



<b>Criteria</b>	Criteria 2- Teaching- Learning and Evaluation
<b>Key Indicator</b>	2.3 Teaching- Learning Process
<b>Metric</b>	2.3.1 Student centric methods, such as Internship used for experiential learning

### INTERNSHIP

- Internship is taken up by the SMVITM students during 6th or 7th semester. Students work in related industries or organizations and undergo an internship for a duration 3-4 weeks. During internship, they get a chance to assist and learn from industry professionals, which help them to understand their work culture, processes followed and how documentation is done. It enhances the experiential learning experience among the students. Lower semester students are also take up the internships during their vacations.

This document reveals the about the internship attended by the students and process carried out training.

  
Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

**NOTICE**

Date: 03 - 06 - 2022


Dear Students,

An internship is a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. To improve your knowledge and enhance your employability skills, internship has been included as a part of your curriculum.

As per the VTU guidelines, all the students are required to undergo a mandatory **4 weeks internship between 6<sup>th</sup> and 7<sup>th</sup> semester vacation and/or 7<sup>th</sup> and 8<sup>th</sup> semester vacation.**

If you have already found an opportunity for an internship, **kindly submit a permission letter and get approval from the internship coordinator** before you start your work.

Also, I request you to fill in the following by **15-07-2022 (4 PM)**, so that we can try to help out those students who are not able to get internship opportunities on their own. It would be good if you try to explore and find internship opportunities.

  
HOD, E&C Dept.  
Head  
Dept of E&C Engg.  
SMVITM, BANTAKAL - 574 115

  
Principal  
SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

## Department of Electronics and Communication Engineering - Internship Details

Sl. No.	Name	USN	Company Name	Place	From Date	To Date
1	ADITHI GIRISH	4MW19EC001	SMVITM	BANTAKAL	22-8-2022	22-9-2022
2	ADITHI P	4MW19EC002	NMAMIT	NITTE	22-8-2022	22-9-2022
3	ADITHYA S BHAT	4MW19EC003	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
4	AKSHATHA ANILKUMAR	4MW19EC004	SMVITM	BANTAKAL	22-8-2022	22-9-2022
5	AKSHAY	4MW19EC005	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
6	AKSHAY K G	4MW19EC006	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
7	ANWITHA RAO P	4MW19EC007	NMAMIT	NITTE	22-8-2022	22-9-2022
8	ARUN J KUNDGOLKAR	4MW19EC008	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
9	BHOOMIKA	4MW19EC009	NEXTEER	BENGALURU	23-8-2022	23-9-2022
10	CHAITHRA KULAL	4MW19EC010	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
11	CHANDRAKALA	4MW19EC011	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
12	CHAYA NAIK	4MW19EC012	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
13	DEEPA NAYAK	4MW19EC013	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
14	DHEEKSHA A SUVARNA	4MW19EC014	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
15	DHEERAJ	4MW19EC015	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
16	DILEEP A R	4MW19EC016	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
17	DIVYASHREE	4MW19EC017	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
18	HARSHITHA SHETTY	4MW19EC018	NMAMIT	NITTE	22-8-2022	22-9-2022
19	HEMANTH V PRABHU	4MW19EC019	SMVITM	BANTAKAL	22-8-2022	22-9-2022
20	HRISHIKA	4MW19EC020	INVENTERON TECHNOLOGIES	BENGALURU	25-8-2022	24-9-2022
21	K RAKESH	4MW19EC021	SMVITM	BANTAKAL	22-8-2022	22-9-2022
22	K SRINIVAS	4MW19EC022	TECH FORTUNE	HUBBALLI	25-8-2022	25-9-2022



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

	KAMATH		TECHNOLOGIES			
23	KARTHIK N	4MW19EC023	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
24	KEERTHAN	4MW19EC024	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
25	KIRANA D N	4MW19EC025	SMVITM	BANTAKAL	22-8-2022	22-9-2022
26	LOHITH V P	4MW19EC026	SMVITM	BANTAKAL	22-8-2022	22-9-2022
27	MANTHANA K	4MW19EC027	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
28	MEGHANA BAPAT K	4MW19EC028	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
29	MEGHANA R BHAT	4MW19EC029	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
30	MENAKA R J	4MW19EC030	RADIO STATION	MANGALUR U	22-8-2022	17-9-2022
31	NEEMA B SHETTY	4MW19EC031	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
32	NIKITHA	4MW19EC032	RADIO STATION	MANGALUR U	22-8-2022	17-9-2022
33	NISHANTH	4MW19EC033	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
34	PRAJWAL	4MW19EC034	SMVITM	BANTAKAL	22-8-2022	22-9-2022
35	PRAJWAL UPADHYA	4MW19EC035	SMVITM	BANTAKAL	22-8-2022	22-9-2022
36	PRASANNA NAYAK	4MW19EC036	SMVITM	BANTAKAL	22-8-2022	22-9-2022
37	PRASTHUTHI AMIN	4MW19EC037	RADIO STATION	MANGALUR U	22-8-2022	17-9-2022
38	PRATHEEKSHA	4MW19EC038	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
39	RACHANA	4MW19EC040	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
40	RAKSHATH KUMAR	4MW19EC041	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25-8-2022	25-9-2022
41	RAKSHITHA R NAYAK	4MW19EC043	INVENTERON TECHNOLOGIES	BENGALURU	25-8-2022	24-9-2022
42	RASHMITHA BHAT	4MW19EC044	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
43	RITESH KUMAR	4MW19EC045	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
44	RUHAIMA	4MW19EC046	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
45	SAKSHI	4MW19EC047	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
46	SAMEEKSHA	4MW19EC048	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
47	SAMEEKSHA P U	4MW19EC049	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022



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48	SHANTHIKA	4MW19EC050	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
49	SHANTHKUMAR C K	4MW19EC051	SMVITM	BANTAKAL	22-8-2022	22-9-2022
50	SHARANYA (U UDAYA)	4MW19EC052	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
51	SHARANYA (SANTOSH)	4MW19EC053	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
52	SHETTY NITHIN VIJAY	4MW19EC054	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
53	SHRAVAN S	4MW19EC055	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
54	SHREEPATHI	4MW19EC056	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
55	SHREESHA S AITHAL	4MW19EC057	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
56	SHREESHA	4MW19EC058	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
57	SHREYA	4MW19EC059	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
58	SHREYA DEVADIGA	4MW19EC060	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
59	SHREYA UDUPA S	4MW19EC061	C for ST,IISC,Bangalore	BENGALURU	22-8-2022	22-9-2022
60	SHREYA UPENDRA	4MW19EC062	BEL,Machalipattana	ANDHRA PRADESH	22-8-2022	22-9-2022
61	SHREYAS ACHARYA	4MW19EC063	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
62	SHREYAS M NAIK	4MW19EC064	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
63	SHRIKRISHNA BHAT	4MW19EC065	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
64	SHRINIKETH	4MW19EC066	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
65	SHWETHA PRABHU	4MW19EC068	SWAGEN	BENGALURU	29-8-2022	30-9-2022
66	SIJAL KUMARI	4MW19EC069	WEBDEV IT SOLUTIONS	BIHAR	25-8-2022	25-9-2022
67	SINCHANA	4MW19EC070	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
68	SNEHA J S	4MW19EC071	LIMITED	TAMIL NADU	29-8-2022	29-9-2022
69	SOUJANYA S	4MW19EC072	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
70	SRIJANYA	4MW19EC074	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
71	SRINIDHI S K	4MW19EC075	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
72	SUDEEP	4MW19EC076	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
73	SUKHITHA K S	4MW19EC077	BHARATH	ANDHRA	22-8-2022	22-9-2022

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Approved by AICTE, New Delhi &amp; Recognized by Govt. of Karnataka

Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.

## DEPARTMENT OF ELECTRONICS &amp; COMMUNICATION ENGINEERING

			ELECTRONICS LTD	PRADESH		
74	SUMUKHA HATWAR K N	4MW19EC079	SMVITM	BANTAKAL	22-8-2022	22-9-2022
75	SWATHI BHAT	4MW19EC080	MESCOM	MANGALUR U	25-8-2022	25-9-2022
76	TABISH AKBAR	4MW19EC081	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
77	TULASI D J	4MW19EC082	NMAMIT	NITTE	22-8-2022	22-9-2022
78	UJWAL U SHETTY	4MW19EC083	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
79	VARALAKSHMI	4MW19EC084	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
80	VARSHINI ACHARYA	4MW19EC085	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022
81	WILSON NORONHA	4MW19EC086	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
82	YASHASWINI R AMIN	4MW19EC087	NEXTEER	BENGALURU	22-8-2022	22-9-2022
83	YASHWANTH NAIK	4MW19EC088	LOGIN WARE	BENGALURU	25-8-2022	25-9-2022
84	SUJAN	4MW20EC400	VI SOLUTIONS	BENGALURU	1-8-2022	20-8-2022

*[Signature]*  
HOD, Dept. of ECE.

Head

Dept of E&C Engg.

SMVITM, BANTAKAL - 574 115

*[Signature]*

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

# IOT AND MACHINE LEARNING USING LABVIEW

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Report on

**18EC84 – Internship & Professional Practice**

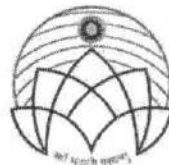
Submitted by

**DHEEKSH A SUVARNA**

**USN: 4MW19EC014**

In partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF ENGINEERING**



**SMVITM**

**Department of Electronics & Communication Engineering**

**SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT**

Vishwothama Nagar, Bantakal – 574 115, Udipi District, Karnataka

2022–2023

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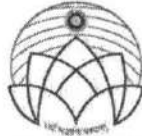
Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udipi Dist.  
BANTAKAL - 574 115

**SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND  
MANAGEMENT**

(A Unit of Shri Sode Vadiraja Mutt Education Trust @, Udupi)  
Vishwothama Nagar, BANTAKAL – 574 115, Udupi District, Karnataka, INDIA

**Department of Electronics & Communication Engineering**



**SMVITM**

**CERTIFICATE**

Certified that the Internship Work titled 'Iot and Machine learning using LabVIEW' is carried out by:

**Ms. DHEEKSHA A SUVARNA . USN: 4MW19EC014**

bonafide students of Shri Madhwa Vadiraja Institute of Technology and Management, in partial fulfillment for the award of the degree of **Bachelor of Engineering** in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the corrections / suggestions have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Internship Work prescribed for the said degree.

*GANESH SHETTY 24/5/23*

**Mr. GANESH SHETTY**  
Asst. Professor & Guide  
Dept. of E&C Engineering

*SACHIN BHAT 25/3/23*

**Dr. SACHIN BHAT**  
Professor and HOD  
Dept. of E&C Engineering  
(Signature with date and seal)

**Internship Evaluation**

**Name of the Examiners:**

**Signature with Date**

1. *Sandesh Kumar*

*Sandesh Kumar 25/05/23*

2.  *Ganesh Shetty* *Approved*

*25/5/23*

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115





# CERTIFICATE OF COMPLETION

On

*Industrial Internship Program on IoT, Machine Learning Using LabVIEW*

*We present this certificate to*

**DHEEKSHA A SUVARNA**

**From Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal**

*In appreciation for your successful work as intern at VI Solutions, Bangalore,*

*From 1<sup>st</sup> September 2022 to 30<sup>th</sup> September 2022*

Mr. Sunil Kumar V  
Managing Director  
VI Solutions, Bangalore

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwathama Nagar Udipi Dist.  
BANTAKAL - 574 515

## Acknowledgements

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We express our deepest gratitude and respect to our internship trainer **Mr. SATHYANARAYANA R, Sr. Application Engineer**, from VI Solutions organization, for his valuable guidance and encouragement while doing this internship work.

We are indebted to Mr. Ganesh Shetty, Asst Professor, Department of Electronics & Communication for his advice and suggestions at various stages of the work. We also extend our heartfelt gratitude to Dr. Sachin Bhat, Head of the Department.

We take this opportunity to offer our regards to all of those who have supported us directly or indirectly in the successful completion of this internship work.



Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

Name of the Student  
Dheeksha A Suvarna

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## 3. Conclusion.....

*Prasop*

Principal

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BANTARGAL - 574 115

## CONCLUSION

After Successful completion of course, it is clear that his software is very important for virtual automation. It is quite easy and handy to operate. The projects based on this software has a industrial Applications and are some extent the replica of what actually happens in the industries.

LabVIEW is powerful tool that has extensive application in the automation industry. Through this internship we have learnt the basics of LabVIEW and its different applications. The application of LabVIEW includes IOT, Machine learning etc. It can also be connected to the hardware and can be controlled. LabVIEW significantly reduces the use of lengthy codes.

As the world advances, technology evolves and these are the days of AI, virtual reality, robots, and automated machines which evidently supports the great prospects of virtual automation.



Principal

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Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.



## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### INTERNSHIP DIARY

2021-22

Name of the Student	Dheeksha A Suvarna
USN <sup>*</sup>	4MW19EC014
Name of the Organization	VI Solution
Address of the Organization	2 <sup>nd</sup> floor, Akai Plaza, D Rajgopal Road, opposite to Axis Bank, Sanjay nagara, Bengaluru, Karnataka-560094
Name of the External Guide	Mr./Satya Narayana
Contact Number of External Guide	8147100927
Email Id of External Guide	satyanarayana@visolution.org
Internship Start Date	1/09/2022
Internship End Date	24/09/2022

*Arscope*

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

## DAILY ACTIVITY REPORT OF INTERNSHIP

Week Number: 1

Date	Activity
01/09/2022	<ul style="list-style-type: none"><li>• Introductory presentation about VI solution organization.</li><li>• Introduction to Basic LabVIEW Programming.</li><li>• Implementation combinational logic circuit such as Half adder and Full adder</li></ul>
02/09/2022	<ul style="list-style-type: none"><li>• Explanation of case structure with different data types such as Boolean, integer, enumerator.</li><li>• Implementation of palindrome code using case structure.</li></ul>
03/09/2022	<ul style="list-style-type: none"><li>• Implementation function generator.</li><li>• Some of the basic codes:<ol style="list-style-type: none"><li>1. factorial of numbers</li><li>2. counting of numbers</li><li>3. sum of 10 numbers</li></ol></li><li>• Experiment of blinking LED</li></ul>

Week Number: 2

Date	Activity
05/09/2022	<ul style="list-style-type: none"><li>• Introduction to arrays.</li><li>• Sorting the array using array function.</li><li>• Making the display of the screen transparent</li></ul>
06/09/2022	<ul style="list-style-type: none"><li>• Introduction to clusters.</li><li>• Entry of students details using clusters.</li><li>• Applications such as traffic light, calculator.</li><li>• Use of expression node and Formula node</li></ul>
07/09/2022	<ul style="list-style-type: none"><li>• Explanation and Creation of Global variables and local variables.</li><li>• Implementation of Half and Full wave Rectifier and adding and multiplying two signals.</li><li>• File delimiter</li><li>• Implementation of talking tom application.</li></ul>

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08/09/2022	<ul style="list-style-type: none"> <li>• Introduction to Image processing</li> <li>• Applications of Image processing</li> </ul>
09/09/2022	<ul style="list-style-type: none"> <li>• Classification of colors using Image processing</li> <li>• Edge detection using image processing</li> <li>• Cropping and merging images</li> </ul>

**Week Number: 3**

Date	Activity
12/09/2022	<ul style="list-style-type: none"> <li>• Bar code reader using image processing</li> <li>• Creating a template of image</li> <li>• Resampling the Image</li> <li>• Reversing the image</li> <li>• Capturing image using camera</li> </ul>
13/09/2022	<ul style="list-style-type: none"> <li>• Introduction to Machine learning</li> <li>• OCR (Optical Character Recognition)-character training</li> <li>• Text to speech conversion application using OCR</li> <li>• Pencil sorting using OCR</li> </ul>
14/09/2022	<ul style="list-style-type: none"> <li>• BP testing using Machine learning.</li> </ul>
15/09/2022	<ul style="list-style-type: none"> <li>• Image separation using image processing</li> <li>• Digital to Analog Converter</li> </ul>
16/09/2022	<ul style="list-style-type: none"> <li>• Introduction to DAQ assistant Hardware, Architecture</li> <li>• Interfacing IR sensor with DAQ Hardware               <ol style="list-style-type: none"> <li>1. Object detection</li> <li>2. Blinking of LED</li> </ol> </li> </ul>
17/09/2022	<ul style="list-style-type: none"> <li>• Temperature sensor and Buzzer interface with DAQ</li> <li>• VI characteristics of Diode</li> </ul>
19/09/2022	<ul style="list-style-type: none"> <li>• Controlling the speed, direction of motor</li> </ul>

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Principal

20/09/2022	<ul style="list-style-type: none"> <li>• Introduction to Internet of Things (IOT)</li> <li>• data transferring from LabVIEW to firebase</li> <li>• Control of DC motor using firebase.</li> </ul>
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**Week Number: 4**

Date	Activity
21/09/2022	<ul style="list-style-type: none"> <li>• KNN Classification</li> <li>• Application-Pencil Sorting Report</li> </ul>
22/09/2022	<ul style="list-style-type: none"> <li>• Project on Automatic unit consumption and bill generation using LabVIEW</li> </ul>
23/09/2022	<ul style="list-style-type: none"> <li>• Project on Automatic unit consumption and bill generation using LabVIEW</li> </ul>
24/09/2022	<ul style="list-style-type: none"> <li>• Project on Automatic unit consumption and bill generation using LabVIEW</li> </ul>

Principal  
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 Vishwothama Nagar, Udupi Dist.  
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**Signature of the student**





# CERTIFICATE OF COMPLETION

On

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**DHEEKSHA A SUVARNA**

**From Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal**

*In appreciation for your successful work as intern at VI Solutions, Bangalore,*

*From 1<sup>st</sup> September 2022 to 30<sup>th</sup> September 2022*

*Anoop*

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwathame Nagar, Udipi Dist.  
BANTAKAL - 574 115

A handwritten signature in black ink, appearing to read 'Sunil Kumar V'.

Mr. Sunil Kumar V  
Managing Director  
VI Solutions, Bangalore

**CONTROLLING SOLENOID VALVES USING**  
**ARDUINO**

---

Report on  
**18EC84 – Internship & Professional Practice**

Submitted by

**Shreya Udupa S –4MW19EC061**

In partial fulfillment of the requirements for the award of the degree of  
**BACHELOR OF ENGINEERING**



**SMVITM**

**Department of Electronics & Communication Engineering**

**SHRI MADHWA VADIRAJA**  
**INSTITUTE OF TECHNOLOGY & MANAGEMENT**

Vishwothama Nagar, Bantakal – 574 115, Udupi District, Karnataka

2022-2023

  
Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115

# SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(A Unit of Shri Sode Vadiraja Mutt Education Trust @, Udupi)  
Vishwothama Nagar, BANTAKAL – 574 115, Udupi District, Karnataka, INDIA

Department of Electronics & Communication Engineering



**SMVITM**

## CERTIFICATE

Certified that the Internship Work titled 'Controlling the valves using Arduino' is carried out by:

Shreya Udupa S (USN:4MW19EC061), bonafide students of Shri Madhwa Vadiraja Institute of Technology and Management, in partial fulfilment for the award of the degree of **Bachelor of Engineering** in Electronics & Communication Engineering of Visvesvaraya Technological University, Belagavi during the year 2022-23. It is certified that all the corrections / suggestions have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Internship Work prescribed for the said degree.

*Chetan*  
**Mr. Chetan R**  
Asst. Professor senior & Guide  
Dept. of E&C Engineering

*Sachin*  
**Dr. Sachin Bhat**  
Professor and HOD  
Dept. of E&C Engineering

*Sankar Prasad*

*Amritha*

*Sen*  
*24/04*

Principal  
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INSTITUTE OF TECHNOLOGY & MANAGEMENT  
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Professor. S. Dasappa  
Chair, ICER

Centre for Sustainable Technologies  
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30.09.2022

### Certificate of Internship

This is to certify that *Ms. Shreya Udupa S* pursuing Electronics & Communication Engineering at Shri Madhwa Vadiraja Institute of Technology and Management, bearing the University Seat Number **4MW19EC061** has completed internship at Combustion Gasification and Propulsion Laboratory, Indian Institute of Science, Bangalore during the period 23<sup>rd</sup> August 2022 to 29<sup>th</sup> September 2022. During the internship period, she worked on “controlling solenoid valves using Arduino” under my supervision and guidance.

Prof. S. Dasappa

Principal  
SHRI MADHWA VADIRAJA  
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Vishwathama Nagar, Udupi Dist.  
BANTAKAL - 574115

## ACKNOWLEDGEMENT

We express our deepest gratitude and respect to our internship trainer **Mr. Anand M Shivapuji, Senior scientist**, from IISC organization, for his valuable guidance and encouragement while doing this internship work.

We are indebted to Mr. Vighnesh Kalathur Department of Mechanical Engineering for his advice and suggestions at various stages of the work. We also extend our heartfelt gratitude to Dr.Sachin Bhat, Head of the Department.

We take this opportunity to offer our regards to all of those who have supported us directly or indirectly in the successful completion of this internship work.

  
Principal  
SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115


Name of the Student  
Shreya Udupa S

## CONCLUSION

Our project can be used to build a water efficient society. It is very helpful in saving water, electricity and more importantly manpower. To make it possible sub-tanks are installed for a smaller region, main tanks are installed in a place with high ground water level so that it may be used to feed water to these sub-tanks. The beauty of this system is, it can be operated manually and also automatically. Man may make mistakes sometimes so it is programmed to work automatically but still the water levels in the tanks can be monitored from any place and can be controlled if wanted. This form of automated water grid is not only energy efficient but also convenient and safe for practical applications.

The future of the project introduced in this paper is manifold. It can be incorporated as a construction mandate in huge apartments as it will not only give the user control of the water tank flow but the owner of the complex will get to know the exact flat which is consuming water more than required. A pump from the main tank can also be monitored and controlled wherein any extra water in the MST will be forwarded to the gardens and therefore the water will be put to the best use. The MST's water pump can also be controlled by the end user and the supplier as when required. The app can also have features like Notification sending mechanism to notify the user if the MST's water level is above a threshold value.



  
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**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**Belagavi - 590018**



**INTERNSHIP REPORT**

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

**BACHELOR OF ENGINEERING**  
**IN**  
**COMPUTER SCIENCE & ENGINEERING**

Submitted by

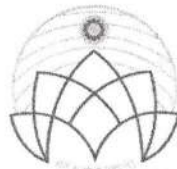
**SHRADDHA B CHATRA**

**4MW19CS084**

Under the guidance of

**Ms .Vijetha**  
Assistant Professor  
Department of CSE  
SMVITM Bantakal

**Mr. Vedanth Shenoy**  
Chief Technology Officer  
Zephyr Technologies  
Mangalore




**SMVITM**

*Department of Computer Science & Engineering*  
**SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND  
MANAGEMENT**

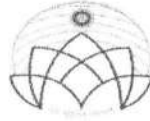
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2021-2022

  
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**SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND  
MANAGEMENT**

Vishwothama Nagar, Bantakal – 574 115, Udupi District, Karnataka, INDIA Department  
of Computer Science and Engineering



**SMVITM**

**CERTIFICATE**

This is to certify that **SHRADDHA B CHATRA** bearing USN **4MW19CS084** is a bonafide student of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal Udupi, has undergone four-week internship at **Zephyr Technologies & Solutions Pvt. Ltd.** This internship report has been approved as it satisfies the academic requirement in respect of the internship prescribed by the Visvesvaraya Technological University Belagavi during the academic year **2021-2022**.

*(Signature)*

**Ms. Vijetha**  
Assistant Professor  
Department of CSE  
SMVITM Bantakal  
Signature of the Internal Guide

*(Signature)*  
**Dr. Soumya J Bhat**  
Head of the Department  
Department of CSE  
SMVITM Bantakal  
Signature of the HOD

**Dept. of Comp.Science & Engg.**  
**SMVITM, BANTAKAL-574 115**

External Viva  
Name of the Examiner

1. *Soumya J Bhat*
2. *Prameela*

Signature with date

*(Signature)* *Sy 23/05/23*  
*(Signature)* *23/05/23*

*(Signature)*

Principal

**SHRI MADHWA VADIRAJA  
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Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115



# Certificate From Industry



ZTP-INT-2022-2214

## CERTIFICATE OF COMPLETION

This certificate is presented to **Ms. Shraddha B Chatra (4MW19CS084)** student of SMVITM, Bantakal, Udupi for successfully completing the internship in **Artificial Intelligence – Machine Learning, Data Science** under the guidance of our special team of trainers.

Period of Internship Training: **20-08-2022 to 22-09-2022**

We have found her to be a self starter who is motivated, duty bound and Hard-working. she worked sincerely on her assignments, and her performance was Par Excellence.

Date: 22-09-2022

Zephyr Technologies and Solutions Pvt Ltd

Place: Mangaluru



**Abdulla Abid Samah**  
Chief Executive Officer



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*Aravind*

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Vishwothama Nagar, Udupi Dist,  
BANTAKAL - 574 116

# ACKNOWLEDGEMENT

The internship opportunity I had **Zephyr Technologies & Solutions Pvt. Ltd.** Was a great chance for learning and professional development. Therefore I consider myself as a very lucky individual as I was provided with an opportunity to be a part of it.

I am indebted to our respected Principal, **Dr Thirumaleshwara Bhat** and the Management of **Shri Madhwa Vadiraja Institute Of Technology Engineering College** for having provided all the facilities and support for the smooth completion of the internship.

I am grateful to **Dr Soumya J Bhat** Head of the Department, Computer Science and Engineering, for her support and encouragement.

I would like to offer my earnest gratitude to our External Guide, **Mr. Vedanth Shenoy, Chief Technology Officer, Zephyr Technologies & Solutions Pvt. Ltd.** and my internal guide, **Ms. Vijetha, Assistant Professor(Sr),** Department of Computer Science and SMVITM ,Bantakal. This work would not have been possible without their guidance and support.

I wish to express my sincere gratitude to all the Faculty and Technical staff of Department, Computer Science and Engineering, for their valuable help and support.

  
Principal  
SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udipi Dist.  
BANTAKAL - 574 115

# ABSTRACT

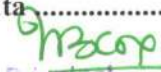
Parkinson's disease is a progressive disorder that affects the nervous system and the parts of the body controlled by the nerves. Parkinson's disease affects the CNS of the brain and has yet no treatment unless it's detected early. Late detection leads to no treatment and loss of life. The first symptom may be a barely noticeable tremor in just one hand. Tremors are common, but the disorder may also cause stiffness or slowing of movement. Diagnosis of Parkinson's disease (PD) is commonly based on medical observations and assessment of clinical signs, including the characterization of a variety of motor symptoms. However, traditional diagnostic approaches may suffer from subjectivity as they rely on the evaluation of movements that are sometimes subtle to human eyes and therefore difficult to classify, leading to possible misclassification. Thus its early detection is significant. For early detection of the disease, we utilized various machine learning algorithms such as XGBoost, Support Vector Machine and Random Forest.

Anzore

Principal  
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Vishwathama Nagar, Udipi Dist.  
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**KEYWORD****ABBREVIATIONS**

IT	Information Technology
AI	Artificial Intelligence
PCA	Principal Component Analysis
SVD	Singular Value Decomposition
ML	Machine Learning
SVM	Support Vector Machine



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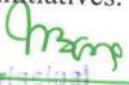
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## CHAPTER 7

### CONCLUSION

Parkinson's disease affects the CNS of the brain and has yet no treatment unless it's detected early. Late detection leads to no treatment and loss of life. Thus, its early detection is significant. For early detection of the disease, we utilized machine learning algorithms such as XGBoost and Random Forest. We checked our Parkinson disease data and find out XGBoost is the best Algorithm to predict the onset of the disease which will enable early treatment and save a life. Diagnosis of Parkinson's disease (PD) is commonly based on medical observations and assessment of clinical signs, including the characterization of a variety of motor symptoms. However, traditional diagnostic approaches may suffer from subjectivity as they rely on the evaluation of movements that are sometimes subtle to human eyes and therefore difficult to classify, leading to possible misclassification. In the meantime, early non-motor symptoms of PD may be mild and can be caused by many other conditions. Therefore, these symptoms are often overlooked, making diagnosis of PD at an early stage challenging. To address these difficulties and to refine the diagnosis and assessment procedures of PD, The steps involved in the process are 1) importing the libraries 2) Importing the dataset 3) Avoiding the dummy variables trap by processing the data 4) performing data visualization for better understanding of the dataset 5) Splitting the dataset into the training and Test dataset 6) Fit Algorithm to Train by running the epochs 7) Predicting the Test set results

Artificial intelligence (AI) and machine learning (ML) are emerging as high-potential technologies. Machine learning has dominated the IT industry for the past decade. Working with ephyr Technologies exposed to new Machine Learning principles and models that may be applied to prediction, extraction, recognition, and other tasks. It aided in the comprehension and application of topics ranging from elementary mathematics to advanced data processing into Machine Learning models and also, comprehending the significance of AI and ML in today's generation. The internship program provided an opportunity to better understand and reach my full potential, enabling to study and experiment with application-based initiatives.

  
Principal  
SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nager, Udipi Dist.  
BANTAKAL - 574 115



# INTERNSHIP DIARY

Student Name : SHRADDHA B. CHATRA  
University Seat Number : HMW19C5084  
Academic Year : 2021 - 22  
Department : COMPUTER SCIENCE AND ENGINEERING  
Internal Guide : Mrs SAVITHA SHENOY  
External Guide : Mr VEDANTH SHENOY  
Designation & Department: CHIEF TECHNOLOGY OFFICER  
Company/ Organization : ZEPHYR TECHNOLOGIES & SOLUTION Pvt Ltd.  
Address : OBERGE TOWERS, BARMATTA,  
MANGALURU, KARNATAKA - 575002  
Internship Dates : From 20/08/2022 To 22/09/2022



Shri Madhwa Vadiraja Institute of Technology and Management  
Bantakal Udupi

Ansoy

Principal

SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574115






DAILY ACTIVITY REPORT

Student Name: SHRADDHA B CHATRA

USN: HMW19CS02 H

Name of the Organization: Zephyr technologies & solutions Pvt Ltd.

Week No: 1

Date	Activity	Signature of the External Guide
22/8/22	Python programming language: Data types, operators, variables, data structures - list	
23/8/22	Tuple, set and dictionary.	
24/8/22	Conditional statements and loops.	
25/8/22	Functions and object oriented programming	
26/8/22	Introduction to Numpy and Pandas libraries	
27/8/22	-	



Principal

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Signature of the Internal Guide






DAILY ACTIVITY REPORT

Student Name: Shraddha B. Chitra

USN: HMW19C6084

Name of the Organization: Zephyr technologies & solution Pvt Ltd.

Week No: 2

Date	Activity	Signature of the External Guide
29/8/22	Basic statistics with Exploratory Data Analysis (EDA): Univariate analysis - Histogram	
30/8/22	Univariate analysis - box plot, violin plot, count plot.	
31/8/22	Bi-variate analysis - pair plot, heatmap	
01/9/22	Bi-variate analysis - scatter plot, joint plot	
02/9/22	Introduction to matplotlib and seaborn libraries.	
03/9/22	-	

  
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INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwathama Nagar, Udupi Dist.  
BANTAKAL - 574 115

  
Signature of the Internal Guide






DAILY ACTIVITY REPORT


Student Name: Shraddha B. Chatur

USN: JMW19C5084

Name of the Organization: Zephyr technologies & solutions Pvt Ltd

Week No: 3

Date	Activity	Signature of the External Guide
05/9/22	Data pre-processing: missing value treatment, outlier treatment	
06/9/22	Data pre-processing: scaling and one-hot encoder	
07/9/22	Supervised algorithm: train-test split, development of linear regression model.	
08/9/22	Model performance metrics, concepts of overfitting and underfitting.	
09/9/22	Interpretation of the developed model	
10/9/22		

  
Principal

SHRI MADHWA VADIRAJA  
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Vishwothema Nagar Udipi Dist.  
BANGALORE-576 115



Signature of the Internal Guide







DAILY ACTIVITY REPORT

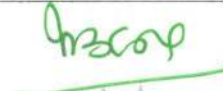
Student Name: Shradha B. Chitra


USN: HMW19C5084

Name of the Organization: Zephyr technologies and solutions Pvt Ltd

Week No: 4

Date	Activity	Signature of the External Guide
12/9/22	Classification algorithms: Logistic regression, decision tree	
13/9/22	Classification algorithms: random forest, confusion matrix	
14/9/22	Classification model performance measures	
15/9/22	Model Interpretation in classification algorithms	
16/9/22	Un-supervised algorithm: K-means clustering, interpretation of model	
17/9/22 20/9/22 22/9/22	project work	

  
Principal  
SHRI MADHVA VADIRAJA  
INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udipi Dist,  
BANTAKAL - 574 115

  
Signature of the Internal Guide

ACTIVITY SUMMARY

Student Name: Abhaddha B. Chitra

USN: HMW19C6084

Name of the Organization: Zyper technologies & solutions pvt ltd.

Nature of the Industry:

Zyper Technologies & Solutions pvt ltd.

Intern duties: What were your specific duties and responsibilities during the internship?

My specific duties was to complete daily task given and implementing those learn concepts to project.

Learning: What did you learn during the internship (please include specific skills and business/organizational concepts)?

In this internship program I learnt Data science & we have learnt about kaggle.

Guide Rating: Was your guide allotted in the industry helpful and instructive? Please give reasons and examples for your answer.

Yes, the guide allocated to us in the Internship program was very helpful & instructed. He used to clarify doubts during the session.

Internship Summary:

My Internship was based on Data science and ML. In the first was we were taught to design the backend & the load the data sets from kaggle & we have learnt various queries to run & we have developed the backend project of Movie Recommender App.

Signature of the Internal Guide

*(Signature)*

Principal

*(Signature)*

Signature of Head of the Department

*(Signature)*  
Head



ZTP-INT-2022-2214

**CERTIFICATE OF COMPLETION**

This certificate is presented to **Ms. Shraddha B Chatra (4MW19CS084)** student of SMVITM, Bantakal , Udupi for successfully completing the internship in **Artificial Intelligence – Machine Learning , Data Science** under the guidance of our special team of trainers.

Period of Internship Training: **20-08-2022 to 22-09-2022**

We have found her to be a self starter who is motivated, duty bound and Hard-working. she worked sincerely on her assignments, and her performance was Par Excellence.

Date: 22-09-2022

Zephyr Technologies and Solutions Pvt Ltd

Place: Mangaluru



**Abdulla Abid Samah**  
Chief Executive Officer



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**EVALUATION OF INTERN BY SUPERVISOR**

(In organization letterhead)

Student Name: SIRADDHA B CHATRA USN: 4mw19cs084

Supervisor Name: ABDULLA ABID SAMAN Designation: CEO

Company/Organization: Zephyr Technologies & Solutions Pvt Ltd.

Address: 2nd floor Oberle Towers Balmatta, Mangaluru.

Dates of Internship: From 20-8-2022 To 22-9-2022.

Please evaluate the intern by indicating the frequency with which you observed the following behaviors

Parameters	Needs improvement	Satisfactory	Good	Excellent
Behavior of Intern				✓
Is punctual				✓✓
Shows interest in work				✓✓✓
Analyzes problems effectively				✓✓
Shows initiative				✓✓
Demonstrates creativity/originality				✓✓
Accepts responsibility				✓✓
Uses technical knowledge and expertise				✓✓✓
Has a professional attitude				✓✓
Cooperates with co-workers and supervisors				✓✓✓

Overall performance of student intern (*circle one*):

(Needs improvement / Satisfactory / Good / Excellent)

Additional comments, if any: Good Student.

Signature of Internship supervisor

Place: Mangaluru.

Date: 22/09/22.



Principal

Head Office : GS2, Heavenly Plaza, Suite No.352, Kakkanad, Kochi, Kerala - 682 021

Registered Office : Door No 18208/ D3 III Floor, Golden Chambers, Kandamkulam P.O, Calicut, Kerala - 673002

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# SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND MANAGEMENT

IA Unit of Shri Sode Vadiraja Mutt Education Trust (R), Udupi

Accredited by NBA / Accredited by NAAC with 'A' grade | Affiliated to VTU, Belagavi

Approved by AICTE New Delhi & Recognized by Government of Karnataka

Vishwothamanagar, Bantakal - 574 115, Udupi, Karnataka, India



## SMVITM

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### Notice

Date: 07 - 06 - 2022

Dear Students,

An internship is a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. To improve your knowledge and enhance your employability skills, internship has been included as a part of your curriculum.


As per the VTU guidelines, all the students are required to undergo a mandatory **4 weeks internship between 6<sup>th</sup> and 7<sup>th</sup> semester vacation and/or 7<sup>th</sup> and 8<sup>th</sup> semester vacation.**

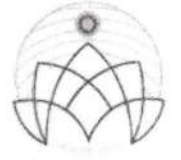
If you have already found an opportunity for an internship, **kindly submit a permission letter and get approval from the internship coordinator** before you start your work.

Also I request you to fill in the following by **19-07-2022 (4PM)**, so that we can try to help out those students who are not able to get internship opportunities on their own. It would be good if you try to explore and find internship opportunities.

  
HOD, CSE Dept.

**Dept. of Comp. Science & Engg.**  
**SMVITM, BANTAKAL-574 115**

  
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TECHNOLOGY & MANAGEMENT  
Vishwothama Nagar, Udupi Dist.  
BANTAKAL - 574 115



## Department of Computer Science and Engineering Internship Details

Sl.No	Name	USN	Company Name	From Date	To Date
1	Varun	4MW18CS095	Exposys Data Labs	22-07-2022	21-08-2022
2	Abhinava Karanth	4MW19CS001	Exposys Data Labs, Bangalore	24-07-2022	23-08-2022
3	Adithya M Samaga	4MW19CS003	Exposys Data Labs	23-07-2022	22-08-2022
4	Akash	4MW19CS004	Exposys Data Labs	23-07-2022	22-08-2022
	Akash G S Kumar	4MW19CS005	Compsoft Technologies	25-08-2022	29-09-2022
6	Akash S Kotian	4MW19CS006	Exposys data labs	23-07-2022	22-08-2022
7	Akshay kumar	4MW19CS007	Exposys data labs	23-08-2022	23-09-2022
8	Anantha Krishna	4mw19cs008	Guideline Computer tech	01-02-2022	30-03-2022
9	Ananya D	4MW19CS009	Comsoft technology	23-08-2022	27-09-2022
10	Aniketh Shenoy	4MW19CS010	GADS LLP	25-07-2022	27-08-2022
11	Aniruddh Raveesh	4MW19CS011	Tech Fortune technologies	25-08-2022	25-09-2022
12	Anjali	4MW19CS012	Invenger (MIT)	29-08-2022	28-09-2022
13	Anjali Shet	4MW19CS013	Invenger Technologies pvt ltd	29-08-2022	28-09-2022
14	Ankush Hegde	4MW19CS014	Invenger(mit)	29-08-2022	28-09-2022
15	Anujna	4MW19CS015	Invenger (MIT)	29-08-2022	23-09-2022
16	Anusha	4MW19CS016	Exposys Data Labs	24-07-2022	23-08-2022
17	Anusha	4MW19CS016	Exposys Data Labs	24-07-2022	23-08-2022
18	Anusha	4MW19CS017	Invenger Technology (MIT, Mani)	29-08-2022	28-09-2022
19	Aryan S Batny	4MW19CS019	Tech Fortune Technologies	25-08-2022	25-09-2022
20	Ashith	4MW19CS020	Coincent	27-08-2022	27-10-2022
21	Ashlesh H Gams	4MW19CS021	Coincent	27-08-2022	27-10-2022
22	Avanti V Rao	4MW19CS022	Compsoft Technologies	23-08-2022	27-09-2022
23	Ayesha Sadiya	4MW19CS023	Invenger Technology (MIT, Man)	29-08-2022	28-09-2022
24	B T Anvit	4MW19CS024	Invenger(mit)	29-08-2022	28-09-2022
25	Bhagyalakshmi B	4MW19CS025	Exposys data lab	17-08-2022	16-09-2022

*Aravind*

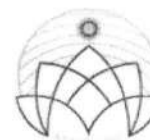
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26	Bibek kumar pandit	4MW19CS026	Ic Solution	25-08-2022	29-09-2022
27	Chaithrakala	4MW19CS027	Exposys Data Labs	23-07-2022	24-08-2022
28	Chaitra S Shetty	4MW19CS028	Exposys data Labs	17-08-2022	16-09-2022
29	Chiranth	4MW19CS029	Coincent,Kuwait	27-08-2022	27-10-2022
30	Deeksha Shettigar	4MW19CS030	Exposys Data Labs	22-07-2022	21-08-2022
31	Snehal Shetty	4MW17CS084	YBI Foundation	02-02-2023	03-03-2023
32	Deeksha Shetty	4MW19CS031	Exposys Data Labs	17-08-2022	16-09-2023
33	Dhathri Tendulkar	4MW19CS032	Ybi foundation	15-08-2022	13-09-2022
34	Dishashree	4MW19CS033	Exposys Data Labs	22-07-2022	21-08-2022
35	Eshaan U Kundar	4MW19CS034	Exposys Data Labs,Bangalore	24-07-2022	23-08-2022
36	Gaurav Acharya	4MW19CS035	Exposys Data Labs	23-07-2022	24-08-2022
37	Gautam N Shet	4MW19CS036	Exposys Data Labs	23-07-2022	24-08-2022
38	Hariprasad Bhat K	4MW19CS037	Exposys Data Labs	23-07-2022	24-08-2022
39	Threshika	4MW19CS039	Exposys Data Labs	22-07-2022	21-08-2022
40	Jeevitha	4MW19CS040	Exposys Data Labs	22-07-2022	21-08-2022
41	Jelena Riya Lewis	4mw19cs041	Exposys	24-07-2022	23-08-2022
42	Jnanesh B S	4MW19CS042	Exposys data labs	23-07-2023	22-08-2023
43	Kajal Kumari	4MW19CS044	Exposys Data Labs	01-01-2023	31-01-2023
44	Karthik h amin	4MW19CS045	Exposys Data Labs	25-07-2022	24-08-2022
45	Karthik V Shetty	4MW19CS046	Exposys Data Labs,Bangalore	26-08-2022	25-09-2022
46	KAVYA	4MW19CS047	Exposys Data Labs	22-08-2022	21-09-2022
47	Keerthan K Karkera	4MW19CS048	Exposys Data Labs	23-08-2022	22-09-2022
48	M Sowmitha Pai	4MW19CS050	INVENGER(mit)	29-08-2022	28-09-2022
49	Manish Kumar HJ	4MW19CS051	Exposys Data Labs, Bangalore	23-08-2022	22-09-2022
50	Manish Prakash	4MW19CS052	Exposys Data Labs	23-08-2022	22-09-2023
51	Manjushree Vinayak	4MW19CS053	Exposys Data Labs	22-08-2022	16-09-2022
52	Manoj Muralidhar	4MW19CS054	YBI Foundation	19-09-2022	19-10-2022
53	Manvitha Ananth	4MW19CS055	Exposys data labs	23-08-2022	22-09-2022
54	Moazzami Mukthar	4MW19CS056	Zephyr Technologies & Solution	20-08-2022	22-09-2022
55	Nabeeha Banu	4MW19CS057	Zephyr Technologies & Solution	20-08-2022	22-09-2022
56	Nishanth R Amin	4MW19CS058	Zephyr Technology Mangalore	20-08-2022	22-09-2022
57	Nishith Shetty	4MW19CS059	Zephyr Technologies & Solution	20-08-2022	22-09-2022
58	Nishmitha	4MW19CS060	Exposys Data Labs	22-08-2022	21-09-2022
59	Nithanth Marate	4mw19cs061	Zephyr technology	20-08-2022	22-09-2022

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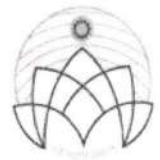
60	Niveditha Nanda	4MW19CS062	Zephyr Technologies & Solution	20-08-2022	22-09-2022
61	Pooja shettigar	4MW19CS064	Accolade tech solutions	22-08-2022	22-09-2022
62	Prajna R Shetty	4MW19CS065	Esha Labs LLP	23-08-2022	23-09-2022
63	Prajna S	4mw19cs066	SmartInternz	01-08-2022	24-09-2022
64	Prasannashree	4MW19CS067	Zephyr Technology and Solutions pvt Ltd	20-08-2022	22-09-2022
65	Pratheeksha	4MW19CS068	Zephyr Technologies & Solution's Pvt Ltd	01-09-2022	30-09-2022
66	Prathik v shenoy	4MW19CS069	Zephyr technologies and solutions pvt ltd	20-08-2022	22-09-2022
67	Preran S Jathan	4MW19CS070	Zephyr technology and solutions Pvt Ltd	28-08-2022	23-09-2022
68	Purvash P Gangolli	4MW19CS071	Exposys Data Labs	22-08-2022	21-09-2022
69	Qais sheikh	4MW19CS072	Zephyr technology and solutions Mangalore	22-08-2022	22-09-2022
70	Raksha B Kottari	4MW19CS073	Manipal Technologies limited	20-08-2022	20-10-2022
71	Rakshith H Kalmadi	4MW19CS074	Manipal Institute of Technology	28-09-2022	28-11-2022
72	Ranjani	4MW19CS075	Udupi Web Solutions	22-08-2022	22-09-2022
73	Reon Britto	4MW19CS076	IC Solutions	23-08-2022	27-09-2022
74	Sachitha	4MW19CS077	Smartinternz	01-09-2022	01-10-2022
75	Sampath Kumar M G	4MW19CS078	SmartInternz	01-08-2022	24-09-2022
76	Sanjana S	4MW19CS079	Zephyr Technologies and Solutions Pvt Ltd	01-09-2022	30-09-2022
77	Santhosh	4MW19CS080	IC Solutions	23-08-2022	27-09-2022
78	Sardar Afifa	4MW19CS081	Zephyr technologies	20-08-2022	22-09-2022
79	Shamitha S Amin	4MW19CS082	Zephyr technologies and solutions pvt. Ltd.	20-08-2022	22-09-2022
80	Shivani	4MW19CS083	Accolade Tech Solutions, Mangalore	22-08-2022	22-09-2022
81	Shraddha B Chatra	4MW19CS084	Zephyr technologies & solutions pvt Ltd	20-08-2022	20-09-2022
82	Shraddha D S	4MW19CS085	Esha Labs LLP, Mundkur	23-08-2022	23-09-2022

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83	Shraddha S Shetty	4MW19CS086	Esha Labs LLP	23-08-2022	23-09-2022
84	Shravya	4MW19CS087	Esha Labs LLP	23-08-2022	23-09-2022
85	Shravya S	4MW19CS088	Esha Labs LLP	23-08-2022	23-09-2022
86	Shravya Kamath U	4MW19CS089	Exposys Data Labs	14-11-2022	12-12-2022
87	Shreekumar Vishnu	4MW19CS090	Exposys Data Labs	23-08-2022	22-09-2022
88	Shreeraksha	4MW19CS091	Udupi Web Solutions	22-08-2022	22-09-2022
89	Shreya S	4MW19CS092	Zephyr Technologies and Solutions Pvt Ltd	20-08-2022	22-09-2022
90	Shreya S	4MW19CS093	Manipal Technology, Manipal	20-08-2022	20-10-2022
91	Shrutha V Bhat	4MW19CS094	Exposys Data Labs	03-10-2022	02-11-2022
92	Srushti H Rao	4MW19CS095	Udupi Web Solutions	22-08-2022	22-09-2022
93	SUJITH PRABHU	4MW19CS096	Zephyr Technologies and Solutions Pvt Ltd	20-08-2022	22-09-2022
94	Sukanya s naik	4mw19cs097	Smartinternz	01-08-2022	24-09-2022
95	Sukumara C Shetty	4MW19CS098	IC Solutions	23-08-2022	27-09-2022
96	Sumana	4MW19CS099	Udupi Web Solutions	22-08-2022	22-09-2022
97	SURAKSHA S	4MW19CS100	ESHA LABS LLP	23-08-2022	23-09-2022
98	Swasthik M Acharya	4MW19CS101	Zephyr technologies & Solutions pvt. Ltd	28-08-2022	22-09-2022
99	Swathi K	4MW19CS102	Smartinternz	01-08-2022	24-09-2022
100	Swathi Nayak	4MW19CS103	Udupi web solutions	22-08-2022	22-09-2022
101	Tarun R Shetty	4MW19CS105	Manipal Technologies Limited	23-08-2022	24-05-2023
102	Thejas S S	4MW19CS106	Tech-Fortune Technologies	25-08-2022	25-09-2022
103	Uchil Deepta L	4MW19CS107	Zephyr Technologies	20-08-2022	22-09-2022
104	Uttam Naik	4MW19CS108	Esha Labs LLP	23-08-2022	23-09-2022
105	Vaishnavi D	4MW19CS109	Manipal technologies limited, Manipal	23-08-2022	24-09-2022
106	Vaishnavi K R	4MW19CS110	Zephyr Technologies and Solutions Pvt Ltd	20-08-2022	22-09-2022
107	Vaishnavi V Bhat	4MW19CS111	SmartInternz	01-08-2022	29-09-2022
108	Varshini V Poojary	4MW19CS112	Zephyr technologies and solutions pvt.Ltd..	20-08-2022	22-09-2022
109	Varun Ramachandra N	4MW19CS113	ESHA LABS LLP	23-08-2022	23-09-2022
110	Vijayalakshmi	4MW19CS115	Zephyr Technologies and Solutions Pvt Ltd	20-08-2022	22-09-2022
111	Vikram Girish Thunga	4MW19CS116	Exposys Data Labs	03-10-2022	02-11-2022
112	Vishal Chalwadi	4MW19CS117	Take it smart pvt ltd	27-08-2022	27-09-2022

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113	Vishwas Prabhu	4MW19CS118	SMARTINTERNZ, SmartBridge	01-08-2022	24-09-2022
114	Wilton Lobo	4MW19CS119	Esha Labs LLP	23-08-2022	23-09-2022
115	Rakshith Acharya	4MW19CS121	Niveus Solutions Pvt Ltd	26-09-2022	26-12-2022
116	Sumantha Shettigar	4MW19CS122	Exposys Data Labs	03-02-2023	02-03-2023
117	Deekshitha S	4mw20cs400	Thaniya technology	21-08-1999	21-09-1999
118	Nikitha N Nayak	4MW20CS401	Thaniya Technologies	21-08-2022	21-09-2022
119	Shanbhag Karthikeya	4MW20CS402	Take It Smart (OPC) Pvt.Ltd	27-08-2022	27-09-2022
120	Yajnesh	4MW19CS120	Qliclabs Technologies Private Limited	26-08-2022	26-09-2022
121	T Shreesha	4MW19CS104	Exposys Data Labs	01-01-2023	31-01-2023
22	Vasuki Diggvi	4MW19CS114	Exposys Data Labs	01-01-2023	31-01-2023

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Dr. Soumya J Bhat  
HOD, CSE Dept.

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi - 590 018



## INTERNSHIP REPORT

Submitted in Partial fulfillment of the Requirements for the award of the Degree

**BACHELOR OF ENGINEERING**

IN

**COMPUTER SCIENCE & ENGINEERING**

Submitted By

**Adithya M Samaga**  
**4MW19CS003**

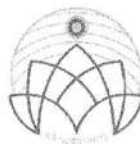
Under the Guidance of

**Ms. Yashaswini A S**

Assistant Professor  
Computer Science & Engineering  
SMVITM Bantakal, Udupi.

**Mr. Y Vishnuvardhan**

Chief Director  
Exposys Data Labs  
Bangalore.



**SMVITM**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**Shri Madhwa Vadiraja Institute of Technology & Management**

Vishwothama Nagar, Bantakal-574115, Udupi District, Karnataka, INDIA

2022-2023

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**



**SMVITM**

**CERTIFICATE**

This is to certify that **Adithya M Samaga** bearing USN: **4MW19CS003** is a bonafide student of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, Udupi, has undergone four-week internship at **Exposys Data Labs**, Bangalore from 23.07.2022 to 22.08.2022. This internship report has been approved as it satisfies the academic requirement in respect of the internship prescribed by the Visvesvaraya Technological University Belagavi during the year 2022-23.

*YAS*  
8/5/23

**Ms. Yashaswini A S**  
Internal Guide  
Assistant Professor, Dept. of CSE  
SMVITM, Bantakal

*Sy*  
**Dr. Soumya J Bhat**  
Associate Professor & Head  
Dept. of CSE  
SMVITM, Bantakal

Head  
Dept. of Comp. Science & Engg.  
SMVITM, BANTAKAL-574 115

External Viva

Name of the examiners

Signature with date

1. *Soumya J Bhat*

*Sy 23/5/23*

2. *Prameela*

*Princ*

*Pr*  
23/05/23



# Exposys Data Labs

## Certificate of Internship

### TO WHOM IT MAY CONCERN

This is to certify that **Mr. ADITHYA M SAMAGA** has completed internship programme on "**Full Stack Developer**" from 23.07.2022 to 22.08.2022.

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

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

**Y Vishnuvardhan**

Chief Director



hr@exposysdata.com  
www.exposysdata.com

Principal

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BANGALORE - 574 115

## ACKNOWLEDGEMENT

---

The internship opportunity I had with **Exposys Data Labs** was a great chance for learning and professional development. Therefore, I consider myself as a very lucky individual as I was provided with an opportunity to be a part of it.

I am indebted to our respected Principal, **Dr Thirumaleshwara Bhat** and the Management of **Shri Madhwa Vadiraja Institute Of Technology Engineering College** for having provided all the facilities and support for the smooth completion of the internship.

I am grateful to **Dr Soumya J Bhat** Head of the Department, Computer Science and Engineering, for her support and encouragement.

I would like to offer my earnest gratitude to our External Guide, **Mr. Y Vishnuvardhan, Chief Technology Officer, Exposys Data Labs** and my internal guide, **Ms. Yashaswini A S, Assistant Professor, Department of CSE, SMVITM Bantakal**. This work would not have been possible without their guidance and support. Lastly, I take this opportunity to offer our regards to all of those who have supported us directly or indirectly in the successful completion of this project work.

I perceive as this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way, and I will continue to work on their improvement, in order to attain desired career objectives.

**Adithya M Samaga**

**4MW19CS003**

Principal  
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## ABSTRACT

The purpose of Online Blogging System is to automate the existing manual system by the help of computerized and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. Online Blogging System, as described above, can lead to error free, secure, reliable and fast management systems. It can assist the user to concentrate on their other activities rather than concentrating on the record keeping. Thus, it will help organizations in better utilization of resources.

The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information. The aim is to automate its existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically, the project describes how to manage for good performance and better services for the clients.



Principal

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*Anoop*  
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Figure 8.6	Add Blog	12
Figure 8.7	View Blog	12
Figure 8.8	Delete Blog	13

*Aravind*

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## CONCLUSION

While developing a system a conscious effort has been made to create and develop a software package, making use of available tools, techniques and resources – that will generate the proper system cases. While making the system an eye has been kept on making it as user friendly as such one may hope that the system will be acceptable to any user and will adequately meet his/her needs. As in case of any system development process where there are a number of shortcomings, there have been some shortcomings in the development of this system also.

The experience gained during the course of developing this project will prove helpful in future endeavors. In the end we would like to thank all the persons involved in the development of the system directly or indirectly. We hope that the project will serve its purpose for which it is develop there by underlining success of process.



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# INTERNSHIP DIARY

**Student Name** : Adithya M Samaga  
**University Seat Number** : 4MW19CS003  
**Academic Year** : 2022-23  
**Department** : Computer Science and Engineering  
**Internal Guide** : Ms. Yashaswini A S  
**External Guide** : Y Vishnuvardhan  
**Designation & Department** : Chief Director, Founder and CEO  
**Company/ Organization** : Exposys Data Labs  
**Address** : Bangalore  
**Internship Dates** : From 23.07.2022 To 24.08.2022



**SMVITM**

Shri Madhwa Vadiraja Institute of Technology and Management  
Bantakal, Udupi

*Prasanna*

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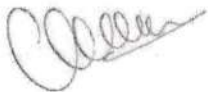
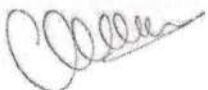
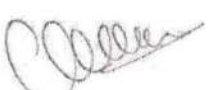


## DAILY ACTIVITY REPORT

Student Name: Adithya M Samaga

USN: 4MW19CS003

Name of the Organization: Exposys Data Labs

Week No: 1

Date	Activity	Signature of the External Guide
23-07-22	On my first day, I was introduced to the project. I was given a brief on the project requirements, which was to develop a website to sell burgers based on user ingredients, display price, and allow users to place orders.	
25-07-22	I started reading and researching about HTML, CSS and JavaScript. Through some online tutorials, I familiarized myself with the syntax and basic concepts of these languages.	
26-07-22	I started coding the website by setting up the HTML file structure and including the necessary tags for the header, footer, and navigation bar. I also added some fundamental CSS styles to make the website look visually pleasing.	
27-07-22	I continued to code the website by adding few more HTML elements such as the form where users can select the ingredients of their choice in their burger. I also started implementing JavaScript to calculate the price of the burger based on the selected ingredients.	
28-07-22	I started debugging the JavaScript code and making sure the price calculation was working correctly. I also added some basic validation to the form to make sure users cannot order burger without selecting any ingredients.	
29-07-22	I added the functionality for users to place orders to improve the quality of the website. I used JavaScript to display the total price and created a pop-up message that confirms the order.	



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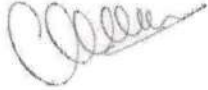
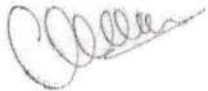
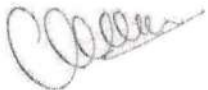
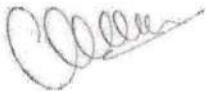


## DAILY ACTIVITY REPORT

Student Name: Adithya M Samaga

USN: 4MW19CS003

Name of the Organization: Exposys Data Labs

Week No: 2

Date	Activity	Signature of the External Guide
01-08-22	I was introduced to the second project of my internship based on Node.js, Express.js, and SQL database. I was introduced to the team and given an overview of the project, which is to build a blogging website.	
02-08-22	I started setting up my development environment, installing Node.js, Express.js, and MySQL. I went through some basic tutorials on Node.js and Express.js to understand how they work.	
03-08-22	I studied how to create a basic Express.js server and connect it to a MySQL database. I also started working on the authentication system for the blogging website, which will allow users to log in and create their own blogs.	
04-08-22	I continued working on the authentication system and added functionality for users to create and edit their profiles. I also learned about middleware in Express.js and how to use it to handle requests and responses.	
05-08-22	I worked on the front-end of the blogging site using HTML, CSS and JavaScript. I started designing the layout for the main blogging page. I also created sign up and login page.	
08-08-22	I spent the day learning how to use Sequelize, an ORM for Node.js, to interact with the MySQL database. I also worked on the backend logic for creating and displaying blog posts.	



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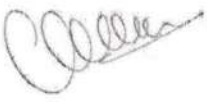

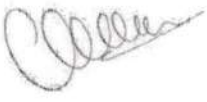
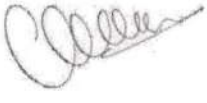
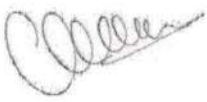
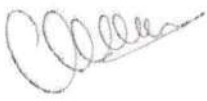
## DAILY ACTIVITY REPORT

Student Name: Adithya M Samaga

USN: 4MW19CS003

Name of the Organization: Exposys Data Labs

Week No: 3

Date	Activity	Signature of the External Guide
09-08-22	Today, I added the ability for users to delete their own blog posts. The users will be able to delete the blogs that they posted.	
10-08-22	I learned about routing in Express.js and how to use it to create different routes for different parts of the website. I also started working on the user dashboard, which will allow users to view their own blog posts.	
11-08-22	Today, I worked on improving the user experience of the website. I added form validation and error handling for login and signup by displaying success and error messages to users.	
12-08-22	I implemented password constraints to improve the security of the website. I also added session management to keep users logged in across different pages.	
15-08-22	I continued working on the user dashboard. I added the functionality for users to edit their profile information and view their own blog posts.	
16-08-22	Today, I learned about SQL databases and their importance in web development. I installed a SQL database management system and created my first database.	



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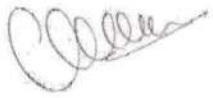




## DAILY ACTIVITY REPORT

Student Name: Adithya M Samaga

USN: 4MW19CS003

Name of the Organization: Exposys Data Labs

Week No: 4

Date	Activity	Signature of the External Guide
17-08-22	I learned about creating tables in SQL databases and CRUD operations that is to insert, update, and delete data in them. I created tables for my localhost website's user registration and login functionality.	
18-08-22	Today, I learned about creating relationships between tables in SQL databases and how to use foreign keys. I added foreign keys to my database tables to establish relationships between them.	
19-08-22	I learned about testing in Node.js and started writing tests for the website. I also worked on improving the code quality by refactoring some of the code.	
22-08-22	Today, I learned about HTTP requests and responses and how they work in web development. I used HTTP requests and responses in my localhost website's RESTful APIs.	
23-08-22	Today, I created forms in HTML studied about how to handle form submissions in Express.js. I added forms to my localhost website for blog post creation.	
24-08-22	Today, I learned about error and exception handling in Express.js and how to use middleware to handle errors. I implemented error handling middleware in my localhost website.	



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## ACTIVITY SUMMARY

**Student Name: Adithya M Samaga**

**USN: 4MW19CS003**

**Name of the Organization: Exposys Data Labs**

**Nature of the Industry:** Exposys Data Labs is a world leader in Robotics, Universe Intelligence (UI), Artificial Intelligence (AI) research and its applications that directly impact planet Earth and human life. It is one among the forerunners who launched the new generation of digital learning platform in India. As a whole, it aims to find solutions to those complicated problems in the coming months as they come up with cutting-edge ideas and apply them to the problematic issues we face today.

### Intern duties:

- Responsibilities involved in front-end development using HTML, CSS and JavaScript.
- To build complete back-end of the website from scratch.

### Learning:

- Hands-on practice with node.js, express.js and MySQL.
- Developing a static and database connected web application.


**Guide Rating:** Guide allocated to me is Mr. Y Vishnuvardhan. He was very interactive, helpful and instructive during the internship. The instructions given by him was very precious and it helped throughout the internship.

### Internship Summary:

I had the opportunity to work with a virtual team and gain hands-on experience in website development. Overall, my online web development internship provided me with a unique opportunity to gain real-world experience in a remote work environment and develop new skills that will be valuable in my future career. I gained experience in web development technologies. This platform enables students to move in a successful career path to reach the expectation of the industry.

  
Signature of the Internal Guide

  
Signature of Head of the Department

  
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Head  
Dept. of Comp.Science & Engg.  
SMVITM, BANTAKAL-574 115



**STUDENT FEEDBACK ON INTERNSHIP**

**Student Name:** Adithya M Samaga **USN:** 4MW19CS003  
**Supervisor Name:** Mr. Y Vishnuvardhan **Designation:** Chief Director  
**Company/Organization:** Exposys Data Labs  
**Address:** Bangalore  
**Dates of Internship:** From 23.07.2022 to 24.08.2022

Indicate the degree to which you agree or disagree with the following statements.				
This internship experience has:	Strongly Agree	Agree	Disagree	Strongly Disagree
Allowed me to apply classroom theory to practice		✓		
Helped me to develop my decision-making and problem-solving skills	✓			
Expanded my knowledge about the corporate world prior to permanent employment		✓		
Expanded my sensitivity to the ethical implications of the work involved		✓		
Given me a chance to improve my leadership and interpersonal skills		✓		
Helped me learn to handle responsibility and use my time wisely	✓			
Helped me discover new aspects of myself that I didn't know existed before		✓		
Helped me to develop new interests and abilities	✓			
Helped me to clarify my career goals	✓			
Allowed me to acquire information and use equipment not available at my institute		✓		

**What has been the most significant accomplishment or satisfying moment of your internship?**

Developing New Skills: Online internships can provide individuals with opportunities to develop new skills, such as communication, time management, and digital proficiency. By mastering these skills, interns can enhance their professional abilities and increase their future job prospects.

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**Making Valuable Contributions:** Online internships can be just as impactful as traditional internships, and interns can make valuable contributions to the host organization. By working remotely and collaborating with others online, interns can help to advance projects, conduct research, or develop new ideas.

**Gaining Experience:** Online internships provide interns with valuable work experience that can be added to their resume or CV.

**What did you dislike about the internship?**

**Poor Communication:** If there is a lack of communication or feedback from the host organization or supervisor, it can be challenging for the intern to understand their role and responsibilities.

**Inadequate Training:** Without proper training, interns may feel unprepared to fulfill their duties or may not understand the expectations of the host organization.

**Considering your overall experience, how would you rate this internship? (Circle one).**

( Satisfactory Good Excellent )

**Give suggestions as to how your internship experience could have been improved.**

**Communication:** Regular communication and feedback can help interns to stay on track and understand how they are progressing towards their goals. Host organizations should establish a regular check-in schedule and encourage open communication with interns.

**Training and Mentorship:** Host organizations should provide adequate training to interns and assign them a mentor or supervisor who can provide guidance and support throughout the internship.

**Meaningful Work:** Assigning meaningful work that aligns with the intern's skills and interests will help them feel more engaged and invested in their work. This can also help the host organization to receive valuable contributions from the intern.

Date: 05 / 05 / 2023

Amritha  
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Adithya M Samaga

Student Signature