



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## Criteria 1.3 : Curriculum Enrichment

### Department of Instrumentation

1.3.3 Percentage of students undertaking project work/ field work/ internships (Data for the latest completed academic year) -2021-22

- Number of students undertaking Project Work in their Final Year of Instrumentation =72
- Number of students undertaking Mini Project in First,Second & Third Year Levels in UG Programme = 20+69+67= 156
- Number of Students undertaking Internship =153
- Total No.of Students enrolled in 2021-22 in Instrumentation = 228

Formula:

$$\frac{\text{Number of students undertaking project work /field work / internships}}{\text{Total number of students}} \times 100$$

- Percentage of Students Undertaking Project Work/Field Work/Internships = (156+72)/228 = 100 %



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**Dr. (Mrs.) J. M. Nair**

M. Tech., Ph.D. (IIT-B)  
Principal


Ref. No.: VESIT/ JMN/ 1325/2023-24

Date: 26/10/2023

## TO WHOM SO IT MAY CONCERN

I, Dr. (Mrs.) Jayalekshmi M Nair, Principal (HOI), Vivekanand Education Society's Institute of Technology, do hereby state that the documents uploaded on NAAC portal are duly signed by Principal (HOI).

The additional documents uploaded on Institute's website (<https://vesit.ves.ac.in/>) are also authentic and does not need any extra validation.

  
**Dr. (Mrs.) Jayalekshmi M Nair**  
Principal  
Vivekanand Education Society's Institute of Technology  
Hashu Advani Memorial Complex,  
Collector's Colony  
Chembur, Mumbai, Maharashtra 400074





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## Criteria 1.3.3 : Curriculum Enrichment

1.3.3 Percentage of students undertaking project work/ field work/ internships (Data for the latest completed academic year) -2021-22

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# **Vivekanand Education Society's Institute of Technology**

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## **A 1-Sample List of Student Internships 2021-22**




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## Department of Instrumentation Internships 2021-22

Sr. No	Name of Students	Industry Name	Start Date	End date	Duration
1	Verma Rajnandini Rajesh Kumar	Bennett, Coleman & Co. Ltd.(The Times Group)	16/07/2021	25 August 2021	40 Days
2	C S Lakshmi Sundaram	Exposys Datalabs	3/12/2021	2/1/2022	1 month
3	Rutwik Anant Pendse	Sierra Instrumentation & Control	20/12/2021	05/01/2022	15 days
4	Thikade Sanket Sanjay	R.K. Dutt Concerns	13/12/2021	08/01/2022	24 days
5	Raunik Kumbhare	Exposys Data Labs	8/12/2021	07/01/2022	1 month
6	Mhadgut Sanchit Navneet	EXPOSYS LABS	02/12/2021	26/12/2022 1	1 Month
7	Malusare Sachi Rajendra	Nice Consultancy	15/6/2021	10/07/2021	3 weeks
8	Mandhare sandesh hambirrao	B&R automation	18/10/2021	27/10/2021	10 days
9	Mandhare sandesh hambirrao	Nice consultancy	15/6/2021	10/07/2021	3 week
10	Gurav Aaditya Dipak	VESIT	13/09/2021	22/10/2021	1 month
11	Gaonkar Abhijeet Laxman	VESIT	13/09/2021	22/10/2021	1 month
12	Kadam Aditya Sanjay Latika	Supertech Instrumentation Services	28/01/2021	11/2/2021	15 days
13	Kadam Aditya Sanjay Latika	Perfect Instrumentation Controls	16/06/2021	11/07/2021	25 days
14	Gurav Aaditya Dipak	R.C.F. Thal-Alibag.	10/12/2021	25/12/2021	15 days
15	Pillai Shivashakti Raman	RK Dutt	13/12/2021	08/01/2022	24 days
16	Pillai Shivashakti Raman	Nice Consultancy	15/6/2021	10/07/2021	26 days
17	Zhankar Aditi Amit	VESIT	13/09/2021	22/10/2021	1 month
18	Waghmare Ajinkya Rajendra	VESIT	13/09/2021	22/10/2021	1 month
19	Mopkar Amogh Dattaprasad	VESIT	13/09/2021	22/10/2021	30
20	Sadhu Amogh Uttam	VESIT	13/09/2021	22/10/2021	1 month
21	Mestry Aniruddha	VESIT	13/09/2021	22/10/2021	1month






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	Vinod				
22	Daware Anushka Vidyanand	VESIT	13/09/2021	22/10/2021	1 month
23	Yadav Atish	VESIT	13/09/2021	22/10/2021	1 month
24	Shetty Bhavit Bhaskar	VESIT	13/09/2021	22/10/2021	1 month
25	Nigudkar Chinmayi	VESIT	13/09/2021	22/10/2021	1 month
26	Shah Devanshi Kapil	VESIT	13/09/2021	22/10/2021	1 month
27	Govilkar Gaurav	VESIT	13/09/2021	22/10/2021	1 month
28	Patil Gaurav Kamalakar	VESIT	13/09/2021	22/10/2021	1 month
29	Pakhale Hrutika Mahesh	VESIT	13/09/2021	22/10/2021	1 month
30	Sharma Ishaan Rajan	VESIT	13/09/2021	22/10/2021	1 month
31	Khavnekar Kaustubh Vishnu	VESIT	13/09/2021	22/10/2021	1 month
32	Shelar Krishna Vithoba	VESIT	13/09/2021	22/10/2021	1 month
33	Patil Manish Gajanan	VESIT	13/09/2021	22/10/2021	1 month
34	Nair Nidhi Vivek	VESIT	13/09/2021	22/10/2021	1 month
35	Hirugade Omkar Satish	VESIT	13/09/2021	22/10/2021	1 month
36	Jaladi Omkar	VESIT	13/09/2021	22/10/2021	1 month
37	Kadam Prachay Prakash	VESIT	13/09/2021	22/10/2021	1 month
38	Ukarande Prajakta Arun	VESIT	13/09/2021	22/10/2021	1 month
39	Waghmode Pratik Ramchandra	VESIT	13/09/2021	22/10/2021	1 month
40	Dubey Priyanshu Rajesh	VESIT	13/09/2021	22/10/2021	1 month
41	Maurya Rahul	VESIT	13/09/2021	22/10/2021	1 month
42	Patil Rahul Sanjay	VESIT	13/09/2021	22/10/2021	1 month
43	Singh Rashmi Amar	VESIT	13/09/2021	22/10/2021	1 month
44	Singh Rashmi Chandrashekhar	VESIT	13/09/2021	22/10/2021	1 month
45	Shaikh Rizwan	VESIT	13/09/2021	22/10/2021	1 month
46	Bhor Rohan	VESIT	13/09/2021	22/10/2021	1 month
47	Panchal Rohan Ratnakar	VESIT	13/09/2021	22/10/2021	1 month
48	Mhatre Rohit Narayan	VESIT	13/09/2021	22/10/2021	1 month





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49	Vedak Rutvik Sachin	VESIT	13/09/2021	22/10/2021	1 month
50	Pendse Rutwik Anand	VESIT	13/09/2021	22/10/2021	1 month
51	Mandhare Sandhesh	VESIT	13/09/2021	22/10/2021	1 month
52	Bhosale Saurav Sachit	VESIT	13/09/2021	22/10/2021	1 month
53	Kakade Siddhesh Satyawan	VESIT	13/09/2021	22/10/2021	1 month
54	Jadhav Simran Nitin	VESIT	13/09/2021	22/10/2021	1 month
55	Koshti Suyash Narendra	VESIT	13/09/2021	22/10/2021	1 month
56	Sayyed Usman Gaus	VESIT	13/09/2021	22/10/2021	1 month
57	Shetty Vineet Bhaskar	VESIT	13/09/2021	22/10/2021	1 month
58	Deshpande Vinit Vinod Neeta	VESIT	13/09/2021	22/10/2021	1 month
59	Hirugade Omkar Satish	B&R Automation	13/09/2021	22/10/2021	30 days
60	Mopkar Amogh Dattaprasad	B&R Automation	13/09/2021	22/10/2021	30 days
61	Patil Manish Gajanan	B&R Automation	13/09/2021	22/10/2021	1 month
62	Patil Pranav Sandip	R.C.F, Thal Unit	10/12/2021	25/12/2021	15 days
63	PATIL GAURAV KAMALAKAR	B&R Automation	13/09/2021	22/10/2021	1 month
64	Jaiswar Prabhat Biharilal	Sierra Instrumentation & Controls	20/12/2021	05/01/2021	2 weeks
65	Yadav Atish	B&R Automation	13/09/2021	22/10/2021	30 days
66	PANCHAL ROHAN RATNAKAR	Proca Engineering LLP	2/12/2021	6/01/2022	1 Month
67	PORE SHREYAS ASHISH	Scientific Devices Pvt. Ltd.	2/12/2021	6/01/2022	4 weeks
68	Rutwik Anant Pendse	B&R Automation	18/10/2021	27/10/2021	9 days
69	PORE SHREYAS ASHISH	SCIENTIFIC DEVICES PVT. LTD.	2/12/2021	6/01/2022	1 month
70	Pillai Shivashakti	B&R Automation	4/04/2022	07/04/2022	4 days
71	Koshti Suyash	B&R Automation	4/04/2022	07/04/2022	4 days
72	Jadhav Pranav	B&R Automation	4/04/2022	07/04/2022	4 days





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73	Shewale Sahil	B&R Automation	4/04/2022	07/04/2022	4 days
74	Talnikar Vaishnavi	B&R Automation	4/04/2022	07/04/2022	4 days
75	Thikade Sanket	B&R Automation	4/04/2022	07/04/2022	4 days
76	Yadav Ajay	B&R Automation	4/04/2022	07/04/2022	4 days
77	Bagul Vaibhavi	B&R Automation	4/04/2022	07/04/2022	4 days
78	Yadav Pratibha	B&R Automation	4/04/2022	07/04/2022	4 days
79	Mohta Fravash	B&R Automation	4/04/2022	07/04/2022	4 days
80	Jaiswar Prabhat	B&R Automation	4/04/2022	07/04/2022	4 days
81	Sayyed Usman	B&R Automation	4/04/2022	07/04/2022	4 days
82	Kadam Aditya	B&R Automation	4/04/2022	07/04/2022	4 days
83	Jadhav Sanskruti	B&R Automation	4/04/2022	07/04/2022	4 days
84	Pawar Omkar	B&R Automation	4/04/2022	07/04/2022	4 days
85	VISPUTE SAMEER	IMA-PG India Pvt Ltd	6/6/2022	2/7/2022	1 month
86	PANCHAL DEVANG KISHOR	R.K. Controls	6/6/2022	26/6/2022	3 weeks
87	PANCHAL DEVANG KISHOR	Nice consultancy	15/06/2021	10/07/2021	4 weeks
88	DUTTA KINJAL SUBHASH	R.K.Dutt	4/6/2022	20/6/2022	15 days
89	Dubey Priyanshu Rajesh	RK DUTT CONCERN	4/6/2022	20/6/2022	15 days
90	Aaditya Dipak Gurav	JSW, salav.	09/07/2022	23/07/2022	15
91	Pranav Sandip Patil	J.S.W. , Salav	09/07/2022	23/07/2022	15 Days
92	Govilkar Gaurav Shailendra	Emerson India	10/06/2021	11/07/2022	1 month
93	Govilkar Gaurav Shailendra	PLC Training on Udemy	31/07/2022	2/08/2022	Self-paced
94	Dhome Mayur Ranganath	R.K.Dutt Concerns,Thane	8/06/2022	25/6/2022	18 Days
95	Deshpande Vinit Vinod	R K DUTT CONCERNS	16/06/2021	3/07/2021	16 days
96	Jadhav Simran Nitin	Ekeeda Private Limited.	12/06/2021	11/07/2021	1 Month
97	Gharat Shreya Shashikant	RCF Thal, Alibag	6/6/2022	30/06/22	25 days



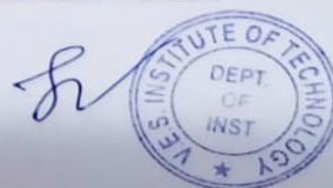




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98	DHENDE RESHMA GULAB	R.K Dutt Concerns	4/6/2022	20/6/2022	16 days
99	Nair Nidhi	Coursera	1/1/2022	28/2/2022	7 weeks
100	Nigudkar Chinmayi	Jacobs Solutions I Pvt Ltd	4/7/22	15/7/22	2 week
101	Sharma Ishaan	Powercubby	6/6/22	17/6/22	2 weeks
102	Shelar Krishna Vithoba	Rashtriya chemical fertilizersv	6/6/22	30/6/22	25
103	Shelar Krishna Vithoba	B&R	13/9/22	22/10/22	30 days
104	Shelar Krishna Vithoba	Nice Consultancy	15/06/2022	10/7/2022	25 days
105	Shreesh Nilesh Rao	Calibration and manufacturing	3/6/22	3/7/22	1 month
106	Vaidyanathan Natarajan	Perfect Instrumentation and Controls	10/12/21	8/01/22	30 days
107	DESAI TANVI SAMIR	Atul Ltd.	6/6/2022	26/6/2022	20 days
108	DESAI TANVI SAMIR	Precision Mass Products pvt. ltd.	4/7/2022	7/7/2022	4 days
109	Khavnekar Kaustubh Vishnu	Uravit & Wedge lamps ltd.	15/6/21	6/7/2021	25 days
110	More Anjali	HIL, Power cubby, prudent tecqtis	15/6/21	11/7/21	1month , 3 weeks , 3weeks
111	Singh Anuj Shailesh	Nice Consultancy	15/6/21	10/7/21	25 days
112	Raina Anuj	GrapeSEED pvt ltd	1/6/202	30/6/2021	1 month
113	Mahajani Saniya	VESIT Renaissance Cell	15/6/21	30/7/3021	1 month
114	Sayyed Shoaib Ahmed	Nice consultancy	15/6/21	10/7/21	25 days
115	Patil Kamlesh Ravindra	Neel Electronics and Electrical	17/6/2021	8/7/2021	1 week
116	Prabhu Ayush Ashok	AGV Systems, Ambernath	6/6/22	30/6/22	1 month
117	Sushant Upade	Nice Consultancy	15/6/21	10/7/21	30 days
118	Patil Rahul Sanjay	R.C.F.	16/6/2022	30/6/2022	15 days
119	Madhura Padge	Reliance industries ltd	24/6/22	29/7/22	one month
120	Pardhe Samyak Rajesh	IMA PG INDIA PVT LTD	6/6/22	7/7/22	26 days
121	Anand Shivangi	Nice consultancy	15/6/21	10/7/21	3 week +5 days





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122	Spandan Rajesh Barsagade	Sierra	25/6/21	16/7/21	22 days
123	Spandan Rajesh Barsagade	GKN Automotive	18/6/21	19/7/21	29 days
124	Yash Mahendra Tadkar	Reliance industries Ltd Nagothane	15/12/21	5/01/22	15 days
125	Rajbhar Aman Suresh	Coursera project network	12/12/2021	12/12/2021	2 hour
126	Rajbhar Aman Suresh	VESIT Website	14/6/2021	20/7/22	1 years
127	Kumbhare Raunik Laxman	Exposys Data Labs	8/12/21	7/1/22	1 month
128	Upade Sushant Ashok	Nice Consultancy	15/6/21	10/7/21	1 month
129	Patil Shruti Mahendra	R K Dutt Concerns	15/12/22	30/12/22	15 days
130	Suraj Pralhad Hage	NICE Consultancy	15/6/21	10/7/21	25 DAYS
131	Padekar Durvesh Dhondibhau	Nice consultancy	15/6/21	10/7/21	25 days
132	Gole Rakesh	Sadhana Nitro Chem pvt ltd	6/6/22	5/7/22	1 Month
133	Dhome Mayur Ranganath	R.K.Dutt Concerns, Thane	8/6/22	25/6/22	18 Days
134	CHAVAN VEDANG NITIN	VESIT RENAISSANCE	1/6/22	7/7/22	1 MONTH
135	CHAVAN VEDANG NITIN	ISA VESIT	2/7/22	3/7/22	2 DAYS
136	CHAVAN VEDANG NITIN	SKILLUP BY SIMPLILEARN	29/12/2021	5/1/2022	1 WEEK
137	Lad Ritik Nilesh	R K Dutt Concerns	8/6/22	25/6/22	3 weeks
138	Jukar Ishaan Vivek	Internshala	15/6/2022	28/7/2022	6 week
139	Jukar Ishaan Vivek	Sierra Instrumentation & Controls	22/2/2022	30/2/2022	8 days
140	KARKHANIS NEEL PANKAJ	PLC, SCADA,DCS and control panel testing.	2/6/22	1/7/22	4 weeks.
141	KARKHANIS NEEL PANKAJ.	BOA spot Camera	22/2/2022	30/2/2022	2 weeks.
142	Chinmalli Vedhant Sharanappa	PLC, DCS, SCADA and Control Panel Testing	2/6/22	1/7/22	4 Weeks
143	DASURKAR	BOA spot camera	22/2/2022	30/2/2022	2 weeks.





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	SAQUIB IMTIAZ				
144	Jangam Akshay Virbhadra	Vinati Organise Limited	6/6/22	26/6/22	20 dyas
145	Sagavekar Omkar Ravindra	KEN CHEMICALS	20/12/22	20/1/23	1 Month
146	Kambale Shubham	Excel Industries Limited	1/6/22	30/6/22	1 month
147	Chhabria Nikhil	Sierra Controls	22/2/2022	30/2/2022	8 days
148	Palande Shruti Anil	Tej Control Systems Private Ltd.	9/12/22	30/12/22	1 month
149	Ghusale Kajal Subhash	Zeeco Pvt.India, R K control	6/6/21	7/7/21	1 month, 1 month
150	Bhoir Piyush Sunil	Sadhana Nitro Chem	6/6/22	7/7/22	1 month
151	Kumbhare Raunik Laxman	Reliance	6/6/22	26/6/22	20 days
152	Viraj dinesh kharade	Siemens PLC online course	6/6/22	12/6/22	1 week
153	Patil Prajwal Umesh	RK Control Ltd	17/12/2022	8/01/23	20 days





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## **A 2-Sample List of Student Field Projects 2021-22**



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FINAL YEAR INSTRUMENTATION ENGINEERING SEMESTER - VIII[C - 2019] Project Groups 2021-22				
Department of Instrumentation-BE-Project-2021-22				
Group No	Mentor	Student Names	Title of the Project	No. of students
1	Mr.Prasad Godse	Rohit Mhatre	DC Motor Speed Control	4
		Bhavit shetty		
		Vineet shetty		
		Sanket Thikade		
2	Mr.Prasad Godse	Manish Patil	Automated Vehicle Parking System	4
		Aditi Zhankar		
		Sandesh Mandhare		
		Rutwik Anant Pendse		
3	Mr. N. Gopalkrishnan	Kunal Bhoir	PLC based sensor operated train.	4
		Vaibhavi Bagul		
		Prachay Kadam		
		Ashutosh Manore		
4	Mrs.Madhumati Khupse	Tanvi Deokar	PLC based Smart Traffic System	4
		Amisha Poyrekar		
		Abrar Khan		
		Irfan Mulla		
5	Mrs. Amudha senthilkumar	Prathmesh pawar	Brain tumor detection using CNN	4
		Fravash mohta		
		Kartik wankhede		
		Shweta Gadhave		
6	Mrs. Sangeetha P.ram	Adarsh Raut	Gesture Based Sign Language Recognition System	4
		Abhishek Joshi		
		Shatanshu Choudhary		
		Dhaval Mistry		
7	Mugdha Joglekar	Aditya Kirpalani	Gender and age detection using python	4
		Pranav Jadhav		
		Sachi Malusare		
		Vaishnavi Talnikar		
		Neha Gupta		





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8	Dr. M. D. Patil	Pooja Gupta	IOT Based Car parking system	4
		Sourjo Sen		
		Sunny Kadam		
9	Mrs. Deepti Khimani	Sejal Attarde	Smart agriculture system using lot	4
		Poorva Vichare		
		Rizwan Shaikh		
		Amogh Sadhu		
10	Mrs. Deepti Khimani	Manali Ganacharya	Smart Asset Tracking System for Inventory Management using IoT	4
		Prabhat Jaiswar		
		Abhijeet Gaonkar		
		Saurav Bhosale		
11	Mrs. Jayashree Ramakrishnan	Shivashakti Pillai	IOT based weather monitoring	4
		Omkar Pawar		
		Ajay Yadav		
		Rashmi C Singh		
12	Mrs. Sangeetha P. ram	Yugandhara Kadam	Hand held device for diabetic retinopathy	4
		Omkar Jaladi		
		Atharva Gadkari		
		Tanuja Upadhyay		
13	Mrs. Madhumati Khuspe	Kartiki Pande	Deep learning based detection and segmentation of the defects in California almonds for Quality testing.	4
		Rakshitha Krishnan		
		Aditya Kadam		
		Atharva Patil		
14	Mrs. Kanchan Chavan	Mayur Mane	High frequency counter implementation using FPGA	4
		<b>Durvesh Padekar</b>		
		Shreyas Pore		
		Chandrasai Rayudu		
15	Mrs. Kadambari Sharma	Rohan Panchal	PLC based batch receipe management	4
		Rohan Bhor		
		Raghav Kapdeo		
		Amogh Mopkar		
16	Mrs. Nilima Warke	Usman Sayyed	Design & Implementation of Oxygen Concentrator with PSA	4
		Suyash Koshti		
		Ashish Adhikari		
		Gaurav Patil		






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17	Mr. Kader Shaikh	Atharva Dhobe	Virtual Telepresence	4
		Nihar Wankhede		
		Atish Yadav		
		Sahil Shewale		
18	Mrs. Madhumati Khuspe	Sanskruti Jadhav	3D Reconstruction	4
		Gayatri Rane		
		Rashmi A Singh		
		Pratibha Yadav		
		Total No. of students		72

Prof. Kadambai Sharma   
Project Co-ordinator - BE





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## A 3. Sample List of Student Mini Projects 2021-22





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THIRD YEAR INSTRUMENTATION ENGINEERING SEMESTER - V [C - 2019]				
Mini Project Groups 2021-22				
SUBJECT NAME:- Mini Project – 2 A (ISM501)				
Group No	Mentor	Student Names	Title of the Project	No. of students
1	Mrs. Nilima Warke- nilima.warke@ves.ac.in	Prajakta ukarande	Temperature and Humidity monitoring and automation in Hydroponics	4
		Anjali More		
		Vaidyanathan		
		Sameer Vispute		
2	Mrs. Jayassre R-jayashree.ramakrishnan@ ves.ac.in	Rahul Patil	High Resolution Measurement of UC characteristics	4
		Kamlesh Patil		
		Spandan Barsagade		
		Shikha Negi		
3	Dr. P. P. Vaidya Mrs. Kanchan chavan-kanchan.chavan@ve s.ac.in	Saniya Mahajani	SCA/MCA Simulation using Multisim	4
		Rahul Maurya		
		Ritiksha Mhatre		
		Srushti Gharat		
4	Mrs. Kanchan chavan -kanchan.chavan@ves.ac.in	Simran jadhav	Comparative study of sensors for home automation	4
		Aniruddha mestry		
		Kaustubh khavnekar		
		Anuj Singh		
5	Dr. (Mrs.) J.M. Nair N.Gopalkrishnan-n.gopalkrish nan@ves.ac.in	Hrutika Pakhale	10-bit Counter using CPLD	4
		Omkar Hirugade		
		Harsh Falak		
		Vinit Deshpande		
6	Mr. N.Gopalkrishnan-n.gopalkrish nan@ves.ac.in	Shivangi Anand	8051 Based Data Acquisition System	4
		Nidhi Nair		
		Sohan Shetty		
		Shoaib Ahmed		
7	Mr. N.Gopalkrishnan-n.gopalkrish nan@ves.ac.in	Pratik Waghmode	Microstepping of DC motor	4
		Ishan Udgirkar		
		Vedant Hatte		
		Sanskar halpati		
8	Mugdha Joglekar - mugdha.joglekar@ves.ac.in	Shreesh Rao	SOLAR CHARGER	4
		Mohit Bhoir		
		Nitish Sutar		
		Aditya Mohite		

*Jays*





# Vivekanand Education Society's Institute of Technology

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9	Mrs. Mugdha Joglekar-mugdha.joglekar@ves.ac.in	Viraj Avhad Aakanksha Kadam Sushant Upade Rutvik Vedak	Machine Overheat Detection With Alert	4
<b>Group No</b>	<b>Mentor</b>	<b>Student Names</b>	<b>Title of the Project</b>	
10	Mrs. Nilima Warke-nilima.warke@ves.ac.in	Aaditya Gurav Yash Tadkar Parag Coimbatore Pranav Patil	Design and development of lot based patient health monitoring system using ESP32 web server	4
11	Mrs. Jayassre R-jayashree.ramakrishnan@ves.ac.in	Reshma Dhende Kinjal Dutta Ajay Lingoji Siddhesh Jadhav	Mobile Charger using Supercapacitor	4
12	Mr. N.Gopalkrishnan-n.gopalkrishnan@ves.ac.in	Anushka Daware Shreya Gharat Kiran Sutar Krishna Shelar	Water level controller using 8051 microcontroller	4
13	Mr. Kader Shaikh-kader.shaikh@ves.ac.in	Gaurav Govilkar Madhura Padge Anuj Raina Suraj Hage	Sound logger	4
14	Mr. Kader Shaikh-kader.shaikh@ves.ac.in	Priyanshu Dubey Siddhesh Kakade Saloni mane Devanshi Shah	Non-invasive flowmeter	4
15	Mrs Amudha Senthilkumar - amudha.senthil@ves.ac.in	Vikas Pandey Gaurang Meher Santosh Mallik Devang Panchal	RFID Based Attendance System using AVR microcontroller	4
16	Mrs. Kadambari Sharma-kadambari.sharma@ves.ac.in	Ishaan Sharma Chinmayi Nigudkar Ayush Prabhu Samyak Pardhe	Light detection in fiber optics	4
17	Mrs Kadambari Sharma - kadambari.sharma@ves.ac.in	Ajinkya Waghmare Mohammed Fadhil Gaurav bhogte	Alarming condition detection in machine	3
			<b>Total No. of students</b>	<b>67</b>

Jayassre R  
Mini Project TE-  
Coordinator

Jay





# Vivekanand Education Society's Institute of Technology

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AY 2021-22				
SECOND YEAR INSTRUMENTATION ENGINEERING SEMESTER - IV [C - 2019]				
SUBJECT NAME:- Mini Project – 1 B (ISM401)				
SR NO	GROUP MEMBERS	Project Guide	Project Title	No. of students
1	Shriya Naik	Mrs. Madhumati Khuspe	Driver Drowsiness Detection System.	4
	Prathamesh Komte			
	Pradnya Sawant			
	Nikhil Gore			
2	Nidhi Gharat	Mrs. Kanchan Chavan	Function Generator Using Op-Amps	3
	Shruti Patil			
	Bhakti Sawashe			
3	Rajnandini Verma	Mr. Prasad Godse	Internet of things	4
	Tanvi Desai			
	Shreya Kamble			
	Sureshk Rajpurohit			
4	Prathamesh Andhale	Mr. Prasad Godse	Water Level Detector using Ultrasonic Sensor	4
	Kshitij Pawar			
	Aditi Chaturvedi			
	Jagruti Dhamal			
5	Anvita Koyande	Dr. M. D. Patil	Safety Instrumented System (Temperature Control System)	4
	Ishaan Jukar			
	Harshali Gawade			
	Tanaya Gaikar			
6	Vedang Chavan	Mrs. Deepti Khimani	Maximum Power Point Tracking (MPPT) of PV panel using Buck-Boost Converter	3
	Mihir Suhanda			
	Kunal Patil			
7	Gaurav kulkarni	Mrs. Amudha S.	Soil Moisture Detection	4
	Sanchit mhadgut			
	Anish Gawade			
	Raunik kumbhare			
8	Chinmay Tare	Mrs. Sangeeta P. Ram	Fluid tank drainage system using pH sensor	4
	Aman Rajbhar			
	Siddhesh Kangane			
	Viraj Pawar			
9	C S Lakshmi	Mrs. Sangeeta P. Ram	Designing of signal conditioning system for weak signals	4
	Nikhil Chhabria			
	Sarthak Deshmukh			
	Nandita Jadia			





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10	Ghusale Kajal Subhash	Mr. Kader Shaikh	ESP 32 based Contactless Doorbell	4
	Monye Ahmad Abbas			
	Prajwal Patil			
	Tare Virajas Anil			
11	Bhoir Ayush Subhash	Mrs. Madhumathi Kuspe	Water Level Indicator Using Ardiuno and Water Level Sensor	4
	Gole Rakesh Rajendra			
	Kolambekar Vivek Pradeep			
	Singh Yashasvi Ajay			
12	Jangam Akshay Virbhadra	Mrs. Sangeetha P. Ram	Heartbeat pulse and temperature monitoring system using Arduino Uno	4
	Kharade Viraj Dinesh			
	Kharsamble Aishwarya Avinas			
	Sagavekar Omkar Ravindra			
13	Chinmalli Vedhant Sharanappa	Mr. Prasad Godse	IoT based level control system	4
	Dasurkar Saquib Imtiaz			
	David Joshua Cyril			
	Karkhanis Neel Pankaj			
14	Pahuja Niraj Vijay	Dr. M D Patil	Human Detection Robot	4
	Raut Mukul Mahesh			
	Sanket Avinash Dangle			
	Shinde Ganesh Ravindranath			
15	Bhoir Piyush Sunil	Mrs. Kadambari Sharma	IoT Based Weighing Machine	4
	Kambale Shubham Chandrakant			
	Tatkare Pranit Chandrakant			
	Upadhye Vedant Pramod			
16	Katneni Giribramhanaidu	Mrs. Nilima Warke	Weighing scale using load cell	3
	Rasal Vinayak Sambhaji			
	Pandey Himanshu Santosh			
17	Dhome Mayur Ranganath	Mrs. Deepti Khimani	Automatic Sanitizer Dispenser	4
	Gosavi Vaishnavi Devendragiri			
	Lad Ritik Nilesh			
	Palande Shruti Anil			
18	Khan Parvez Feroz	Mrs. Deepti Khimani	IoT Based Smart Pumping set-smart farming	3
	Mahulkar Hitanshu Shashikanth			
	Ukirde Pankaj Dattatraya			
			Total No. of students	68

Prof. Kader Shaikh  
Mini Project Coordinator  
-SE





# Vivekanand Education Society's Institute of Technology

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## B 1. Sample Internship Completion Certificates



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)



Bennett, Coleman & Co. Ltd  
7, Bahadurshah Zafar Marg, New Delhi 110103 T: 91 11 23302000  
Registered Office: The Times of India Building, Dr. D.N Road, Mumbai 400001  
Corporate Identity No: U22120MH1913PLC000391

October 13, 2021

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Rajnandini Verma** student of **Vivekanand Education Society's Institute Of Technology** has successfully completed Internship from **July 16, 2021 to August 25, 2021** with **Results and Market Development** department of "BCCL", Location Mumbai.

The details of the Project are as follows:

- Project: E-Access
- Name of the Guide: Mr. Claudius

During the internship period she was found dedicated, self-motivated and hard working.

Wish her all success in future endeavors.

**For Bennett, Coleman & Co. Ltd.**

**Nachiket Upadhyay**  
**Deputy General Manager - Human Resources**



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## Exposys Data Labs



### Certificate of Internship

#### TO WHOM IT MAY CONCERN

This is to certify that **Ms. C S LAKSHMI** has completed internship programme on "**Data Science**" from 03.12.2021 to 02.01.2022.

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

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

**Y Vishnuvardhan**

Chief Director



hr@exposysdata.com  
www.exposysdata.com



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## Training Certificate

This certificate is awarded to

**Gurav Aaditya Dipak**

Vivekanand Education Society's Institute of Technology,  
Chembur, Mumbai

For participation in course: **Automation Studio Basic, ST and LD Programming,  
Basic Visualization (VC4),  
Basic Robotics and ACOPOS trak, OPC-UA,  
Basic Motion**

**Date:** 13-09-2021 to 22-10-2021

**Duration:** 30 Days

The course covers introduction to programming of B&R control systems and software tools for handling and diagnosing the same. Special attention was given for hands-on practice.

Training Coordinator

Managing Director

PERFECTION IN AUTOMATION  
A MEMBER OF THE ABB GROUP







# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## NICE CONSULTANCY

(Design & Detail Engineering – Instrumentation)

304, Shah's Capital, Ghantalidevi Mandir Road, Ghantali, Thane (West). 400 602

Phone : 0091-9820703695

email id : [nicecon@gmail.com](mailto:nicecon@gmail.com)

Date : 10th-July-2021

### TO WHOM SO EVER CONCERNED

We are Detailed Engineering Consultant specialised in Instrumentation Engineering for various process industries. This is to certify that **Mr. Anuj Singh** participated and completed the on-line internship program with our enterprise from 15th-June-2021 to 10th-July-2021, during his summer vacation. He is studying Instrumentation Engineering in Vivekanand Education Society's Institute of Technology, Chembur, Mumbai and has appeared his Second year examinations.

In the internship program, he has been exposed and made to understand to the following activities (activities done during detailed engineering of Instrumentation for the process industry) :

- P&IDs, Legend and Symbols.
- Instrument List
- Input / Output List
- Instrument Datasheets
- Instrument Hook Up diagram
- Instrument & JB Location Layout
- Instrument Cable Routing Layout
- Instrument Junction Box Termination Details
- Instrument Cable Schedule
- Interlock Logic Diagrams
- Vendor offer review
- Vendor drawing review

We hope that this internship would have given him an insight in Instrumentation and that he would have understood the importance of Instrumentation in process industry.

For NICE CONSULTANCY

  
Proprietor



Rajesh V Shah

{Mob. : 9820703695}



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## Jacobs

Empire Tower, Cloud City Campus,  
Unit No SB-12B-01 & SB-12B-02,  
NE Block 12B-02, 12B Floor, Off. Thane-  
Belapur Road, Airoli,  
Navi Mumbai – 400708.  
Telephone: 022 40872000

Ref : vs : kc  
Date : 15 July 2022

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Chinmayi Atul Nigudkar** has worked in our organization as an **Intern** from **04 July 2022** to **15 July 2022**.

Her performance during the tenure was good. During the course of internship, she exhibited good understanding & learning in **Instrumentation** department. She has provided valuable support to the team. The detailed report made by her gives a glimpse of her learnings in the department.

We wish her all the success for future endeavors.

Yours faithfully,  
**JACOBS SOLUTIONS INDIA PRIVATE LIMITED**

**ABHISHEK SENGUPTA**  
HR PARTNER

**Jacobs Solutions India Private Limited** (Formerly known as HGC Constructors Private Ltd.)  
Registered Office: Unit No.SB-12B-01&SB-12B-02, NE Block, Empire Tower, Cloud City Campus,  
Village-Elthan, Off.Thane-Belapur, Navi Mumbai 400708  
(CIN)U45200MH1981PTC024767 Tel: +91 22 40872000 Fax: +91 22 40871999



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)



1<sup>st</sup> August, 2022

TO WHOMSOEVER IT MAY CONCERN

*This is to certify that Mr. Raunik Laxman Kumbhare, student of B-Tech Instrumentation Engineering from Vivekanand Education Society's Institute of Technology, Chembur has successfully completed his Summer Internship at RIL - NMD on "Study of Nucleonic Level Measurement in PP Plant" from 6<sup>th</sup> June, 2022 to 26<sup>th</sup> June, 2022.*

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

  
(Shailza Singh)  
Head L&D, NMD



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)



**PROCA ENGINEERING SOLUTIONS LLP**

Regd. Office: 7A, Kamal Kunj, Vallabh Baug Lane,  
Ghatkopar (East), Mumbai - 77  
Ph : + 91 9819629202

TO WHOMSOEVER IT MAY CONCERN

Date: 7<sup>th</sup> January 2022

This is to certify that Rohan Panchal, BE Instrumentation, student of Vivekanand Education Society Institute of Technology has successfully completed his internship with Proca Engineering Solutions LLP during the period 2<sup>nd</sup> December 2021 to 6<sup>th</sup> January 2022.

During the period, he had worked on design engineering projects, preparing layout drawings.

During internship, Rohan Panchal has shown great amount of responsibility, sincerity, and a genuine willingness to learn and zeal to take on new assignments & challenges. His coordination skills and communication skills are par excellence and his attention to details is impressive.

We wish his all the very best for his future.

With regards,  
  
Viral Savla  
Director

Place-Jui Nagar

Date

Disclaimer: This company issued document is not valid without signature

Phone: (+91)9819613079 | Email: hr@pesllp.com



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

Exposys  
Data Labs



## Certificate of Internship

### TO WHOM IT MAY CONCERN

This is to certify that **Mr. RAUNIK KUMBHARE** has completed internship programme on “**Digital Marketing**” from 08.12.2021 to 07.01.2022.

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



# Vivekanand Education Society's Institute of Technology

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**GKN Driveline (India) Limited**  
Plot No. 4, Village Lonikand, Taluka - Haveli,  
Pune - 412 216. (Maharashtra) India.  
Tel. : +91(0) 20 6709 0900 / 6709 0901

August 24, 2021

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Spandan Rajesh Barsagade**, a student of Bachelor of Engineering (Instrumentation Engineering Branch) from Vivekanand Education Society's Institute of Technology, Chembur, Mumbai has successfully completed the internship program with our company from 18<sup>th</sup> June 2021 to 19<sup>th</sup> July 2021.

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

We wish him every success in his life and career.

For **GKN Driveline (India) Ltd.**,

**Ramu Sadawarte**  
Manager – HR



# Vivekanand Education Society's Institute of Technology

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## **SUPERTECH INSTRUMENTATION SERVICES (I) PVT. LTD.**

13, Vardhaman Industrial Complex, Old Mumbai-Agra Road, Nr. Hotel United - 21, THANE - 400 601, (Maharashtra), India.  
• Tel. : +91-22-4155 0100 • Fax : +91-22-4155 0178 / 79 • Website: www.supertech.co.in  
• (CIN) : U99999MH1994PTC082116 • E-mail : automation@supertech.co.in / eni@supertech.co.in

Our Ref. : SIS/DC/062/2022

Date : 2<sup>nd</sup> July, 2022

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Neel Pankaj Karkhanis** of VES Institute of Technology, Chembur have completed 1 month Internship.

The topics of his Internship Programme were **PLC- Programmable Logic Controller, SCADA – Supervisory Control and Data Acquisition and Control Panel Testing.**

He has worked in our Company from **2<sup>nd</sup> June, 2022 to 1<sup>st</sup> July, 2022.**

*We found him sincere and hard working. We wish him grand success in his future career.*

For **SUPERTECH**  
INSTRUMENTATION SERVICES (I) PVT. LTD.

**C. S. LIMAYE**  
DIRECTOR



# Vivekanand Education Society's Institute of Technology

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## SADHANA NITRO CHEM LIMITED

CIN : L24110MH1973PLC016698

Factory : 47, MIDC, Roha - 402 116, Dist. Raigad, Maharashtra.  
Tel. : Dhatarv - 02194-263801/02/03, 263525 Fax : (91) 02194-263522

AUGUST 01, 2022.

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Mr. Piyush Sunil Bhoir was engaged with us for training in Instrumentation Department.

His duration of Training period from 06<sup>th</sup> June, 2022 to 05<sup>th</sup> July, 2022.

He was directed by Vivekanand Education Society's Institute of Technology, Hashu Advani Memorial Complex, Collector's Colony, Chembur, Mumbai – 400 074, India.

During the tenure of Training his behavior found to be good.

For SADHANA NITRO CHEM LTD.,

V.N.BEDEKAR  
MANAGER (PER. & ADMN.)

Head Office : 10, Bruse Street, Homi Modi Street, Fort, Mumbai - 400 001, INDIA Tel. : 022 - 68663300  
Registered Office : Hira Baug, 1st Floor, Kasturba Chowk (C.P. Tank), Mumbai - 400 004, INDIA  
Tel. : 022-23865629 / 23875630 • E-mail : sadhananitro@sncf.com • Web : www.sncf.com





# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

**REGD. OFFICE & WORKS :**

B-12 & B-13/1, M. I. D. C. Indl Area, Mahad - 402 309  
Dist. Raigad, Maharashtra, India.  
Tel: (91-2145) 232013 / 7796684479 / 7796684481 / 8652266881  
Email : vinmhd@vinatiorganics.com  
CIN : L24116MH1989PLC052224, Website : www.vinatiorganics.com

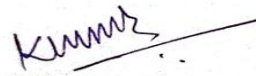


Date:-27.06.2022

**TO WHOMSOEVER IT MAY CONCERN**

Mr. Akshay Virbhadra Jangam is bonafied student of Vivekanand Education Society's Institute of Technology, Chembur. He is presently studying in IVth semester of Bachelor of Engineering in Instrumentation. He has undergone for internship training in our Company from 06.06.2022 to 26.06.2022.

For Vinati Organics Ltd.

  
K. V. Pawar  
A.G.M.-IR/HR)

**CORPORATE OFFICE :**

Parinee Crescenzo, "G" Block, 1102, 11<sup>th</sup> Floor, Plot No. C-38 & C-39,  
Behind MCA, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051, India  
Tel. : (91-22) 61240444/61240428, Fax: (91-22) 61240438  
Email : vinati@vinatiorganics.com





# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

Sierra


## Certification of Internship

This is to certify that **Mr. Rutwik Anant Pendse** Final year Degree Instrumentation candidate from **Vivekananda Education society's institute of technology** has successfully completed internship program on Design & Detail Engineering from **20<sup>th</sup> December 2021** to **05<sup>th</sup> January 2022** under company's Process Automation department.

During this period of internship program, he was found punctual, hardworking and inquisitive in all activities.

We wish him every success in his future endeavour.

Date - 06<sup>th</sup> January 2022

  
Sandeep N. Rathi  
C.E.O.

**SIERRA INSTRUMENTATION & CONTROLS**  
AB/14, Nandanvan Indl. Estate, L.B.S. Marg, Teen Hath Naka, Opp. Eternity Mall, Thane (W) 400604  
[www.sierracontrol.com](http://www.sierracontrol.com)



# Vivekanand Education Society's Institute of Technology

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**R. K. DUTT CONCERNS**  
**EXCELLENCE THROUGH ENGINEERING**  
**LEVEL INDICATION, MEASUREMENT, CONTROL & TRANSMISSION**



Ref: RKD/INT-LTR/Jan2022/03

Date : 12-01-2022

## INTERNSHIP CERTIFICATE

This is to certify that Mr Shivashakti Raman Pillai has successfully completed Internship for the period of 24 Days from 13<sup>th</sup> Dec 2021 to 8<sup>th</sup> Jan 2022. During the Internship he had: -

1. General exposures to basic technical information like Principle of Working of Liquid Level Gauges, Magnetic Indicators, Level Switches and Transmitters, Manometers, Sight Flow Indicators, PT, DPT, Ultrasonic/Radar LT, Mag Flow meters etc
2. Shop Floor exposure to Manufacturing process, inspection & testing of Liquid Level Gauges, Magnetic Indicators, Level Switches and Transmitters, Manometers, Sight Flow Indicators.

We wish him all the very best.

Regards,  
For R. K. Dutt Concerns



*Meinle*  
Authorized Signatory

**Channel Partner for SIEMENS Process Instruments**

**HO & Works:** A-88, Road No. 18, Wagle Estate, Thane – 400 604, India  
**Tel:** ++91-22-6724 8787, ++91-22-2582 2541, **Fax:** ++91-22-6724 8777,  
**E-mail:** marketing@rkduitt.com, pisaless@rkduitt.com **Website:** [www.rkduitt.com](http://www.rkduitt.com)





# Vivekanand Education Society's Institute of Technology

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(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## B 2-Sample Field Project Completion Certificates



# Vivekanand Education Society's Institute of Technology

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(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## **IoT based Weather Monitoring System and Data Visualization**

Submitted in partial fulfillment of the requirements  
of the degree of  
Undergraduate In Instrumentation Engineering

**By**

Rashmi C Sigh (65)

Omkar Pawar (54)

Ajay Yadav (70)

Shivashakti Pillai (56)

**Supervisor:**

Prof. Jayashree Ramakrishnan



Department Of Instrumentation

V.E.S. Institute of Technology

A.Y. - 2021-2022



# Vivekanand Education Society's Institute of Technology

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(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## CERTIFICATE

This is to certify that the project entitled "**IoT based Weather Monitoring System and Data Visualization**" is a bonafide work of "**Shivashakti Pillai (56), Omkar Pawar (54), Rashmi C Singh (65), Ajay Yadav (70)**" submitted to the University of Mumbai in partial fulfillment of the requirement for the **award of the degree of "Bachelor of Engineering" in "Instrumentation Engineering"**.

A blue rectangular box containing a handwritten signature in black ink. Below the signature, the text "Signature of Examiner" is printed in black.

Signature of Examiner

**Project Guide & Internal Examiner**



# **Vivekanand Education Society's Institute of Technology**

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(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## **B 3-Sample Mini Project Completion Certificates**



# Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

## CERTIFICATE

This is to certify that the project entitled "Automatic car parking system using Arduino (using proteus software) is a bonafide work of

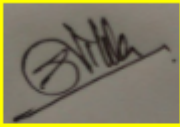
**Reshma Dhende(08)**

**Kinjal Dutta(10)**

**Siddhesh Jadhav(20)**

**Ajay Lingoji(25)**

Submitted to the university of Mumbai in partial fulfillment of the requirement submitted to the University of Mumbai in partial fulfillment of the requirement for the award of Mini Project 2-a (REV-2019 'C' Scheme) of Third Year, (TE Sem-V) in Instrumentation Engineering as laid down by University of Mumbai during academic year 2021-22


<b>Ext Examiner</b>
Mr . Sudam Nikam
BVCOE





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**Mini Project -2-b  
Sem-VI-2021-22**



**Name of the Project**

**Automatic car parking system using Arduino.**

**Group Member name -- Class -- Roll Number**

**Reshma Dhende – INST D13 – 08**

**Kinjal Dutta – INST D13 – 10**

**Siddesh Jadhav – INST D13 – 20**

**Ajay Lingoji– INDT D13 -- 25**

**Name Of Mentor**

**Mrs. Jayashree ramakrishnan**

**Department of Instrumentation**

**Vivekanand Education Society's Institute of Technology**

**University Of Mumbai**



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## **C 1-Sample Communications & Reports -Internships**



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Dr. (Mrs.) J. M. Nair  
M. Tech., Ph.D. (IIT-B)  
Principal

Ref. No.: VESIT/DK/1202/2021-22

Date: 10/12/2021

To,  
HRDD,  
R.K.Dutt Concerns, Thane

**Sub.:- Permission for "Winter Internship".**

This is to certify that **Mr. PILLAI SHIVASHAKTI** is bonafide student of this college and doing VIIIth semester of B.E. in Instrumentation Engineering. He wish to undergo internship in **R.K.Dutt Concerns, Thane** for the period (i.e 13<sup>th</sup> Dec., 2021 to 9<sup>th</sup> Jan., 2022). This will enhance his practical Knowledge.

This letter is issued based on his request to get permission for an internship.

*Dipti Khimani*

H.O.D.

(*Dipti Khimani*)





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## 2. Types of major equipment/instruments/machines used in industry with their specification, approximate cost and specific use and their routine maintenance.

### **Lathe Machine:**



- Lathe Machines performs various operations such as cutting, sanding, knurling, drilling, deformation, facing, and turning.
- Specifications- The height of the centers measured from the lathe bed.  
Swing diameter over the bed. This is the largest diameter of the workpiece which will revolve without touching the bed. It is equal twice the height of centers from the bed.  
Swing diameter over the carriage. It is the largest diameter that can revolve over the cross-slide. This is always less than the swing diameter over the bed.  
Maximum bar diameter. This is the maximum diameter that will pass through the headstock spindle.
- Approximate cost about 80000 to 1lakh Rs.
- Routine maintenance every 6 months and 1 year.



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## **C 2-Sample Communications & Reports-Field Project**



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## Invitation: BE Project Viva- Grp4 @ Sat Apr 23, 2022 9:30am - 10:30am (IST) (jayashree.ramakrishnan@ves.ac.in)

1 message

kadambari.sharma@ves.ac.in <kadambari.sharma@ves.ac.in>

Thu, Apr 21, 2022 at 4:00 PM

Reply-To: kadambari.sharma@ves.ac.in

To: jayashree.ramakrishnan@ves.ac.in, machhindra.patil@ves.ac.in, deepti.khimani@ves.ac.in, N Gopalkrishnan <n.gopalkrishnan@ves.ac.in>, 2018\_inst <2018\_inst@ves.ac.in>

You have been invited to the following event.

### BE Project Viva- Grp4

When Sat Apr 23, 2022 9:30am – 10:30am India Standard Time - Kolkata

[more details »](#)

Joining info Join with Google Meet  
[meet.google.com/ajj-jffz-gzh](https://meet.google.com/ajj-jffz-gzh)

Join by phone  
(US) +1 505-636-0124 (PIN: 421455807)

Calendar [jayashree.ramakrishnan@ves.ac.in](mailto:jayashree.ramakrishnan@ves.ac.in)

Who

- [kadambari.sharma@ves.ac.in](mailto:kadambari.sharma@ves.ac.in) - organizer
- [machhindra.patil@ves.ac.in](mailto:machhindra.patil@ves.ac.in)
- [deepti.khimani@ves.ac.in](mailto:deepti.khimani@ves.ac.in)
- [jayashree.ramakrishnan@ves.ac.in](mailto:jayashree.ramakrishnan@ves.ac.in)
- N Gopalkrishnan
- 2018\_inst

Going ([jayashree.ramakrishnan@ves.ac.in](mailto:jayashree.ramakrishnan@ves.ac.in))? [Yes](#) - [Maybe](#) - [No](#) [more options »](#)

Invitation from [Google Calendar](#)

You are receiving this email at the account [jayashree.ramakrishnan@ves.ac.in](mailto:jayashree.ramakrishnan@ves.ac.in) because you are subscribed for invitations on calendar [jayashree.ramakrishnan@ves.ac.in](mailto:jayashree.ramakrishnan@ves.ac.in).

To stop receiving these emails, please log in to <https://calendar.google.com/calendar/> and change your notification settings for this calendar.

Forwarding this invitation could allow any recipient to send a response to the organizer and be added to the guest list, or invite others regardless of their own invitation status, or to modify your RSVP. [Learn More](#).

 **invite.ics**  
3K



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## CERTIFICATE

This is to certify that the project entitled "**IoT based Weather Monitoring System and Data Visualization**" is a bonafide work of "**Shivashakti Pillai (56), Omkar Pawar (54), Rashmi C Singh (65), Ajay Yadav (70)**" submitted to the University of Mumbai in partial fulfillment of the requirement for the **award of the degree of "Bachelor of Engineering" in "Instrumentation Engineering"**.



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## ABSTRACT

The main aim of this project is to acquire data of distributed sensors of natural factors like Temperature, light and dust etc. For this real time scenario we can take a temperature, light and dust sensor one each for monitoring these 3 data with the use of Wroom and wifi connection. The mini-weather station with wifi connection is able to post data publicly using the Team Speak platform.

The objective is to make a weather station using open hardware and visualize the data to extract information. Visualization is an important step in data handling as it can answer questions and reveal patterns. The circuit is powered by the USB port but you can also add an external DC power supply or battery connected to the arduino power jack.





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## Chapter 3

# HARDWARE COMPONENTS

## 1. BMP 180

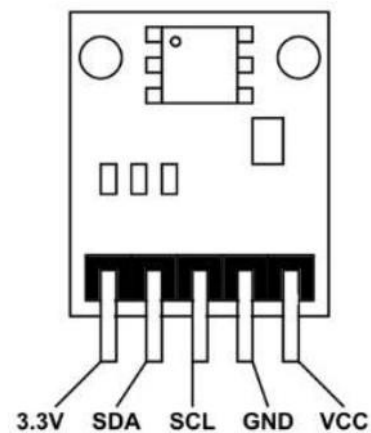
Barometric Pressure/Temperature/Altitude Sensor

### Specifications for the BMP180 MODULE

- BMP180 operating voltage: 1.3V – 3.6V
- BMP180 MODULE input voltage: 3.3V to 5.5V
- 1000uA is the maximum current.
- Standby power consumption is 0.1uA.
- VCC + 0.3V is the maximum voltage at SDA and SCL.
- Temperature range: -40oC to +80oC

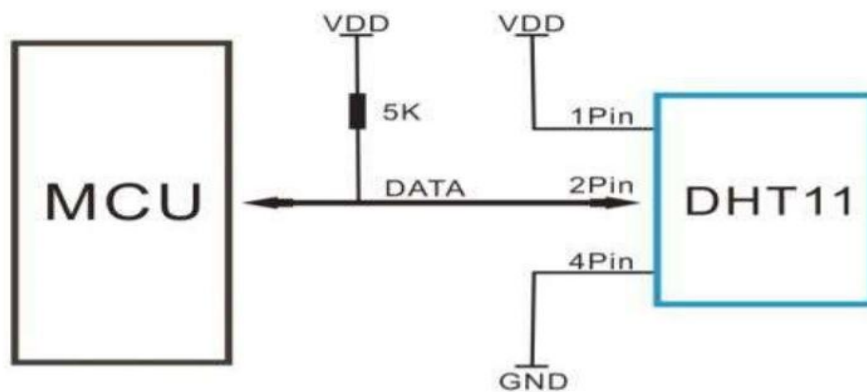


BMP180 Sensor Module

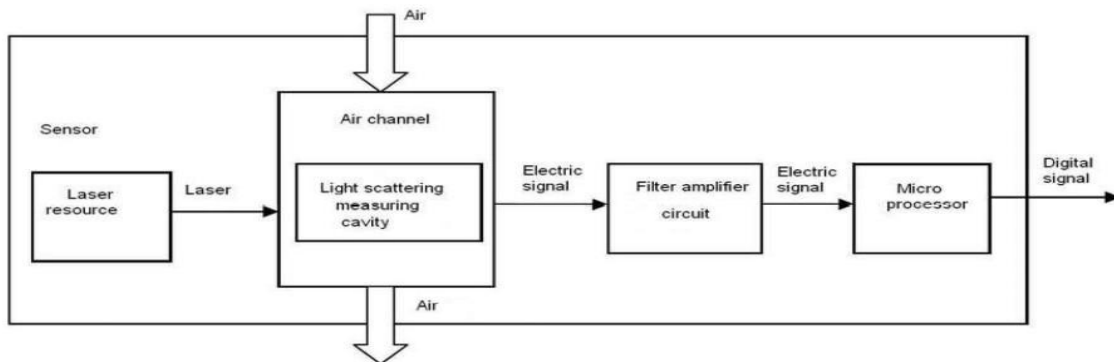


BMP180 Sensor Pinout

### 3. DHT11



### 4. Dust Sensor





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## Chapter 7

### SCHEMATIC EXPLANATION

First the circuit of the control unit system have been made that ESP32 microcontroller control all weather parameters sensor, that are BMP180 (Temperature and Pressure) sensor, VM32 (Air quality sensor), ML8511 (UV Index) sensor and DHT11 (Temperature and Humidity) sensor. Then it is powered by USB cable also to upload the sketch of coding in ESP32 microcontroller. The sensor data can be displayed on a serial monitor in Arduino IDE software. ESP32 will connect with the Wi-Fi hotspot that has applied to this system so that the web server can be created to display all the sensor data.

After that ESP32 will read all the sensor values and then send to the cloud data where ThingSpeak has been used for this. ThingSpeak will store the sensor value and display that data to the channel created there. The user can check the weather parameter via ThingSpeak websites. The data has been collected from the reading of ESP32 for all sensors and sent that data to the ThingSpeak as the results of this project objective. The analysis of the data has been made and there are tables comparing the data with the help of the graph on this ThingSpeak channel.

#### **Thingspeak Display and Data analysis:**

The ThingSpeak channel will receive the sensor data with better display of graph plot. This graph makes the analysis of the sensor data easier. All weather parameters come with analogue data with ThingSpeak this data will be plotted on the graph and this will show the characteristic of the parameter.

The graph will keep getting the sensor data every 30 seconds for the update sensor data. All the sensor data have been displayed in a graph and there are six graphs that are visible to the people there are, temperature, humidity, pressure, uv index, temperature from BMP180, and air quality. All data from the sensor can be converted to a table of tables by the ThingSpeak



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website. With the ThingSpeak as the IoT platform for everyone that needs a short or easy way to monitor the online system. The website eases users and people to see the condition at a certain place with an online system by computer or smartphone with internet connection.

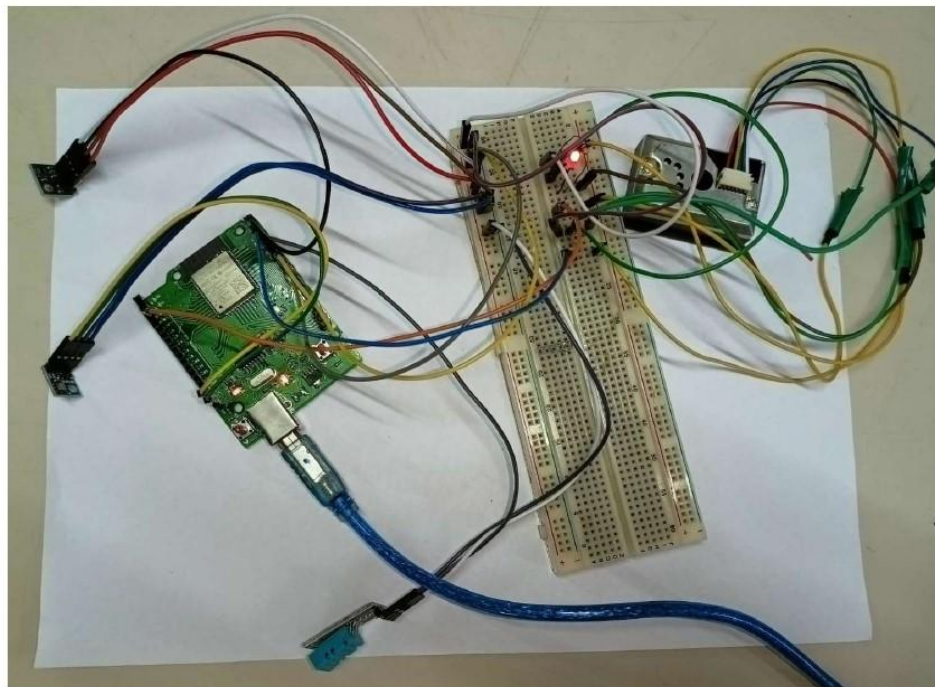


Figure: Circuit connection in real time.



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## C 3-Sample Reports-Mini Project



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**Mini Project -2-b  
Sem-VI-2021-22**



**Name of the Project**

**Automatic car parking system using Arduino.**

**Group Member name -- Class -- Roll Number**

Reshma Dhende – INST D13 – 08

Kinjal Dutta – INST D13 – 10

Siddesh Jadhav – INST D13 – 20

Ajay Lingoji – INDT D13 -- 25

**Name Of Mentor**

Mrs. Jayashree ramakrishnan

**Department of Instrumentation**

**Vivekanand Education Society's Institute of Technology  
University Of Mumbai**

## **Problem Statement**

- In the world of hustle and bustle where cars plays a prominent role as a mode of transportation, Finding a parking slot in the most of the metro cities is a tedious job which consumes lots of time and wastage of fuel.
- It is equally important for parking the cars in suitable manner so that whenever there is need of car from the parking system it can be withdrawn effortlessly irrespective of crowding of cars.
- Sometimes when the parking slots are full people still try to adjust the cars into compact areas which leads to mismanagement also damaging someone else's cars.
- Such Problems can be avoided using Automatic Car Parking System in which the motion of cars are sensed by IR sensors and modify the code accordingly.

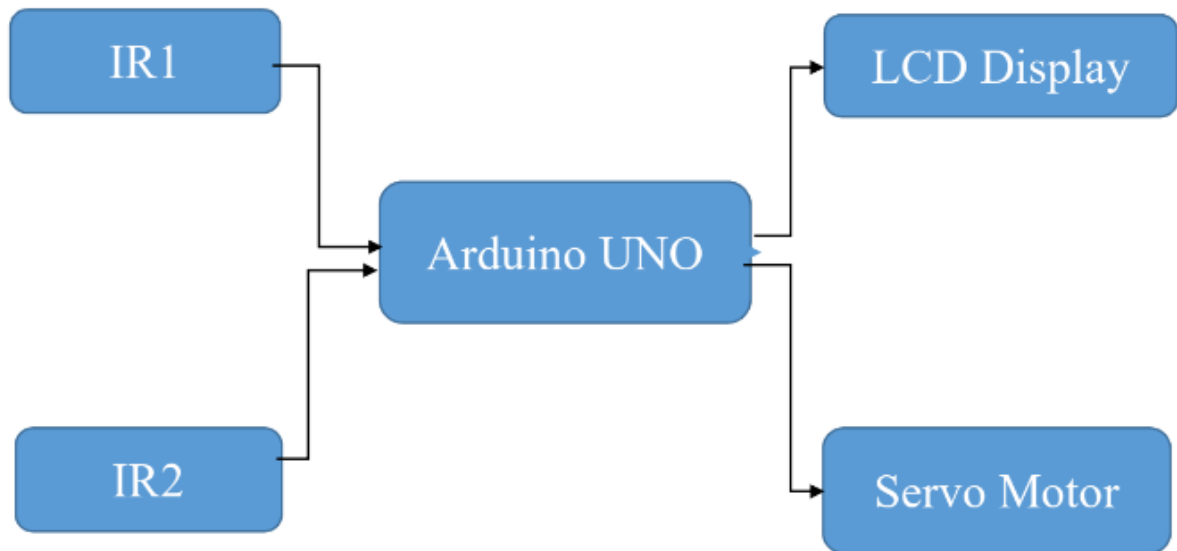


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## 4. MINI PROJECT DESIGN

### 4.1 Block Diagram



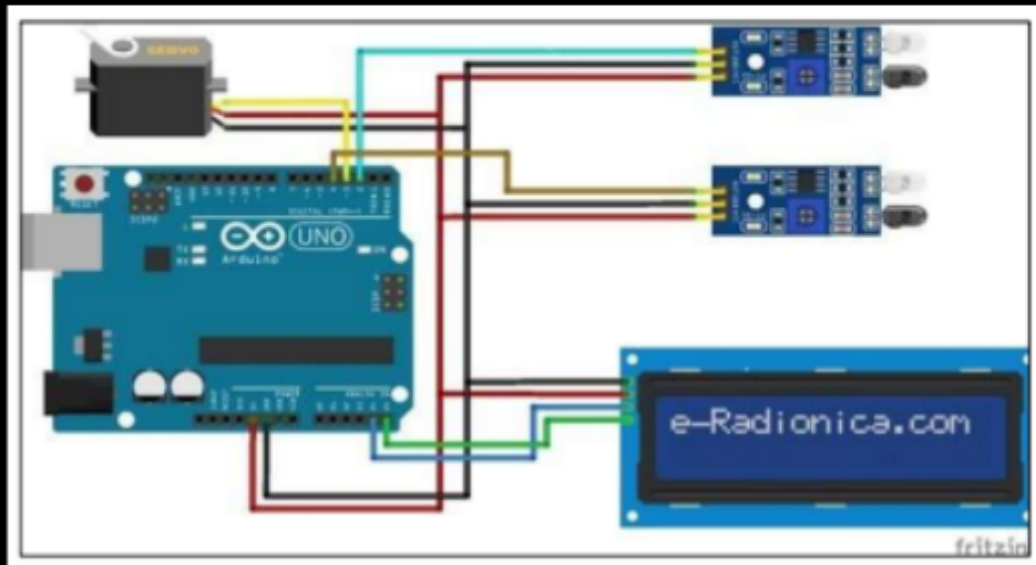
### 4.2 Block Diagram Description



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## Circuit Diagram





## ○ Simulation of automatic car parking system

