cross Adarsh Nagar Layout , Arisinakunte Tumkur Road Bangalore - 562162 Nelamangala Bangalore North

(Engineers, Architects & Approved Valuers)

To Whom So Ever It May Concern

## EXPERIENCE CERTIFICATE

***This is to certify that Mrs. Tejaswini S (1KT18CV032) Student of Sri Krishna Institute of Technology. Has successfully completed 4 weeks (from 01 September 2021 to 30 September 2021) of internship program on construction of Residential and commercial buildings in our organization at Nelamangala work site, during the period of for internship program with us He has found punctual and hard working.***

***His service is found to be Excellent here, and he is capable of shouldering any responsibilities in similar field.***

Thanking you,



(Manjunath A)

A handwritten signature in blue ink that reads "Manjunath A".

Managing Director & Chief Executive officer | VINAYAKA CONSTRUCTION |

# INTERNSHIP CERTIFICATE



DATE : 02/10/2021  
PLACE : BANGALORE

## TO WHOM IT MAY CONCERN

This is to certify that Mr. MD Naeem Nadaf bearing USN No. 1KT18CV012, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.

For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Hesaraghatta Main Road,  
Mallasandra, T.Dasarahalli Post,  
Bangalore-560057

 7204021022

 contact@navsidee.com







**NAVSIDEE**  
*The Right Choice*

DATE : 02/10/2021  
PLACE : BANGALORE

### TO WHOM IT MAY CONCERN

This is to certify that Mr. Pankaj Kumar Chaudhary bearing USN No. 1KT18CV015, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.

We wish him every success in his professional career.

For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Heseraghatta Main Road,  
Mallasandra, T.Dasarahalli Post,  
Bangalore-560057

7204021022

[contact@navsidee.com](mailto:contact@navsidee.com)



# INTRENSHIP CERTIFICATE



DATE : 02/10/2021  
PLACE : BANGALORE

## TO WHOM IT MAY CONCERN


This is to certify that Mr. Dayanand Yadav bearing USN No. IKT18CV007, a student of civil engineering (Major in Construction – 7th semester) VTU, Bangalore, Karnataka has successfully completed one month (from 2nd Sep 2021 to 2nd Oct 2021) internship programme at Navsidee Constructions company. During this period of his internship programme with us, he was found punctual, hardworking and inquisitive.


We wish him every success in his professional career.

For, Navsidee construction company Ltd.

Authorised Signature

**NAVSIDEE CONSTRUCTIONS**  
# 23, Rangappa Layout,  
Hesaraghatta Main Road,  
Mallasandra, T.Dasarahalli Post,  
Bangalore-560057

 7204021022

 [contact@navsidee.com](mailto:contact@navsidee.com)





innovation.creation

**Certificate ID - 21ICS08FS020**

**Date - 09/08/2021**


## Certificate Of Internship

This is to certify that Ms. BINDU A(1KT16EC013) student of "Visvesvaraya Technological University" has completed one month Internship on "Full Stack Web Development" with a grade of " B " in our organization from 7th July 2021 to 8th August 2021 in association with takeiteasy\_engineers.

We wish you all the best in your future endeavors.

*Anurag Patwary*  
Anurag Patwary  
(Product Manager)

 [www.icsoln.com](http://www.icsoln.com)

 721 JP Nagar 7th Phase,  
Bengaluru 560078

Web Development • Digital Marketing • Branding  
Graphic Designing • Video Editing/Animation



innovation.creation

**Certificate ID - 21ICS08FS086**

**Date - 09/08/2021**

## Certificate Of Internship

This is to certify that Ms. ANUSHA C N (1kt16ec007) student of "Visvesvaraya Technological University" has completed one month Internship on "Full Stack Web Development" with a grade of " B " in our organization from 7th July 2021 to 8th August 2021 in association with takeiteasy\_engineers.

We wish you all the best in your future endeavors.

*Anurag Patwary*  
Anurag Patwary  
(Product Manager)

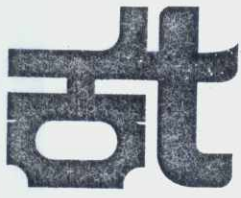


[www.icsoln.com](http://www.icsoln.com)



721 JP Nagar 7th Phase,  
Bengaluru 560078

Web Development • Digital Marketing • Branding  
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ಕರನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttesaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/1203

Date: 17-Nov-2021

To Whomsoever It May Concern

CERTIFICATE

This is to certify that Ms. SUSHMA J from Sri Krishna Institute of Technology (ECE) bearing USN: 1KT18EC014 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Embedded System And It's Application. During the course he/she was trained and he/she carried out a project on .

1. Smart Agriculture Monitoring System.
2. Smart Dustbin Using GPS And GSM.
3. Home Automation Using Embedded System.
4. Smart Parking Using GPS And GSM.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish him/her all the best for his/her future.

*Harysh N*  
HARYSH N

GUIDE

Karunadu Technologies Pvt.Ltd.



*Mahesh Beginal*  
MAHESH BEGINAL

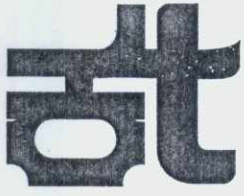
Managing Director

Karunadu Technologies Pvt.Ltd.



Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyanarayapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



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KARUNADU TECHNOLOGIES PRIVATE LIMITED

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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/1202

Date: 17-Nov-2021

To Whomsoever It May Concern

CERTIFICATE

This is to certify that Ms. VARSHINI G N from Sri Krishna Institute of Technology (ECE) bearing USN: 1KT18EC017 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Embedded System And It's Application. During the course he/she was trained and he/she carried out a project on .

1. Smart Agriculture Monitoring System.
2. Smart Dustbin Using GPS And GSM.
3. Home Automation Using Embedded System.
4. Smart Parking Using GPS And GSM.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish him/her all the best for his/her future.

  
HARISH N  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

  
MAHESH DEGINJAL  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

Registered Office:

No. 17, 2nd Main, 1st Cross, Near Singapore Village Bus Stop, Vidyeranya  
City, Bengaluru - 560090, Karnataka, India. Mob: +91 9904823648 / +91 9902913646. E-mail:  
www.karunadutechnologies.com, Website: www.karunadu

Ref No: KTPT/INT/2021/1201

Date: 17-Nov-2021

## To Whomsoever It May Concern

### CERTIFICATE

This is to certify that **Ms. YASHASWINI B** from Sri Krishna Institute of Technology (ECE) bearing **USN: 1KT18EC021** has successfully completed internship programme at **Karunadu Technologies Private Limited** from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Embedded System And It's Application. During the course he/she was trained and he/she carried out a project on .

1. **Smart Agriculture Monitoring System.**
2. **Smart Dustbin Using GPS And GSM.**
3. **Home Automation Using Embedded System.**
4. **Smart Parking Using GPS And GSM.**

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish him/her all the best for his/her future.

HARISH N

**GUIDE**

Karunadu Technologies Pvt.Ltd.

MAHESH DEGINAL

**Managing Director**

Karunadu Technologies Pvt.Ltd.



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/1200

Date: 17-Nov-2021

To Whomsoever It May Concern

CERTIFICATE

This is to certify that Ms. PRIYANKA P S from Sri Krishna Institute of Technology (ECE) bearing USN: 1KT19EC402 has successfully completed internship programme at Karunadu Technologies Private Limited from 01-Sep-2021 to 30-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Embedded System And It's Application. During the course he/she was trained and he/she carried out a project on .

1. Smart Agriculture Monitoring System.
2. Smart Dustbin Using GPS And GSM.
3. Home Automation Using Embedded System.
4. Smart Parking Using GPS And GSM.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish him/her all the best for his/her future.

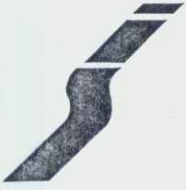
  
HARISH N  
GUIDE  
Karunadu Technologies Pvt.Ltd.

  
MAHESH D  
Managing Director  
Karunadu Technologies Pvt.Ltd.

Registered Office:

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CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
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[WWW.INOVITSOLUTIONS.COM](http://WWW.INOVITSOLUTIONS.COM)

Date: 02.11.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Miss. Reshma Rajeev (Reg.No.1KT18EC009)** the student Sri Krishna Institute of technology, Bangalore, has undergone his Internship Training at **Inovit Solutions** from Date: **01.04.2021 to 31.10.2021**.

During the period of his internship program with us, he had been exposed to different processes and was found **diligent, hardworking and inquisitive**.

**Miss. Reshma Rajeev** possesses a good character and pleasing personality. I wish her every success in life.

For Inovit Solutions

HR & Admin



## INTERNSHIP CERTIFICATE

Date: 30<sup>th</sup> August 2021

### To Whom so ever It May Concern

This is to certify that **Adithya C S**, USN no. **1KT16EC002**, a student of Bachelor of Engineering in Electronics and Communication, **Sri Krishna Institute of Technology** Bangalore, worked under my supervision during the Internship period from **1<sup>st</sup> AUGUST, 2021 to 30<sup>th</sup> AUGUST, 2021** at **JAI ENTERPRISES** Bangalore.

I am pleased to state that he worked hard in the manufacturing of **KIOSK** and **VENDING MACHINE** and has been able to present a good picture of the concerned works.

I wish him every success in life.



**Manoj Jaishankar**  
Managing Director  
JAI ENTERPRISES  
Bangalore



# Compsoft Technologies

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Certificate ID - 1CSTMLB6040

Date - 11/11/2021

## Certificate of Internship

This is to Certify that Mr Tejas L (1KT17EC043) Student of "Visvesvaraya Technological University" has completed one month Internship on "Machine Learning with Python(Research Based)" with a grade of "A" in our Company from 27th September 2021 to 29th October 2021 in association with TAKEITEASY ENGINEERS.

He was very much interested to be a part of our research on Sentimental Analysis, His association with us was very fruitful and we wish him all the best in his future endeavors.

(Project Manager, CST)



Compsoft Technologies  
No. 363, 19th main road,  
1st Block Rajajinagar Bangalore- 560010



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\*Branding and Design

\*Development

\*Content Writing

\*ML & Research

\*Embedded Systems and IOT



# CERTIFICATE OF INTERNSHIP

This certificate is presented to  
**CHETHAN T R**

In recognition of his/her efforts in completing the one month industry internship on  
**IoT Project Development using Industry Grade Microcontroller**  
from 5<sup>th</sup> August to 23<sup>rd</sup> September 2021. We appreciate his/her dedication for completing  
all the tasks assigned during the period of internship. Given this day of September 23, 2021.

**Mr. S. M. Arali**  
CEO

NRIT Incubation Center, RIT, Islampur



**Anand**  
Techno-Creations

**NRIT**

Incubation Centre  
Funded by A Govt.  
of Maharashtra and  
MSME Govt. of India

**Dr. Anand B. Kakade**  
Founder and CEO

Anand Techno-Creations, Satara



# Certificate

## of Course Completion

This Certificate is proudly presented to

**Prajwal DS**

For successfully completing 3 weeks Online Skill Development Program on  
Internet of Things  
from 1st September 2021 to 22nd September 2021 at Tequed Labs

*Aditya S. K*

Aditya S K, CTO

*Supreeth*

Supreeth Y S, CEO

Certificate ID: TLS21A2762



Pre-Incubated at

# CERTIFICATE OF COMPLETION

This certifies that

**ROHITH KUMAR J**

has completed one month Internship on Internet of Things  
from 1st September 2021 to 30th September 2021 at Tequed Labs  
and has worked on a Project Titled  
"IOT BASED AIR POLLUTION MONITORING SYSTEM"

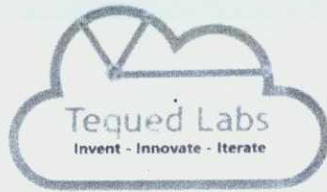
USN: 1KT18EC010

Institution Name: SRI KRISHNA INSTITUTE OF TECHNOLOGY

Internship ID: TLS21A2763

Supreeth Y S, CEO

Aditya S K, CTO



Pre-Incubated at

# CERTIFICATE OF COMPLETION

This certifies that

**Prajwal DS**

has completed one month Internship on Internet of Things  
from 1st September 2021 to 30th September 2021 at Tequed Labs  
and has worked on a Project Titled  
“Iot based Air pollution Monitoring system”

USN: 1KT18EC008

Institution Name: Sri Krishna institute of technology

Internship ID: TLS21A2762

Supreeth Y S, CEO

Aditya S K, CTO



## TO WHOMSOEVER IT MAY CONCERN


This is to certify that Spurthi B A, a student of B.E ECE, 2022, of Sri Krishna Institute of Technology, Visvesvaraya Technological University, Karnataka, has successfully completed her Online VLSI Design Internship Program from 20<sup>th</sup> October 2021 to 3<sup>rd</sup> December 2021.

During her internship program with us, she worked on the below mentioned project.

AHB2APB Bridge RTL Design using Verilog HDL

We wish her all the best in her future endeavours.

For Maven Silicon Softech Ltd.

*Sweety Dharamdasani*  


Sweety Dharamdasani  
Manager - Training & Quality

Place: Bangalore

Date: 14<sup>th</sup> December 2021

Maven Silicon Softech Pvt Ltd.,

Registered office : # 21/1A, III Floor, Marudhar Avenue, Gottigere, Uttarahalli Hobli, South Taluk  
Bannerghatta Road, Bangalore - 560076





# *Certificate*

## of Course Completion

This Certificate is proudly presented to

**ROHITH KUMAR J**

---

For successfully completing 3 weeks Online Skill Development



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

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Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/1208

Date: 22-Nov-2021

To Whomsoever It May Concern

CERTIFICATE

This is to certify that Mr/Ms. SRINIVAS A from Sri Krishna Institute of Technology (ECE) bearing USN- 1KT18EC013 has successfully completed internship programme at Karunadu Technologies Private Limited from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of PCB Design . During the course he/she was trained and he/she carried out projects on

1. Design The Half-Wave Circuit Using Orcad PCB Software.
2. Design D Flip-Flop, T Flip-Flop Circuit Using Basic Gates Using Orcad PCB Software.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
HARISH N  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
BANGALORE  
560 090  
Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
Managing Director  
KARUNADU TECHNOLOGIES PRIVATE LIMITED  
BANGALORE  
560 090  
Karunadu Technologies Pvt.Ltd.

Registered Office:

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CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



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**KARUNADU TECHNOLOGIES PRIVATE LIMITED**

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/1207

Date: 22-Nov-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that **Mr/Ms. VED PRAKASH A KUMAR** from Sri Krishna Institute of Technology (ECE) bearing **USN- 1KT18EC019** has successfully completed internship programme at **Karunadu Technologies Private Limited** from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of PCB Design . During the course he/she was trained and he/she carried out projects on

1. **Design The Non-Inverting Circuit Using Orcad PCB Software.**
2. **Design Full Adder Circuit Using Basic Gates Using Orcad PCB Software.**

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish he/she all the best in his/her future endeavours.

  
HARISH.N

**GUIDE**

Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL

**Managing Director**

Karunadu Technologies Pvt.Ltd.

Registered Office:

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyananyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



# Karunadu Technologies Private Limited

Head Office: #17, ATK complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttesbasaveshwaranagar, Chikkabanvara, Bengaluru, Karnataka- 560090

## Acceptance Letter

Date: 26-Aug-2021

Dear SUSHMA J

We are pleased to offer you an internship with **Karunadu Technologies Private Limited**. This is an educational internship. Our goal for you is to get exposure to industrial experience.

**Internship Domain:** Embedded system and it's applications

**Internship Duration:** 01-Sep-2021 to 30-Sep-2021

**Company Location :** #17, ATK complex, 2nd and 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank, Chikkabanvara, Bengaluru Karnataka 560090

**Supervisor for internship:** Harish N

**Responsibilities:** Your duties include Embedded and IOT Development as well as other duties that may be assigned to you from time to time.

We hope that your association with the company will be successful and rewarding. Please indicate your acceptance of the internship by signing below and returning it to **HR Department of Karunadu Technologies Private Limited**.

If you have any questions, please do not hesitate to contact us.

Congratulations on your internship!

Best Wishes,

M.D and CEO

Mahesh Deginal

I hereby accept internship with **Karunadu Technologies Private Limited** on the terms and conditions set out in this letter.

Date : 1/09/2021

Intern Name : Sushma.J

Signature: Sushma.J



# Karunadu Technologies Private Limited

Head Office: #17, ATK complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwaranagar, Chikkabanvara, Bengaluru, Karnataka- 560090

## Acceptance Letter

Date: 26-Aug-2021

Dear PRIYANKA P S

We are pleased to offer you an internship with **Karunadu Technologies Private Limited**. This is an educational internship. Our goal for you is to get exposure to industrial experience.

**Internship Domain:** Embedded system and it's applications

**Internship Duration:** 01-Sep-2021 to 30-Sep-2021

**Company Location :** #17, ATK complex, 2nd and 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank, Chikkabanvara, Bengaluru Karnataka 560090

**Supervisor for internship:** Harish N

**Responsibilities:** Your duties include Embedded and IOT Development as well as other duties that may be assigned to you from time to time.

We hope that your association with the company will be successful and rewarding. Please indicate your acceptance of the internship by signing below and returning it to **HR Department of Karunadu Technologies Private Limited**.

If you have any questions, please do not hesitate to contact us.

Congratulations on your internship!

Best Wishes,

M.D and CEO

Mahesh Deginal

I hereby accept internship with **Karunadu Technologies Private Limited** on the terms and conditions set out in this letter.

Date : 01-09-2021

Intern Name : Priyanka PS

Signature: Priyanka PS



# Karunadu Technologies Private Limited

Head Office: #17, ATK complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttesbasaveshwaranagar, Chikkabanvara, Bengaluru, Karnataka- 560090

## Acceptance Letter

Date: 26-Aug-2021

Dear YASHASWINI B

We are pleased to offer you an internship with **Karunadu Technologies Private Limited**. This is an educational internship. Our goal for you is to get exposure to industrial experience.

**Internship Domain:** Embedded system and it's applications

**Internship Duration:** 01-Sep-2021 to 30-Sep-2021

**Company Location :** #17, ATK complex, 2nd and 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank, Chikkabanvara, Bengaluru Karnataka 560090

**Supervisor for internship:** Harish N



# Karunadu Technologies Private Limited

Head Office: #17, ATK complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwaranagar, Chikkabanvara, Bengaluru, Karnataka- 560090

## Acceptance Letter

Date: 26-Aug-2021

Dear VARSHINI G N

We are pleased to offer you an internship with **Karunadu Technologies Private Limited**. This is an educational internship. Our goal for you is to get exposure to industrial experience.

**Internship Domain:** Embedded system and it's applications

**Internship Duration:** 01-Sep-2021 to 30-Sep-2021

**Company Location :** #17, ATK complex, 2nd and 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank, Chikkabanvara, Bengaluru Karnataka 560090

**Supervisor for internship:** Harish N

**Responsibilities:** Your duties include Embedded and IOT Development as well as other duties that may be assigned to you from time to time.

We hope that your association with the company will be successful and rewarding. Please indicate your acceptance of the internship by signing below and returning it to **HR Department of Karunadu Technologies Private Limited**.

If you have any questions, please do not hesitate to contact us.

Congratulations on your internship!

Best Wishes,

M.D and CEO  
Mahesh Deginal

I hereby accept internship with **Karunadu Technologies Private Limited** on the terms and conditions set out in this letter.

Date : 01/09/2021

Intern Name : Varshini. G.N

Signature:



# Compsoft Technologies

Providing a Complete Suite of IT Solutions

Certificate ID - 1CST21FSWP2218

Date - 17/10/2021

## Certificate of Internship

This is to certify that **Mr Swarnadeep Jaiswal (1KT18EC016)** has done his **Full Stack Web Development Internship** in **Compsoft Technologies, Rajaji Nagar, Bangalore**, from **1st September 2021 to 3rd October 2021**.

He has worked on a project titled **Custom Resume Maker**. This project was aimed at creating a cutting edge website for a client of ours, As part of the project, He designed functional web pages, Backend Databases to collect, store, sort data, by understanding the design briefs and client specifications that were provided in the Proposal.

During the internship, He demonstrated good design skills with a self-motivated attitude to learn new things. His performance exceeded expectations and was able to complete the project successfully on time, We wish him all the best in his future endeavours.

Warm regards,

(Project Manager, CST)



Compsoft Technologies  
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\*Content Writina

\*ML & Research

\*Embedded Systems and IOT





# Compsoft Technologies

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Certificate ID - 1CST21FSWP2262

Date - 17/10/2021

## Certificate of Internship

This is to certify that **Mr A L Manoj Reddy (1KT17EC001)** has done his **Full Stack Web Development** Internship in **Compsoft Technologies, Rajaji Nagar, Bangalore**, from 1st September 2021 to 3rd October 2021.

He has worked on a project titled **Custom Resume Maker**. This project was aimed at creating a cutting edge website for a client of ours, As part of the project, He designed functional web pages, Backend Databases to collect, store, sort data, by understanding the design briefs and client specifications that were provided in the Proposal.

During the internship, He demonstrated good design skills with a self-motivated attitude to learn new things. His performance exceeded expectations and was able to complete the project successfully on time, We wish him all the best in his future endeavours.

Warm regards,

(Project Manager, CST)



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KARUNADU TECHNOLOGIES PRIVATE LIMITED

*Certificate  
of Completion*

INTERNSHIP PROGRAM  
ON  
Python With Machine Learning



1KT17EC024

THIS IS TO CERTIFY THAT

MR/Ms. NIVEDITHA L .

FROM COLLEGE SRI KRISHNA INSTITUTE OF TECHNOLOGY

HAS COMPLETED ONE MONTH INTERNSHIP PROGRAM ON

PYTHON WITH MACHINE LEARNING (ML)

CONDUCTED FROM 18-AUG-2021 TO 18-SEP-2021 AT

KARUNADU TECHNOLOGIES PVT. LTD.

Mahesh Deginal  
MD & CEO  
Karunadu Technologies Pvt. Ltd.



Harish .N  
GUIDE  
Karunadu Technologies Pvt. Ltd.



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KARUNADU TECHNOLOGIES PRIVATE LIMITED

*Certificate  
of Completion*

INTERNSHIP PROGRAM  
ON  
Python and Machine Learning



1KT17EC009

THIS IS TO CERTIFY THAT

MR/Ms.DIVYA S.

FROM COLLEGE SRI KRISHNA INSTITUTE OF TECHNOLOGY

HAS COMPLETED ONE MONTH INTERNSHIP PROGRAM ON

PYTHON AND MACHINE LEARNING

CONDUCTED FROM 01-SEP-2021 TO 30-SEP-2021 AT  
KARUNADU TECHNOLOGIES PVT. LTD.

Mahesh Deginal  
MD & CEO  
Karunadu Technologies Pvt. Ltd.



Harish .N  
GUIDE  
Karunadu Technologies Pvt. Ltd.



ಕರುನಾಡು ಟೆಕ್ನಾಲಜಿಸ್ ಪ್ರೈವೇಟ್ ಲಿಮಿಟೆಡ್  
KARUNADU TECHNOLOGIES PRIVATE LIMITED

#17, A.T.K. Complex, 2nd & 4th Floor, Acharya College Main Road, Beside Karur Vysya Bank,  
Guttebasaveshwara Nagar, Chikkabanavara, Bengaluru - 560090

Ref No: KTPT/INT/2021/0928

Date: 06-Oct-2021

**To Whomsoever It May Concern**

**CERTIFICATE**

This is to certify that **Mr/Ms. SANJAY D** from Sri Krishna Institute of Technology (ECE) bearing **USN- 1KT18EC011** has successfully completed internship programme at **Karunadu Technologies Private Limited** from 18-Aug-2021 to 18-Sep-2021 and found the candidate's performance is good.

During his/her Internship, he/she was exposed to the various activities in field of Internet of Things (IoT). During the course he/she was trained and he/she carried out a project on **Smart Street Light Monitoring Using Arduino Uno**.

During the period of his/her Internship training with us he/she was found punctual, hardworking and inquisitive.

His/her association with us was very fruitful and we wish him/her all the best for his/her future.

  
HARISH N

**GUIDE**

Karunadu Technologies Pvt.Ltd.

  
MAHESH DEGINAL  
**Managing Director**

Karunadu Technologies Pvt.Ltd.

**Registered Office:**

No. 59, 2nd Main, 1st Cross, Near Singapura Village Bus Stop, Vidyaranyapura, Bengaluru - 560064 ,  
CIN: U74999KA2018PTC114911, Mob: +91 9964823646 /+91 9902913646 E-mail: karunadutechnologies@gmail.com ,  
support@karunadutechnologies.com, Website: www.karunadutechnologies.com



**भारत इलेक्ट्रॉनिक्स लिमिटेड**  
**भारत इलेक्ट्रॉनिक्स**  
**BHARAT ELECTRONICS**

**भारत इलेक्ट्रॉनिक्स लिमिटेड**  
(भारत सरकार का उद्यम, रक्षा मंत्रालय)  
उत्पाद विकास एवम् नवोन्मेष केंद्र  
जालहल्ली पोस्ट, बेंगलूरु-560 013, भारत  
**BHARAT ELECTRONICS LIMITED**  
(A Govt. of India Enterprise, Ministry of Defence)  
**Product Development & Innovation Centre**  
Jalahalli Post, Bengaluru-560 013, India.

फोन / Phone :

फैक्स / Fax :

ईमेल / E-mail :

सं/No: 6050/HR/PDIC/PT- 169/2021-22

दिनांक/Date: 13.10.2021

(उत्पाद विकास एवम् नवोन्मेष केंद्र)  
PRODUCT DEVELOPMENT INNOVATION CENTRE

### प्रमाण-पत्र - CERTIFICATE

This is to certify that **Ms Harshitha M** student of **Sri Krishna Institute of Technology**, has undergone Internship in BEL from 13.09.2021 to 13.10.2021 and has undergone Orientation in "PDIC". (Embedded Systems).

She was regular and punctual and her conduct was satisfactory during period.

*Thimmaiah*  
**SR. ASST. HR OFFICER**  
**(HR)/PDIC**

थिमैया क मी / THIMMAIAH K M  
206140

वरिष्ठ सहायक मा सं अधिकारी  
SR. ASST. H R OFFICER  
उ वि व न के / PD & IC



# Certificate

## of Course Completion

This Certificate is proudly presented to

**Reshma Rajeev**

For successfully completing 3 weeks Online Skill Development Program on  
**Full Stack Web Development**  
from 1st September 2021 to 22nd September 2021 at Tequed Labs

*Aditya S. K*

Aditya S K, CTO

*Supreeth Y S*

Supreeth Y S, CEO

Certificate ID: TLS21A2744



**S SkillDzire**

## **Certificate of Internship**

**Congratulations, Shivram Kumar Yadav**

**Electric Vehicle Technology**

**Course Completed on 11th Sept, 2021 | 4 Weeks**

By completing this course, you have sharpened your skills & made yourself a valuable asset for industry needs



Founder & CEO

SkillDzire Technologies Pvt. Ltd, Bizness Square 16, HITEC City, Hyderabad, Telangana | 500081

☎ 78935 5708

✉ [info@skilldzire.com](mailto:info@skilldzire.com)

🌐 [www.skilldzire.com](http://www.skilldzire.com)

# ELEKTROMAC

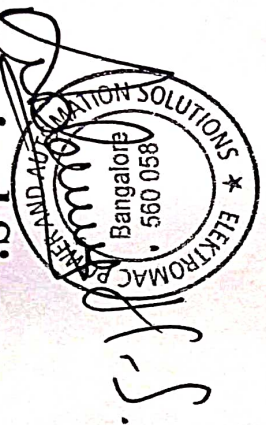
Single Point Contact for Complete Electrical Solutions

## CERTIFICATE

This is to certify that Mr./Ms. NIKITHA P Reg. No. 1KT19EE403

student of Electrical and Electronics Engineering (7<sup>th</sup> semester) from "SRI KRISHNA  
INSTITUTE OF TECHNOLOGY", Bangalore, has successfully completed the  
Internship in "ELEKTROMAC POWER AND AUTOMATION SOLUTIONS", under  
the guidance of Mr./Ms. Aradhya H.S. from

01.09.2021 to 31.09.2021.



Authorized Signature

Elektromac Power and Automation Solutions



# ELEKTROMAC

Single Point Contact for Complete Electrical Solutions

## CERTIFICATE

This is to certify that Mr./Ms. CHANDAN G ..... Reg. No. TKT19EE401 ..... student of Electrical and Electronics Engineering (7<sup>th</sup> semester) from "SRI KRISHNA INSTITUTE OF TECHNOLOGY", Bangalore, has successfully completed the Internship in "ELEKTROMAC POWER AND AUTOMATION SOLUTIONS", under the guidance of Mr./Ms. Anandhi H.S ..... from 01.09.2021 to 31.09.2021.



Authorized Signature

Elektromac Power and Automation Solutions

# ELEKTROMAC

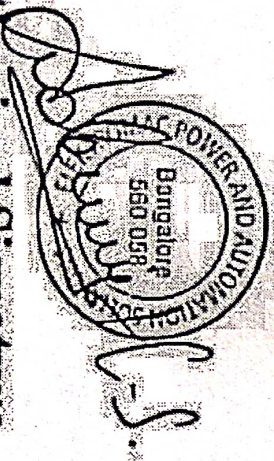
Single Point Contact for Complete Electrical Solutions

## CERTIFICATE

This is to certify that Mr./Ms. **KUSUMA:K:T**..... Reg. No. **1KT18EE004**...

student of Electrical and Electronics Engineering (7<sup>th</sup> semester) from "SRI KRISHNA  
INSTITUTE OF TECHNOLOGY", Bangalore, has successfully completed the  
Internship in "ELEKTROMAC POWER AND AUTOMATION SOLUTIONS", under  
the guidance of Mr./Ms. **Andaw H. S.**..... from

01.09.2021 to 31.09.2021.



Authorized Signature

Elektromac Power and Automation Solutions

# ELEKTROMAC

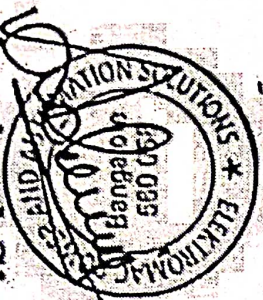
Single Point Contact for Complete Electrical Solutions

## CERTIFICATE

This is to certify that Mr./M<sup>s</sup>. AISHWINI..... Reg. No. 1K.T18.EE002...

student of Electrical and Electronics Engineering (7<sup>th</sup> semester) from "SRI KRISHNA  
INSTITUTE OF TECHNOLOGY", Bangalore, has successfully completed the  
Internship in "ELEKTROMAC POWER AND AUTOMATION SOLUTIONS", under  
the guidance of Mr./Ms. Arundaji H.S...... from

01.09.2021 to 31.09.2021.



H.S.

Authorized Signature

Elektromac Power and Automation Solutions

# ELEKTROMAC

Single Point Contact for complete Electrical Solutions

## CERTIFICATE

This is to certify that Mr./Ms. ANIL R Reg. No. 1K1717EE001

student of Electrical and Electronics Engineering (7<sup>th</sup> semester) from "SRI KRISHNA INSTITUTE OF TECHNOLOGY", Bangalore, has successfully completed the Internship in "ELEKTROMAC POWER AND AUTOMATION SOLUTIONS", under the guidance of Mr./Ms. Andani H. S. from

01.09.2021 to 31.09.2021.



Authorized Signature

Elektromac Power and Automation Solutions



# Cranes Software International Limited

(Varsity Division)

*"Bridging the chasm between the Engineer and the Industry"*

## Certificate

Ref. No.: A/CT/SEP/21-22

This is to certify that Mr. / Ms. RAMESHA D

of SRI KRISHNA INSTITUTE OF TECHNOLOGY

has successfully completed a 1 Month Internship

on " EMBEDDED AND AUTOMOTIVE SYSTEMS "

Conducted from September 2021 to October 2021 at Cranes - Bengaluru

Training Manager

Authorised Signatory



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Vishal G H

bearing US N ..... IKT16EE024

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Robotics ..... during

September/October 2021 for the period of 4 Weeks

GYAN VIVARTTANA TECHNOLOGIES PVT. LTD.  
# 1573, 39th F Cross Road,  
Block, East, Jayanagar,  
BENGALURU-560 041.

Authorized Signatory

Date: 16/10/2021



Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Rohith V M

bearing USN ..... 1KT16EE018

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Kishor Chandru C

bearing USN ..... 1KT18EE400

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Robotics ..... during

September/October 2021 for the period of 4 Weeks

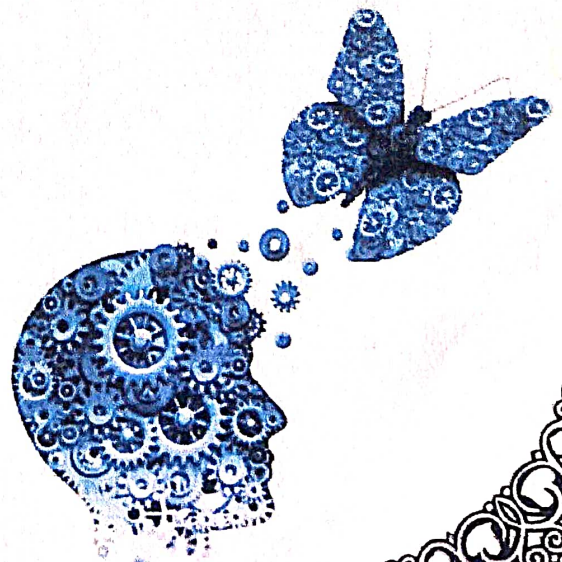
GYAAN VIVARTTANA TECHNOLOGIES PVT. LTD.

# 1573, 39th 'F' Cross Road,  
4th T Block, East, Jayanagar,  
BENGALURU 560 041.

*Shanthi*

Authorised Signatory

Date: 16/10/2021





Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Revanth N

bearing USN ..... 1KT15EE018

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Robotics ..... during

September/October 2021 for the period of 4 Weeks

GYAAN VIVARTTANA TECHNOLOGIES PVT. LTD.  
#1573, 39th 'F' Cross Road,  
4th Block, East, Jayanagar  
BENGALURU-560 041

Authorised Signatory

Date: 16/10/2021





**S SkillDzire**

## Certificate of Internship

Congratulations, Aroj Ali Bora

## Electric Vehicle Technology

Course Completed on 25th Sept, 2021 | 4 Weeks

By completing this course, you have sharpened your skills & made yourself a valuable asset for industry needs



Founder & CEO

SkillDzire Technologies Pvt. Ltd, Bizness Square 16, HITEC City, Hyderabad, Telangana | 500081

☎ 78935 57108

✉ info@skilldzire.com

🌐 www.skilldzire.com



**S SkillDzire**

## Certificate of Internship

Congratulations, Sumit Yadav

### Electric Vehicle Technology

Course Completed on 11th Sept, 2021 | 4 Weeks

By completing this course, you have sharpened your skills & made yourself a valuable asset for industry needs



Founder & CEO

SkillDzire Technologies Pvt. Ltd, Bizness Square 16, HITEC City, Hyderabad, Telangana | 500081

☎ 78935 57108

✉ [info@skilldzire.com](mailto:info@skilldzire.com)

🌐 [www.skilldzire.com](http://www.skilldzire.com)



**S SkillDzire**

## Certificate of Internship

Congratulations, Ferazuddin

## Electric Vehicle Technology

Course Completed on 11th Sept, 2021 | 4 Weeks

By completing this course, you have sharpened your skills & made yourself a valuable asset for industry needs



Founder & CEO

SkillDzire Technologies Pvt. Ltd, Bizness Square 16, HITEC City, Hyderabad, Telangana | 500081

 78935 57108

 [info@skilldzire.com](mailto:info@skilldzire.com)

 [www.skilldzire.com](http://www.skilldzire.com)

Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Archana M

bearing USN ..... 1KT18IS002

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Software Automation Testing ..... during

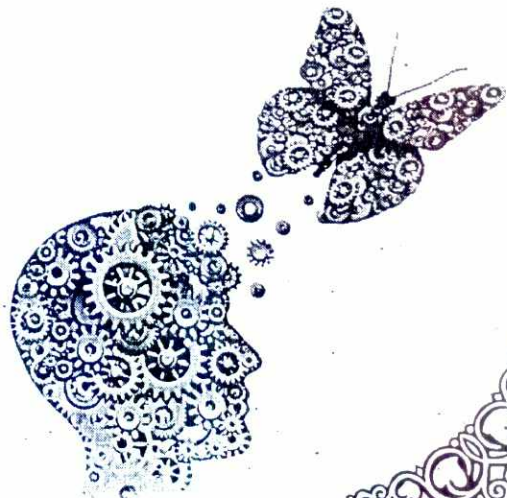
September/October 2021 for the period of 4 Weeks

GYAAN VIVARTTANA TECHNOLOGIES PVT. LTD.

# 1573, 39th 'F' Cross Road,  
4th T Block, East, Jayanagar,  
BANGALURU-560 041.

Authorised Signatory

Date: 16/10/2021



Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Bhuvana A

bearing USN ..... 1KT18IS003

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Software Automation Testing ..... during

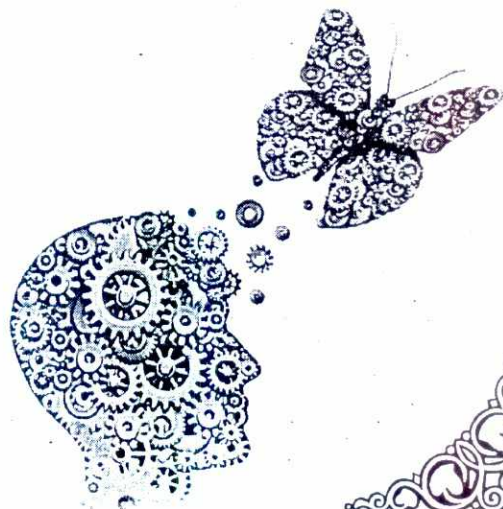
September/October 2021 for the period of 4 Weeks

GYAAN VIVARTTANA TECHNOLOGIES PVT. LTD.

# 1573, 39th 'F' Cross Road,  
4th T Block, East, Jayanagar,  
BENGALURU-560 041.

Authorised Signatory

Date: 16/10/2021





---

## CERTIFICATION OF INTERNSHIP

This is to certify that Channa Reddy J (CC0814)  
from Sri Krishna Institute of Technology has completed his/her  
internship program from 1st September to 29th October 2021 at  
CognitiveClouds Software Private Limited on "**Web Development using  
React js**"

A handwritten signature in black ink, appearing to read "Santosh B R".

Santosh B R, People Manager  
CognitiveClouds

A handwritten signature in black ink, appearing to read "Praveen Gopinath".

Praveen Gopinath, COO  
CognitiveClouds



---

## CERTIFICATION OF INTERNSHIP

This is to certify that Dharithri (CC0816)  
from Sri Krishna Institute of Technology has completed his/her  
internship program from 1st September to 29th October 2021 at  
CognitiveClouds Software Private Limited on "**Web Development using  
React js**"

A handwritten signature in black ink, appearing to read "Santosh B R".

Santosh B R, People Manager  
CognitiveClouds

A handwritten signature in black ink, appearing to read "Praveen Gopinath".

Praveen Gopinath, COO  
CognitiveClouds



Gyaan



Vivarttana Technologies Pvt. Ltd.

Your Success Our Passion

Internship Completion Certificate

This is to certify that

Mr. / Ms. / Mrs ..... Kavya V S

bearing USN ..... 1KT18IS008

From ..... Sri Krishna Institute of Technology

successfully completed the Internship

in ..... Software Automation Testing ..... during

September/October 2021 for the period of 4 Weeks

GYAAN VIVARTTANA TECHNOLOGIES PVT. LTD.

# 1573, 39th 'F' Cross Road, -

4th Block, East, Jayanagar,

BANGALURU-560 041.

Authorised Signatory

Date: 16/10/2021





# CERTIFICATE OF COMPLETION

This certifies that

**RASHMI C.J**

has completed one month Internship on **Cyber Security & Ethical Hacking**  
from **1st September 2021 to 30th September 2021** at **Tequed Labs**  
and has worked on a Project Titled  
"KEY LOGGER "

USN: 1KT18IS010

Institution Name: SRI KRISHNA INSTITUTE OF TECHNOLOGY

Internship ID: TLS21A2548

Supreeth Y S, CEO

Aditya S K, CTO



## Internship Certificate

TO WHOM IT MAY CONCERN

This is to certify that **Ms. Kajal Kumari Jaiswal**, a student of Sri Krishna Institute of Technology (SKIT)

-Bangalore has successfully completed an internship program on Python from 1st September 2021 to 30th September 2021 under the guidance of **Mr. Yeshwant Bhosale**.

During the period of her internship program with us, she had been exposed to different processes and was found diligent, hardworking and inquisitive.

We wish her every success in her life and career.

With warm regards,

For AY-T SOLUTIONS PRIVATE LIMITED

  
Director

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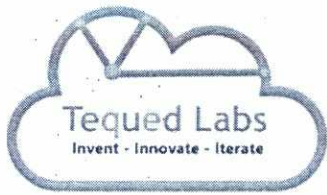
### AY-T SOLUTIONS PRIVATE LIMITED

CIN: U72900KA2018PTC111947GST: 29AAQCA7438M1ZT

Registered Address: A 906, A Wing, Mittal Towers, MG Road,  
Bengaluru 560001. Contact Number: +91 80 4099 7784

Email: [director.operations@aytsolution.com](mailto:director.operations@aytsolution.com)

Web: [www.aytsolution.com](http://www.aytsolution.com)



# CERTIFICATE OF COMPLETION

This certifies that

**Priya G K**

has completed one month Internship on **Cyber Security & Ethical Hacking**  
from **1st September 2021 to 30th September 2021** at **Tequed Labs**  
and has worked on a Project Titled  
“Key logger”

USN: 1KT17IS010

Institution Name: Sri Krishna Institute of Technology

Internship ID: TLS21A2246

Supreeth Y S, CEO

Aditya S K, CTO



# CERTIFICATE OF COMPLETION

This certifies that

**Sahana MH**

**has completed one month Internship on Cyber Security & Ethical Hacking  
from 1st September 2021 to 30th September 2021 at Tequed Labs  
and has worked on a Project Titled**

**"Keylogger "**

**USN:** 1kt18is012

**Institution Name:** Sri Krishna institute of technology

**Internship ID:** TLS21A2244

**Supreeth Y S, CEO**

**Aditya S K, CTO**



# Certificate

Of Course Completion

This Certificate is proudly presented to

Sahana MH

For Successfully Completing Online Skill Development Program on  
from 1st September 2021 to 22nd September 2021 at Tequed Labs

*Aditya S K*

Aditya S K,CTO

*Supreeth Y S*

Supreeth Y S,CEO

Certificate ID: TSL21A2244



---

## CERTIFICATION OF INTERNSHIP

This is to certify that Sanjana Srinivas (CC0812)  
from Sri Krishna Institute of Technology has completed his/her  
internship program from 1st September to 29th October 2021 at  
CognitiveClouds Software Private Limited on "**Web Development using  
React js**"

A handwritten signature in black ink, appearing to read "Santosh B R".

Santosh B R, People Manager  
CognitiveClouds

A handwritten signature in black ink, appearing to read "Praveen Gopinath".

Praveen Gopinath, COO  
CognitiveClouds

# DIGIADD

Technologies

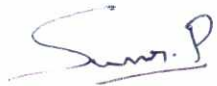
## *Certificate of Completion*

This Certifies that ~~Mr~~/ Ms. SANDHYA SHREE

A student of SRI KRISHNA INSTITUTE OF TECHNOLOGY

Bearing USN No: 1KT18IS013 has successfully completed ~~his~~/her internship from 06.09.21 to 05.10.21 at DIGIADD Technologies under the guidance of MS.DHANYASHREE . K.M.

We found ~~him~~/her sincere, hardworking, dedicated and result oriented. We wish all the best for ~~his~~/her future Endeavour.



Sridhar P.  
Manager



Project Guide



Date: 05-10-2021

Place: Bangalore

TO WHOMSOEVER IT MAY CONCERN

This is to certify that student **Ms.SANDHYA SHREE (1KT18IS013)** from **SRI KRISHNA INSTITUTE OF TECHNOLOGY, Bangalore** has completed her internship program from "Digiadd Technologies" on "**MACHINE LEARNING**" for the degree of Bachelor of Engineering (BE) from **06<sup>th</sup> Sep-2021 to 05<sup>th</sup> Oct-2021** with reference to HR Team as our company Intern-Project work trainee.

"We wish her all the very best in her future endeavors"

For Digiadd Technologies

  
Yes Complex, # 19/3&4, 2nd Floor,  
Dinnur Main Road, R.T. Nagar Post,  
Bangalore - 560032  
Authorized Signature



# CERTIFICATE OF COMPLETION

This certifies that

**Thanuja CS**

has completed one month Internship on *Cyber Security & Ethical Hacking*  
from 1st September 2021 to 30th September 2021 at Tequed Labs  
and has worked on a Project Titled

*"Key logger"*

USN: 1KT18IS015

Institution Name: Sri krishna institute of technology

Internship ID: TLS21A2212

Supreeth Y S, CEO

Aditya S K, CTO



---

## CERTIFICATION OF INTERNSHIP

This is to certify that Vishwanath A S (CC0813)  
from Sri Krishna Institute of Technology has completed his/her  
internship program from 1st September to 29th October 2021 at  
CognitiveClouds Software Private Limited on "**Web Development using  
React js**"

A handwritten signature in black ink, appearing to read "Santosh B R".

Santosh B R, People Manager  
CognitiveClouds

A handwritten signature in black ink, appearing to read "Praveen Gopinath".

Praveen Gopinath, COO  
CognitiveClouds



# CERTIFICATE OF COMPLETION

This certifies that

**Manoj B J**

has completed one month Internship on Full Stack Web Development from 1st September to 30th September 2021 at Tequed Labs and has worked on a Project Titled "Shopping Portal"

USN: 1KT16IS026

Institution Name: Sri Krishna Institute Of Technology

Internship ID: TLS21A2302

Supreeth Y S, CEO

Aditya S K, CTO



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstn:29AGPRO434R1ZT

DATE: 06.10.2021

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Puttaswamy.P (IKT16ME057)Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude an interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

**VIGNESH**

Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

*Sri Vignesh R*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTc Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstIn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

**This is to certify that Dhanush.V (IKT17ME010) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department**

**During Internship Training, his attitude and interest towards training was good**

**We wish him all the best for his future endeavors**

**For RRR SPRINGS**

**VIGNESH**

**Sir . Officer - HR & Admin**

**For R.R.R.SPRINGS**

*Sri Vignesh*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,  
10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTc Bus stop,  
Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstIn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

**This is to certify that Jayanth. K.N (IKT17ME014) Mechanical Engineering student of Sri Krishna Institute of Technology has under gone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department**

**During Internship Training, his attitude an interest towards training was good**

**We wish him all the best for his future endeavors**

**For RRR SPRINGS**

**VIGNESH**

**Sir . Officer - HR & Admin**

**For R.R.R. SPRINGS**

*Sei Vignesh P*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Manjunath Gowda B.J (IKT17ME018) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

VIGNESH

Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

*Sri Vignesh D*  
**PROPRIETOR**





**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,  
10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTc Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstIn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Nagendra. R (IKT17ME019) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

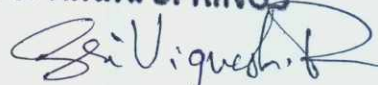
During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

VIGNESH  
Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

  
**PROPRIETOR**

GS/HRM  
23/10/2021

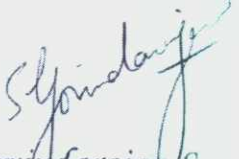
CERTIFICATE

This is to certify that **Mr. Neelesh M V**, B.E student of Sri Krishna Institute Of Technology, Bangalore has completed "Internship" entitled "**Injection Moulding & Chrome Electroplating on ABS Plastics**" under the guidance of Shri. J Sreedharan, Sr.GM-Operations from 16.09.2021 to 18.10.2021.

During this period his performance and conduct was good.

We wish him success for his future endeavors.

For Kongovi Pvt Ltd

  
Govindarajan S  
SM - HR & Admin



**Kongovi Private Limited**

(Formerly known as Kongovi Electronics Pvt. Ltd.)

377, 10<sup>th</sup> Cross, IV Phase, Peenya Industrial Area, Bangalore - 560058, India

Ph: 91-80-28360563 | Fax: 91-80-30723649 | www.kongovi.in | info@kongovi.in | CIN: U27204KA1981PTC004156



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstln:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

**This is to certify that Rajath Shetty .B.R (IKT17ME026) Mechanical Engineering student of Sri Krishna Institute of Technology has under gone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department**

**During Internship Training, his attitude an interest towards training was good**

**We wish him all the best for his future endeavors**

**For RRR SPRINGS**

**VIGNESH**

**Sir . Officer - HR & Admin**

**For R.R.R. SPRINGS**

**Sri Vignesh R**  
**PROPRIETOR**



# S.S. FAB TECH

ISO 9001 : 2015 Certified Company

# 92, 3rd Phase, 7th Main Road, Peenya Industrial Area, Bangalore - 560 058  
E-mail : [ssfabtechks@gmail.com](mailto:ssfabtechks@gmail.com), [shantha\\_kumar123@rediffmail.com](mailto:shantha_kumar123@rediffmail.com)

Date: 29<sup>th</sup> September 2021

## Certificate of Internship Training

This is to certify that **Mr. Akash A** (Reg. No.:1KT18ME001) the student of BE (6<sup>th</sup> Semester) from "**Sri Krishna Institute Of Technology**" Bangalore has Undergone the Internship/In part Training in our Organization "**SS FAB TECH**" from 25<sup>th</sup> August 2021 to 25<sup>th</sup> September 2021.

During this period he has shown interest to learn the things and we observed with good conduct and behavior.

We wish all best in his future Endeavour.

For SS FAB TECH

For SS FAB TECH

Proprietor

Proprietor

(Shantha Kumar K S)



# DARK HORSE HYDRAULICS

THE HUB OF ENGINEERING SOLUTIONS


**Mfrs. & Servicing:** Hydraulic Torque Wrenches, Jack, Industrial Sockets  
Hydraulic Cylinders, Power Packs, Material Handling Equipment

## Certificate of Internship

**BISHAL CHAURASHIYA** (1KT18ME005)

This is to Certify that Final Year Mechanical Engineer Student of Sri Krishna Institute of Technology, Bengaluru, has Successfully Completed his internship on **Design and Study of Hydraulic Power Pack and Applications** in **Dark Horse Hydraulics**, at Bengaluru for the Period from 01/05/2022 to 30/05/2022

His Conduct and Progress during the above period was found to be SATISFACTORY.

B.v.   
**B.V.MANJUNATH**  
PROPRIETOR





# S.S. FAB TECH

ISO 9001 : 2015 Certified Company

# 92, 3rd Phase, 7th Main Road, Peenya Industrial Area, Bangalore - 560 058  
Email : ssfabtechks@gmail.com, shantha\_kumar123@rediffmail.com

Date: 29<sup>th</sup> September 2021

## Certificate of Internship Training

This is to certify that **Mr. Chandan Kumar M** (Reg. No.:1KT18ME006) the student of BE (6<sup>th</sup> Semester) from "**Sri Krishna Institute Of Technology**" Bangalore has Undergone the Internship/In part Training in our Organization "**SS FAB TECH**" from 25<sup>th</sup> August 2021 to 25<sup>th</sup> September 2021.

During this period he has shown interest to learn the things and we observed with good conduct and behavior.

We wish all best in his future Endeavour.

For SS FAB TECH

For ~~SS FAB TECH~~

Proprietor

Proprietor

(Shantha Kumar K S)

# MODERN ENGINEERING WORKS

College: MODERN ENGINEERING WORKS, Chikkabavanavara Post, Bangalore - 560090

---

Date 30/09/2021

TO WHOM SO EVER IT MAY CONCERN

## CERTIFICATE

This is to certify that the student **Mr. HARSHITH GOWDA KG** USN 1KT18ME008 of Mechanical Engineering Dept of **SRI KRISHNA INSTITUTE OF TECHNOLOGY** chikkabavanavara Bangalore has satisfactorily completed his internship "MACHINE MANUFACTURING PROCESS" during the period from 01/09/2021 to 30/09/2021 under our guidance.

For MODERN ENGINEERING WORKS

For MODERN ENGINEERING WORKS

Proprietor  
Managing Partner

(BHAVANI SHANKAR)



**CERTIFICATE OF INTERNSHIP TRAINING**

This is to certify that **Mr.KIRANASWAMY.S** student of **Sri Krishna Institute of Technology** bearing **USN:1KT18ME009** has successfully completed the internship at **SESVIK INDUSTRIES Pvt Ltd.**

**Title description:**

"Study on in-CNC Lathe Turning to Role Forming Assembly Parts"

**Title Duration:**

One month from 1<sup>st</sup> Sept' 2021 till 30<sup>th</sup> Sept' 2021.

We wish **Mr.KIRANASWAMY.S** all the best in his endeavour.

for **SESVIK INDUSTRIES Pvt Ltd**

A handwritten signature in blue ink, appearing to read "K. Vivek Shetty", is written over a horizontal line.

**K.Vivek Shetty**

Director

Date:30-09-2021

**SESVIK INDUSTRIES PVT. LTD**  
Plot NO 360 4th Phase  
Peenya industrial Area  
BANGALORE 560 054



# MODERN ENGINEERING WORKS

Ganapathi nagara acharya college main road chikkabanavara post Bangalore 560090

---

Date 30/09/2021

**TO WHOM SO EVER IT MAY CONCERN**

## **CERTIFICATE**

This is to certify that the student **Mr NAGARAJU H S** USN 1KT18ME012 of Mechanical Engineering Dept of **SRI KRISHNA INSTITUTE OF TECHNOLOGY** chikkabanavara Bangalore has satisfactorily completed his internship "MACHINE MANUFACTURING PROCESS" during the period from 01/09/2021 to 30/09/2021 under our guidance.

For MODERN ENGINEERING WORKS

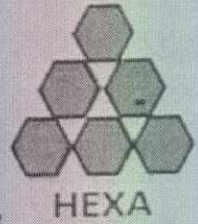
For MODERN ENGINEERING WORKS

Managing Partner  
**Proprietor**

(BHAVANI SHANKAR)

# HEXA Technocraft (I) Pvt. Ltd.

# 7/8, 10th Main, 3rd Cross, SLV Industrial Area,  
Thigalarapalya Main Road, Peenya 2nd Stage, Bengaluru - 560 058.  
Tel : 080 40916494 E-mail : sajes@hexasolution.com Web : www.hexasolution.com



## Certificate

This is to certify that Mr. Prāmodh.S student of Sri Krishna institute of Technology bearing USN:1KT18ME014 has successfully completed the Internship at Hexa Technocraft India Pvt Ltd.

### Title description:

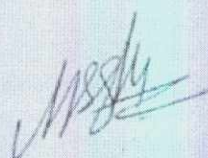
"Study on In-Process Inspection Methodology pertaining to Engineering plastic moulded parts"

### Title Duration:

One month from 1<sup>st</sup> Sept'2021 till 30<sup>th</sup> Sept'2021.

We wish Mr Prāmodh.S all the best in his endeavours.

For M/S Hexa Technocraft India Pvt Ltd

  
Raghveer M. S  
Director



Date: 30/09/2021

**INTERNSHIP CERTIFICATE**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Mr.Rakshit.U has done his internship as a Technical Operator in Computer Numerical Control (CNC) Machines under the Mechanical Department from 16<sup>th</sup> August, 2021 to 15<sup>th</sup> September, 2021.

He has worked on Operational Execution of Precision Spares. As a part of the project he has technically operated CNC Machines and has executed manufacturing of precision spares that are required for the operations of the Production Department.

During his internship he has demonstrated his skills with self motivation and was adhered to learn new techniques with ease. His performance exceeded our expectations and he was able to complete the given tasks on time.

We wish him a great success for his upcoming career.

**FOR RHODIUM FERRO ALLOYS PVT LTD.,**



**Authorised Signatory**

Date: 18<sup>th</sup> September, 2021



# DARK HORSE HYDRAULICS

THE HUB OF ENGINEERING SOLUTIONS

**Mfrs. & Servicing:** Hydraulic Torque Wrenches, Jack, Industrial Sockets  
Hydraulic Cylinders, Power Packs, Material Handling Equipment

## Certificate of Internship

**SALMAN ANSARY** (1KT18ME017)

This is to Certify that Final Year Mechanical Engineer Student of Sri Krishna Institute of Technology, Bengaluru, has Successfully Completed his internship on **Design and Study of Hydraulic Power Pack and Applications** in **Dark Horse Hydraulics**, at Bengaluru for the Period from 01/05/2022 to 30/05/2022

His Conduct and Progress during the above period was found to be SATISFACTORY.

B.v.   
**B.V. MANJUNATH**  
PROPRIETOR

DH<sup>2</sup>



# SUNLIGHT MACHINE TOOLS

Site No. 2, Plot No. 3B, Peenya Industrial Park, KIADB Main Road, Peenya  
Industrial Area, (Next to coir board), Bangalore - 58. Mob : 9448487768, 9886090696  
Ph. : 080-43770287 E-mail : sunlightmachinetools@gmail.com

Ref :

Date :

DATE: 22/09/2021


TO WHOMSOEVER IT MAY CONCERN

## CERTIFICATE

This is to certify that **Mr. Sumanth Manjunath**, BE student in Mechanical Engineering from **SRI KRISHNA INSTITUTE OF TECHNOLOGY** college of engineering, Bangalore, has successfully completed the Internship at **SUNLIGHT MACHINE TOOLS**, Bangalore – 560 058, during the period from 15.08.21 to 15.09.21.

We wish him all the best in future endeavors.

For **SUNLIGHT MACHINE TOOLS**

  
Managing Partner  
(Krishna Kumar K T)



# DARK HORSE HYDRAULICS

THE HUB OF ENGINEERING SOLUTIONS

**Mfrs. & Servicing:** Hydraulic Torque Wrenches, Jack, Industrial Sockets  
Hydraulic Cylinders, Power Packs, Material Handling Equipment

## Certificate of Internship

**SUNIL KUMAR JHA** (1KT18ME019)

This is to Certify that Final Year Mechanical Engineer Student of Sri Krishna Institute of Technology, Bengaluru, has Successfully Completed his internship on **Design and Study of Hydraulic Power Pack and Applications** in **Dark Horse Hydraulics**, at Bengaluru for the Period from 01/05/2022 to 30/05/2022

His Conduct and Progress during the above period was found to be SATISFACTORY.

B.v.   
**B.V. MANJUNATH**  
PROPRIETOR



GSTIN : 29CXUPS7369R1ZN

Ph : 9900427788  
9535433977



# S.S. FAB TECH

ISO 9001 : 2015 Certified Company

# 92, 3rd Phase, 7th Main Road, Peenya Industrial Area, Bangalore - 560 058  
E-mail : ssfabtechks@gmail.com, shantha\_kumar123@rediffmail.com

Date: 29<sup>th</sup> September 2021

## Certificate of Internship Training

This is to certify that **Mr. Vishwas Gowda K** (Reg. No.:1KT18ME021) the student of BE (6<sup>th</sup> Semester) from "**Sri Krishna Institute Of Technology**" Bangalore has Undergone the Internship/In part Training in our Organization "**SS FAB TECH**" from 25<sup>th</sup> August 2021 to 25<sup>th</sup> September 2021.

During this period he has shown interest to learn the things and we observed with good conduct and behavior.

We wish all best in his future Endeavour.

For SS FAB TECH

For SS FAB TECH

Proprietor

Proprietor

(Shantha Kumar K S)

Mob : 9980826877  
9986869667



# SRI BHOO MIKA INDUSTRIES

No. 704, K.Padmanabaiah Building, Near S R S, Laggere Road, Peenya,  
Bangalore - 560058. Email - dssujay362@gmail.com

This to certify that Ajay G Naik (IKT19ME400) Mechanical Engineering student of Sri Krishna Institute of Technology has under Gone Internship Training in our Organization from 08th September 2021 to 08th October 2021 in Production Department .

During Internship Training, his attitude on interest towards training was good .

We wish him all the best for his future endorsement.

SRI BHOO MIKA INDUSTRIES  
*Sujay*





**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,  
10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTC Bus stop,  
Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstln:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

**This is to certify that Chethan V.L (IKT19ME402) Mechanical Engineering student of Sri Krishna Institute of Technology has under gone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department**

**During Internship Training, his attitude an interest towards training was good**

**We wish him all the best for his future endeavors**

**For RRR SPRINGS**

**VIGNESH**

**Sir . Officer - HR & Admin**

**For R.R.R. SPRINGS**

*Sri Vignesh R*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Dhanush .G.R (IKT19ME403) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

**VIGNESH**

Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

*Vignesh R*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,  
10th Cross, J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTc Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstIn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Manu. R (IKT19ME404) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

**VIGNESH**

Sir . Officer - HR & Admin

For R.R.R. SPRINGS

*Sri Vignesh R*  
PROPRIETOR

Mob : 9980826877  
9986869667



# SRI BHOOMIKA INDUSTRIES

No. 704, K.Padmanabaiah Building, Near S R S, Laggere Road, Peenya,  
Bangalore - 560058. Email - dssujay362@gmail.com

This is to certify that Nagatilak U (IKT19ME405) Mechanical Engineering student of Sri Krishna Institute of Technology has under Gone Internship Training in our Organisation from 08th September 2021 to 08th October 2021 in Production Department

During Internship Training, his attitude on interest towards training was good.

We wish him all the best for his future endeavours.

For SRI BHOOMIKA INDUSTRIES



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,  
10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstln:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Nagendra K.C (IKT19ME406) Mechanical Engineering student of Sri Krishna Institute of Technology has under gone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude an interest towards training was good

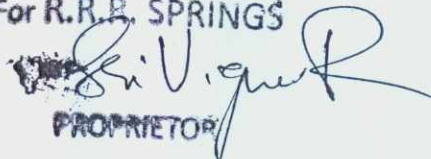
We wish him all the best for his future endeavors

**For RRR SPRINGS**

VIGNESH

Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross, J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstn:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Nithin.K.R (IKT19ME407) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

**For RRR SPRINGS**

**VIGNESH**

Sir . Officer - HR & Admin

**For R.R.R. SPRINGS**

*Sri Vignesh R*  
**PROPRIETOR**



**R.R.R. SPRINGS**

**RRR SPRINGS**

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstin:29AGPRO434R1ZT

**DATE: 06.10.2021**

**TO WHOSOEVER IT MAY CONCERN**

**This is to certify that Shashanka .T.E (IKT19ME408) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department**

**During Internship Training, his attitude and interest towards training was good**

**We wish him all the best for his future endeavors**

**For RRR SPRINGS**

**VIGNESH**

**Sir . Officer - HR & Admin**

**For R.R.R. SPRINGS**

**Sri Vignesh**  
**PROPRIETOR**



**R.R.R. SPRINGS**

RRR SPRINGS

Office : #19, (old # 33/5)15th Main,

10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,

Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstln:29AGPRO434R1ZT

DATE: 06.10.2021

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Surya. S (IKT19ME409) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

We wish him all the best for his future endeavors

For RRR SPRINGS

VIGNESH

Sir . Officer - HR & Admin

For R.R.R. SPRINGS

PROPRIETOR



# MODERN ENGINEERING WORKS

Sanapal Vinayaka Acharya college main road chikkabanavara post Bangalore 560090

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Date 30/09/2021

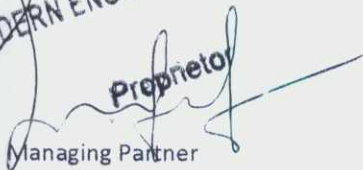
TO WHOM SO EVER IT MAY CONCERN

## CERTIFICATE

This is to certify that the student **Mr TILAK GOWDA H K** USN 1KT19ME410 of Mechanical Engineering Dept of **SRI KRISHNA INSTITUTE OF TECHNOLOGY** chikkabanavara Bangalore has satisfactorily completed his internship "MACHINE MANUFACTURING PROCESS" during the period from 01/09/2021 to 30/09/2021 under our guidance.

For MODERN ENGINEERING WORKS

For MODERN ENGINEERING WORKS

  
Proprietor  
Managing Partner

(BHAVANI SHANKAR)

# *Jindal Aluminium Ltd.*

ROLLING MILL DIVISION:  
KIADB Industrial Area, Yedahalli Village  
Tumkur Road, Dabaspet  
Bangalore 562111 INDIA  
Phone : +91-80-27735051/27735003

The principal  
Sri Krishna institute of technology  
Hesargatta main road  
chikabanavara  
banglore

27/5/22

Dear sir,

With reference to 1KT/SKIT/IT/ME/2022/04 dated 27/5/22. We wish to confirm that Mr.Vardhan Kulkarni a student of final year mechanical engineering having Regn no 1KT19ME411 underwent internship training in our company from 01/04/22 to 29/04/22 to fulfill the academic requirements.

we found him sincere and taking good intrest during the period.

Thanking you

yours faithfully

Jindal Aluminium Limited



**U S Sahoo**  
**Sr Manager- HR**

Encl. Training Evaluation Form duly competed

Regd Office & Works : Jindal Nagar, Tumkur Road, Bangalore 560 073 INDIA  
Phone +91-80-23715555 (5 lines), Fax +91-80-23713333, E-mail: jindal@jindalaluminium.com



**R.R.R. SPRINGS**

RRR SPRINGS

Office : #19, (old # 33/5)15th Main,  
10th Cross,J.C Nagar,

Kurunarahalli, Bengaluru-560 086

Work : #49/2/11C, Yerrappa Industrial Area,  
Magadi Main Road, Near BMTC Bus stop,

Seegehalli, Bengaluru-560 091

Email : rrrsprings@gmail.com

gstIn:29AGPRO434R1ZT

DATE: 06.10.2021

**TO WHOSOEVER IT MAY CONCERN**

This is to certify that Veeresh K.R (IKT19ME412) Mechanical Engineering student of Sri Krishna Institute of Technology has undergone Internship Training in our Organisation from 05th September 2021 to 05th October 2021 in Production Department

During Internship Training, his attitude and interest towards training was good

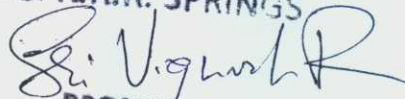
We wish him all the best for his future endeavors

**For RRR SPRINGS**

VIGNESH

Sir . Officer - HR & Admin

For R.R.R. SPRINGS

  
PROPRIETOR

# CERTIFICATE of COMPLETION

This Certificate is awarded to

Pappu kumar

Has successfully Completed 4 weeks Virtual Internship on  
"SOLIDWORKS"

held from 01st May 2022 to 28th may 2022



An ISO 9001:2015, ISO 29990:2020  
CERTIFIED COMPANY

Certificate No- SRI-OT01-2143659

Date - 3rd June 2022

A handwritten signature in black ink, appearing to read 'H. S. Prasad'.

Chief Executive Officer  
Skyy Rider Institutions Pvt Ltd.



*New Honeywell*  
*Engineering Services Pvt. Ltd.*


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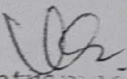
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His conduct during the period of internship training was found good.

We wish all the best in his future endeavors.

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Venkatramana P

Dy. General Manager – HR & IR



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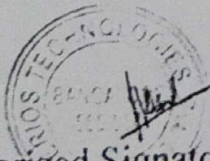
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During the period of his internship, the character and conduct were found good.  
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For Aerios Technologies Pvt. Ltd.



Authorized Signatory

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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KARNATAKA



A Internship Report  
on

**“SMART STREET LIGHT MONITORING USING ARDUINO UNO”**

Submitted in partial fulfillment of the requirement for the award of Degree of  
**BACHELOR OF ENGINEERING**

IN

**ELECTRONICS AND COMMUNICATION ENGINEERING**

Submitted by

**CHETHAN T R (IKT17EC049)**

**Under the guidance of:**

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2021-22

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## CERTIFICATE

Certified that the Internship entitled “**SMART STREET LIGHT MONITORING USING ARDUINO UNO**” is Presented by **CHETHAN T R** bearing **USN-1KT17EC049**, 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 2021-22. It is certified that all corrections, suggestions indicated for assessment have been incorporated in the report deposited in the departmental library. The technical seminar report has been approved as it satisfies the academic requirements in aspect of Technical Seminar presentation prescribed for Bachelor of Engineering degree.

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## ACKNOWLEDGEMENT

I hereby take this opportunity to express my gratitude and thankfulness to all those concerned in helping me in completing the technical seminar. I would like to profoundly thank **Management of SKIT** for providing such a healthy environment for successful completion of our internship.

I would like to thank profoundly thank my college **Principal Dr. MAHESHA.K** for providing such a healthy environment for successful completion of our internship.

It gives us a great pleasure in placing on record a deep sense of gratitude to **Mr. Naganagouda C PATIL**, Professor and Head of the Department, Electronics and Communication engineering for his expert guidance, initiative and encouragement that led us through the internship.

I would also like to thank all our teaching and non-teaching staff of Electronics and Communication Department who has directly or indirectly helped us in the completion of this internship.

Finally, I would like to thank my parents and all my family members who with their constant and creative thoughts made me to maintain standard throughout my endeavor to complete this internship.



**CHEZHAN T R**

**(1KT17EC049)**

## CERTIFICATE OF INTERNSHIP



# CERTIFICATE OF INTERNSHIP

This certificate is presented to  
**CHETHAN T R**

In recognition of his/her efforts in completing the one month industry internship on  
**SMART STREET LIGHT MONITORING USING ARDUINO UNO**  
from 5<sup>th</sup> August to 23<sup>rd</sup> September 2021. We appreciate his/her dedication for completing  
all the tasks assigned during the period of internship. Given this day of September 23, 2021.

Handwritten signature in blue ink.

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**Mr. S. M. Arali**  
CEO  
NRIT Incubation Center, RIT, Islampur



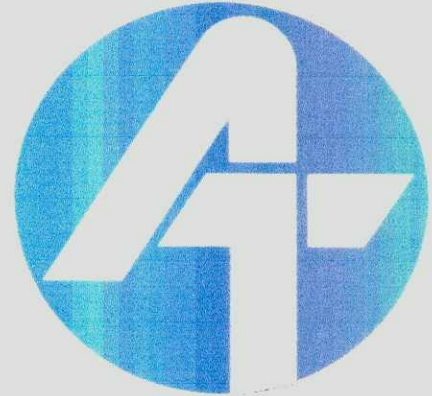
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**Dr. Anand B. Kakade**  
Founder and CEO  
Anand Techno-Creations, Satara

## ABOUT THE COMPANY



**Anand Techno Creations (ATC), Satara** is led by young & dynamic entrepreneur Dr. Anand B. Kakade. Imbibed since infancy in electronics and electrical technology, a Person with engineering power and the youngest professor, Masters in technology and Ph.D. from IIT Kharagpur, known for his skills in design and development of various innovative electronic products. Keen interest in study and research of embedded design has basic and fundamental experience in antenna design and fabrication. He has special skills in identifying and providing solutions for problems due to electromagnetic interference. For its constant innovative and relentless efforts in new innovations, the founder has been recognized by various prestigious awards.

**Anand Techno Creations (ATC), Satara** is an electronic manufacturing company that can be credited for introducing the most reliable technology in day-to-day electronic devices such as Automatic Curd Maker, Household Tank Water Level Controller, Mobile Auto, Intrusion Detector, and Saline Monitoring Systems in India. With its footprint in more than 15 states, ATC is India's most innovative and reliable electronic product manufacturing company.

ATC has been recognized especially for its efforts in energy and water-saving solutions. The products are of the utmost reliability. The special water level controllers have been developed for Gram panchayat, Municipal Corporation, and residential societies

Anand Techno Creations (ATC) has indigenized and developed world's first ever Curd Making Machine which produces flavored curd as well as various batters in very low time. The machine is available at affordable price for household as well as industrial use. The company has also developed industrial model for larger capacity production.

## ABSTRACT

Street lights play a very important role for lightening the walkway during nights when surroundings go dark. It is also very important for the vehicles running during the night for the proper direction of the roads. Nowadays controlling the street lights require human presence to switch them ON/OFF which means this system is not digitalized yet. This human controlled system has the disadvantage of having regular individual presence to turn the lights ON/OFF which are a loss of electrical energy and manpower because this people can be deployed somewhere else.

Thus to overcome these problems the controlling system might be converted to a system where it is controlled via wireless technology. In this paper, an automatic system is demonstrated to control the system by wireless technology using Arduino Uno. The system is programmed in such a way that the whole street light is divided in some sections which can be turned ON/OFF with a single short message service (SMS). The system can also be turned ON/OFF by using the intensity of light basing on day or nighttime and if intensity of light goes up or down a certain threshold value, the lights will be switched ON/OFF.

The feature of getting the feedback about the functionality of the lights has also been added on this project. That means a feedback message will be sent via short message service (SMS) if the lights are not functioning properly. This automation process if utilized will save manpower, huge amount of electrical energy and make the system easier to control than the conventional controlling system.



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## CHAPTER- 1

### 1.1 Introduction

Street lights are an integral part of a city's infrastructure. Street lights are placed at almost every corner of the street to illuminate darkness at dark hours. They provide services for security and traffic safety. It alerts people to potential hazards. The objectives of using street lights are far many to count. Street lights are useful in making the vehicles and people on the street visible. In addition, people can easily spot if there are any harmful objects on the street, saving them from unconstructed and blocked roads. Apart from the practical purposes, it also adds to the city's appearance and feature.

Previously, the numbers of street lights were smaller and it was easier to monitor them. However, with time, the number of streets has increased in addition to heavy traffics. This makes the monitoring and controlling of the lights very difficult. Controlling them manually using the control switch set in each street is quite impossible. It is an inefficient process that leads to wastage of manpower and electricity. In addition, it is very difficult to maintain the activation and deactivation of street lights leading to large amount of power wastage. This leads to light's automation. The aim is to find techniques to increase product efficiency and reduce power consumption.

The project is made to control the street lights from anywhere in the country with mobile phone. It only requires a Short Message Service (SMS) in a particular number to switch ON/OFF the street lights of a particular area. The SMS can be as simple as "switch on" or "switch off". It is built with a logical embedded system, which includes Global System for Mobile (GSM) and Arduino. It is also capable of switching the street lights according to the intensity of the light of that particular environment and light intensity sensors are used here.

The monitoring and control system for street lights based on GSM is an automated system. It is designed to increase the accuracy as well as efficiency by controlling street lights using mobile phone. GSM based automation of street lights is used to control street lights automatically by using GSM module.

This GSM based automation can be done via SMS. If designed properly, it can be a simpler and cost effective, reliable and far-reaching method to switch ON/OFF of the street lights. In this method, a coded SMS is sent to the GSM. The GSM receives the message and by decoding it performs automation operation accordingly.

Also light sensors like, Light Dependent Resistor (LDR) can be used to automatically control

the street lights by sensing the intensity of light. The intensity of light at daytime is much larger than that at the evening. By using this change in intensity of light, the light sensor can be used to turn the street lights ON or OFF. Therefore, our proposed plan can be used to automatically control the street lights from anywhere within the network.

### **1.2 Present State of Street Lighting System**

There are currently a total of 304 million streetlights in the world. This number will grow to a total of 352 million streetlights by the year of 2025. The lighting market is currently undergoing a period of change where conventional streetlights are being replaced with new and more efficient Light Emitting Diode (LED) or solid-state lighting technology. This LED and solid-state lighting technology are used together to communicate at a time through a network to make them "Smart Street Lighting System". LED and smart streetlights will transform cities across the globe over the next decade. LED offers longer lifetime, lower energy consumption and reduced maintenance cost when compared with conventional street lighting system.

In Bangladesh, street lighting system is still manual. That means, street lighting system is not smart and the modern technologies are yet to be implemented. The lights currently used in the streets of our country are of three kinds – sodium, fluorescent and energy- saving lights (ESL). The Dhaka city authorities are going to install LED lights in all street lamps to ensure security for the citizens as well as to provide enough lighting on the streets for the law enforcers to perform their duties properly. According to a survey by the government's Power Cell conducted in 2014, there are a total of 71,276 street lights in the capital of different types stated above.

In most of the developed countries, LEDs are already replacing the existing streetlights as an economically beneficial alternative. The modern countries are also focusing to replace the existing streetlights with "smart" streetlights as a part of the "smart city" concept. Smart streetlights help cities further to reduce costs through reduced maintenance expenditures and waste of electrical energy. In 2014, the World Bank announced a \$1 billion fund exclusively for LED street lighting.

Overall, the LED and smart street lighting market are rising gradually. Given these clear advantages, from 2015 to 2025, countries are expected to invest \$53.7 billion in LED street lighting. LED and smart streetlights are projected to reach 84% and 37% of the total street light market, respectively, by 2025. This will total a \$63.5 billion market.

### 1.3 Literature Review

Several works have been done for developing the street lighting system. Sometimes the lighting system have been changed or modified to make an easier system. In addition, sometimes the way of operation was changed to make an efficient system.

The existing street lighting system which is used today, started with the replacement of vapor lamps or high-pressure vapor lamps by the LED which can save a lot of power. The associated research of the system showed a complete analysis of different traditional lamps; power consumed by them and features of new technology and their features to replace those traditional lamps. After some study regarding the difference of power consumption and efficiency and cost saving between various traditional bulbs and LED, the country has projected to replace the traditional lights. Later, an Ethernet based research has proposed to monitor and manage the street light control system. Ethernet is the most widely installed local area network (LAN) technology. It enables a better and cheap lighting control system for small cities. The presented system consists of a LED lamp module, a digitally controlled multiphase driving system for LED lamp and an Ethernet-based communication interface. To add communication capabilities to the system already in use, a technology was developed through the integration of a Sigsbee (Appendix A) compatible transceiver to the photoelectric relay used to turn the High Pressure Sodium (HPS) lamps ON/OFF. That change will turn each device into a node of a large wireless network across the city. The main idea is the integration of a Sigsbee compatible transceiver to the relay used to turn the HPS lamps ON/OFF, turning each device into a mode of a large wireless network across the city. The proposal system makes easier to read sensor measurements (current, voltage, power, illuminations etc.), it can reduce total system power consumption and maintenance costs. In addition, it enables the system to be used in a variety of other public services. There was a technical development to overcome the overload difficulties during the peak hour. It enables the disconnection of street lighting system from the mains during the peak hour for decreasing the overload difficulties in the system and makes it easy for the distribution of electrical energy. For this purpose, it uses a wireless sensor network based on IEEE 802.15.4TM standard (Appendix A). The usage of smartphone started after this for representing a Smart Street Light System for dynamically switching the street lights based on the pedestrians' locations and safety zones. The pedestrians are localized via their smart phone, periodically sending location and configuration information to the Secure Sockets Layer (SSL) server. For controlling the street lamps, the lampposts are equipped with a ZigBee-based radio device, receiving control information from the SSL server via multi-hop routing. A research later focused on two aspects: the selection of the adequate communication protocol, on the one hand, and the selection of the network topology that supports the architecture, on the other hand. Given these circumstances, the paper focuses on an assessment of the performance of the mesh and tree network topologies, which, along with the ZigBee communication protocol, can be implemented in a street lighting, control

architecture. Because of the simulations that have been conducted, the data reveal that the tree topology is much more efficient than the mesh topology. When employing the tree network topology, the network load is divided among the coordinator and the local routers, thus reducing collisions and the number of lost packages. Therefore, the performance of the tree network topology far outbalances the benefits of a mesh topology. The number of hops performed in a mesh network is much higher than that of a tree topology. This particular characteristic may equate a lower power consumption than that required by tree network topologies if the nodes are battery-powered. The tree topology performs highly better than topologies when implementing a street lighting control system.

A wireless street lighting system with better management and efficiency using ZigBee-based wireless devices came into implementation, which delivered better efficiency in management, advanced interface and control architecture. Many sensors were used for transferring the information through the ZigBee transmitters and receivers. The state of the system is checked and appropriate measures are taken in case of failure. A high performance and expensive LED module was designed for general lighting. The 9-LED Module (9-LEDM) has been designed and evaluated. An adaptive driver with two frequencies to enhance the lifetime and simplify the induction treatment has been proposed. Photometric, thermal and electrical factors have been considered together in order to obtain a complete street lighting system. Finally, experimental results based on the suggested methodology have been obtained from laboratory measurements and a demonstration project. For explaining a fast, reliable and power efficient street lamp switching system regarding pedestrian's location and safety, a SSL system was proposed. The location, detection of safety zone and configuration information is delivered using Smartphone. For street lamp control, each lamppost is extended with a ZigBee-based radio device, receiving control information from the SSL server via multi-hop routing. To accomplish long distance communication using ZigBee wireless technology involving ZigBee coordinator, ZigBee end node was interfaced with a GSM modem. The street light can be monitored and controlled from a centralized position and remotely via cell phone. The brightness of the lights can be adjusted via dimming control circuit like the IRS2530D, which is a new dimming ballast control IC in a compact 8-pin form and with respect to the surrounding ambience-using sensor.

A system came into implementation where the microcontroller is programmed to switch ON/OFF the lights according to the time and intensity of light. They used LDR and Real Time Clock (RTC) interfaced to the microcontroller. The LDR was used to sense the light and the variation was processed as a voltage signal to the microcontroller through the Analog to Digital Converter (ADC) and had the functionality to set the time during which the lights have to be switched ON/OFF. The street lights are then programmed to switch ON if the ambient light intensity falls below a threshold. The RTC used in the system monitors the time

Light Amplification by Stimulated Emission of Radiation (LASER) gates used here detects the movement and makes particular street lights to go to its full intensity for public movement. It reduces the power consumption a lot. The project 'Timer & Dimmer' is capable of energy consumption up to 35% and can increase this efficiency up to 40% with a good distribution of networks and lamps. This system is capable of increasing the lifetime of the lamps used up to two times. A strong and long lasting street light control system, which needs minimum maintenance, was introduced later. It works on the intensity of light where time sensing is used for decoding the intensity of light. The system uses microcontroller, real time clock, Metal Oxide Semiconductor Field Effect Transistor (MOSFET) based driver circuit for controlling the intensity of LEDs. It saves 15.96 KWhr per street lights per year in comparison to traditional controlling system. It is more reliable and less maintenance is required than the wireless sensor networks. Now, all the research stated above indicates the necessity of a smart street lighting system, which would be convenient and flexible to operate and has a better sustainability.

#### **1.4 Objective**

From the above discussions, we have come to know the evolutions of street lighting system. Now, we have developed a smart project, which is different from the developed system of others in various aspects. The objectives of the projects are:

- To obtain manual switching street lighting system, which can be operated manually in case of the smart system fails to operate.
- To implement the project using LDR light sensor, which will automatically switch ON/OFF the lights.
- To implement, the project for switching ON/OFF via SMS, using a GSM module to turn the switches ON/OFF from any part of the operator network.
- To implement a programmed system, which will send SMS if any light is not switched ON/OFF properly.
- To implement the project in several sections which can be turned ON/OFF individually to operate the system efficiently.
- To design the system for specific time dependent operation and propose some diversity of applications with little modification of the proposed system.

#### **1.5 Outcome**

The project can accomplish following outcome considering the above objectives:

- Since the project can be switched in three ways- manually, via mobile SMS and



according to the light intensity, the most important advantage of this project is that, we can easily avoid manual switching when necessary. As a result, the presence of a person while switching ON/OFF the street lights is not necessary.

- When the light intensity goes down in case of bad weather, the lights will be switched ON/OFF according to the light intensity automatically. Thereby, we do not need to worry about switching the lights.
- Since we are using GSM module here, the lights can be switched from a long distance within the mobile network and the controller can control them from anywhere around the region within the respective mobile network.
- This project also has the feedback SMS technology, which will send us a feedback SMS if any light was not turned ON/OFF according to given command. The SMS will mention the specific identity of the light, which will help us to quickly find it out and repair it as soon as possible.
- However, a disadvantage of this project is, when there is fog or rain, the sensor used here may not function properly while measuring the light intensity. However, it can be easily overcome by using a better quality sensor can be used for flawless outcome.
- The project can be used in diverse ways with a little modification of the system.

### 1.6 Outline

The project report is organized as following based on the objectives

In chapter-2, we have discussed all the equipment required in our project, their working principle, features and specifications and the software requirement of the project.

In Chapter-3 demonstrates the system model, power supply and connections of the projects for both prototype and implementation.

In Chapter-4 represents the different key features of the project, their working mechanism, implementation in AC line, fields of application and diversity of application of the project.

In chapter-5, we have discussed the improvements and scope of future works that can be achieved through this project.

## CHAPTER- 2

### IMPLEMENTATION

#### 2.1 Introduction

We have used many equipment and spare parts in this project. This chapter will demonstrate the functionality, availability, pricing and working principle of the major equipment used in this project. The basic principles, pin diagrams, the features and specification of our basic equipment such as Arduino Uno, relay, GSM module, LDR sensor, voltage regulator etc. will be discussed in details and it will give a clear idea about the project. GSM module mainly receives SMS from the controller and can also send SMS to the controller via Arduino Uno in this project. LDR sensor is used to sense the intensity of light and it turns ON/OFF the street lights accordingly. For example, in daytime the intensity of light is higher so it turns the street lights OFF. Along with these, the other components used for this project are discussed in this chapter.

##### 2.1.1 Arduino Uno

Arduino is a single-board microcontroller, which is used to make the application more accessible which are interactive objects and its surroundings. The Arduino Uno Microcontroller is prepared based on the ATmega328 (Appendix A). There are 14 digital input and output pins in it. It also has six analog inputs, a Universal Serial Bus (USB) connection jack, a power jack, and in Circuit Serial Programming Header (ICSP) (Appendix A), and a reset button. The microcontroller has all the elements to support it properly. The microcontroller can be powered by a battery or by an USB or an AC-DC adapter. Arduino Uno is programmed by Arduino software. Arduino Uno is the controller of our project.

This microcontroller can operate between 6 volts DC to 20 volts DC, however if it is supplied by less than 7 volts then the 5volts pin may not supply 5volts and the board may malfunction. Therefore, it is better to use more than 7 volts and less than 20 volts.

The necessary power can be supplied by an external power supply like a battery or an AC to DC adapter or it can be supplied via a USB cable or any kind of voltage regulator that can provide the required voltage. The pin diagram and features and specification of Arduino is discussing below.

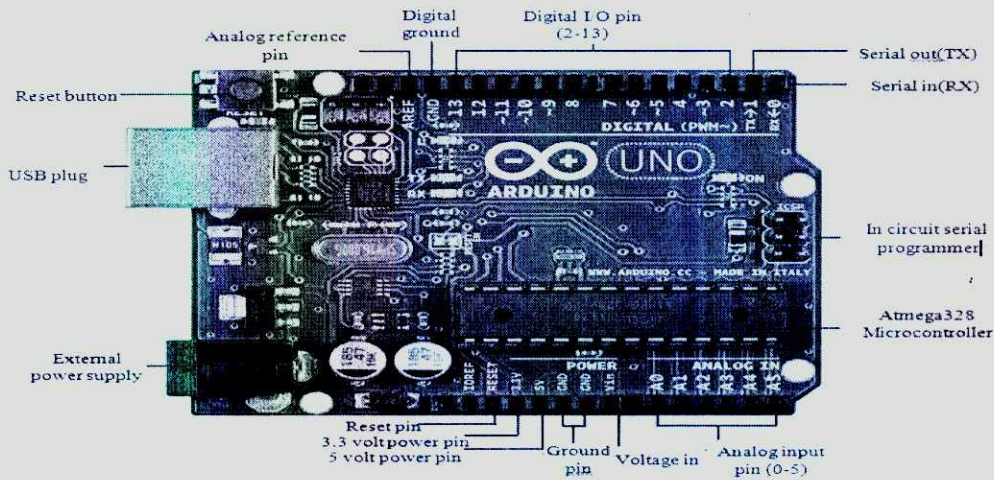


Figure 2.1: Arduino Uno

### 2.1.1.1 Pin Description

Arduino Uno has 14 pins that can be used as an input/output pin. Each of the pins have an internal pull-up resistor that is of 20 to 50 k $\Omega$ . Each of them operate at 5V and can supply or consume a maximum of 40 mA. The details of the pins are given below.

The Uno has six analog input pins, which are labeled as A0 to A5 and provide with 10 bits of resolution.

Among the 14 pins of input/output, pin 0 is used for receiving and pin 1 is used for transmitting purpose of the data. They are connected to the corresponding pins of the ATmega8USB to TTL chip.

Pin 2 and 3 are used to start up an interrupt in case there is a low value, change in value or rising and falling edge.

Also pin 3, 4, 5, 6, 9, 10, 11 are used for 8 bit pulse width modulation (PWM).

Pin 10, 11, 12 and 13 provide the serial peripheral interface (SPI) communication with the help of SPI library. A LED is connected to the pin 13. When the pin 13 is HIGH, the LED is on and when the pin is LOW, the LED is off. Using the wire library A4 (SDA) or A5 (SCL) pin support the two wire interface (TWI) communication.

- There are few more pins and one of them is an AREF pin which works as a reference voltage for the analog inputs
- By default, the voltage varies from 0V to 5V but the upper end value can be changed using this pin along with analog Reference () function.
- There is also a RESET pin which if brought down resets the microcontroller.

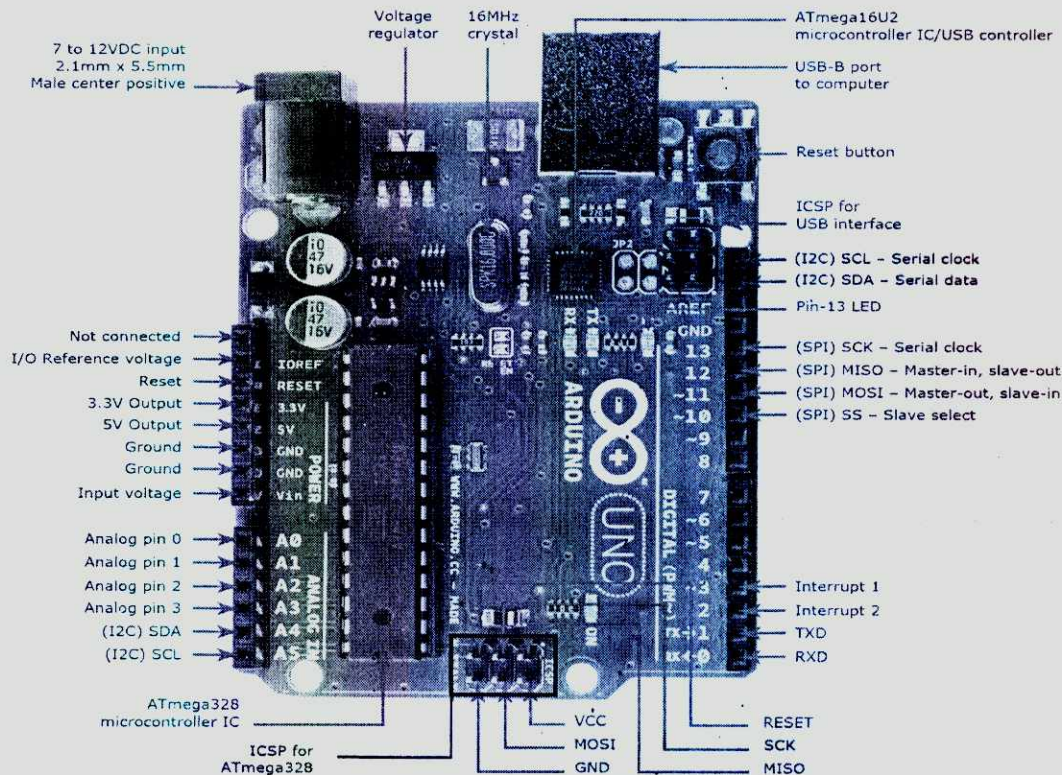


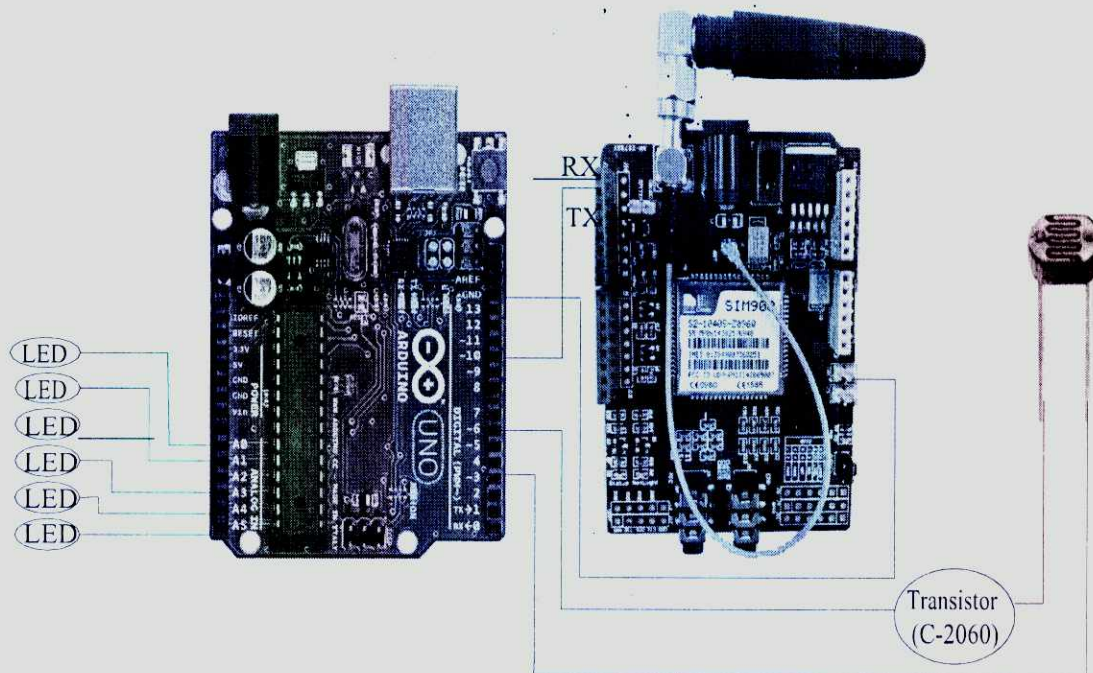
Figure 2.2: Arduino pin out diagram

**2.1.1.2 Features and Specification**

The CPU type of Arduino Uno is 8-bit AVR. It generally performs at 20 MIPS at 20 MHz frequency. Its EPROM (Appendix A) is 1-kilo byte (kB), SRAM (Appendix A) is 2 kB and the flash memory is of 32 kB. . There are 16 channels and 28-pin PDIP, MLF, 32-pinTQFP, MLF. There is a maximum of 26 input/output pins. The maximum frequency for this is 20 MHz. There are two external interrupts.

**2.1.1.3 Connections with Arduino**

Arduino is the controller in this project. It controls the whole project. Each equipment of this project has connection with Arduino. Figure 2.3 represents the connection of the main equipment of this project like GSM, LDR sensor LED with Arduino.



**Figure 2.3:** Connection between Arduino and different equipment.

Arduino is mainly a PCB board, which contains different equipment like microcontroller, IC, resistor, capacitor, amplifier etc. Figure 2.4 represents the circuit diagram of Arduino and its connection with different equipment of the project. There are three sections in the circuit diagram of Arduino. They are given below,

- Microcontroller section.
- USB bridge section.
- Power section.

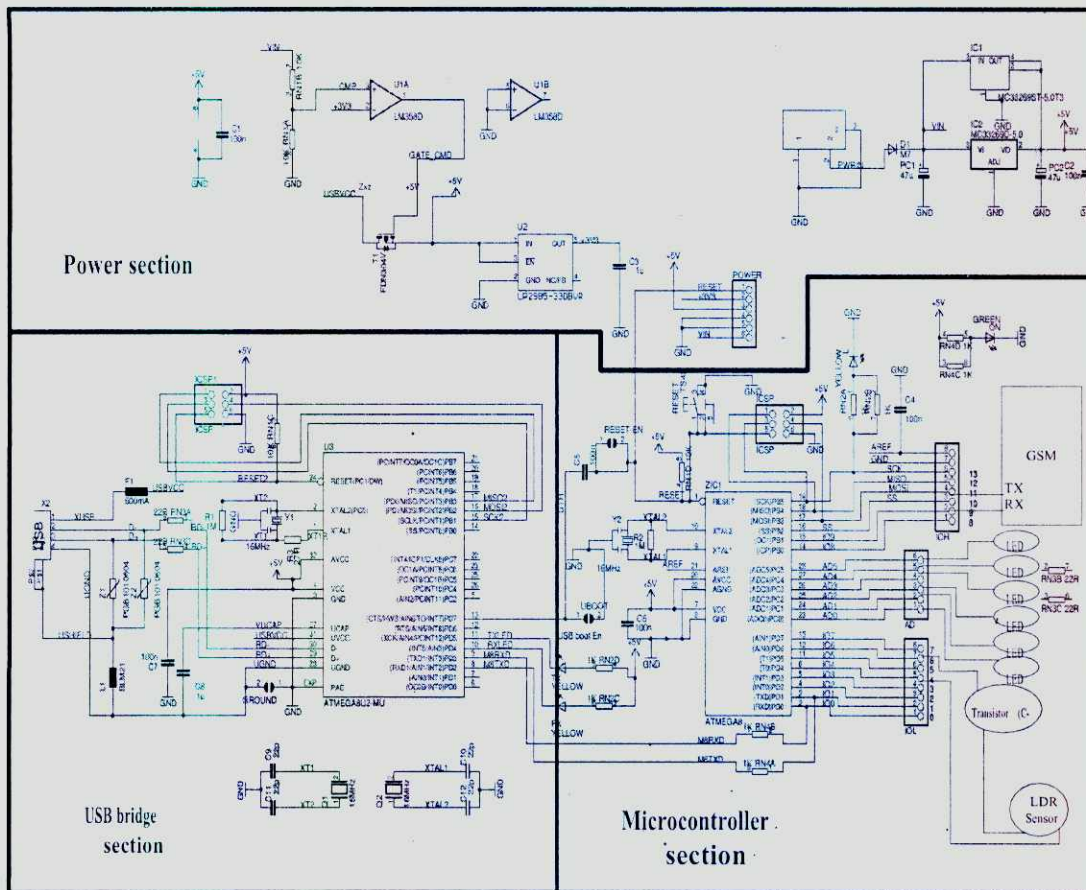


Figure 2.4: Circuit diagram of Arduino and connection with different equipment

2.1.1.4 Working Principle of Arduino Uno

Arduino Uno is a microcontroller board and it is based on ATmega328 chip that is easily available. Microcontroller acts as the brain of the Arduino and send/receive information or command from the device that is connected to the Arduino. The Arduino Uno board can be programmed with the Arduino software. Arduino Uno have many features that include PWM pins, external and internal interrupts, timers etc. As shown in figure 1.1, the Arduino Uno board has an USB interface and it can be plugged-in in any USB port at any place thus making it easier to connect the Arduino with modern day devices at any place. The clock speed for this device is 16 MHz, which makes its application very fast, and to save the code it has 32 KB of memory allocation. In addition, it is good for troubleshooting and debugging and as for power control; it has a voltage regulator already built inside it. It can be externally supplied up to 12V, the voltage regulator will regulate it to 5V, and 3.3V or it can be directly connected

to any USB port without connecting it to any external power supply. There is a pin that take on external power supply and two other pins for 5V and 3.3V power and also there are ground pins. There is an ICSP connector that is used to bypass the USB port. Other than that, it also interfaces the Arduino as a serial device and act as a re-boot loader for chips that get damaged. A boot loader is a programmer that programs the microcontroller and installs new firmware without needing an external programmer. It has a few RESET buttons that reset the Arduino microcontroller and make it easier to carry out different operations. We can see that it has 14 digital pins and six analog pins form figure 1.1 and sensors or other electronic devices can be connected to the corresponding pins directly. Arduino Uno microcontroller has the potential to sense the environmental status after it receives data from various sensors. It has the ability to influence its surroundings by controlling lights, motor etc.

#### **2.1.1.5 Why Arduino is Chosen over Microcontroller**

There are some advantages of Arduino, that's why we choose Arduino over Microcontroller.

The Arduino allows easy and fast prototyping.

Arduino is a must when it is necessary to control more parameters and also in case of implementing the prototype or practical implementation because it is very difficult to implement practically if Microcontroller is used.

Arduino provides a number of libraries which can be used for programming it easily than Microcontroller.

The greatest advantage is having the hardware platform which is set up already.

Though Arduino is more expensive than Microcontroller, but the Arduino has more features and it is less time consuming.

#### **2.1.2 GSM Module**

Global System for Mobile communication or shortly GSM is a digital cellular technology developed for communication purpose. It is one type of communication modem that provides voice and data services to the user. This digital system was designed using Time Division Multiple Access (TDMA) technique. The service operates from 850 MHz up to 1900 MHz approximately.

##### **2.1.2.1 Working Principle of GSM Module**

A GSM digitizes the information data and thus reduces it. Then it sends the reduced data down a channel. The channel has two separate streams of client data and different time slots are assigned to each. The data rate of this system ranges from 64 kbps to 120 Mbps.

The components with which a GSM is formed are shortly described here. By mobile station,

we refer to the mobile phones that we use and it includes the processor. It also consists of the display and the transceiver. The mobile station is controlled by a SIM card, which operates through the network. The base station subsystem works like an interface between the mobile station and network subsystem. It includes the Base Transceiver Station (BTS) (Appendix A). The BTS consists of the radio transceivers and controls the protocols for communication with mobile stations. There is also Base Station Controller (BSC) (Appendix A), which is used to control the BTS. In addition, it interfaces between the mobile switching centers and the mobile stations. The network subsystem gives the basic network connections needed for a mobile station to function. The main content of this network system is the Mobile Service Switching Center (MSC) (Appendix A). It also consists of the Home Location Register (HLR), Visitor Location Register (VLR) and Equipment Identity Register (EIR). The MSC give access to various networks such as Integrated Services Digital Network (ISDN), Public Switched Data Network (PSDN), Public Switched Telephone Network (PSTN) etc. The HLR and VLR provides call routing and roaming facilities to GSM. The EIR maintains an account for all the mobile equipment. In this account, all the mobiles are identified each by their unique International Mobile Equipment Identity (IMEI) number.

#### Features and Specifications

GSM module has quad band of 850/ 900/ 1800/ 1900 MHz and also its GPRS multi-slot class 10/8 and GPRS mobile station class B. Compliant to GSM phase 2/2+Class 4. Control via AT commands (GSM 07.07, 07.05 and SIMCOM enhanced AT Commands). It has low power consumption capability. It operates from 40°C to +85°C.

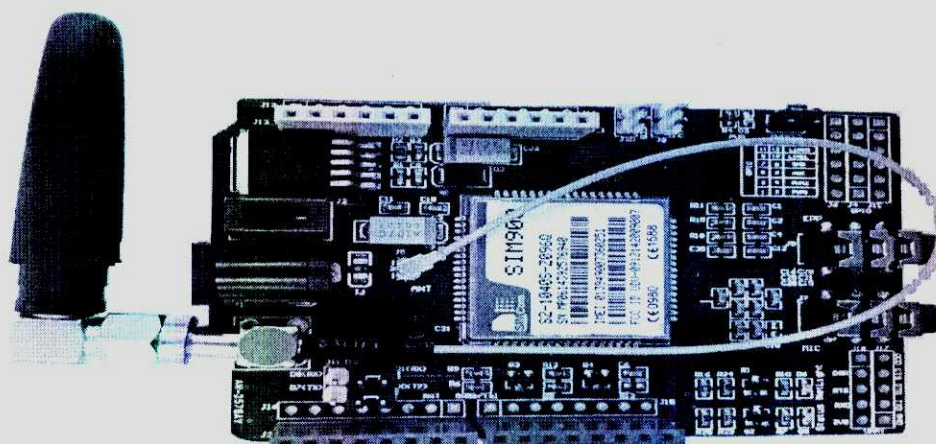


Figure 2.5: GSM Module.



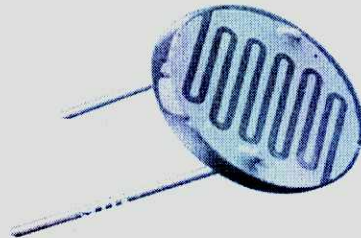
### 2.1.2.3 Applications of GSM

GSM is used in many ways and it has different applications. Some of the applications of GSM are given below-

- Mobile telephone
- Telemetry system
- Automatic meter reading
- Toll collection
- Remote control
- Value added service
- Anti-theft detection alarm
- Fault detection

### 2.1.3 LDR Sensor

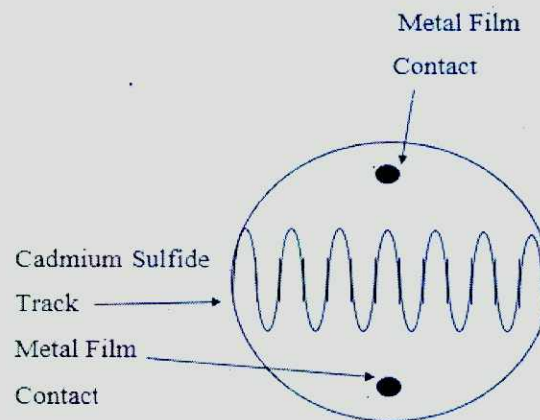
A LDR is a sensor whose resistivity is a function of incident ray on the sensor. Therefore, they are light sensitive devices and made up of semiconductor materials having high resistance. LDR is also called as photo conductors, photoconductive cells or photocells.



**Figure 2.6:** LDR sensor

#### 2.1.3.1 Basic Structure of the LDR Sensor

LDR consists of two metal film contact and Cadmium Sulfide (CdS) track. The spiral track in the figure 2.7 is the Cadmium Sulfide film. The metal film contact is on the top and bottom which are connected to the terminal. A clear plastic covers the whole structure of LDR, so that the external light can easily enter through it. The cadmium sulfide is used where there is no light.



**Figure 2.7:** Basic structure of LDR

### 2.1.3.2 Working Principle of LDR

When light falls or to be specific, photons fall on the device, the electrons in the valence band of the semiconductor material are excited and moved to the conduction band. If the photons in the incident light have greater energy than the band gap of the semiconductor material, then electrons will jump from the valence band to the conduction band. Hence, when light having enough energy

fall upon the device, more and more electrons are excited and moved to the conduction band. It results in large number of charge carriers. By this process more current starts flowing through the device when the circuit is closed and thus the resistance of the device is decreased. This is the most common working principle of LDR.

### 2.1.4 Adaptor (Voltage regulator)

Adaptor is one kind of voltage regulator. A voltage regulator is an electronic device that maintains the voltage level of a power source according to a given voltage range. A voltage regulator is designed such that it automatically stabilize a particular voltage level. It reduces voltage variation and thus protects the equipment from damage. Thus it plays a very important part in protecting electronic devices. Figure 2.8 represents circuit diagram of a 12V, 2 amp DC. This is mainly a 12V voltage regulator. The design of a voltage regulator either can be a forward design or can have a negative

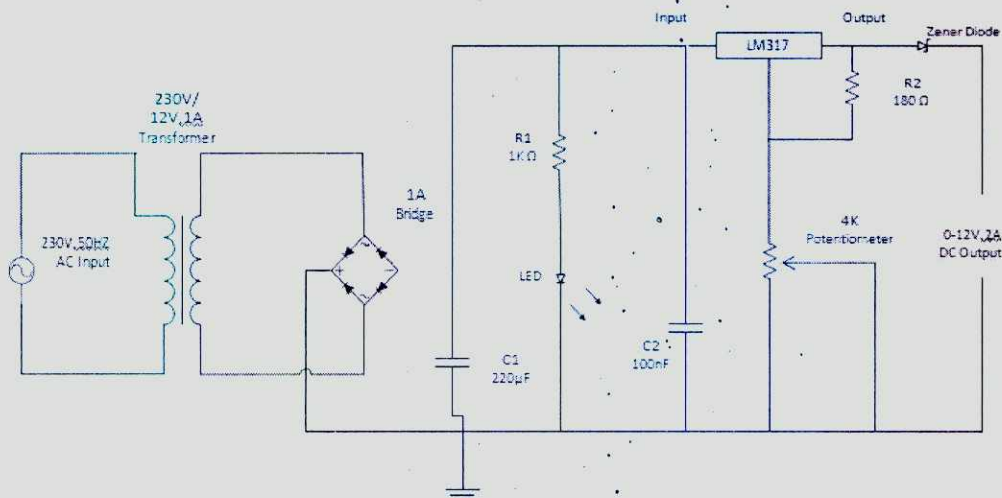


Figure 2.8: 12V, 2 amp circuit diagram.

feedback loop. Depending on its design, it is decided if it can regulate a single or more voltages (AC or DC). The reason to use voltage regulator is to stabilize a constant dc output voltage and to block ripple voltages that the filter could not block.

The voltage regulator can be used for two purposes. One is to keep the output constant at desired voltage despite of variations in the circuit while the other one is to regulate the output voltage according to the need. The voltage regulator may also include other circuits like short circuit, current limiting circuit etc. for protection purpose. We have to use an adaptor for our project of 12V, 2 amp. This is used for the external supply of GSM. This adaptor is very flexible and is widely employed in all types of circuit like a voltage regulator.

**2.1.5 BC-547**

BC-547 is a Bipolar Junction Transistor (BJT). Like any other transistor, the BC-547 transistor can be used for several purposes. It can be used as a switch that can toggle small electronic compliances whenever there is any external changes. It can be both NPN and PNP, which has three terminals. Among which the left most terminal is usually the collector, the middle one is base and the right most one is the emitter. In the NPN transistor the collector is generally connected with a power supply, the base provides the circuit with switching signal and the emitter terminal is connected to the ground. It can work for with switches and amplifiers actively. It generally works as transistor array, which is used in digital switching that, helps making the layouts easier. The switching is done if the configuration of the 3 terminals of the transistor is appropriate.

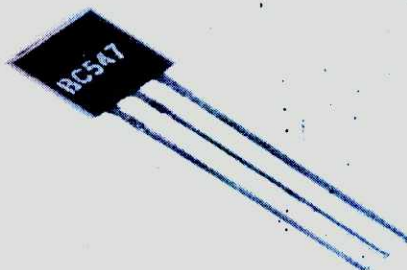


Figure 2.9: BC-547 [22]

## 2.2 Software Requirement

Software is used for programming purpose. Without programming the Arduino, it is impossible to run the project. In the proposed system, we have programmed Arduino UNO by using Arduino software. It is a full software development environment with an editor, simulator, programmer etc. The Arduino IDE supports the languages C and C++ using special rules of code structuring.

To program Arduino, Arduino software was installed. Then we have to connect Arduino to the USB port of the computer. USB cable is required to connect it to the computer. Every Arduino has a different virtual serial-port address, so we have to reconfigure it. Then the board type and the serial port will be set in the software. After writing the code, it was loaded to the Arduino board and Arduino cable was disconnected from the combiner.

## 2.3 Expenditure

The equipment used for this project is listed below. Their expenditure has also been added our main focus was to keep the costing minimum but get the most efficient result. The market prices at the moment are listed below.

Table 2.1: Total expenditure of the project

Serial No.	Name of the Equipment	Quantity Required	Unit Price (TK)	Total Price (TK)
1	GSM module	01	2300.00	2300.00
2	Arduino Uno	01	500.00	500.00
3	Adaptor	01	150.00	150.00
4	Breadboard	02	120.00	240.00
5	SIM	01	100.00	100.00

6	Wire	05 gauge	5.00	25.00
7	Resistor	20	0.50	10.00
8	Capacitor	02	30.00	40.00
9	LDR sensor	01	20.00	10.00
10	BC-547	01	20.00	20.00
11	C-2060	01	30.00	30.00
12	LED	10	10.00	100.00
	<b>Total Cost in TK</b>			3525.00

## CHAPTER-3

### ANALYSIS OF THE SYSTEM

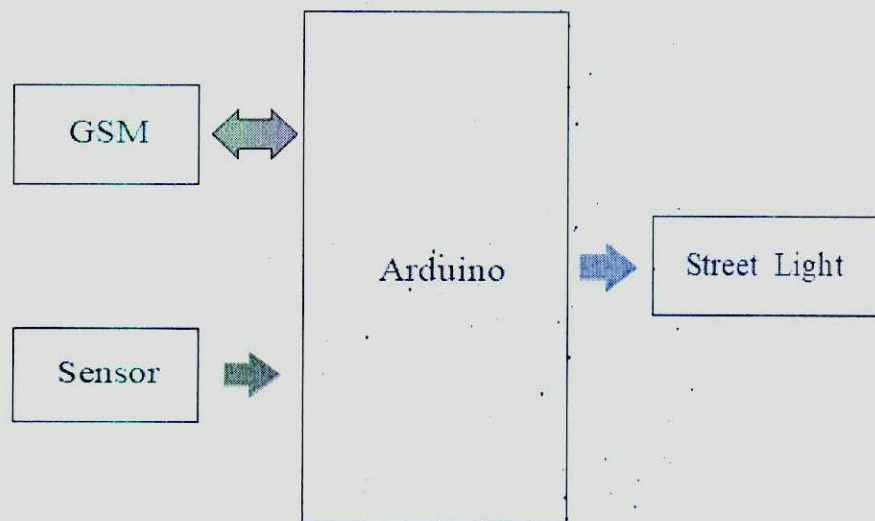
#### 3.1 Introduction

In the previous chapter, we have discussed the components that are used in this project and their cost. In this chapter, we are going to discuss the whole system for both prototype and practical implementation. We are also going to discuss the system model and system analysis, block diagrams, power supply of the system etc. For completing this project, we need to follow some circuit diagrams and block diagrams. In this chapter, we have also discussed the whole project procedure in the project overview, from where we can easily understand the function of each equipment and how the project works. In the system diagram, we have discussed how the street lights are controlled. We will discuss these things in details in this chapter.

#### 3.2 System Block Diagram

Different Types of hardware components are used in this project. They are already discussed in chapter 2. Block diagram of the project shown in figure 3.1 represents the main concept of our project. The block diagram consists of various components such that Arduino UNO as controller, LDR sensor for sensing the intensity of light, GSM module for wireless transmitting and receiving of SMS, and street lights. Here, Arduino needs 5V and GSM needs both 5V and external 12V supply.

We have made a prototype, which has two sections of street lights. There are three features to control the street lights. First, one is manual switching system. Manual switching is done by hand. By manual switching we can control both sections together and also individually. Second, one is using the sensor and third one is implemented by mobile SMS. For the sensor based switching system, we are using LDR sensor. It gives the output by measuring the intensity of light. At night, the intensity of light is very low and the sensor then send the instruction to the Arduino and light is turned ON. During daylight, the intensity of the light is high, the sensor will send the instruction to the Arduino, and lights will remain turned OFF. For SMS system, there is a SIM, which is programmed in the GSM module. The SIM contains a fixed number, which is operated by a controller. When there is a need to turn ON/OFF the lights, controller will send a code word SMS that has been programmed beforehand. Then GSM will receive the command and it sends the instruction to the Arduino and then Arduino sends command to the light accordingly. We can control both sections together and individually via SMS. If any light is damaged or does not turn ON or any fault occurs, then a SMS will be sent to the fixed number from GSM and then proper step will be taken by changing the damaged light



**Figure 3.1:** Block diagram

### 3.2.1 System Model for Practical Implementation

System model that is described in article 3.1 is applicable for the prototype that we have made. However, if we want to implement it practically, we will have to change the power supply, use more equipment and modify the process a little. We need some extra equipment like relay, circuit breaker etc. for practical implementation of this project. The output of the logical embedded system is directly connected to LED in our project but for practical implementation, the output of the logical embedded system is connected to street lights via relay and circuit breaker which is shown in figure 3.4. Relay is placed before circuit breaker and it switches the power supply to 220V. Circuit breaker is placed before street lights. Because if there is overflow of current then the lights will get damaged. Hence, circuit breaker save lights from being damaged from overflow of current by disconnecting the circuit. Figure 3.2 shows the implementation of this project for a section of street lights.

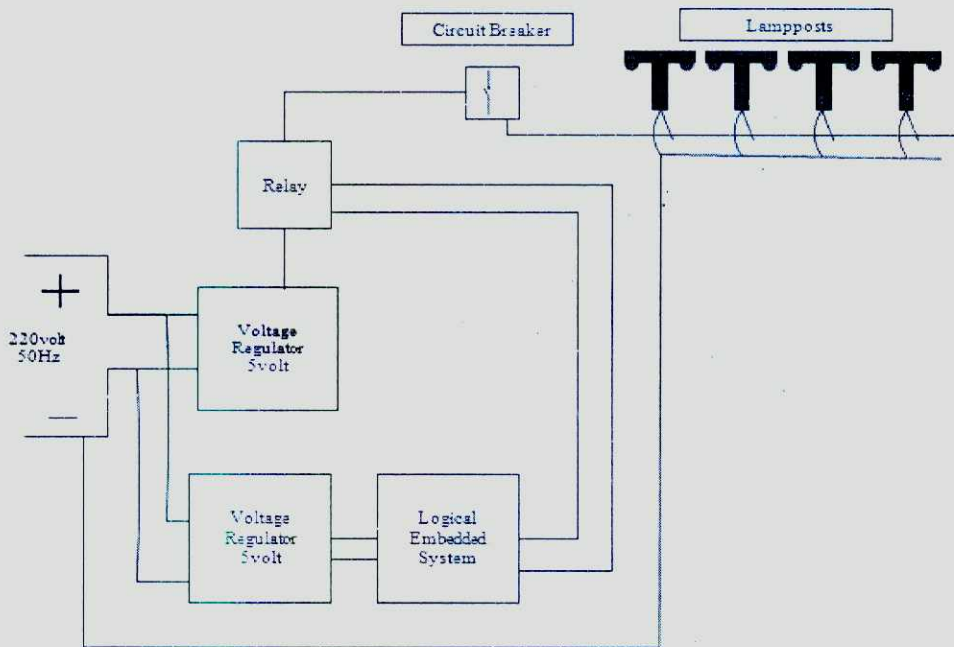


Figure 3.2: Block diagram for the implementation

### 3.2.2 Power Supply of the System

Primarily we need to supply required amount of power to run the project. Here, we need 5V DC power supply and 12V, 2amp DC power supply because the operating voltage for Arduino used in this project is 5V DC and the operating voltage of GSM is 12V, 2 amp DC. Normally the AC supply voltage is 220V. Hence, if we want to get 5V and 12V power supply, we have to regulate the AC supply. Figure 3.3 represents this process.

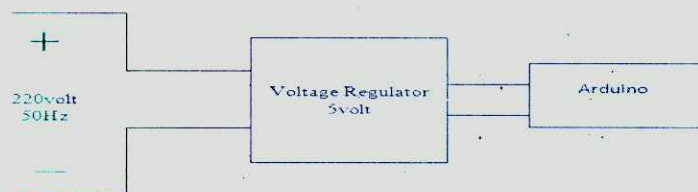
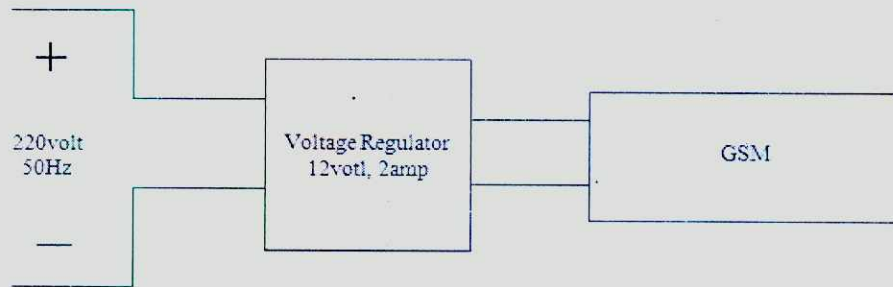


Figure 3.3: Power supply to Arduino.

Similarly, as GSM needs 12V, 2amp DC power supply, this voltage is regulated from 220V. We use a 12V, 2amp adaptor as a voltage regulator. This adaptor regulates 220V to 12V, 2amp DC that is fed to GSM. This process is shown in the following figure 3.4.

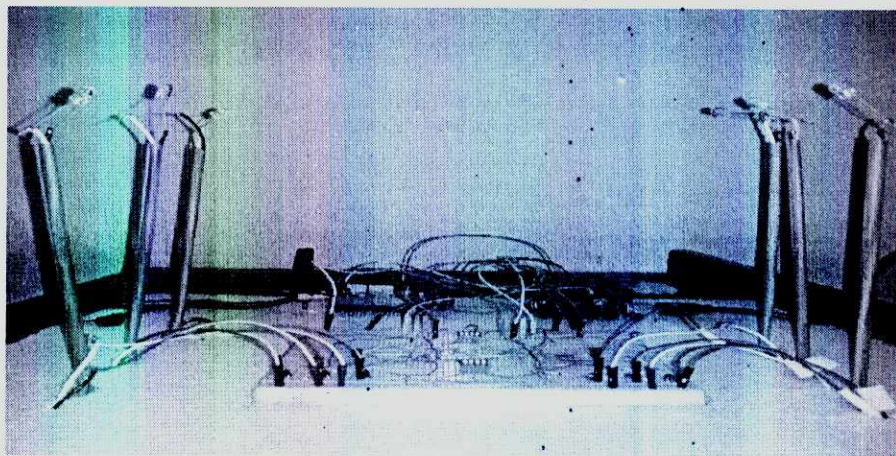




**Figure 3.4:** Power supply for GSM.

### 3.2.3 Picture of the Internship

We have shown the whole picture of this project in this article. The side view of our project is shown in figure 3.5 and the upper view of project is shown in figure 3.6. In both figure we can see the connections of this project. We have used LED light as street lights. We can see in the picture that there are total six lights divided by two sections. Each section consists of three lights. There are Arduino Uno and GSM module, breadboard, two switchboxes that are switchbox 1 and switchbox 2, LDR sensor, 2 types of transistors, which are C-2060 and BC-547 etc. The descriptions of the equipment have already been given in article 2.1. The system model of the project is given in article 3.2. There are some key features of this project like manual switching, sensor based switching, switching via mobile SMS, feedback SMS, switching according to specific time. How this features work are described in article 4.2. The project mechanism and circuit diagram of this project is given in article 4.3.



**Figure 3.5:** Side view

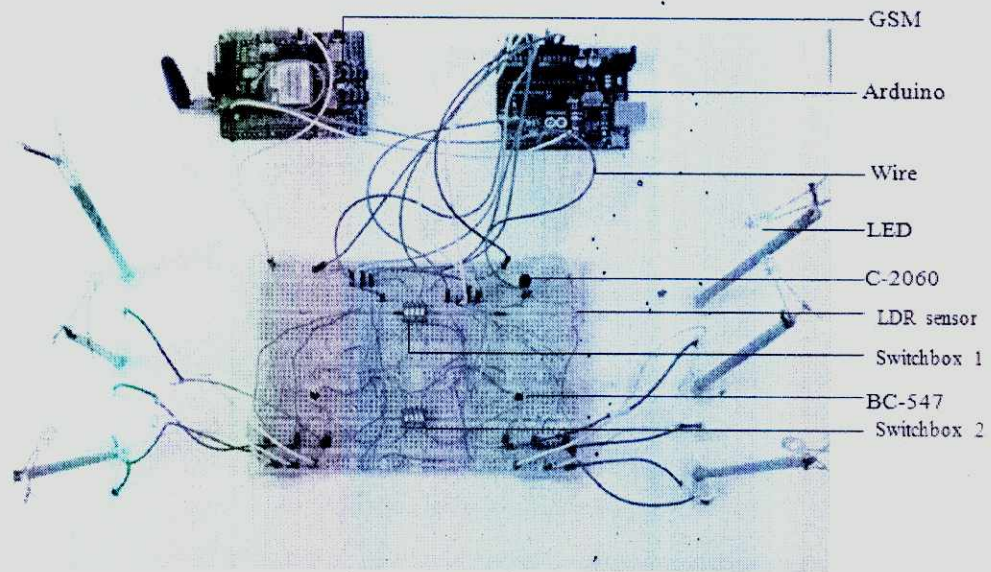


Figure 3.6: Top view

## CHAPTER- 4

### RESULTS AND DISCUSSIONS

#### 4.1 Introduction

The prospect of the project was the easy and user-friendly implementation of the street lighting system as well as the reduction of necessary manpower to run the whole system. Our project helps to achieve this target especially by four ways. Manual switching, with the help of sensor, mobile SMS, can do this street lighting process and we can get a feedback SMS if there is any fault in any lights. The key features will be discussed elaborately in this chapter and we will discuss the feature of timing based switching here. The project mechanism and the process of implementing it on AC line will also be discussed in this chapter. We can apply this project in different fields; some of them will be mentioned in this chapter. With some modification, it can be used for much different use and the scope for that will also be discussed here. In general, we will discuss the result of the whole project in this chapter.

#### 4.2 Key Features

This project has many especial features that makes the street lighting system easier, user friendly, cost effective and reduces power consumption. The key features of the project are,

- a. Manual switching
- b. Sensor based switching
- c. Switching via mobile SMS
- d. Feedback SMS system
- e. Switching according to specific time

We have discussed the working principle and operation of each feature of the project in details with necessary figures below.

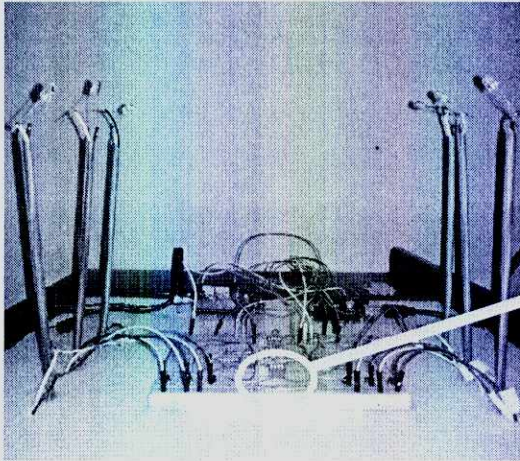
##### 4.2.1 Manual Switching

We have two manual switching system. Firstly, switching the lights according to individual section. Secondly, we can control both section together that means we can ON/OFF both section simultaneously. This is the simplest process and this feature is common for all street lighting system over the world. If for any reason, the sensor does not work or switching via SMS fails due to network problem then we can use the manual switching system.

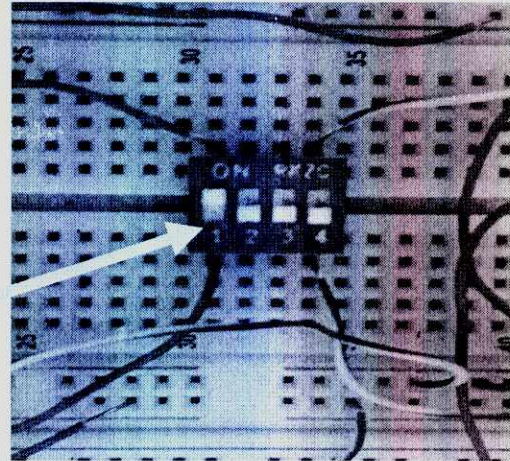
If we want to turn ON/OFF the lights of section 1 and section 2 simultaneously, then we can do it by moving the selected switch of switchbox 1 upward/downward. If we want to turn ON/OFF the lights of section 1 or section 2 individually then we can move the selected

switch for each section in switchbox 2.

The process of manual switching can be easily understood by the following figures. At first, the manual switching process for individual section of light will be discussed. By using switchbox 2, the lights of individual sections can be turned "ON" or turned "OFF". The switch 1 of switchbox 2 is assigned to light section 1 and the switch 4 of switchbox 2 is assigned to the light section 2.



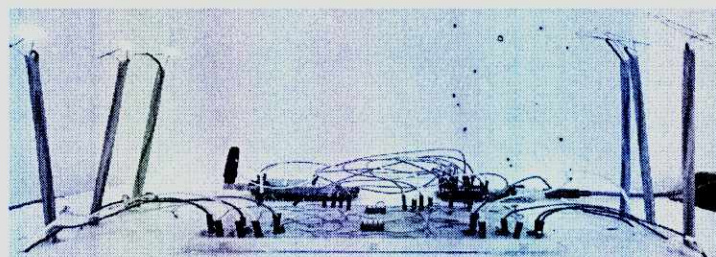
**Figure 4.1 (a):** Lights of two sections are switched OFF.



**Figure 4.1 (b):** Switch 1 of switchbox is moved upward.

As shown in figure 4.1(a), all the lights are turned off. To turn ON the lights of section 1 switch 1 of switchbox 2 is moved upward. The expanded view of the switchbox 2 has been shown in figure 4.1(b) and after moving the switch upward, the lights of section 1 are turned ON as shown in figure 4.1(c).

Similarly, if we want to turn "OFF" the lights of section 1, switch 1 of switchbox 2 will have to be moved downward. This is the process of turning ON/OFF the lights of section 1 individually in manual switching system.



**Figure 4.1 (c):** Lights of section 1 is switched ON after moving the switch 1 upward.

Similarly, to turn ON/OFF the lights of section 2, we have followed the following procedure. We can see, at first all the lights of both sections are turned OFF as shown in figure 4.2(a). We can turn the lights of section 2 ON by moving switch 4 of the switchbox 2 upward. The expanded view of the switchbox 2 when switch 4 is moved upward is shown in figure 4.2(b).

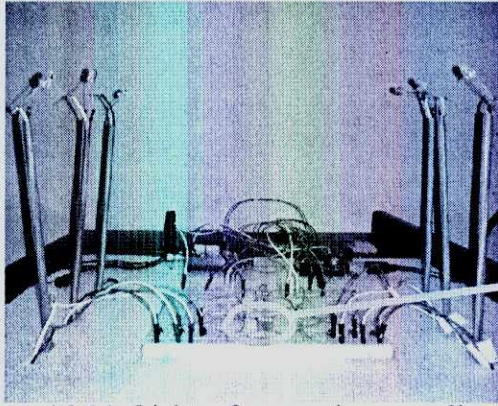


Figure 4.2 (a): Lights of two sections are off

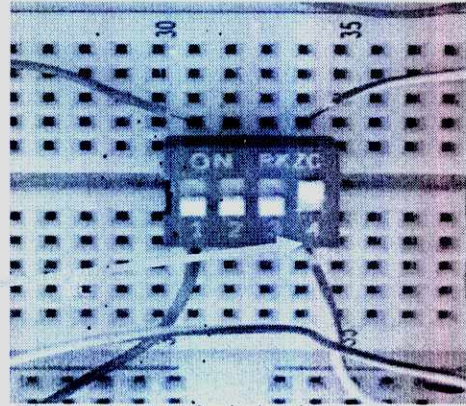


Figure 4.2 (b): Switch 4 is moved up.

After moving the switch upward, the lights of section 2 are turned ON as shown in figure 4.2(c). Similarly, if we want to turn “OFF” the lights of section 2, switch 4 of switchbox 2 will have to be moved downward. This is the process of turning ON/OFF the lights of section 2 individually in manual switching system.

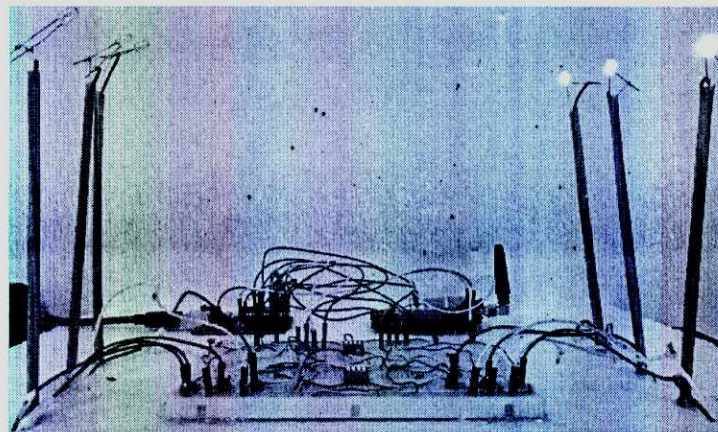
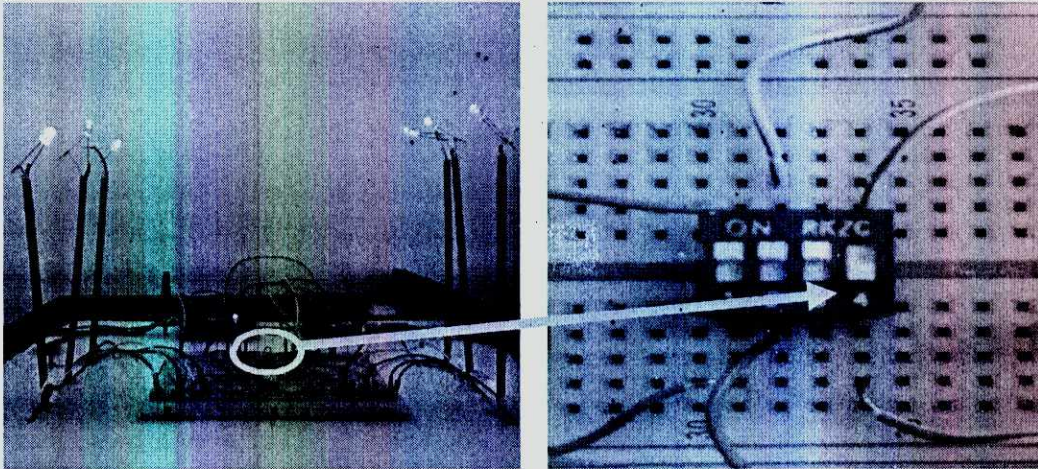


Figure 4.2 (c): Lights of section 2 is switched on after making the switch 4 ON.

To control both sections simultaneously switchbox 1 is used. We can switch ON/OFF the lights of the both section manually. If anyhow, the lights are turned ON at a wrong time or other features do not work properly, then we can move the switch 4 of switchbox 1 downward. In figure 4.3(a) all, the lights are turned ON and to turn OFF the lights of both

sections simultaneously the switch 4 of switchbox 1 will have to be turned downward. The expanded view of switchbox 1 when switch 4 is moved downward is shown in figure 4.3(b) and after moving the switch 4 of switchbox 1, all the lights of both section will be turned OFF.

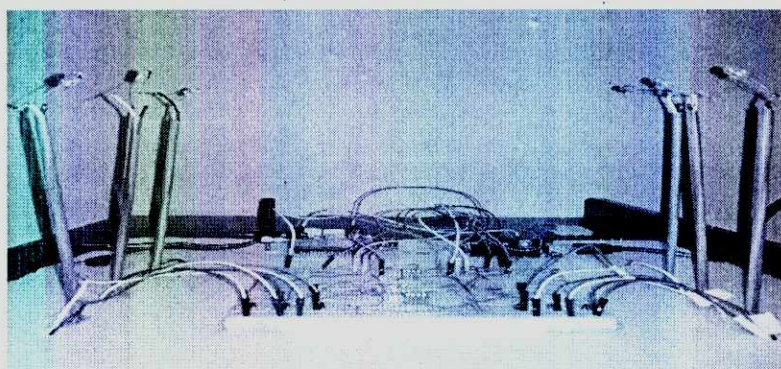


**Figure 4.3 (a):** Lights of both sections are turned ON.

**Figure 4.3 (b):** Switch 4 of switchbox 1 is moved downward.

As shown in figure 4.3(c), the whole system is switched OFF. We can also switch ON the whole system by moving the switch 4 of switchbox 2 upward. Similarly, if we want to turn ON the lights of both section, switch 4 of switchbox 1 will have to be moved upward.

This is the process of turning ON/OFF the lights of both section simultaneously in manual switching system.



**Figure 4.3 (c):** All lights of both section are switched OFF after pressing the switch 4 OFF

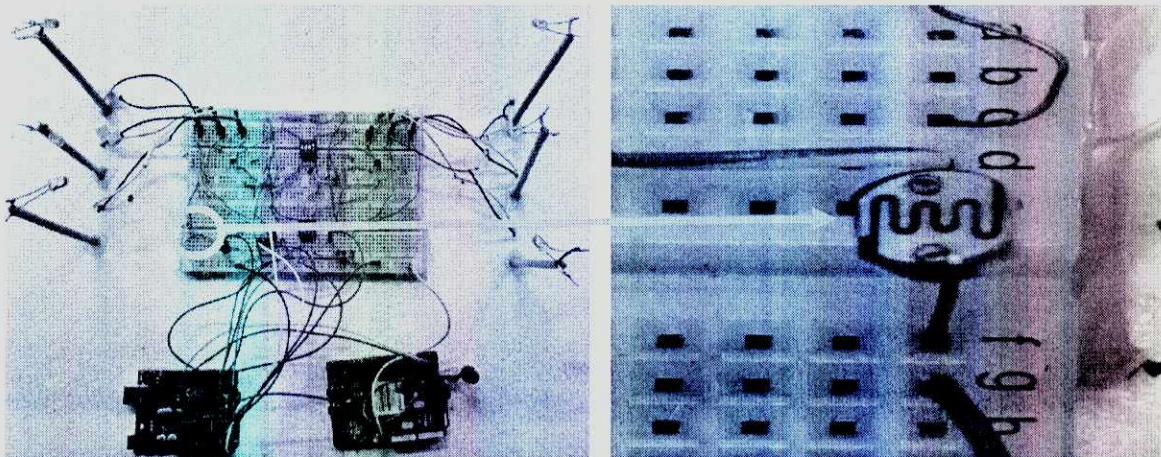
the second switchbox.

Above, we have discussed the manual switching of our project. We have shown the procedure for manually switching the lights of both sections individually and simultaneously to turn ON/OFF in details and the other features will also be discussed in this chapter.

#### 4.2.2 Sensor Based Switching

We can switch the lights according to the intensity of light by using light sensors. We have used a LDR sensor, which switches the lights according to the intensity of light. If the intensity of light goes down a certain value, then the lights are automatically switched ON. Similarly, if the intensity of light goes up a certain value in the morning then the lights are automatically switched OFF. This process works fine during any season.

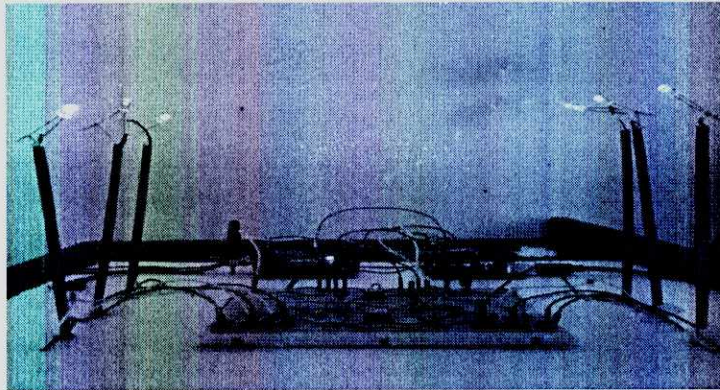
The intensity of light is higher at daytime and sensor sends the command to Arduino and Arduino commands the lights accordingly and thereby the lights are turned OFF, as shown in figure 4.4(a), by the LDR sensor. The expanded view of the LDR sensor used in our system is shown in figure 4.4(b).



**Figure 4.4 (a):** Lights of two sections are OFF at daytime

**Figure 4.4 (b):** LDR sensor

Similarly, when the intensity is low at night, then sensor sends this command to Arduino and Arduino commands the lights accordingly and thereby the LDR sensor, which is demonstrated in figure 4.4(c), turns ON lights.



**Figure 4.4 (c):** Lights of two sections are ON at nighttime.

If any fault occurs which means if the lights are not turned ON/OFF at proper time, then the LDR sensor might be damaged which can be fixed very easily. The LDR sensor is very cheap and replacing the sensor will again make the whole system functional as before. We have shown the procedure for sensor based switching of the lights in details and the other features will also be discussed further.

#### **4.2.3 Switching Via Mobile SMS**

The main feature of the project is that we can switch ON and OFF the system via mobile phone SMS. The system has a GSM, which contains a SIM and we can choose any network operator according to our choice. The controller is given a fixed number and the system is programmed in a way that, if we send a predefined coded SMS to our chosen SIM operator from the fixed number, the lights are switched ON or OFF according to the message. We have programmed different SMS for switching the lights ON and OFF.

When street lights are needed to be switched ON/OFF, controller sends SMS with specific code from the fixed number. This SMS is received by the SIM of the GSM, GSM sends the command to the Arduino, and then Arduino commands the lights accordingly. Thus, the street lights are turned ON/OFF via SMS.

We have programmed some SMS code, which are used to control the street lights for this project. To switch ON/OFF both the section simultaneously, the code word is "LaneN\*ON"/ "LaneN OFF" respectively. To switch ON/OFF section 1, the code word is "Lane1\*ON"/ "Lane1 OFF". To switch ON/OFF section 2, the code word is "Lane2 \*ON"/ "Lane2 OFF". The controller can use any of these code word according to the necessity. After getting command via coded SMS, street lights will work accordingly.

If there is a network problem, then the GSM will not receive the SMS in time and there by lights



will not be switched ON/OFF in time. In that case, we will have to switch the lights manually. Hence, it is better to choose a mobile operator that has the strongest network strength in the area where we want to implement this system.

For example, in our project, we have two sections and at the beginning, all the lights for both section are turned OFF as shown in figure 4.5(a). We have set the code "LaneN\*ON" for switching ON the lights of two sections simultaneously as shown in figure 4.5(b).

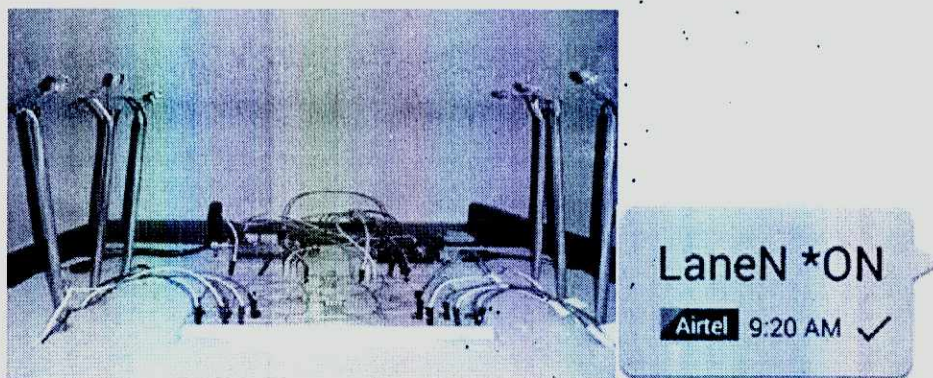


Figure 4.5 (a): While lights of two sections are OFF. Figure 4.5 (b): SMS is sent.

After sending the SMS all the lights of both sections are turned ON as shown in figure 4.5(c). For switching them OFF, we have set the code word "LaneN OFF" as shown in figure 4.5(d).

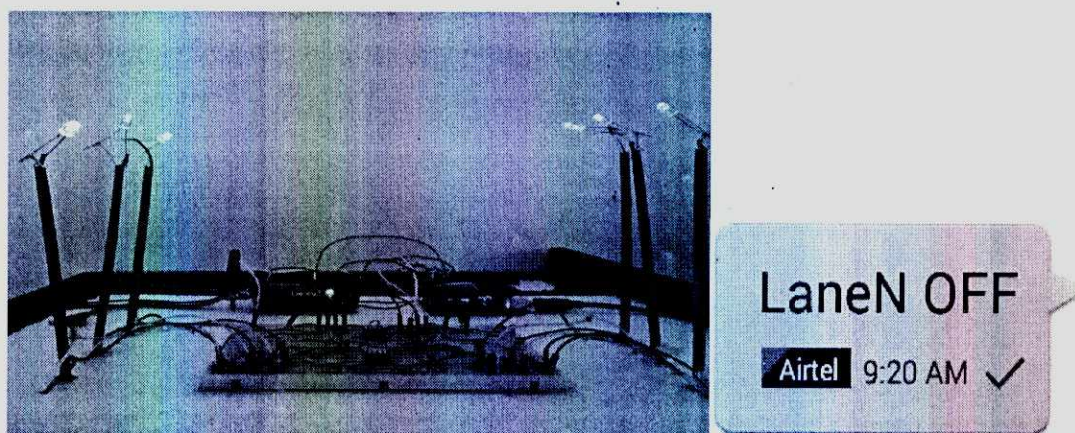
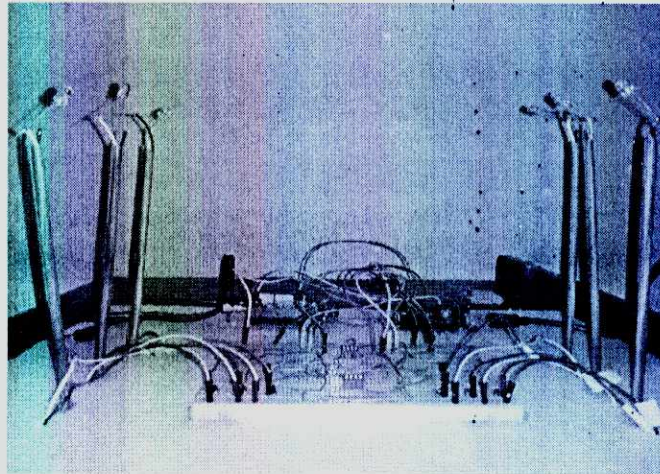


Figure 4.5 (c): After receiving SMS, all the lights are ON. Figure 4.5 (d): SMS is sent.

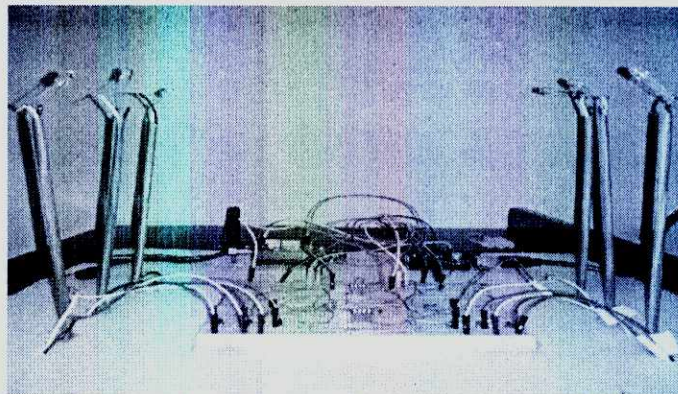
After sending this code word to the GSM SIM number, it switches the lights OFF as shown in figure 4.5(e) and it takes few seconds to execute the command.



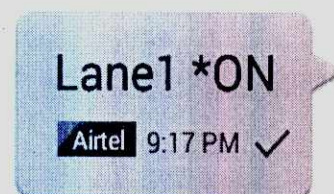
**Figure 4.5 (e):** After receiving SMS, all the lights are OFF.

In the above process, after sending SMS from controller, GSM receives the SMS and sends the command to Arduino and Arduino commands the lights according to the SMS.

Similarly, we can also control the sections individually via SMS. Suppose we want to control the lights of section 1 individually. All the lights are turned OFF as we can see from figure 4.6(a). If we send the SMS code word like “Lane1 \*ON” as shown in figure 4.6(b).

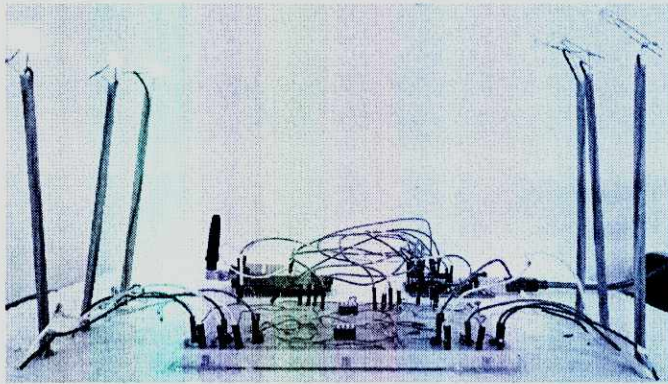


**Figure 4.6 (a):** While lights of two sections are OFF.

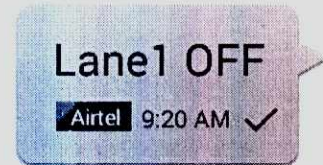


**Figure 4.6 (b):** SMS is sent.

After receiving SMS, GSM sends the command to Arduino and Arduino turns ON all lights of the section 1 as shown in figure 4.6(c). If we send the SMS code word like “Lane1 OFF” as shown in figure 4.6(d).

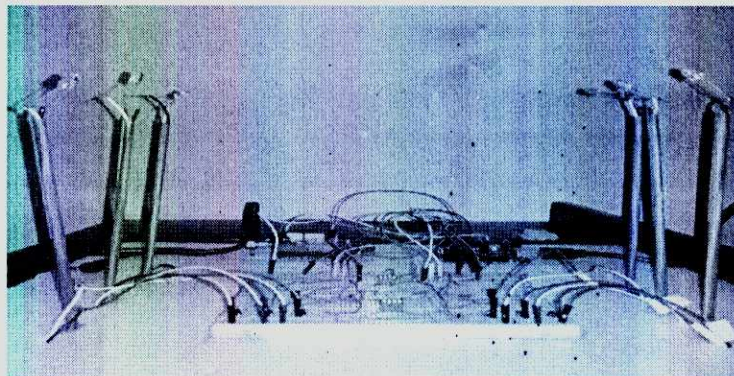


**Figure 4.6 (c):** After receiving SMS, all the lights of section 1 are ON.



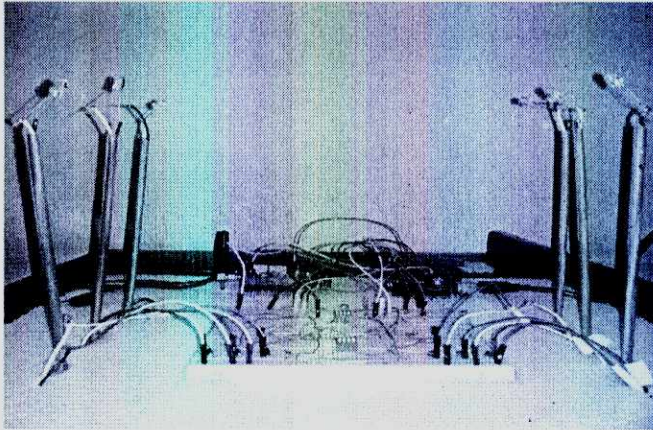
**Figure 4.6 (d):** SMS is sent.

After receiving SMS, all the lights of section 1 will be turned OFF according to the same procedure as discussed above. This is shown in figure 4.6(e).

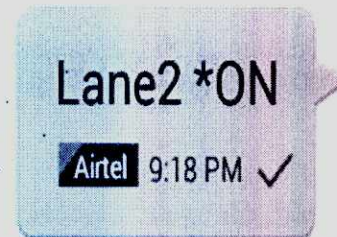


**Figure 4.6 (e):** After receiving SMS, all the lights of section 1 are OFF

Similarly, we can control the lights of section 2 individually via SMS. We can see from figure 4.7(a) that all the lights of both sections are turned OFF. If we send the SMS codeword “Lane2 \*ON” as shown in figure 4.7(b) then all lights of section 2 will be switched ON.

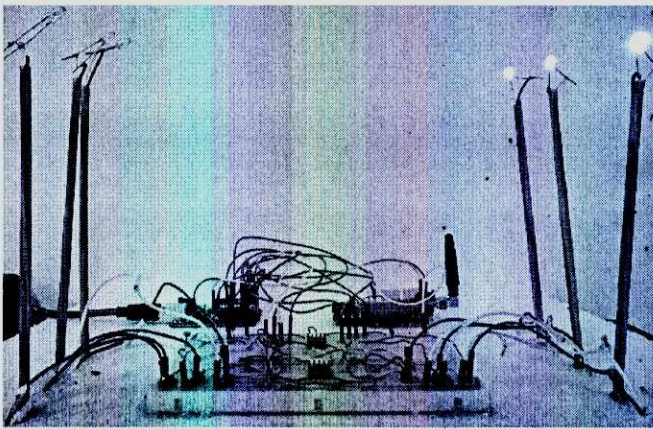


**Figure 4.7 (a):** Lights of both sections are OFF.

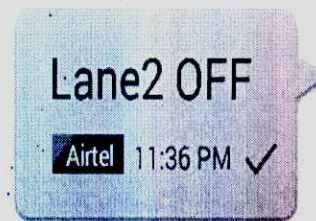


**Figure 4.7 (b):** SMS is sent.

The following figure 4.7(c) shows how the lights of section 2 were turned ON after the SMS was sent from the controller's phone number and was received by the GSM. If we send the SMS code word "Lane2 OFF" as shown in figure 4.7(d).

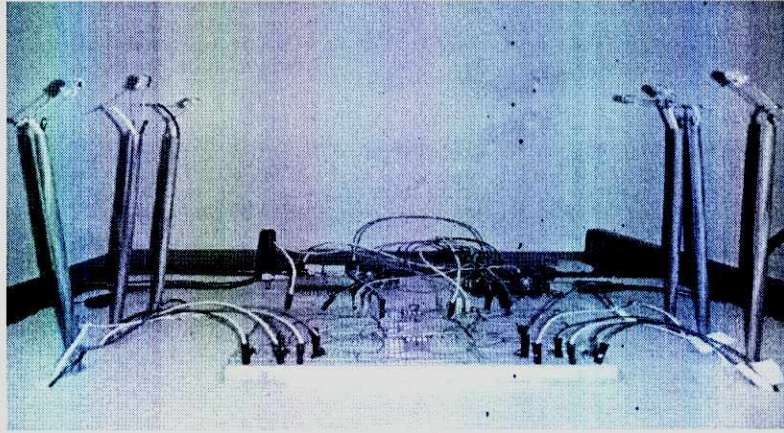


**Figure 4.7 (c):** After receiving SMS, all the lights of section 2 are ON.



**Figure 4.7 (d):** SMS is sent.

After receiving SMS, all the lights of the section 2 will be switched OFF as shown in figure 4.7(e). Above process is executed after receiving SMS by GSM, it sends the command to Arduino and Arduino commands the lights accordingly.



**Figure 4.7 (e):** After receiving SMS all the lights of section 2 are OFF.

It also should be mentioned that for switching the lights, the controller must know the GSM SIM number and the SMS code word. Therefore, the system is safe, as there is only one person with the fixed number who has the authority to control the street lights and there is no way to know the GSM SIM number or the SMS code word unless they are informed.

We have shown the procedure switching lights via SMS in details and the fourth feature will be discussed further.

#### **4.2.4 Feedback SMS System**

One of the key features of the system is its feedback SMS process. If there is any occurrence of a fault in any of the lights, then an SMS will be sent to the controller's number mentioning the number of the light. A fault may occur if connections get broken or the light may not be functioning as usual, which will result in a feedback message to the mobile phone number that is defined in the code for our system, that is basically the controller's SIM number.

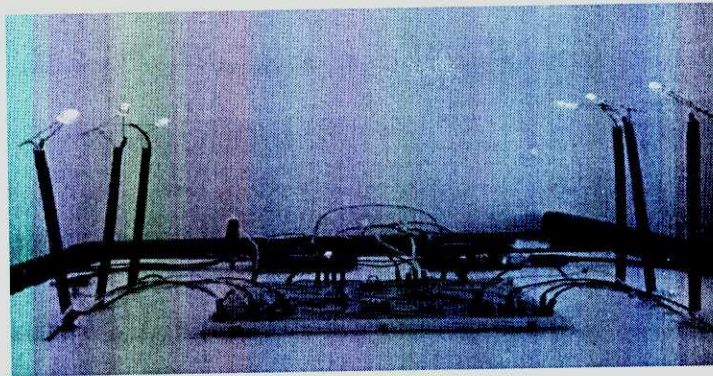
GSM has signal transmitting and receiving capability and thus when a fault occurs in street lights, Arduino sends a signal to GSM. Then GSM sends SMS to the controller's mobile number, which contains a specific code and thus the feedback SMS process works.

In this project, we have set a feedback SMS code for each light and if a fault occurs in any of the street lights, an SMS will be sent to the GSM SIM number with a specific code for that light. Codes set for six lights are "Fault in light-01", "Fault in light-02", "Fault in light-03", "Fault in light-04",

“Fault in light-05”, “Fault in light-06”.

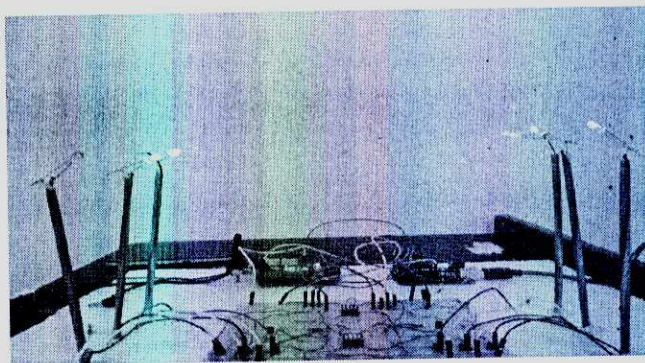
For example, we get the text “Fault in light 1” if there is a fault in the 1<sup>st</sup> light. We can understand this process better by the following figures. In figure 4.8(a) all the lights are turned ON.

After receiving the SMS, the light with fault can be easily detected and it will have to be replaced with a new one. Therefore, the feedback SMS is one of the most special features of our project as it makes maintenance of the street lights very efficient and comfortable for the person in charge.



**Figure 4.8 (a):** All lights are ON

If for some reason the first light of section 1 was damaged or could not be turned ON as shown in figure 4.8(b), it resulted in the feedback SMS with the code word set for the first light as shown in figure 4.8(c). This process is executed after any damage to any light, Arduino sends the command to GSM and then GSM sends SMS to the controller.



**Figure 4.8 (b):** 1<sup>st</sup> light is off due to fault.

**Fault in Light - 01**

Airtel 11:43 AM

**Figure 4.8 (c):** Feedback SMS when 1<sup>st</sup> light is off due to fault.

#### 4.2.4 Switching According to Specific Time

The lights may also be switched according to a specific time. This switching system will switch the lights after reaching the time we have set in our system for different seasons throughout the year. Though we have not added this feature in our project as merging up all the processes would have made the system difficult to implement and execute. In addition, we already have several ways for switching the lights. So we chose to use the sensor and did not use the time specified switching option.

As we have multiple systems working together, we sometimes have to overwrite the value of the sensor during daytime or nighttime. The LDR sensor is programmed to work automatically all the time. Now, when we send SMS to switch the lights, this process actually overwrites the value and functionality of the LDR sensor. For example, sending code words to switch the lights off will anyway switch them off, no matter what is the intensity of light present on that particular moment. The next day again the lights will be switched on/off according to the mechanism and the value of the sensor.

If we want to control street lights by setting specific time for switching, then we have to modify the process a little. We have to use a timer and a specific time can easily be set for different seasons throughout the year. When the time we have set arrives, timer will pass the command to Arduino and Arduino will command the light accordingly. This is shown in figure 4.9. Thus, street lights can be controlled by setting specific time.

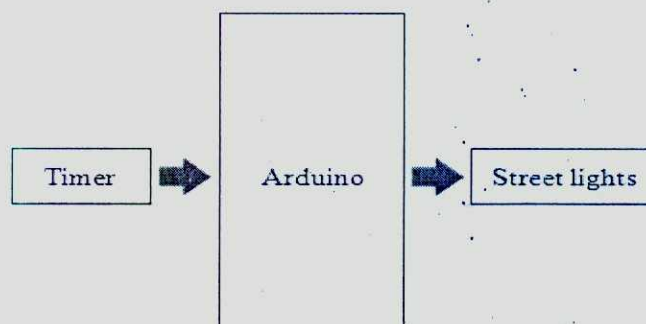


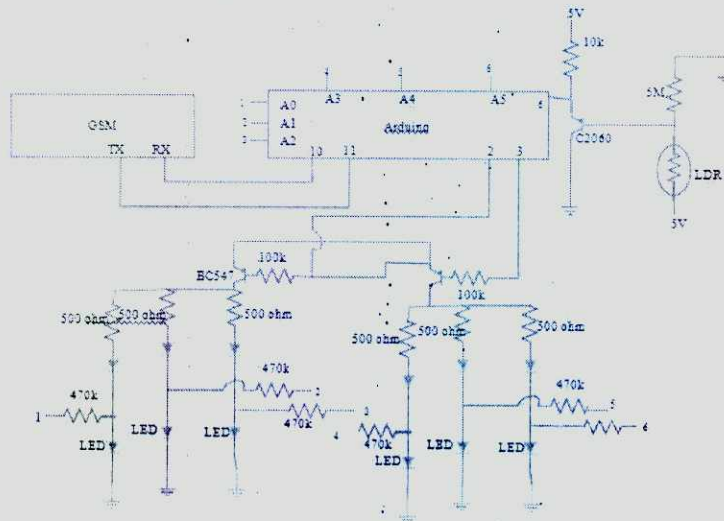
Figure 4.9: Switching according to specific time.

#### 4.3 Project Mechanism

The main mechanism of the project is, LDR detects light intensity and sends an analog signal to the Arduino, which varies with the light intensity. Similarly, GSM gets commands

via SMS and transmit signal to Arduino and for feedback SMS The signal is amplified by a transistor C-2060 and is sent to Arduino. Arduino process the signal and controls the switching of the lights with its digital pins by giving a digital logic signal to another two transistors BC-547. The transistors are connected in common emitter biasing. Here the LED's are connected with the emitter and a diode is connected in series with each LED's to make the current flow unidirectional. From the diagram, we can see that every LED's positive terminal is connected with analog pins of the Arduino. Moreover, 470 kΩ resistors pull up the positive terminals. To detect if the LED are working or not by taking the analog voltage reading of the terminal. These whole things are shown in figure 4.10.

In this project, the input six pins of Arduino are connected to the six LED's and the two-output pins that are pin 2 and 3 are connected to two transistors. Diode and resistor are connected to each LED. After getting command from Arduino, the lights are turned ON/OFF accordingly. LDR sensor is connected to the output pin no. 6 of the Arduino.



**Figure 4.10:** Circuit diagram of the prototype of the project.

By metering the intensity of light LDR sensor gives the information to the Arduino and Arduino command the lights accordingly. The RX and TX pin of the GSM is connected to the 10 and 11 no. pin of the Arduino. On the other hand, GSM transmit and receive SMS via Arduino and Arduino command the lights accordingly.

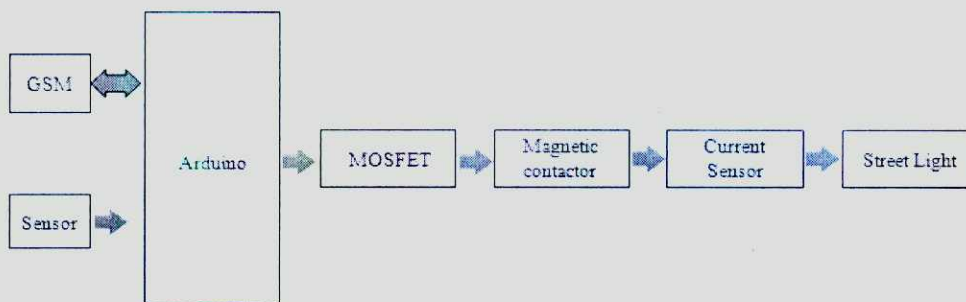
#### 4.4 Implementation in AC Line

The project that we have made is a prototype with DC supply. There will be some changes if we want to implement the system in AC line. In case of DC power system used in the prototype,



can have the feature of individual feedback SMS for each light if there is any kind of fault while switching them ON/OFF. However, in case of AC power system, this feedback SMS system becomes just expensive. We have to use an individual GSM and current sensor for each light. The current sensor measures the current and sends a signal through the GSM if the value of the current is lower than the value that was set before, which causes the light some damage. As the price of GSM is high, so using individual GSM and current sensor is costly but we can easily overcome this hindrance by making sections, where a section will contain a few number of lights. In that case, the information about all the lights from all the sections can be received by a single GSM. If any fault occurs in any light of section 1 then controller will get a SMS like “Fault in Section-1”. We can sort out the damaged light easily from the segment and necessary steps will be taken depending on the type of problem.

For AC application, the BC-547 will be replaced by MOSFET's, which will control relays or magnetic contractors as they control the street lights. A high quality current sensor will be connected in series with the street lights to detect overload and check the lights if they are working or not by using the reading of the current sensor. This sensor will give a feedback to the Arduino to maintain this functionality. Figure 4.11 represents the whole things of AC implementation



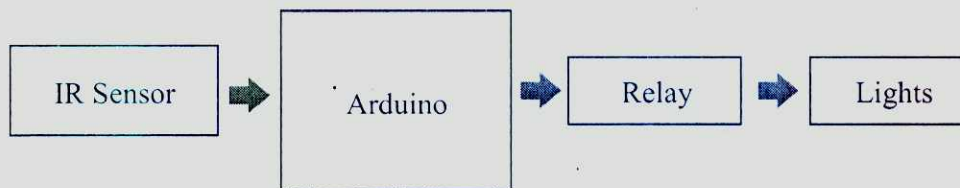
**Figure 4.11:** Block diagram for AC implementation.

#### 4.5 Field of Application

The system can be expanded and used in many other fields other than street lights. With a little modification and in accordance to the area of use, the system can be used for many purposes. The field of application of the project is written below,

- The project can be implemented in household compliances like bulbs, fans, ac etc. used in houses

- It can also be implemented in indoor garage where a large number of lights have been used. The same way it can be implemented in garments sector, shopping mall etc.
- It can also be implemented in a different way for switching the lights. We can use IR (Infrared) sensor to sense the presence of a person in any area. The lights will be switched ON sensing the presence of any person and will stay awake for a while. It will again be switched OFF if there is no person in that area.



**Figure 4.12:** Block diagram in case of IR sensor

The mechanism of this process is, IR sensor is placed in a selected area. When any person enters in that area, IR sensor will detect their presence and send the command to the Arduino. Then Arduino executed the command and light will be turned ON. Relay is used to switching the supply to 220 volt. This procedure is shown in figure 4.12. Similarly, when no person remain in that area all lights are turned OFF.

#### 4.6 Diversity of Application

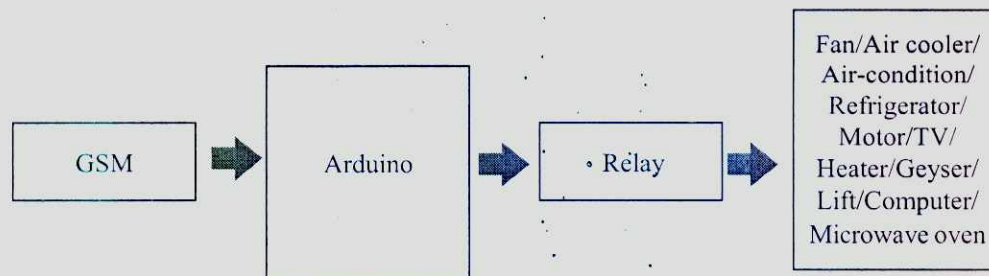
This project is made for controlling the street lights. In our project, there are GSM controlling system, sensor controlling system and sensor controlling system. Apart from lights, other electronic devices can be controlled with the help of this system. For this, the system will need some modifications. It may need some hardware modification and/or software modification. We can use this system to turn on/off fans and air conditioners. Heater and air cooler can also be controlled with this system if properly applied. Other electronic device such as microwave oven, which need to be turned off in time to avoid accidents, can be controlled with this system. If we modify this project little bit, we can use it in different sectors like,

Fan

Air-conditioned

- Air cooler
- Refrigerator

- Heater
- Geyser
- TV
- Motor
- Lift
- Computer
- Microwave oven



**Figure 4.13:** Block diagram of diversity applications

For implementing this, we have to connect GSM with Arduino and then Arduino is connected to that device that we want to control. We have to set different SMS for different devices. To control different devices different code words will be provided for each device. For example, we set SMS code “Fan \*ON” for switching ON the fan. Now if we want to switch ON the fan then we have to send that SMS from a fixed number. Then GSM will receive the SMS and send needed command to Arduino and then Arduino execute it. Similarly, we can do it for the other devices that are mentioned above as shown in figure 4.13. Cost is almost same for all devices for implementing this.

In case we are outside and want to cool down the room temperature so that we can relax upon reaching home, we can turn on the ac or air cooler with the help of the GSM one hour before reaching home. Similarly, if it is cold outside and we want to warm up the room then we can turn on the heater before reaching home. In addition, if we want to have a hot water bathe, and then we can simply turn on the geyser before reaching home. When the water reaches desired temperature, it will give a back SMS that the hot water is ready then we can turn off the geyser by sending SMS to the GSM. In addition, if we forget to turn off any

electronic device while leaving home, we can turn it off from any corner of the world with this GSM system. If not it will take a lot of time to go back home to turn them off and huge amount of electricity will go to waste it is not turned off in time. In this way, a lot of our electricity expenditure and time can be saved. It also reduces the chances of accidents that may occur in our absence.

We can use a single GSM to control all the electronic equipment of our household at anytime from any place, which makes the switching very easier. It is also very cost effective as the expense for the SMS is very small and negligible compared to the cost that may occur if the equipment are not turned off in time.

## CHAPTER-5

### CONCLUSION AND FUTURE SCOPE

#### 5.1 Conclusion

This intelligent and smart project on street light will help us a lot for the maintenance of the street lights around the whole country. The project is very much user friendly and easy to implement. For various purpose and necessity, we can use all four features of the project. It will help us to reduce the inefficiency and waste of energy at the same time.

In this project paper, we have described the research carried out by the researchers and different technology of the street lighting system followed by the countries around the world. We have shown in our project about how the street lights are connected and how they receive power with the help of diagrams. We have also discussed how the lights can be controlled in different ways. We have shown the working principle of the project with the circuit diagram, its key features and the changes that have to be made for its implementation in AC line. We have analyzed the wastage of power in conventional street lighting system, which can be saved by implementing our proposed system.

This project will be greatly beneficial to reduce the manpower necessary for the maintenance of street lights in highways. The number of people used there can be deployed somewhere else which will reduce the cost of total system and will make it a cost effective project. This project with a better maintenance will easily last longer than the typical system as well as it will digitalize the whole system and is convenient for an individual to control when necessary without any physical presence. The future aspect of smart street lighting is very emerging. Almost all the modern countries are nowadays replacing the existing street lights and modernizing the system. Replacing the existing system may cost some money but it can be easily overcome by the electrical power and maintenance cost, which will be saved by the new system and the system, is also more sustainable than the conventional switching and control system. With apparently low cost, if this system can be utilized properly, it will have a greater effect of functionality than the other systems.

## 5.2 Summary of Major Contribution

The summary of the major contributions are given below

Developed a smart street lighting system, which can be directly turned ON/OFF from any part of the network by the usage of GSM technology.

Implemented the project with LDR sensor, which is capable of switching ON/OFF the lights according to the intensity of light when necessary.

- Facilitated the feedback SMS system, which notifies the controller with specific location if any light is not switched ON/OFF properly.
- Implemented the existing manual switching system in the project to control the lights in case the smart system fails to operate for any reason.
- Organized the project in several sections so that we can easily find out the damaged lights if any fault occurs.

## 5.3 Recommendation for Future Work

The recommendation for future works are given below

The lights can be switched ON/OFF at a particular time set by the operator. In this project, we have used the LDR sensor for sensing the light intensity of the system, which switches the lights according to the intensity of light. However, we can also set a constant time on the system for switching the lights ON/OFF instead of using any sensor.

We can have exact output from the sensors for measuring the light intensity if we use better sensors where the sensors do not show a wide change of resistance if the temperature changes. We can apply the same mechanism if we want to control the lights of any garage, shopping mall or household lighting system. Thus, this mechanism can be applied in various aspects where we need a wireless technology to switch any electrical device.

The project can be further developed by implementing off-peak dimming system. The lights will glow normally when there is a movement of vehicles and it will radiate dimming lights when there is no movement of vehicles or persons on the street. This will save some more energy consumption and thus reduce the system expenditure, which will increase the efficiency of the system.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590 018



An Internship Report on

## “FULL STACK WEB DEVELOPMENT INTERNSHIP”

For the requirement of 8<sup>th</sup> Semester B.E in Computer Science & Engineering

Submitted By

YASHAS B M

1KT18CS090

Internship Carried

out At

TEQUED LABS, Bangalore

Under the Guidance of

**Internal Guide**

Prof. Sushma M

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Department of Computer Science and Engineering

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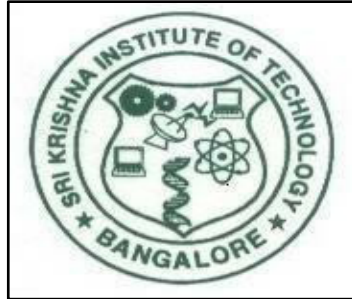
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## Department of Computer Science and Engineering



### CERTIFICATE

This is to certify that **YASHAS B M (1KT18CS090)**, a bon fide student of Sri Krishna Institute of Technology, has successfully completed the internship work on **“FULL STACK WEB DEVELOPMENT INTERNSHIP”** in fulfillment for 8<sup>th</sup> semester B.E. in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi during the year 2020-2021.

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#### Internal Guide

Prof. Sushma M  
Assistant Professor  
Dept. of CSE

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#### External Guide

Nithin C Nayak  
Tequed Labs

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#### Head Of Department

Dr. Shantaram Nayak  
Professor and Head  
Dept. of CSE

### External Exam

#### Name of the Examiners

1. ....

2. ....

#### Signature with date

.....

.....



# CERTIFICATE OF COMPLETION

This certifies that

**YASHAS B M**

has completed one month Internship on **Full Stack Web Development**  
from 1st September to 30th September 2021 at Tequed Labs and has  
worked on a Project Titled  
**"Karnataka Tourism"**

USN: 1KT18CS090

Institution Name: Sri Krishna Institute of Technology

Internship ID: TLS21A2301



**Supreeth Y S, CEO**



**Aditya S K, CTO**

## DECLARATION

I **YASHAS B M** student of the 8<sup>th</sup> semester, B.E, Department of the Computer Science and Engineering, Sri Krishna Institute of Technology, Bangalore bearing USN **IKT18CS090**, states that I have completed internship from “**TEQUED LABS**”, Bangalore. The entitled project “**FULL STACK WEB DEVELOPMENT**” is a bon fide work done during the course of internship, under supervision of **Mr. NITHIN C NAYAK**, Tequed Labs, Bangalore. I have done the work assigned to me during the internship period and all the contents about work assigned are prepared and presented by me.

The 8<sup>th</sup> semester B.E internship has been done by me under the supervision of **Ms. SUSHMA M**, Internal guide, Associate Professor of Computer Science and Engineering Department, Sri Krishna Institute of Technology, Bangalore and External Guide **MR. NITHIN C NAYAK** in completion of Internship for Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the year 2020-21.

**YASHAS B M      (1KT18CS090)**



## EXECUTIVESUMMARY

Tequed Labs Private Limited is a Private incorporated on 22 January 2018. It is classified as Non-govt Company and is registered at Registrar of Companies, Bangalore.

Tequed Labs is a research and development center and educational institute based in Bangalore. They are focused on providing quality education on latest technologies and develop products which are of great need to the society. They also involve in distribution and sales of latest electronic innovation products developed all over the globe to their customers. They run a project consultancy where they undertake various projects from wide range of companies and assist them technically and build products and provide services to them. They are continuously involved in research about futuristic technologies and finding ways to simplify them for their clients.



## ACKNOWLEDGEMENT

It gives me an 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**, for providing such a healthy environment for the successful completion of my internship.

I would like to express my sincere thanks to our Principal **Dr. MAHESHA K** for his encouragement that motivated me for the successful completion of this Internship.

I wish to express my gratitude to **Dr. SHANTHARAM NAYAK**, Head of the Department, Computer Science & Engineering, for providing a good working environment and for his constant support and encouragement.

It gives me great pleasure in placing a record of deep sense of gratitude to my guide **Prof. SUSHMA M**, Associate Professor, Department of Computer Science & 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 **Mr. NITHIN C NAYAK**, Tequed Labs, Bangalore for his constant support, expert guidance and for providing a good learning environment.

I would also like to thank all the teaching and non-teaching staffs of Computer Science and Engineering department who have supported me directly or indirectly in the completion of this Internship.

And lastly, I would hereby acknowledge and thank my parents who have been a source of inspiration and also instrumental in the successful completion of Internship.

**YASHAS B M** (1KT18CS090)



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## CHAPTER 1

### ABOUT THE COMPANY

#### 1.1 COMPANY PROFILE



- Website: [www.tequedlabs.com](http://www.tequedlabs.com)
- Based in: Banashankari
- Area of Operations: Bengaluru.

Tequed Labs Private Limited is a Private incorporated on 22 January 2018. It is classified as Non- govt Company and is registered at Registrar of Companies, Bangalore.

Tequed Labs is a research and development center and educational institute based in Bangalore. They are focused on providing quality education on latest technologies and develop products which are of great need to the society. They also involve in distribution and sales of latest electronic innovation products developed all over the globe to their customers. They run a project consultancy where they undertake various projects from wide range of companies and assist them technically and build products and provide services to them. They are continuously involved in research about futuristic technologies and finding ways to simplify them for their clients.

Clients:

- Robert Bosch
- Next Power Systems Pvt. Ltd.
- NSK Electronics.
- Bio-needs India Pvt. Ltd.
- Fabellus.
- Indian Air Force.

TourismWebsite  
• Indian Railway



- The company presently working for Robert Bosch in Industrial Automation project.
- We are working for Febellus in developing E-commerce application
- The company also working on Embedded products and Android apps and web development.

## CHAPTER 2

### ABOUT THE DEPARTMENT

#### Education

We have extended our Arms into the field of education and brought a revolutionary change in the field by launching various software projects which are suitable in the educational institutes in various aspects such as student database management, attendance and library management system including server maintenance.

#### IT

With the emerging information technology, we do provide related and necessary services in the field of IT.

#### Government

We have tied up with many governments and non-government organization and we do fulfill all the software and hardware demands efficiently.

#### Food and Beverages

Since food and beverages is the fastest and evergreen industry always moving together with the growing technology, we do give technical support in many aspects to the industry.

#### Retails

We do develop software applications needed for smooth maintenance of the accounts and transactions in the retail and wholesale industry

#### Health Care

Health care is the ever needed and very important sector always seeking contribution of technology for its efficient monitoring. We give smart solutions in many ways like software application development, product development, service and maintenance.

#### HR Management

We do have a separate HR department for training and Recruiting Purpose. We do

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offer HR management skills for the needed.



## 2.1 FULLSTACK WEB DEVELOPMENT

A Full-Stack developer is a professional responsible for working on both front-end and back-end development processes. They design, develop, and maintain fully-fledged and functioning platforms with databases or servers. These servers do not need other third-party applications to build an entire system from scratch.

Full-stack is a term that represents both sides of a software development project. Every application and website has two basic parts—the front-end and the back-end. The front-end is all of the visible components of an app or website that a user interacts with, while the back-end is invisible to a user but contains all of the processes on the server side that are functioning in the background. Full-stack is the combination of these two parts.

If someone is a full-stack web developer, that means they are capable of programming a browser, a server and a database. For example, not only can they design a great-looking website, but they can also program advanced features to create a user-friendly experience. In many cases, a company will hire two developers to work on this type of project—one for the front-end and one for the back-end. But with a full-stack developer, a company would only need to hire one person.

Typically, a full-stack developer will become proficient in a specific stack of skills. These are groups of front-end and back-end languages, frameworks and other tools that are often used together.

## CHAPTER 3

### Requirements

Front End Development requirements are a list of necessary functions, capabilities or characteristics related to WordPress theme and plans for creating it. The process that was held while collecting the requirements of the system are as follows:

- **Team Discussion**

Team discussion is the process of discussing how the project should be implemented by the professionals.

- **Understanding the focused group**

Theme should have the aim of what the audience want to see in the theme.

### System Requirements Functional

#### Requirements

Functional requirement of the system describes what the system does. The main functional requirements of this system are as follows:

- User should be able to view all the necessary information and specification about this
- project.
- Browser compatibility.
- Responsive to all devices.
- Administrator (Theme Developer) can modify theme under GPL license.[1]

### Non-Functional Requirements

A non-functional requirement describes how the system performs a certain function. Non- functional requirements generally specify the system's quality attributes or characteristics. Puranobooks follows properties such as reliability, usability, storage occupancy, performance, and response time.

## SYSTEM REQUIREMENT SPECIFICATION

Should describe functional and non-functional requirements so that they are understandable by system users who don't have detailed technical knowledge. User requirements are defined using natural language, tables and diagrams.

### Software Requirement Specification

- Scripting Languages: HTML, JavaScript.
- Styling Language: CSS.
- Server-side Language.
- IDE: Visual studio, Xampp

### Hardware Requirements Specification

- Processor: Intel core i3 or i5.
- Hard Disk: 250 GB
- Ram: 2 GB

### Feasibility Analysis

A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as economic, technological, legal, and scheduling factors. Project manager use feasibility studies to determine potential positive and negative outcomes of a project investing a considerable amount of time and money into it. Feasibility studies allow companies to determine and organize all of the necessary details to make business work. A feasibility study helps to identify logistical problems, and nearly all business-related problems, along with the solutions to alleviate them. Feasibility studies can also lead to the development of marketing strategies that convince investors or a bank that investing in the business is a wise



## Economic Feasibility

Economically, the theme Purano Books is bound to do well. There is little cost associated for using the system. Hence, the system is economically feasible. If owner needs any supports on this theme, then they will be available upon Email Request.

S.N	Task Name	Duration
1	Study and Analysis	6 days
2	Theme Design (Layout)	8 days
3	Image Manipulation	5 days
4	Data Entry	4 days
5	Customize section	8 days
6	Testing	4 days
7	Documentation	10 days

Table 3

## Operational Feasibility

Operational feasibility asks if the system will work when developed and installed. The system is user friendly so the user can use this system more enthusiastically. The following points were taken into account for operational feasibility of the system:

- The theme is affordable and has low operational cost.

## Technical Feasibility

The website must be evaluated from the technical aspect first. The valuation of this feasibility must be based on an outline design of the website requirement having identified an outline system, the investigation must go on to suggest the type of equipment, required method developing the system, of running the system once it has been designed. Technical issues raised during the investigation are:

- Does the necessary technology exist to do what is suggested/assigned?
- Can the system be upgraded if developed?

The theme was designed and developed such that the necessary functions and performances can be achieved using customization. Therefore, the project is feasible and may still be used even with the newer version of same software supporting older versions.

## Schedule Feasibility

Schedule feasibility is a measure of how reasonable the project timetable is. So, feasible schedule had been managed through proper time schedule.

## Theme Design Layout

The theme used for our project is trending theme which have good layout format. The theme was developed on our own referring some of the websites.

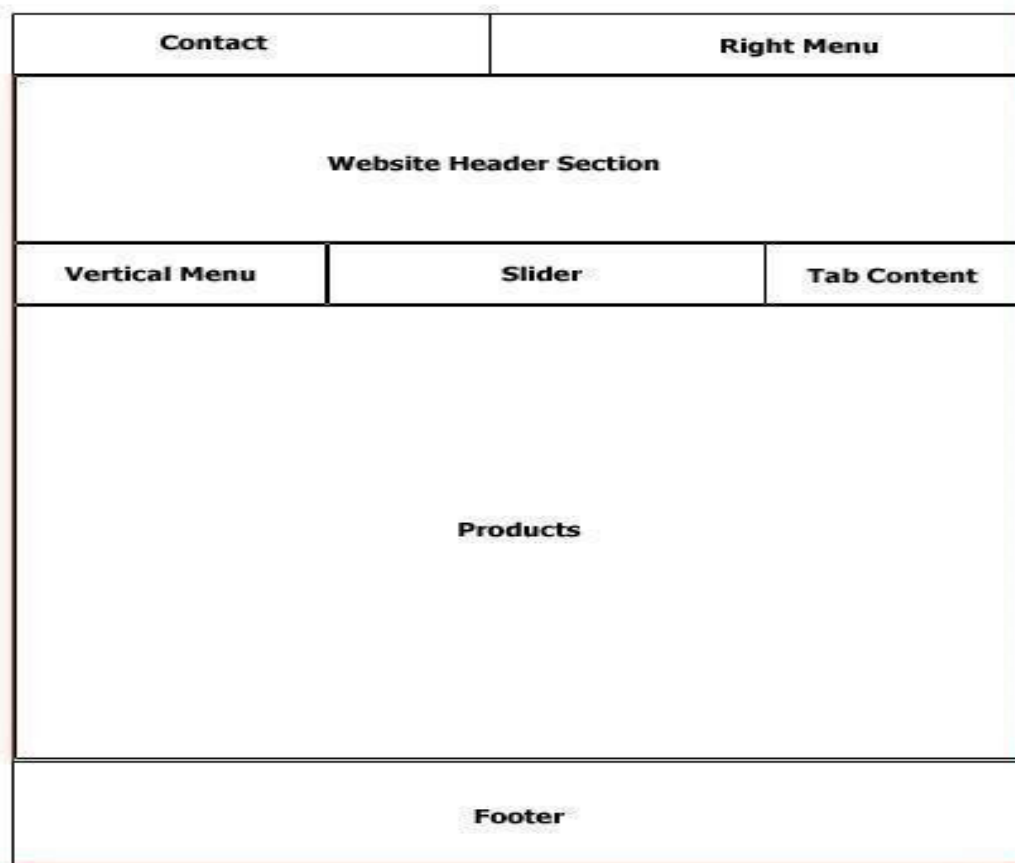


Fig 2 : Layout of Theme Design Navigation Bar

Navigation bar is the place where users can go through all the items that are selected from website back-end. Actually, it is a page type of the site. We can create menus. This will bring to the edit menus screen which is divided into two columns. The column on our left has our pages, categories, and custom links tab. The column on the right is where we can add and adjust menu items.

## Slider

Slider is the part of website that contains image that continuously changes. In this theme, Slider Revolution plugin is used to define slider with proper front- end and back-end tools. Sliders can run slideshows automatically without user input by moving slides on pre-defined time interval. Sliders can also respond to user interaction like click or swipe to view next or previous slides.

Additionally, sliders can also have buttons or thumbnails which users can click to view a particular slide in the slider.

## Sidebar

Sidebar is the section where recently viewed products, search filter etc. are placed as a shortcut for the content of the site especially for product shop pages. themes to display information that is not a part of the main content. It is not always a vertical column on the side. It can be a horizontal rectangle below or above the content area, footer, header, or anywhere in the file.

## Footer

The footer area of a website is usually defined in the template file footer.html. In some themes, the area may also contain a widget zed area with multiple columns that you can use.

## TESTING

### Introduction To Testing

## Unit Testing:

Unit testing focuses verification effort on the smallest unit of software design that is the module. Using procedural design description as a guide, important control paths are tested to uncover errors within the boundaries of the module. The unit test is normally white box testing oriented and the step can be conducted in parallel for multiple modules.

## Validation Testing:

At the end of integration testing software is completely assembled as a package. Validation testing is the next stage, which can be defined as successful when the software functions in the manner reasonably expected by the customer. Reasonable expectations are those defined in the software requirements specifications. Information contained in those sections form a basis for validation testing approach.

## Integration Testing:

Integration testing is a systematic technique for constructing the program structure, while conducting test to uncover errors associated with the interface. The objective is to take unit tested methods and build a program structure that has been dictated by design.

## Browser Compatibility Testing

S.N	Test Case	Test Browser	Expected Result	Actual Result	Remarks
1	C1	Google Chrome	Successful	Successful	Pass
2	C2	Opera Mini	Successful	Successful	Pass
3	C3	Safari	Successful	Successful	Pass

4	C4	Mozilla Firefox	Successful	Successful	Pass
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Browser compatibility test is the test done to ensure that site runs on all browsers i.e. chrome, safari etc. these browsers run on different platforms so it is very important ensure that the theme is all platform friendly.

**Fig 3 : Browser Compatibility Testing Table**

## Responsive Testing

Responsive testing is very important because theme should give majority of the users as they open the sets throughout the various devices like laptop, mobiles, tablets etc.

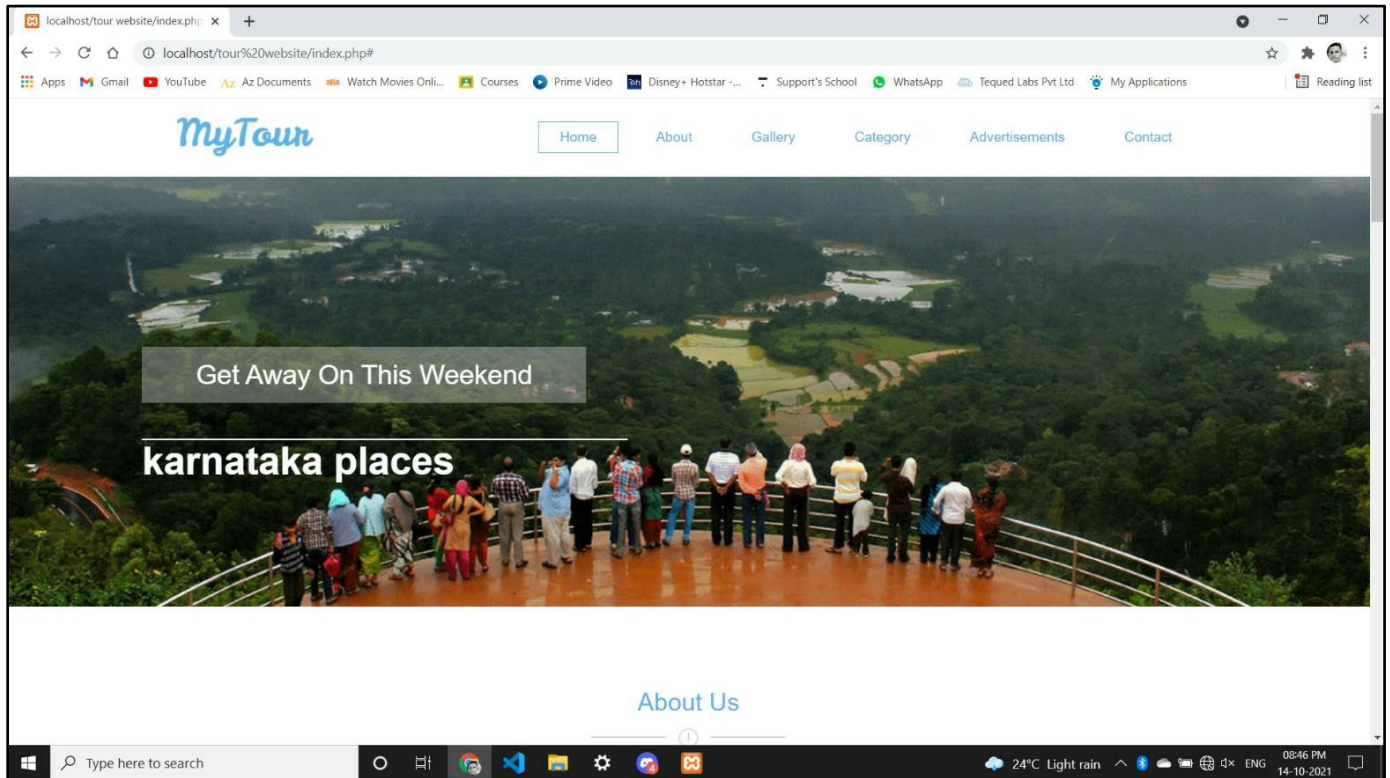


Fig 4: HomePage

## Implementation

Implementation is an activity that is contained throughout the development phase. It is the process of bringing designed system into operational use. The system is tested first and then turned into working system. Every task identified in the design specification is carried out in this phase.

## Front End Tools

### HTML

HTML known as Hyper Text Mark-up Language; the authoring language used to create documents on the World Wide Web. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. Theme or plugin does exactly what you need it to do, and looks almost exactly how you need it to look. But still, you wish it would look slightly different. For this reason, HTML was used. HTML tags were used in posts, pages, sidebar text widgets to code a hyperlink by hand, or adjust the header sizes.

### CSS

CSS stands for Cascading Style Sheets. It describes how HTML elements are to be displayed on screen or in other media. In this project, additional CSS was used when further customization on the site was required. Sometimes, the theme does not work as per the requirement of the user so to meet the requirement of the user additional CSS was used. To add in the icons, to scale the logo properly, change the font size of the specified content, to add a specific callout box, or style just a section of a post differently CSS was used. The theme option does provide certain features but to add the features according to the client's requirement additional CSS was applied.

### JAVASCRIPT

JavaScript (sometimes abbreviated JS) is a prototype-based scripting language that is dynamic, weakly typed. JavaScript is a client-side scripting language meaning that JavaScript code is written into an HTML page. When a user requests an HTML page with JavaScript in it, the script is sent to the browser and it's up to the browser to do something with it. It is used to make webpage more interactive, check or modify the contents of forms, change images, open new windows and write dynamic page content.

### BOOTSTRAP

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front- end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. Bootstrap is a web framework that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of color, size, font and layout to that project.

As such, the primary factor is whether the

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developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark - colored tables, page headings, more prominent pull quotes, and text with a highlight.

## Back End Tools

### XAMPP

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible. XAMPP's ease of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer, with the advantage a number of common add-in applications such as WordPress and Joomla! can also be installed with similar ease using Bitnami.

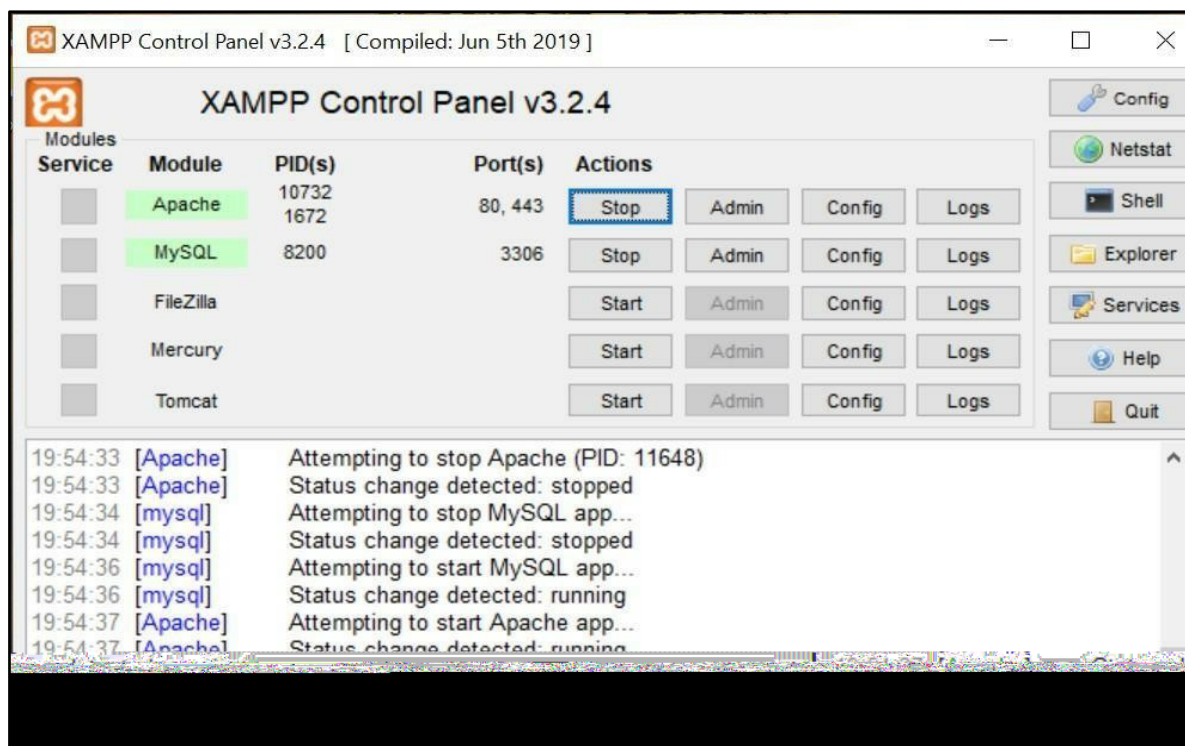


Fig 5: XAMPP Control Panel

## PHP

PHP is an amazing and popular language. It is powerful enough to be at the core of the biggest blogging system on the web. PHP is an acronym for "PHP: Hypertext Pre-processor". PHP is a widely-used, open-source scripting language. PHP scripts are executed on the server. PHP is free to download and use. PHP files can contain text, HTML, CSS, JavaScript, and PHP code. PHP code are executed on the server, and the result is returned to the browser as plain HTML. PHP files have extension ".php".

## RESULTS OF WEBSITE

### ABOUT US:

# TourismWebsite

The screenshot shows a web browser displaying the 'About Us' page of the MyTour website. The browser's address bar shows the URL 'localhost/tour%20website/aboutus.php'. The website's navigation menu includes 'Home', 'About', 'Gallery', 'Category', 'Advertisements', and 'Contact'. The 'MyTour' logo is visible in the top left. The main heading is 'About Us'. Below it, the text describes the organization's mission to increase awareness of tourist attractions and support travel to My Tour. It mentions the My Tour National Tourist Office - North America and its role in providing information and assistance to travelers. A large image of a city skyline at sunset is shown below the text. The Windows taskbar at the bottom shows the search bar and various application icons, with the system tray displaying '24°C Light rain' and the date '14-10-2021'.

## ENQUIRY:

The screenshot shows the 'Enquiry' page of the MyTour website. The browser's address bar shows the URL 'localhost/tour%20website/enquiry.php?pid=1'. The website's navigation menu is the same as in the previous screenshot. The 'Category' dropdown menu is set to 'Family Tours'. The main heading is 'Enquiry'. Below it, there is a form with the following fields: 'Package Id: 1', 'Pack Name: Bangaluru', 'Name:', 'Gender:' (with radio buttons for 'Male' and 'Female'), 'Mobile No.', 'Email:', 'No.of Days:', 'No.of Children:', 'No.of Adults:', and 'Enquiry Message:'. A 'Submit' button is located at the bottom of the form. The Windows taskbar at the bottom shows the search bar and various application icons, with the system tray displaying '24°C Light rain' and the date '14-10-2021'.

Fig 9: Enquiry

PACKAGES:

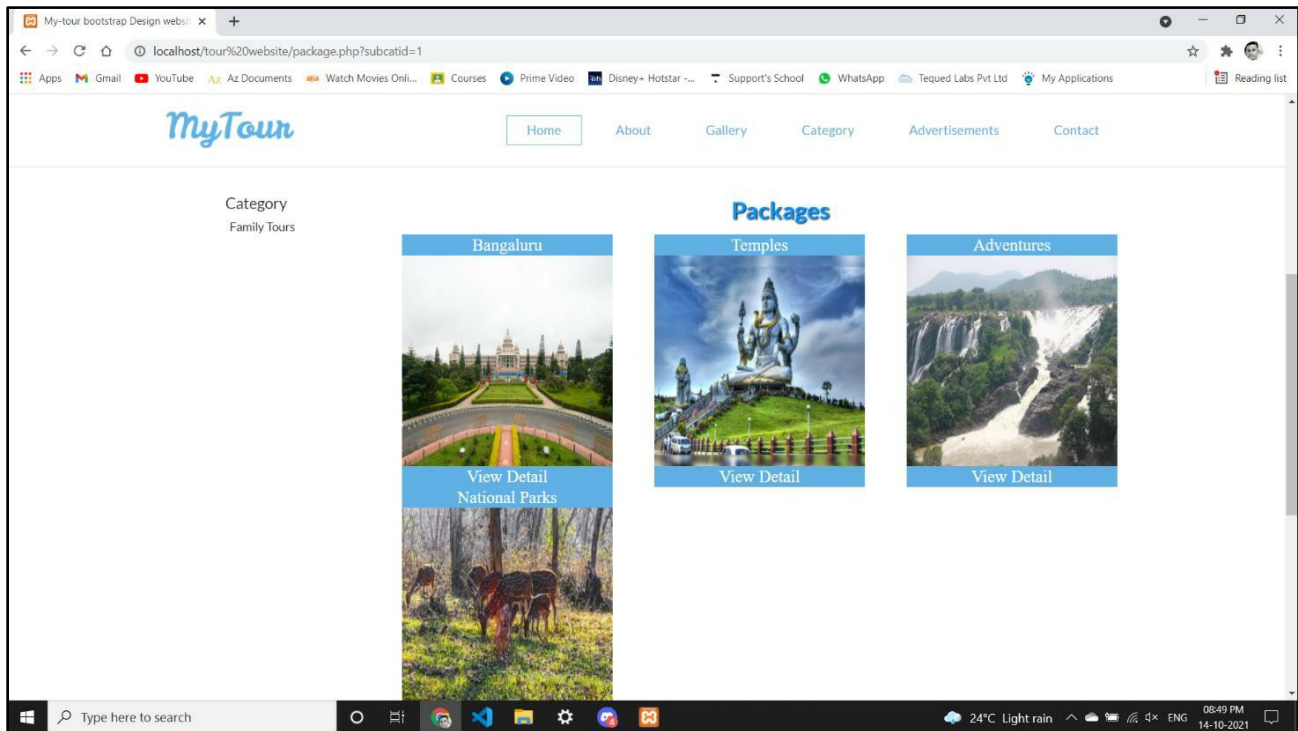
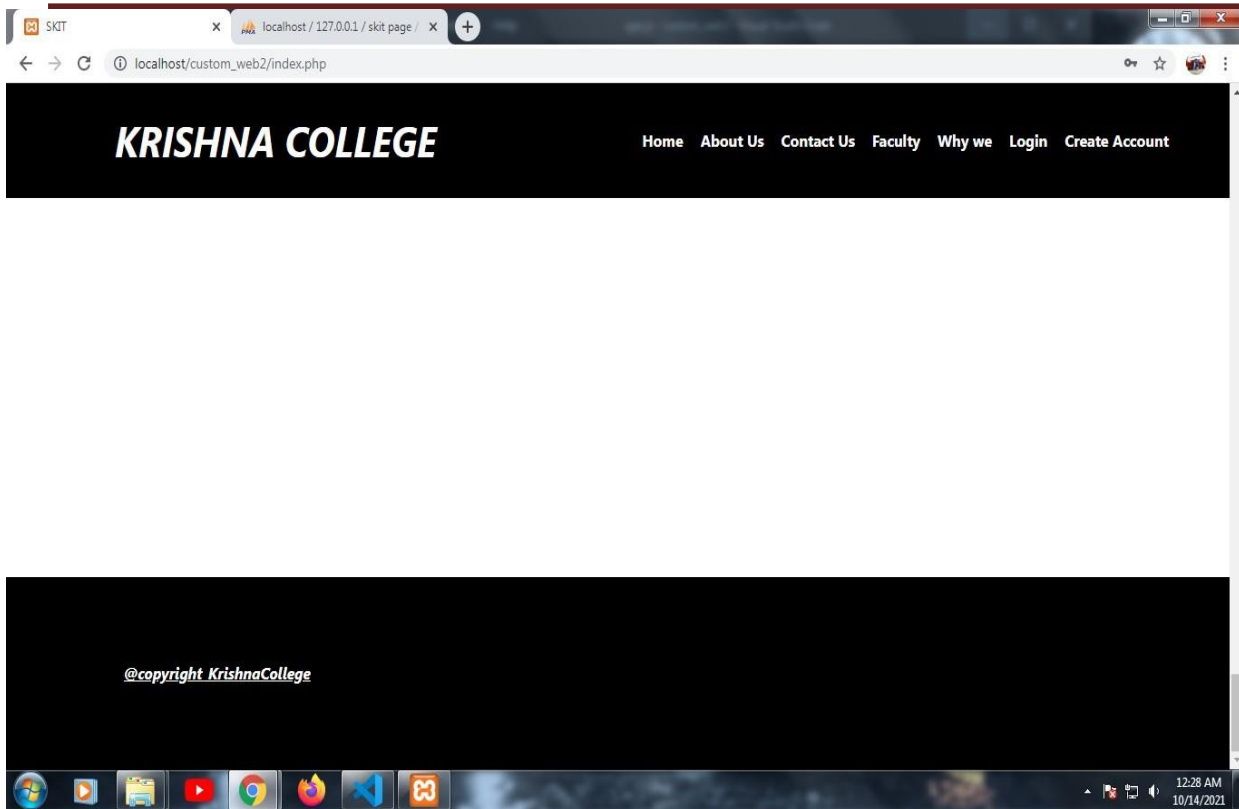
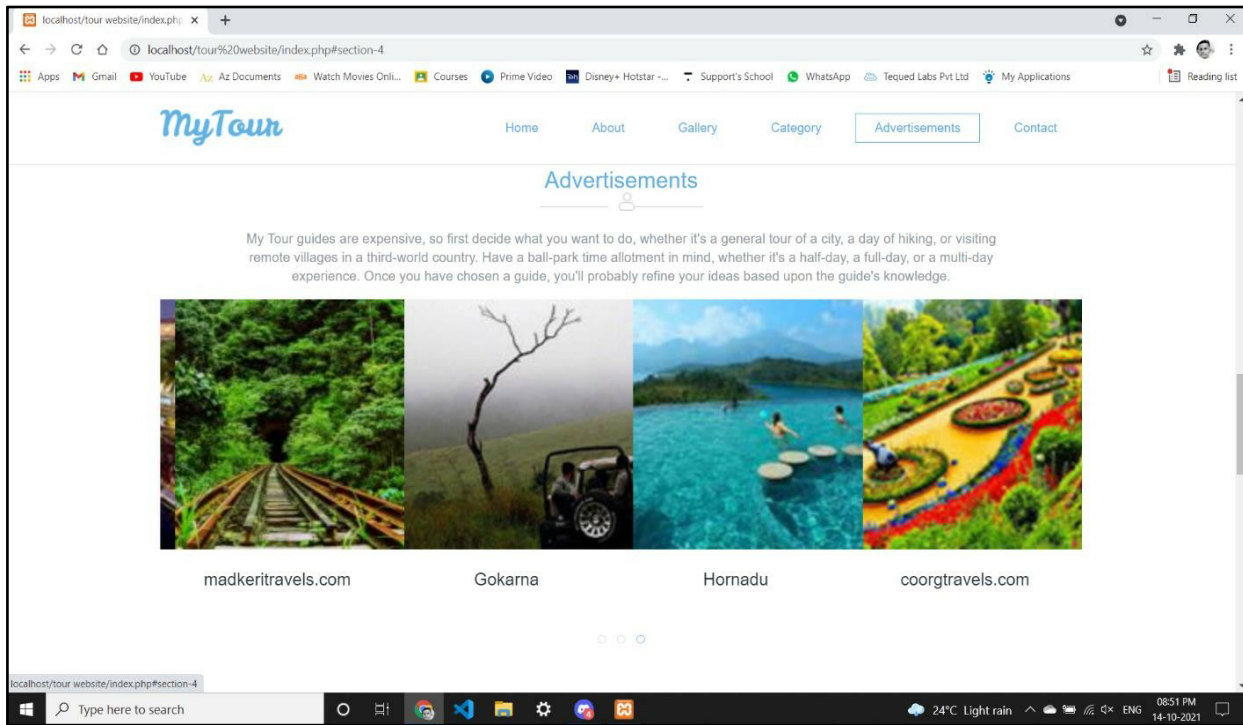


Fig 10: Packages

FOOTER:



## ADVERTISEMENT:

## VIEW PACKAGES:

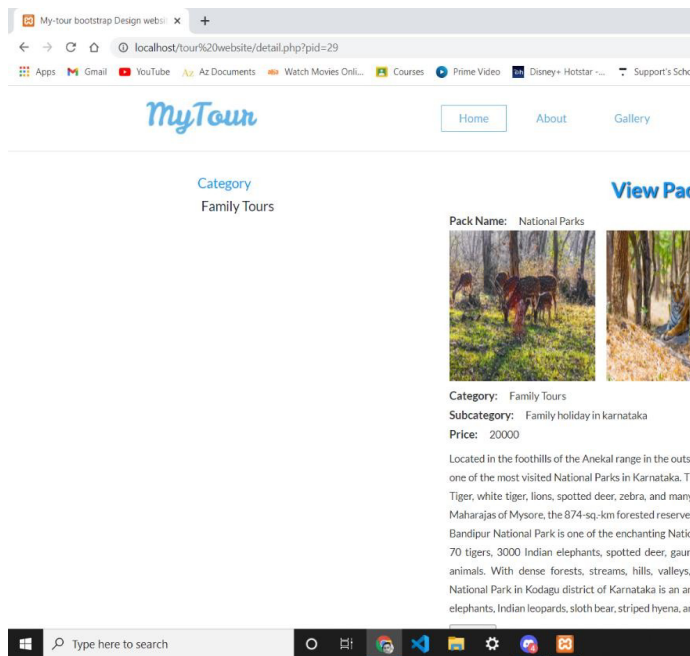


Fig 13: Packages

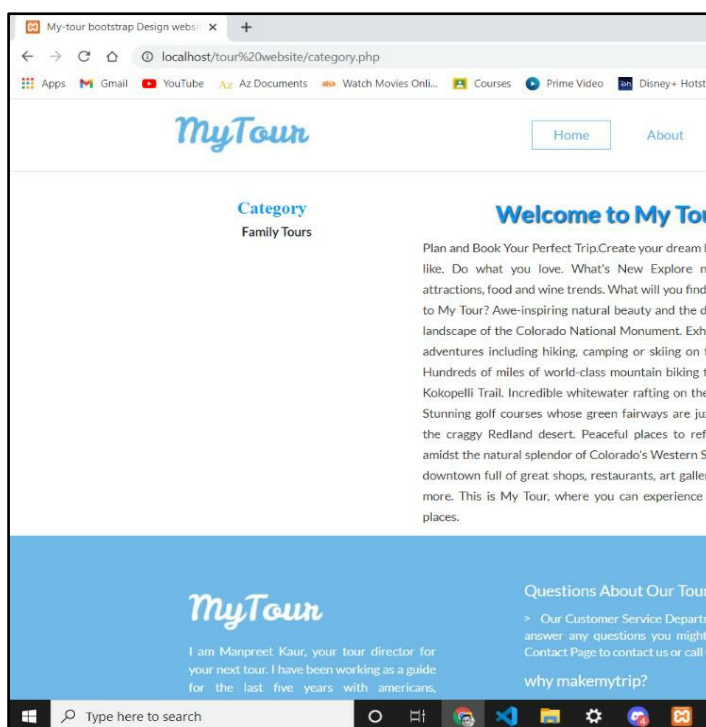


Fig 14: Our Service

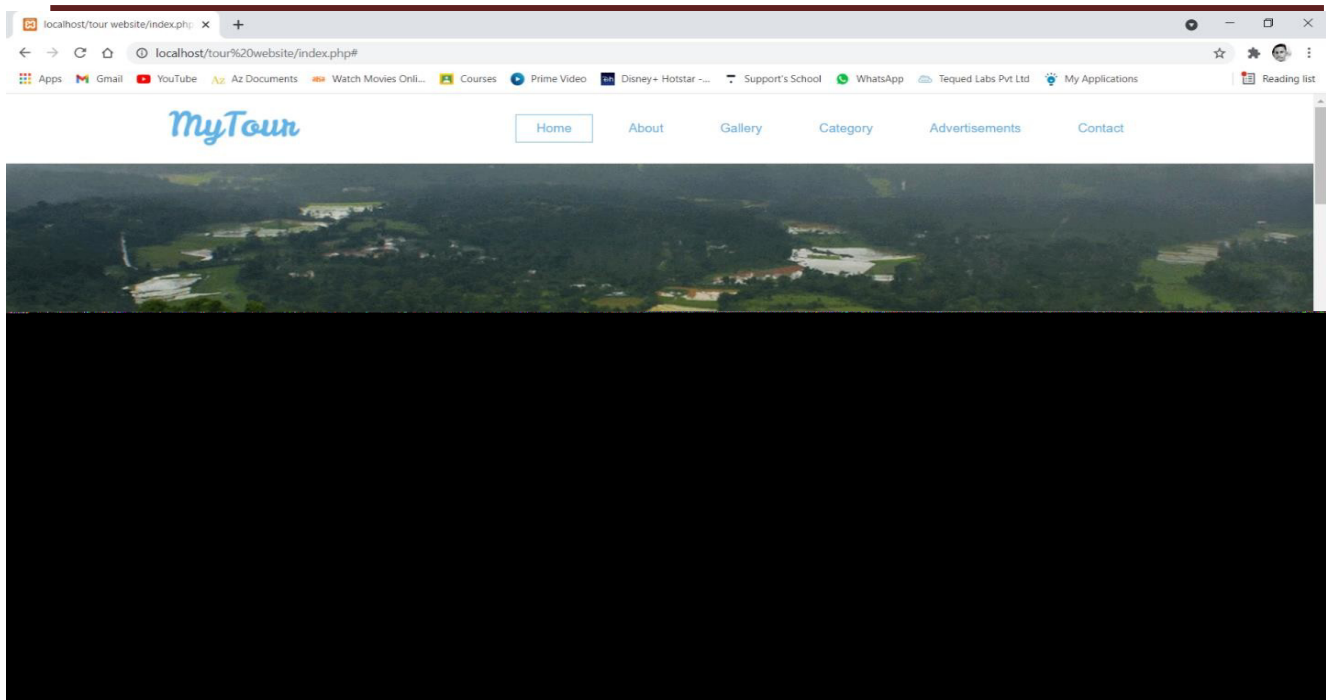


Fig 15: User Page

## BACK END:

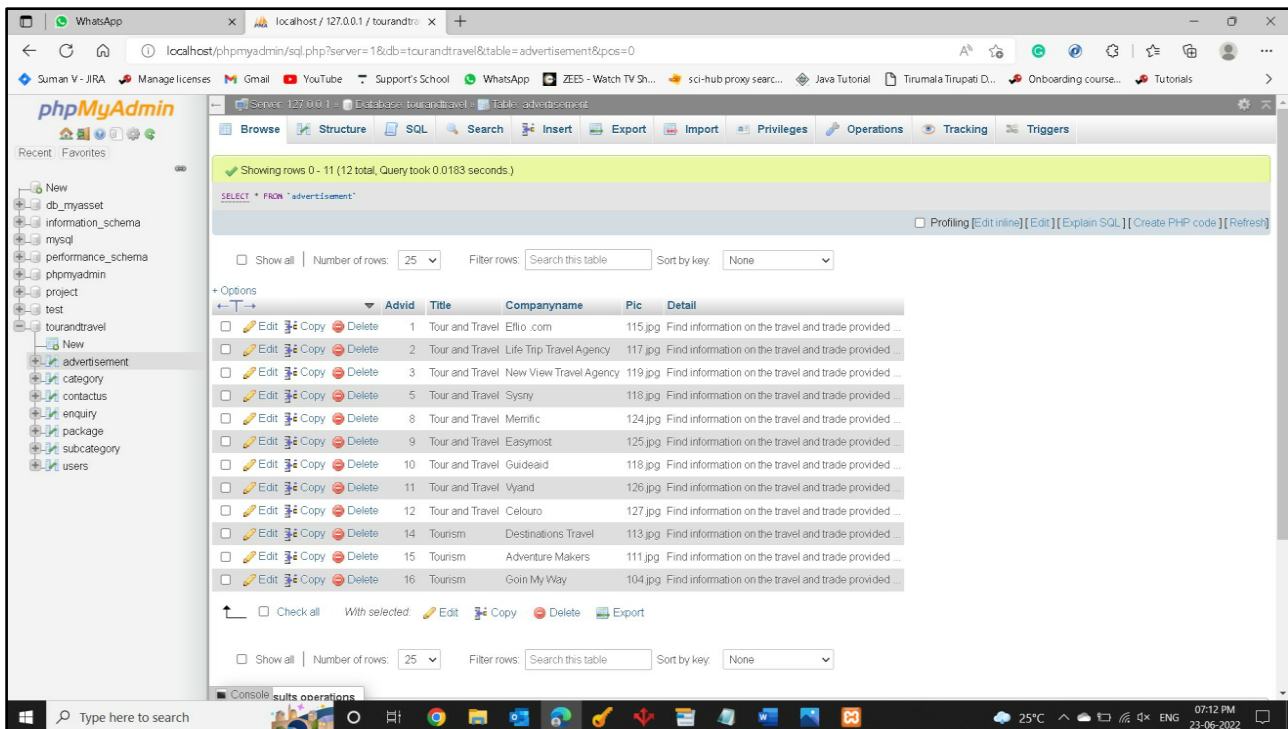


Fig 16: Tourism Database using php

# TourismWebsite

The screenshot shows the phpMyAdmin interface for a local development environment. The 'contactus' table in the 'tourandtravel' database is selected. The table contains 5 rows of contact information. The SQL query executed is 'SELECT \* FROM `contactus`'. The table structure and data are as follows:

contactid	Name	Phno	Email	Message
1	Mehar	9501065206	mehar@gmail.com	We have read about the interest your advertisement...
2	Japleen	9915079133	japu@gmail.com	We have read about the interest your advertisement...
3	Veena	9815724956	veena12@gmail.com	We have read about the interest your advertisement...
4	Sahil	9814532456	Sahil@yahoo.com	We have read about the interest your advertisement...
5	Varinder	9812345234	vinnysharma@gmail.com	We have read about the interest your advertisement...

Fig 17: Contact-Us Data

The screenshot shows the phpMyAdmin interface for a local development environment. The 'enquiry' table in the 'tourandtravel' database is selected. The table contains 13 rows of enquiry information. The SQL query executed is 'SELECT \* FROM `enquiry`'. The table structure and data are as follows:

Enquiryid	Packageid	Name	Gender	Mobileno	Email	NoofDays	Child	Adults	Message	Statusfield
3	1	Manpreet	Female	9779730479	manpreetkaler13@yahoo.com	2	1	4	We have read about the interest your advertisement...	Pending
5	2	Nandni	Female	7696303090	nandni@gmail.com	2	2	3	We have read about the interest your advertisement...	Pending
6	5	Rakesh	Male	9876123456	rakesh@yahoo.com	4	2	2	We have read about the interest your advertisement...	Pending
7	4	Narneet	Female	9463958058	neerubawa@yahoo.com	8	2	6	We have read about the interest your advertisement...	Pending
8	3	Rohan	Male	9501065206	rohan@gmail.com	3	1	5	We have read about the interest your advertisement...	Pending
9	6	Jassi	Female	9876123456	jassi@gmail.com	2	1	5	We have read about the interest your advertisement...	Pending
10	11	Shavir	Male	9915510777	shavirpaul@gmail.com	6	1	2	We have read about the interest your advertisement...	Pending
11	13	Nikhil	Male	9871234561	nikhil@gmail.com	2	2	2	We have read about the interest your advertisement...	Pending
12	15	Rehan	Male	9876123456	rehan@yahoo.com	3	3	2	We have read about the interest your advertisement...	Pending
13	1	ssds	Male	09448357015	snkarthshobha1234@gmail.com	3	3	3	sdsad	Pending

Fig 18: Enquiry



## CHAPTER 4

### REFLECTION NOTES

I thoroughly enjoyed my internship this summer 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.

During my work experience at Tequed Labs, I was fortunate enough to have experienced and learn, many different sides of what goes into a project.

My confidence grew rather quickly when I realized that I could contribute to these processes. I was exposed to a variety of work, related to the professional courses at college and I do not doubt that it will be significant in my future professional career.

Overall I think the internship was a great experience that opened my eyes to some situations and processes that I was unaware of.

## CHAPTER 5

### CONCLUSION

I have learned various types of technologies required for theme, product and layout design. My main focus had been on front-end designing and also back-end development which leads to a Full Stack Web Development. With the help of this internship, I have gained significant amount of knowledge I hope it will be helpful for my future carrier.

Making this project was sometime difficult but solving those difficulties gave very valuable knowledge. The team of Puranobooks had always helped me to sharpen my knowledge and to acquire new skills.

Throughout my time of internship, I have acquired lots of new experiences. I got chances to use different development tools, research on them and use them. Overall, in this period of internship all my theoretical knowledge gained from college had gained a practical experience.

## REFERENCES

[1] Videos By Tequed Labs Pvt Ltd

[2] [www.getbootstrap.com](http://www.getbootstrap.com)

[3] [www.google.com](http://www.google.com)

[4] [www.W3schools.org](http://www.W3schools.org).

[5] [www.quora.co.in](http://www.quora.co.in)

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JnanaSangama, Belagavi, Karnataka-590018



## An INTERNSHIP REPORT

Submitted in Partial Fulfillment for the Award of Degree of

**Bachelor of Engineering**

in

**INFORMATION SCIENCE AND ENGINEERING**

Submitted By

**VISHWANATH A S (1KT18IS017)**

Carried Out at

**CognitiveClouds Software Pvt. Ltd.**

3rd Main Rd, KSRTC Layout, Chikkalasandra, Bengaluru, Karnataka-560061

### **Internal Guide**

**Mrs. Veena M Naik**

Assistant Professor

Dept of ISE, SKIT

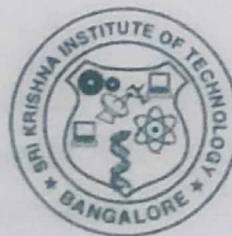
Bengaluru

### **External Guide**

**Mr. GURUPRASAD RAO**

CognitiveClouds Pvt. Ltd.

Bengaluru



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2021-2022

**SRI KRISHNA INSTITUTE OF TECHNOLOGY**

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

**Department of Information Science and Engineering**



**CERTIFICATE**

This is to certify that **Internship Report** submitted by **Vishwanath A S (1KT18IS017)**, bonafied student of **Sri Krishna Institute of Technology**, Bengaluru in partial fulfillment for the award of **Bachelor of Engineering in Information Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2021-22. It is certified that all corrections / suggestions indicated for internal assessment have been incorporated in the Internship Report deposited in the departmental library. The Internship report have been approved as it satisfies the academic requirements in respect of internship prescribed for the said degree.

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## EXECUTIVE SUMMARY

Cognitive Clouds help top startups and companies build remarkable web, mobile and tablet products. The products they build help early-stage startups raise millions and established companies crush their sales targets. They are among a handful of companies who can turn simple sketches into fully featured products that work on any device. Focus is what creates value, so they utilize their proven process to take your first version product across the finish line. They also work with diverse founders and product owners in industries that range from agriculture to travel, so client can be assured that our team has the expertise required to help you build the right product for your target users.

They design, architect and develop elegant software products. The products we design offer compelling user experiences and beautiful visual designs. They use modern technologies like iOS, Android, Ruby on Rails (RoR), Golang (Go), Scala, Node.js and AngularJS to build robust mobile and responsive web products. They also utilize design driven development principles, agile development methodologies and cloud communication tools to help you build custom software that's crafted to solve your unique business problems. By breaking your complex requirements into smaller pieces and accelerate application delivery. Together, they develop better products and drive product innovation.

They believe in meeting their goals, when the client reaches their maximum satisfaction. This is the only success metric. Before the company draw a pixel or write a single line of code, the company review client's business goals to ensure they have crafted a plan to achieve them. Whether client is racing towards a hard deadline, building the first product of its kind or leapfrogging a competitor, they also work with client to understand what will make their partnership successful.

The company love big ideas. They strive to work with founders and business leaders who have ambitions of creating new markets and defining new industries. When you aim to push the limits of technical and social possibilities, they get excited and deliver their best work. The company is open to sharing risks and rewards by entering into creative business relationships that incentivize success.

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## CHAPTER 1

### ABOUT THE ORGANIZATION

CognitiveClouds Founded by enterprise software veterans in 2012. They are a product development company, transforming founders' and product owners' visions into beautiful intuitive mobile and web software products that scale to support millions of users. Also bring a fresh perspective to problems through the agile design and development process that accelerates time to market and ensures you launch the right product for the right people at the right time.



Fig. 1.1: Company Logo

Fig. 1.1 depicts the logo of the CognitiveClouds Software Pvt.Ltd. They help top start-ups and companies build remarkable web, mobile and tablet products. The products that build help early-stage start-ups raise millions and established companies crush their sales targets. They are among a handful of companies who can turn simple sketches into fully featured products that work on any device and also work with diverse founders and product owners in industries that range from agriculture to travel, so can be assured that the team has the expertise required to help build the right product for the target users.

The products designed offers compelling user experiences and beautiful visual designs and uses modern technologies like iOS, Android, Ruby on Rails (RoR), Golang (Go), Scala, Node.js and AngularJS to build robust mobile and responsive web products. They utilize design driven development principles, agile development methodologies and cloud communication tools to help client to build custom software that's crafted to solve unique business problems.

Few of the services provided by CognitiveClouds are of the following:

- Web App Development
- Mobile App Development
- ReactJS Development
- UI/UX Design
- eCommerce Development
- SaaS App Development
- Rest API Development

CognitiveClouds has its partnership with various reputed companies. Some of them are:

- Walmart
- Yahoo
- Sony
- Mahindra Rise
- Yatra
- Aditya Birla Group

## CHAPTER 2

# ABOUT THE DEPARTMENT

Cognitive Clouds provided an internship in the department of Web development using ReactJS. The Objective is the development of new applications and technology ensuring that the development of applications with the highest quality.

## 2.1 Web Development using ReactJS

In the year 2013, Facebook made React.js open-sourced. Initially, the developer community rejected it because it used Markup and JavaScript in a single file. But as more people experimented with it, they started embracing the component-centric approach for separating concerns. In Cognitive Clouds I was trained on this JavaScript library as it has a lot of advanced tools and its user-friendly ecosystem.

We can generate a static site with React using tools like Gatsby. We can use React Native to build mobile apps and even create Desktop applications using a tool like Electron, which can run on mac and windows with React.js technology. React also supports server rendering of its components using tools like Next.js. We can also use React.js to create a virtual reality website and 360 experiences using React VR.

## 2.2 React Implementation

A ReactJS application is made up of multiple components, each component responsible for outputting a small, reusable piece of HTML code. The components are the heart of all React applications. These Components can be nested with other components to allow complex applications to be built of simple building blocks. ReactJS uses virtual DOM based mechanism to fill data in HTML DOM. The virtual DOM works fast as it only changes individual DOM elements instead of reloading complete DOM every time.

To create React app, we write React components that correspond to various elements. We organize these components inside higher level components which define the application structure. For example, we take a form that consists of many elements like input fields, labels, or buttons. We can write each element of the form as React components, and then we combine it into a higher-level component, i.e., the form component itself. The form components would specify the structure of the form along with elements inside of it.

### 2.2.1 Features of ReactJS

ReactJS gaining quick popularity as the best JavaScript framework among web developers. It is playing an essential role in the front-end ecosystem. The important features of ReactJS are as following:

- JSX

JSX stands for JavaScript XML. It is a JavaScript syntax extension. Its an XML or HTML like syntax used by ReactJS. This syntax is processed into JavaScript calls of React Framework. It extends the ES6 so that HTML like text can co-exist with JavaScript react code. It is not necessary to use JSX, but it is recommended to use in ReactJS.

- Components

ReactJS is all about components. ReactJS application is made up of multiple components, and each component has its own logic and controls. These components can be reusable which help you to maintain the code when working on larger scale projects.

- One-way Data Binding

ReactJS is designed in such a manner that follows unidirectional data flow or one-way data binding. The benefits of one-way data binding give you better control throughout the application. If the data flow is in another direction, then it requires additional features. It is because components are supposed to be immutable and the data within them cannot be changed. Flux is a pattern that helps to keep your data unidirectional. This makes the application more flexible that leads to increase efficiency.

- Virtual DOM

A virtual DOM object is a representation of the original DOM object. It works like a one-way data binding. Whenever any modifications happen in the web application, the entire UI is re-rendered in virtual DOM representation. Then it checks the difference between the previous DOM representation and new DOM. Once it has done, the real DOM will update only the things that have actually changed. This makes the application faster, and there is no wastage of memory.

- Simplicity

ReactJS uses JSX file which makes the application simple and to code as well as understand. We know that ReactJS is a component-based approach which makes the code reusable as your need. This makes it simple to use and learn.

- Performance

ReactJS is known to be a great performer. This feature makes it much better than other frameworks out there today. The reason behind this is that it manages a virtual DOM. The DOM is a cross-platform and programming API which deals with HTML, XML or XHTML. The DOM exists entirely in memory. Due to this, when we create a component, we did not write directly to the DOM. Instead, we are writing virtual components that will turn into the DOM leading to smoother and faster performance.

### 2.2.2 React Component Life-Cycle

In ReactJS, every component creation process involves various lifecycle methods. These lifecycle methods are termed as component's lifecycle. These lifecycle methods are not very complicated and called at various points during a component's life. The lifecycle of the component is divided into four phases. They are:

- Initial Phase

It is the birth phase of the lifecycle of a ReactJS component. Here, the component starts its journey on a way to the DOM. In this phase, a component contains the default Props and initial State. These default properties are done in the constructor of a component. The initial phase only occurs once and consists of the following methods.

- getDefaultProps()

It is used to specify the default value of `this.props`. It is invoked before the creation of the component or any props from the parent is passed into it.

- getInitialState()

It is used to specify the default value of `this.state`. It is invoked before the creation of the component.

- Mounting Phase

In this phase, the instance of a component is created and inserted into the DOM. It consists of the following methods.

- componentWillMount()

This is invoked immediately before a component gets rendered into the DOM. In the case, when you call `setState()` inside this method, the component will not re-render.

- componentDidMount()

This is invoked immediately after a component gets rendered and placed on the DOM. Now, you can do any DOM querying operations.

- render()

This method is defined in each and every component. It is responsible for returning a single root HTML node element. If you don't want to render anything, you can return a null or false value.

- Updating Phase

It is the next phase of the lifecycle of a react component. Here, we get new Props and change State. This phase also allows to handle user interaction and provide communication with the components hierarchy. The main aim of this phase is to ensure that the component is displaying the latest version of itself. Unlike the Birth or Death phase, this phase repeats again and again. This phase consists of the following methods.

- `componentWillReceiveProps()`

It is invoked when a component receives new props. If you want to update the state in response to prop changes, you should compare `this.props` and `nextProps` to perform state transition by using `this.setState()` method.
- `shouldComponentUpdate()`

It is invoked when a component decides any changes/update to the DOM. It allows you to control the component's behavior of updating itself. If this method returns `true`, the component will update. Otherwise, the component will skip the updating.
- `componentWillUpdate()`

It is invoked just before the component updating occurs. Here, you can't change the component state by invoking `this.setState()` method. It will not be called, if `shouldComponentUpdate()` returns `false`.
- `render()`

It is invoked to examine `this.props` and `this.state` and return one of the following types: React elements, Arrays and fragments, Booleans or null, String and Number. If `shouldComponentUpdate()` returns `false`, the code inside `render()` will be invoked again to ensure that the component displays itself properly.
- `componentDidUpdate()`

It is invoked immediately after the component updating occurs. In this method, you can put any code inside this which you want to execute once the updating occurs. This method is not invoked for the initial render.
- **Unmounting Phase**

It is the final phase of the react component lifecycle. It is called when a component instance is destroyed and unmounted from the DOM. This phase contains only one method and is given below.

  - `componentWillUnmount()`

This method is invoked immediately before a component is destroyed and unmounted permanently. It performs any necessary cleanup related task such as invalidating timers, event listener, canceling network requests, or cleaning up DOM elements. If a component instance is unmounted, you cannot mount it again.

### 2.2.3 React Events

An event is an action that could be triggered as a result of the user action or system generated event. For example, a mouse clicks, loading of a web page, pressing a key, window resizes, and other interactions are called events. React has its own event handling system which is very similar to handling events on DOM elements. The react event handling system is known as Synthetic Events. The synthetic event is a cross-browser wrapper of the browser's native event.

Handling events with react have some syntactic differences from handling events on DOM. These are:

- React events are named as camelCase instead of lowercase.
- With JSX, a function is passed as the event handler instead of a string.



## CHAPTER 3

### INTERNSHIP OBJECTIVES

The main objective is to develop a "Web Application using ReactJS". This includes implementation technologies such as HTML, CSS, JavaScript, React JS.

The objectives of this internship are given below:

- To impart strong technical understanding of react technology.
- 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.
- To learn about the concepts of hooks, life cycle methods in react and component reusability.
- To design and develop a Single page application using React where reloading whole page should be replaced with component changing.
- To use the React JS where we can see our application page can change without load time and processing fast while showing the content.

## CHAPTER 4

### ACTIVITIES PERFORMED

The activities performed during the internship are:

- **Basic UI Design with HTML and CSS**

Firstly, had to install text editors such as Visual Studio Code, Sublime Text, etc, for developing web page of our interest with the help of HTML and CSS using our own creativity. Fig. 4.1 shows the UI of the web page implemented.

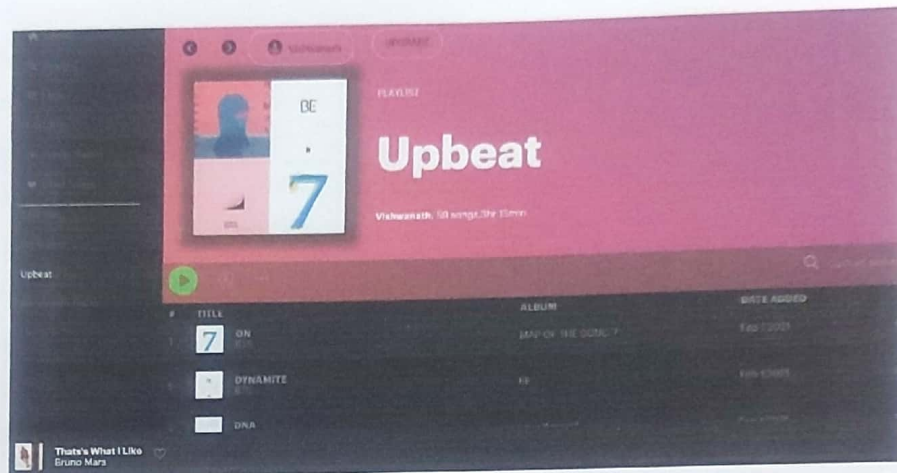


Fig. 4.1: Spotify UI

- **Design and Developing Calculator**

Once finished with the basic UI design had to build a simple calculator by designing with the help of HTML and CSS using our creativity and building it with the help of basic level of JavaScript with some conditions applied to it specifically. Fig. 4.2 shows the UI of simple calculator which was designed and developed.

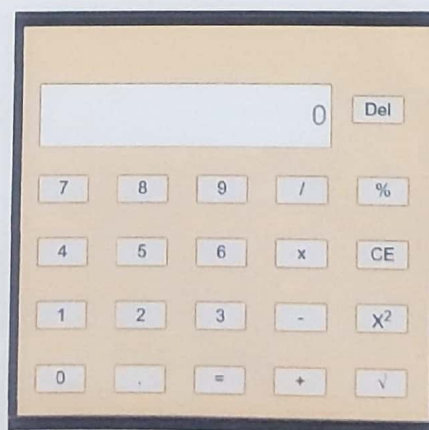


Fig. 4.2: Simple Calculator

- **Async Programming using JavaScript**

In this we walked through about the asynchronous JavaScript, why it is important, and how it can be used to effectively handle potential blocking operations such as fetching resources from a server and also learnt about the JavaScript Promises and JavaScript Async/Await concepts.

- **Node Application Hands-on experience**

Hands-on Experience on installation of NPM stands for Node Package Manager, which is an application and repository for developing and sharing JavaScript code.

The following steps were followed:

**Step 1:** Download Node.js installer and NPM on Windows.

**Step 2:** Install Node.js and NPM from Browser.

**Step 3:** Verify Installation.

- **React Components and its reusability**

Taught about the components which can be used while designing and developing an application in react. Components are independent and reusable bits of code. They serve the same purpose as JavaScript functions, but work in isolation and return HTML. Components come in two types, Class components and Function components.

- **React functional based development**

Learnt about react that capitalizes on the pure functional concept to improve app performance. Due to the nature of react, whenever a component's state changes, react re-renders the component and its child component, even when the state change does not directly affect the child component.

## CHAPTER 5

### REFLECTION NOTES

It was a great experience to work as an intern in the company. Got an opportunity to work on a Web Development using ReactJS and gain knowledge about the functioning of the various departments in the company. The process carried out from designing a template to creating a web application. The interaction with the employees has enhanced my communication skills. Also learnt about the various policies followed in the company and their work culture. In CognitiveClouds learnt that, continuous practice can make the tasks easier, reduce the commitment of errors and hence the activities are performed smoothly. Got an idea about the designing of a web page with the specific requirements and earned how to choose the appropriate tools to develop the software. The internship provided me with the opportunity to gain hands on work experience which was not learnt from the classroom. An internship can be seen as the pinnacle of undergraduate education and it gives the chance to use the skills that had learnt in the classroom.

Got a chance to prove the worth of my qualification and to show the capability of performing the role that had been assigned. Most of the important aspects that have learnt is to be punctual, 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 but as it was pandemic all the sessions were held in zoom. 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.

## CHAPTER 6

### CONCLUSION

As a conclusion, can say that this internship was a great experience. Thanks to CognitiveClouds Software PVT. LTD, which helped acquired deeper knowledge concerning my technical skills, but also personally benefited. Currently ReactJS have a great prosperity in Web applications, and one of the most popular languages for web development used by developers worldwide. There are huge opportunities available for the students who want to work in this field. Many private and public organizations hire web designer for their online work and website development. With the rapid advent of online industry, the demand of web development professionals is increasing, and this has created a huge job opportunity for the aspirants in the upcoming days.

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