

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING****REPORT OF INDUSTRIAL VISIT OF YEAR 2021-22**

<b>Sr. No.</b>	<b>Guest Lect/ Seminar / Workshop/ FDP</b>	<b>Topic</b>	<b>Name and address of Resource person</b>	<b>Total Count</b>	<b>Target Audience/ Attendees</b>	<b>Date</b>	<b>Faculty Coordinator</b>
1	Industrial Visit	C4i4, Centre for Industry 4.0	Mr. Mukund Vaswani, Operations head C4i4, SPPU, Pune	18+2	TE students + E&Tc Faculty	13 <sup>th</sup> April, 2022	Dr. Harjeet Kaur Prof. Preeti Warrior
2	Industrial Visit	ISTPL, Kharadi, Pune	Mr. K K Mehkarkar Managing Director	58	TE ETC	19 <sup>th</sup> April, 2022	Dr. Avinash Patil  Mr. Sandeep Bidwai

**ARMY INSTITUTE OF TECHNOLOGY,DIGHI ,PUNE**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**VALUE ADDED COURSES By STUDENTS IN 2021-2022**

Sr No	Value added courses	Date of Introduction	Number of students enrolled
1	Entrepreneurship and IP strategy by NPTEL	JULY 2021	2
2	Developing soft skills and personality by NPTEL	AUGUST 2021	12
3	Enhancing Soft-skill and Personality By Coursera	NOVEMBER 2021	3
4	Design for 21st century with Don Norman,Visual Design: the ultimate guide, User Experience:the Beginner's Guide	FEBRUARY 2022	1
5	Personality development and soft skill learning BY UDEMY	DECEMBER 2021	1
6	Urbanization and environment	AUGUST 2021	2
7	The web developer bootcamp, React The complete guide, futures trading ninja	SEPTEMBER 2021	1
8	What is data Science, Databases and sql for data science with python	SEPTEMBER 2021 JUNE 2021	1
9	Machine learning using Python	JUNE 2021	1
10	using python for access to web data & Introduction to Html5	JUNE 2021	1
11	Machine learning by coursera	JUNE 2021	1
12	Algorithmic Toolbox For DSA	JULY 2021	1
13	The Complete 2022 Web Development Bootcamp.	NOVEMBER 2021	1
14	Python for everybody	JUNE 2021	3
15	Online Japanese Beginner course(all12 Lessons)	DECEMBER 2021	26
16	Enhancing Soft skills and Personality	FEB-APRIL 2022	47
17	React Native-The Practical Guide	MAY 2022	4
18	Speaking Effectively	JAN -MAR 2022	16
19	Environmental & Ecology Management	OCTOBER 2021	3
20	Complete German Course: Learn German for Beginners	DECEMBER 2021	52
21	English For Science, Technology,Engineering & Mathematics	JAN 2020	16
22	COMPLETE WEB DEVELOPMENT BOOTCAMP 2022	FEB 2022	10
23	Data Structures in C++: Coding Ninjas	SEP-DEC 2021	4
24	Mastering Data structures & algorithms using C & C++	APRIL 2022	3
25	Learn C++ Programming-Beginner to Advance.	APRIL 2022	3
26	Master the coding Interview:Data Structures & algorithms	JAN 2022	2
27	100 Days of code:The complete Python Pro Bootcamp for 2022	APRIL 2022	2
28	Data Analytics with Python,	JAN-APRIL 2022	4
29	Complete Python Developer in 2022:Zero to Mastery	JAN 2022	3
30	The Python Bible:Everything You need to Program in python	MAY 2022	1
31	Data Science Real world projects in python	APRIL 2022	2
32	Data Structures & Algorithms in Python	JUN-OCT 2021	1
33	Python for data science & machine learning bootcamp	FEB 2022	1
34	Human behaviour	FEB -APRIL 2022	3
35	Node.js API Masterclass with Express & MongoDB	APRIL 2022	4
36	Emotional Intelligence	JAN-MAR 2022	7
37	Electric Vehicles and Renewable energy	JUN-OCT 221	1
38	Competative Programming	JAN 2022	3

Sr No	Value added courses	Date of Introduction	Number of students enrolled
39	Internet of things & Machine Learning	FEB 2022	6
40	IoT Automation with ESP8266	MAY 2022	1
41	Introduction to IoT	JAN-APRIL 2022	1
42	Advanced concepts and algorithms: JAVA Script course	APRIL 2022	1
43	10 Mega responsive websites with HTML,CSS & JAVA Script	APRIL 2022	1
44	50 Projects in 50 days-HTML,CSS & JAVA Script	APRIL 2022	1
45	Python Django-The practical guide	APRIL 2022	1
46	20 Web projects with Vanilla JAVA Script,	APRIL 2022	1
47	Advanced CSS & Sass:Flexbox,Grid,Animation& more	APRIL 2022	1
48	C Programming -step by step-complete tutorial for beginners,	APRIL 2022	1
49	The Complete angular Course:Beginner to advance	MAY 2021	1
50	Spring Framework for Beginners with SpringBoot	MAR 2022	1
51	Front End full Stack Web Development:Coding Ninjas	DECEMBER 2021	1
52	Cloud computing	JAN-APRIL 2022	1
53	Blockchain & its Applications	JAN-APRIL 2022	1
54	Systems Ecology :Introduction	OCTOBER 2021	1
<b>TOTAL</b>			<b>270</b>

**Value Added Course Incharge**  
**Dr. Sushma Patil**

**Prepared By**  
**Mr. Pravin Sangle**

**Department of Electronics and Telecommunication Engineering**  
**Student Internships: 2021-22**

<b>Sr No</b>	<b>Nature of linkage</b>	<b>Title of the linkage</b>	<b>Name of the partnering institution/ industry/ research lab.</b>	<b>Duration</b>	<b>Participant</b>	<b>Class</b>
1	Industrial	Digital Marketing	Digital Persistent	5 Sept to 5 Nov 2021	Ayush Singh	SE
2	Industrial	Web Development Intern	Digital Persistent	1 Dec to 31 Jan 2022	Rajan Yadav	SE
3	Industrial	Web Development Intern	Fintech Blue Solutions	1 April to 30 April 2022	Amruta Patil	SE
4	Industrial	Intern	Apping Technology	27th April 2022	Ankit Kumar	SE
5	Industrial	Intern	Cuvette Tech Pvt Ltd	5 Mar to 5 May 2022	Divyangana Singh	SE
6	Industrial	Intern	Digital Persistent	1 Dec 2021 to 31 Mar 2022	Sandeep Kumar Mishra	SE
7	Industrial	Intern	Foxmula	4 Jan to 4 Mar 2022	Diksha Deswal	SE
8	Industrial	Intern	Digital Persistent	15 Mar to 13 May 2022	Vaibhav Tripathi	SE
9	Industrial	Intern	Solytics Parteners Pvt Ltd	2 Nov to 2 May 2022	Deepak Kumar	SE
10	Industrial	Web Developer Intern	Deep Info Lab, Pune	5 Sept to 5 Nov 2021	Satish Bhargava	SE
11	Industrial	Software intern	Google software step	13 June to 2 Sept 2022	Kamakshi Dixit	SE
12	Industrial	Intern - Research	Information Sharing and Analysis Center(ISAC)	6 Sept to 5 Dec 2021	Swapnendu Chakrabarti	SE
13	Industrial	IT Intern -React JS	Droid7 Technologies Pvt Ltd	24 Mar to 24 April 2022	Amita Singh	SE
14	Industrial	IT Intern -React JS	Droid7 Technologies Pvt Ltd	24 Feb to 23 Mar 2022	Arajeet Pandey	SE
15	Industrial	IT Intern -React JS	Droid7 Technologies Pvt Ltd	24 Mar to 24 April 2022	Kamakshi Dixit	SE
16	Industrial	Content Editing	Modulas Eureka	15 Feb to 15 April 2022	Kapil Kharita	SE
17	Industrial	IT Intern -React JS	Droid7 Technologies Pvt Ltd	15 Jan 22 to 1 April 2022	Minakshi Kumari	SE
18	Industrial	Markrting Specialist	LUDIFU(Let us do it for u)	1 Feb to 28 Feb 2022	Neha Choudhary	SE
19	Industrial	Markrting Specialist	LUDIFU(Let us do it for u)	1 Feb to 28 Feb 2022	Nikhita PaL	SE
20	Industrial	Intern	La Fondation Dassault Systemes	30 Dec21 to 28 Jan 2022	Nikhita PaL	SE
21	Industrial	Web Developer Intern	Girl Power Talk and Blue Ocean Global Technology	27 April to 1 Aug 2022	Prakash Dubey	SE

**Department of Electronics and Telecommunication Engineering**  
**Student Internships: 2021-22**

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22	Industrial	Intern	MyAlmate	2 Feb 2022 to 2 April 2022	Ritik Kumar	SE
23	Industrial	Intern	MyAlmate	15 Feb to 20 Mar 2022	Ronak Sharma	SE
24	Industrial	Intern	Automotive Research Association of India (ARAI)	10 Feb to 25 Mar 2022	Saloni Kumari	SE
25	Industrial	Intern	MyAlmate	4 Feb to 2 Mar 2022	Sridayal Yadav	SE
26	Industrial	Digital Marketing	Digital Persistent	1 Dec 21 to 31 Mar 2022	Vikas Puniya	SE
27	Industrial	IT Intern -React JS	Droid7 Technologies Pvt Ltd	24 Mar to 24 April 2022	Komal Mishra	SE
28	Industrial	Website Developer	Neo Docto	21 Feb to 21 April 2022	Ved Praksh Mani Shukla	TE
29	Industrial	Artificial Intelligence	Neo Docto	21 Feb to 21 April 2022	Vikas Yadav	TE
30	Industrial	SME in Computer Science	Chegg	28 Feb to 14 April 2022	Rajesh Kumar	TE
31	Industrial	Networking	I-Medita	4 April to 22 April 2022	Prasant Singh	TE
32	Industrial	Graphic Design Intern	Well Duhh	16 July to 15 Sept 2022	Mayank Kaushik	TE
33	Industrial	Web Developer Intern	Neo Docto	7 Feb to 7 April 2022	Harish	TE
34	Industrial	IoT	Verzes	1 Jan to 28 Feb 2022	Harish	TE
35	Industrial	Networking	I-Medita	4 April to 22 April 2022	Saurabh Game	TE
36	Industrial	Intern	Tata Sons Pvt Ltd	Oct 21 to Feb 2022	Saurabh Game	TE
37	Industrial	IoT	Verzes	1 Jan to 28 Feb 2022	Ritik Singh Bisht	TE
38	Industrial	IoT	Verzes	1 Jan to 28 Feb 2022	Aditya Tathagath	TE
39	Industrial	Data Analyst	Neo Docto	7 Feb to 7 April 2022	Adarsh Singh	TE
40	Industrial	Intern	AI-Cogito	5 Jan to 5 April 22	Banti Kumar	TE
41	Industrial	Networking	I-Medita	4 April to 22 April 2022	Nikhil Kumar	TE
42	Industrial	Graduate Rotational Internship	The Sparks Foundation	June 21 to July 2021	D Tushar	TE

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43	Industrial	Intern	Deep Info Lab, Pune	05 June 21 to 5 Aug 2021	Ravinder Singh	TE
44	Industrial	Intern	Pantech Learning Pvt Ltd, Chennai	23 Aug to 21 Sept 2021	Bharath S	TE
45	Industrial	Intern	Automotive Test Systems	25 Oct 21 to 25 Nov 2021	Bharath S	TE
46	Industrial	Intern	Solytics Partners	1 April to 30 Sept 2021	Ravinder Singh	TE
47	Institute	Summer Research Fellow	IISC, Bangalore	May 21 to July 2021	Reetesh Tomar	TE
48	Institute	Intern	Explorra Education Pvt Ltd	26 Aug to 29 Sept 2021	Shuvendu Maity	TE
49	Organisation	Graphics Designing Intern	New Barrackpore Navachetna Welfare Society	12 Aug to 18 Aug 2021	Shuvendu Maity	TE
50	Institute	Machine Learning using Python	IETE- MUMBAI IN ASSOCIATION WITH PANTECH E LEARNING	28 June to 15 July 2021	Ankit singh	TE
51	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Anubhav Banerjee	TE
52	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Adarsh Singh	TE
53	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Harish	TE
54	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Katyani Singh	TE
55	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Pankaj	TE
56	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Ritu	TE
57	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Saurabh Tewatia	TE
58	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Vikas Yadav	TE
59	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Ved Prakash Mani Shukla	TE
60	Industrial	Networking	I-Medita Learning Solutions Pvt Ltd	4 April to 22 April 2022	Vishal Sharma	TE

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61	Industrial	Web Developer Intern	Neo Docto	7 Feb to 7 April 2022	Varun Rawat	TE
62	Industrial	Associate Market Research Intern	Neo Docto	23 Mar to 23 May 2022	Aditya Tathagath	TE
63	Industrial	Associate Market Research Intern	Neo Docto	23 Mar to 23 May 2022	Ritik Singh Bisht	TE
64	Industrial	Artificial Intelligence	Neo Docto	21 Feb to 21 April 2022	Nikhil Kumar	TE
65	Industrial	Data Analyst	Neo Docto	7 Feb to 7 April 2022	Manish Kumar	TE
66	Industrial	Data Analyst	Neo Docto	7 Feb to 7 April 2022	Nitish Kumar	TE
67	Industrial	Data Analyst	Neo Docto	3 Mar to 5 May 2022	P Ali Altaf	TE
68	Industrial	Data Analyst	Neo Docto	7 Feb to 7 April 2022	Rohit Kumar Singh	TE
69	Industrial	Data Analyst	Neo Docto	7 Feb to 7 April 2022	Swathang Kumar Rai	TE
70	Industrial	Artificial Intelligence	Neo Docto	7 Feb to 7 April 2022	Vikram Singh	TE
71	Industrial	Computer Vision Intern	Copper Cloud IOtech Pvt L:td	1 Jan to 1 Mar 2022	Bharat S	TE
72	Industrial	Computer Vision Intern	Copper Cloud IOtech Pvt L:td	1 Jan to 1 Mar 2022	C Khusi	TE
73	Industrial	Business Technology Solutions Associate Intern	ZS Associates Pvt Ltd	4 Jan to 30 May 2022	Ashu Sharma	TE
74	Industrial	Intern	ARTYViS	24 Jan to 23 May 2022	Akash	TE
75	Industrial	Intern	College of Military Engineering, Pune	4 Oct to 30 April 2022	Aarya Jha	TE
76	Industrial	Intern	Pasand Mart	4 Mar to 4 May 2022	Pankaj Kumar	TE
77	Industrial	Intern	Ideadunes	11 July to 9 Oct 2022	Suresh Kumar	TE
78	Industrial	Intern	RS Deep Info Lab, Pune	15 Feb to 15 April 2022	Saurabh Game	TE
79	Industrial	Intern	RS Deep Info Lab, Pune	15 Feb to 15 April 2022	Prashant Singh	TE
80	Industrial	Intern	Medyug Technology Pvt Ltd	2 Feb to 2 April 2022	Abhishek Kumar Singh	TE
81	Industrial	Intern	Medyug Technology Pvt Ltd	2 Feb to 2 April 2022	Reetesh Tomar	TE

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82	Industrial	Intern	Upcurve Business Services Pvt Ltd	3 Jan to 4 Mar 2022	Ritik	TE
83	Industrial	Intern	Upcurve Business Services Pvt Ltd	3 Jan to 31 Mar 2022	Nishu Malik	TE
84	Industrial	Intern	Upcurve Business Services Pvt Ltd	3 Jan to 31 Mar 2022	Ritik Bhatt	TE
85	Industrial	Intern	Listnr Software Pvt Ltd	3 Jan to 28 Feb 2022	Ravinder Singh	TE
86	Industrial	Intern	XOOG Edlearn Pvt Ltd	14 Jan to 14 Mar 2022	Mayank Kaushik	TE
87	Industrial	Intern	Leap And Scale	10 Feb to 10 April 2022	Garima Devi	TE
88	Industrial	Intern	Leap And Scale	1 Feb to 1 April 2022	G Deepak Reddy	TE
89	Industrial	Intern	Leap And Scale	1 Feb to 1 April 2022	P Divya Bharati	TE
90	Industrial	Intern	pManifold EV Academy	21 Mar to 20 May 2022	Pankaj Kumar	TE
91	Industrial	Intern	Accops Systems Pvt Ltd	2 Feb to 4 April 2022	Ayush Tiwari	TE
92	Industrial	Intern	Accops Systems Pvt Ltd	2 Feb to 4 April 2022	Banti Kumar	TE
93	Industrial	Intern	Accops Systems Pvt Ltd	14 Feb to 13 April 2022	Dweep Mishra	TE
94	Industrial	Intern	Accops Systems Pvt Ltd	2 Feb to 4 April 2022	Shuvendu Maity	TE
95	Industrial	Intern	The Sparks Foundation	1 Feb to 31 Mar 2022	Rajesh Kumar	TE
96	Industrial	Intern	The Sparks Foundation	Feb 2022 to April 2022	Shubham Choubey	TE
97	Industrial	Software Development Intern	Digital Persistent	7 Feb to 24 April 2022	Somesh Singh	TE
98	Industrial	Intern	The Sparks Foundation	Feb 2022 to April 2022	Akash Sharma	TE
99	Industrial	Intern	The Sparks Foundation	1 Jan to 28 Feb 2022	D Tushar	TE
100	Industrial	Intern	Frappe Technologies Private Limited	1 July to 30 Sept, 2021	Akshay Tripathi	BE
101	Industrial	Software engineer Intern	Microsoft India (R&D) Pvt Ltd	21 June to 13 Aug 2021	Amit Joshi	BE
102	Industrial	Software engineer Intern	Microsoft India (R&D) Pvt Ltd	17 Jan to 26 Jun 22	Anjali Kushwah	BE



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103	Industrial	Software engineer Intern	Microsoft India (R&D) Pvt Ltd	21 June to 13 Aug 2021	Anjali Kushwah	BE
104	Industrial	Intern	DRDO, Pune	7 June to 7 Sept 2021	Sarini Khasnavis	BE
105	Industrial	Software Developer Intern	Plaza	10 May to 10 Aug 21	Shuvam Kumar	BE
106	Industrial	Intern	Groww-Billionbrains Garage Ventures Pvt Ltd	19 July 21 to 19 Jan 22	Shuvam Kumar	BE
107	Industrial	Full stack Developer-Intern	Solytics Partners	1 Mar to 15 Aug 21	Dweep Mishra	BE
108	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	15 Dec 21 to 15 Mar 22	Prijwal Singh Khushwaha	BE
109	Industrial	Intern	iNeuron Intelligence Pvt Ltd	8 May to 20 Aug 2021	Sandeep Kumar Panigrahi	BE
110	Industrial	Intern	iDEX Innovations for Defence Excellence	25 June to 8 Aug 2021	S Hussain Ali	BE
111	Industrial	Frontend Developer	Codewick	1 Jan to 1 Mar 22	Abhishek Jha	BE
112	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	10 Jan to 10 April 2022	Abhishek Joshi	BE
113	Industrial	Software Developer Intern	BYTESEQ, Pune	3 Jan to 3 Mar 22	Aditya Alok	BE
114	Industrial	Software Developer Intern	EvolvFit Pvt Ltd	10 Mar to 15 April 2022	Aditya Alok	BE
115	Industrial	Intern	Commvault Systems(India) Pvt Ltd	11 April to 31 May 22	Akshay Tripathi	BE
116	Industrial	Academic Intern	Persistent Systems	7 Feb to 15 Mar 22	Amit Kumar	BE
117	Industrial	Intern	Sahaj AI Software	24 Jan to 24 June 22	Amit Kumar	BE
118	Industrial	Intern	Coffer Internet Services Pvt Ltd	8 Jan to 8 July 2022	Amit Kumar Bhuyan	BE
119	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	15 Dec 21 to 15 Mar 22	Ankit Singh	BE
120	Industrial	Technical Intern	Fintech Blue Solutions Pvt Ltd	2 Feb to 30 July 22	Ankush Roy	BE

**Department of Electronics and Telecommunication Engineering**  
**Student Internships: 2021-22**

<b>Sr No</b>	<b>Nature of linkage</b>	<b>Title of the linkage</b>	<b>Name of the partnering institution/ industry/ research lab.</b>	<b>Duration</b>	<b>Participant</b>	<b>Class</b>
121	Industrial	Website Developer	GD Enterprise	10 Jan to 8 Feb 2022	Arnab Singh Roy	BE
122	Industrial	Intern	TATA 1mg Healthsare Solutions Pvt Ltd	1 Dec 21 to 28 Feb 2022	Ashish Kumar Garhwal	BE
123	Industrial	Web Developer	Vipaschit Technologies Pvt Ltd	4 Jan to 4 April 2022	Ayush Mani Tripathi	BE
124	Industrial	Intern	Spectranomy SK Pvt Ltd	Jan 22 to Mar 22	Deepak Bhadoria	BE
125	Industrial	Programmer Analyst Trainee	Cognizant	30 Jan to 5 Mar 22	Deepak Kumar	BE
126	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	15 Dec 21 to 15 Mar 22	Dipesh Singh	BE
127	Industrial	Intern	Sahaj AI Software	24 Jan to 24 Mar 22	Gaurav Mishra	BE
128	Industrial	Intern	Cognizant	17 Mar to 30 April 2022	Guduru Sai Kumar Reddy	BE
129	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	10 Jan to 10 April 2022	Harshvardhan	BE
130	Industrial	Intern	BNY Mellon Technology Pvt Ltd	19 Jan to 30 June 22	Himani Singh	BE
131	Industrial	Intern	TATA 1mg Healthsare Solutions Pvt Ltd	1 Dec 21 to 28 Feb 2022	Kedar Joshi	BE
132	Industrial	Intern	Solytics Parteners Pvt Ltd	3 Jan to 2 April 2022	Khushwant Sing	BE
133	Industrial	Business Development Intern	Brand Analog	15 Jan to 14 Feb 2022	Kumar Saurav	BE
134	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	15 Dec 21 to 15 Mar 22	Manali Devi	BE
135	Industrial	Business Operation Manager	Student.in	1 Mar to 30 Mar 22	Manoj Singh	BE
136	Industrial	Graphic Designer	Sapiens Foods and Suscin	27 Jan to 26 Mar 22	Mohica Bansal	BE
137	Industrial	Intern	JS Environics Consulnats Pvt Ltd	1 Jan to 31 Mar 22	Mukesh Saran	BE
138	Industrial	Software Developer Intern	Sahaj AI Software Pvt Ltd	24 Jan to 23 June 22	Prabhat Gurung	BE
139	Industrial	Intern	Upcurve Consumer Technologies Pvt Ltd	15 Dec to 15 Mar 22	Raj Shekhar Singh	BE

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140	Industrial	Intern	Spectranomy SK Pvt Ltd	Jan 22 to Mar 22	R Ashok Kumar	BE
141	Industrial	Intern	Solytics Parteners Pvt Ltd	3 Jan to 2 April 2022	Rudra Pratap Singh	BE
142	Industrial	Website Developer Intern	GD Enterprise	10 Jan to 8 Feb 2022	S S Deepika	BE
143	Industrial	Business Development Intern	Hirect	18 Jan to 17 Mar 22	Sahil Sharma	BE
144	Industrial	Intern	Solytics Parteners Pvt Ltd	3 Jan to 2 April 2022	Sandeep Kumar Panigrahi	BE
145	Industrial	Business Development Intern	Brand Analog	2 Jan to 1 Feb 2022	Saurav Singh	BE
146	Industrial	Software engineer Intern	Finzoomers Services Pvt Ltd	1 Jan to 31 May 22	Sunil Choudhary	BE
147	Industrial	Website Developer Intern	Pianalytix Edutech Pvt Ltd	10 Jan to 11 Feb 2022	Surabhi	BE
148	Industrial	Intern	BNY Mellon Technology Pvt Ltd	19 Jan to 30 June 22	Niharika Tapkir	BE
149	Industrial	Intern	Amazon Development Centre(India) Pvt Ltd	14 Feb to 30 May 22	Vijay Kumar	BE
150	Industrial	Intern	Solytics Parteners Pvt Ltd	1 Sept to 25 Feb 2022	Vijay Pandey	BE
151	Industrial	Intern	Solytics Parteners Pvt Ltd	1 Sept to 25 Feb 2022	Vishal Solanki	BE
152	Industrial	Intern	La Foundation Dassault Systems	Dec 21 to Mar 22	Vivek Singh	BE
153	Industrial	Intern	Solytics Parteners Pvt Ltd	3 Jan to 2 April 2022	Yaman Deep Singh	BE

Prepared by  
**Mrs. Deepali Apraj**

Faculty Incharge  
**Dr. Shraddha Oza**

HOD, E&TC  
**Dr. G R Patil**

**ELECTRONICS & TELECOMMUNICATION DEPARTMENT**

**STUDENT ACTIVITY**

**&**

**ACHIEVEMENTS**

**Academic Year 2021-22**

**LIST OF ENCLOSURES**

<b>Appendix</b>	<b>Student Activity</b>	<b>Total Number Of Students</b>
<b>Appendix A</b>	<b>Awards/Prizes in Inter Institutional Events</b>	<b>22</b>
<b>Appendix B</b>	<b>Sports - Inter Institutional</b>	<b>01</b>
<b>Appendix C</b>	<b>Project /Paper Presentation</b>	<b>10</b>

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

Academic Year 2021-22

**SPECIAL ACHIEVEMENTS**

<b>Sr.No</b>	<b>Name of the Student</b>	<b>Class</b>	<b>Name / Subject of the Event</b>	<b>Award / Prize</b>	<b>Organized BY</b>
1.	Ajay Paidy	SE	IDEATHON 2021	Finalist	A.G. Patil Institute of Technology

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

Academic Year 2021-22

**Appendix A: Awards/Prizes In Inter Institutional Events**

<b>Sr. No</b>	<b>Name of the Student</b>	<b>Class</b>	<b>Name / Subject of the Event</b>	<b>Award / Prize</b>	<b>Organized BY</b>
1.	Ajay Paidy	SE	IDEATHON 2021	Finalist	A.G. Patil Institute of Technology
2.	Ajay Paidy	SE	TCS Sustainathon Pune 2021- Student Edition	Participated	TCS, Pune
3.	Sanika Patne	SE	Mahatma Gandhi Quiz Competition	Participated	Government of India
4.	Sanika Patne	SE	National Level Online quiz competition	Participated	Army Institute Of Management
5.	Sanika Patne	SE	Online Quiz on English Literature	Participated	School of Humanities Tamilnadu Open University
6.	Sanika Patne	SE	“Quiz on Industrial Robotics - Support Systems	Participated	Lakireddy Bali Reddy College of Engineering- Andra Pradesh
7.	Sanika Patne	SE	Quiz on Basics of Electronics	Participated	Sahrdaya College of Engg and Technology
8.	Sanika Patne	SE	National Level Online General Knowledge and Awareness quiz	Participated	Vidyankur Education
9.	Sanika Patne	SE	The National Level Quiz On National Youth Day	Participated	Vivek Veer
10.	Sanika Patne	SE	Electronics e-Quiz	Participated	Proudhadevaraya Institute of Technology
11.	Sanika Patne	SE	National Level E - Quiz on Principles of Management	Participated	Matrix School of Management Studies
12.	Sanika Patne	SE	Quiz on Robotics and Automation	Participated	Itronix Solutions
13.	Sanika Patne	SE	Quiz Reasoning Questions Set 1	Participated	CITC-The Hub of IT
14.	Sanika Patne	SE	Urja Saksharta Abhiyan	Participated	Government of Madhya Pradesh

15.	Sanika Patne	SE	Online QUIZOPHILE 2022	Participated	EGS Pillay Group of Institutions- Nagapattinam
16.	Sanika Patne	SE	Quiz on Computer Networking and Open Source	Participated	Regional College For Education Research and Technology, Jaipur
17.	Sanika Patne	SE	E – Quiz on Mathematics and Its Applications	Participated	Lords Institute of Engg And Technology, Hyderabad
18.	Sanika Patne	SE	Online Quiz on Cyber Bullying	Participated	Ministry of Electronics Information And Technology
19.	Saloni Kumari	SE	SAE India Nothern Section EFFI Cycle 21	Participated	SAE India
20.	Prabhash Kumar	SE	Tri-NIT Hackathon	Participated	National Institute of Technology Karnataka (NITK), Surathkal
21.	C Khushi	TE	IETE Intercollegiate Project Competition	Participated	IETE, Pune
22.	Amit Kumar	BE	Yputh Exchange Program	Participated	NCC

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

Academic Year 2021-22

**Appendix B: Sports - Inter Institutional**

<b>Sr. No</b>	<b>Name of the Student</b>	<b>Class</b>	<b>Name / Subject of the Event</b>	<b>Award / Prize</b>	<b>Organized BY</b>
1.	Aayush Ranjan	SE	E –Sports Valorant	Runner up	MITWPU

**DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION**

Academic Year 2021-22

**Appendix C: Projects/ Paper Presentation**

<b>Sr.No</b>	<b>Name Of The Student</b>	<b>Class</b>	<b>Name Of The Event</b>	<b>Subject</b>	<b>Organized By</b>
1.	Swapnendu Chakrabarti	SE,E&TC	Paper Presented in International Conference For Advancement In Technology (Iconat)-Ieee Bombay Section Dt 21-22 Jan 2022	Development Of Electric Vehicle- Photovoltaic Integration Model For Zero Running Cost Transportation	Rajaramabapu Institute Of Technology- Ieee
2.	Swapnendu Chakrabarti	SE,E&TC	Paper Presented in International Conference On Industrial Electronics Research And Applications (Iciera-2021)-Ieee-Delhi Section Dt- 22-24 Dec 2021	Development Of Electric Vehicle- Photovoltaic Integration Model For Zero Running Cost Transportation	Department Of E&Tc Engineering At Maharaja Agrasen Institute Of Technology, New Delhi
3.	C Khusi	TE,E&TC	Paper Published in Global Conference For Advancement In Technology (Gcat)-Ieee Dt-1-3 Oct 2021	Iot Based Smart Traffic System Using Mqtt Protocol: Nodered Framework	Nagarjuna College Of Engineering And Technology
4.	Bharat S	TE,E&TC	Paper Published in Global Conference For Advancement In Technology (Gcat)-Ieee Dt-1-3 Oct 2021	Iot Based Smart Traffic System Using Mqtt Protocol: Nodered Framework	Nagarjuna College Of Engineering And Technology
5.	C Khusi	TE,E&TC	Paper Published in International Conference On Artificial Intelligence And Machine Vision (Aimv 2021) Dt 24-26 Sept 2021	Iot Based Sorting Machine Using Mqtt Protocol And Mysql	Pandit Devdayal Energy University
6.	Bharat S	TE,E&TC	Paper Published in International Conference On Artificial Intelligence And Machine Vision (Aimv 2021) Dt 24-26 Sept 2021	Iot Based Sorting Machine Using Mqtt Protocol And Mysql	Pandit Devdayal Energy University
7.	Ritu R	TE,E&TC	Paper Published in International Conference On	Iot Based Sorting Machine Using	Pandit Devdayal



			Artificial Intelligence And Machine Vision (Aimv 2021) Dt 24-26 Sept 2021	Mqtt Protocol And Mysql	Energy University
8.	Shuvendu Maity	TE,E&TC	Paper Published in International Conference On Artificial Intelligence And Machine Vision (Aimv 2021) Dt 24-26 Sept 2021	Iot Based Sorting Machine Using Mqtt Protocol And Mysql	Pandit Devdayal Energy University
9.	M Manoj Kumar	TE,E&TC	Paper Published in International Conference On Artificial Intelligence And Machine Vision (Aimv 2021) Dt 24-26 Sept 2021	Iot Based Sorting Machine Using Mqtt Protocol And Mysql	Pandit Devdayal Energy University
10.	Bharat S	TE,E&TC	Paper Published in International Conference For Advancement On Advances In Computing, Communication, Embedded And Secure Systems(Access) Dt-2-4 Sept 2021	Iot Based Smart Traffic System Using Mqtt Protocol: Nodered Framework	Adi Shankar Institute Of Engineering And Technology, Kerala

**Prepared By  
Ms. Deepali Apraj**

**Staff I/C  
Ms. Pragati Rana**

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**REPORT OF GUEST LECTURES/ SEMINARS/ WORKSHOPS OF YEAR 2021-22**

Sr. No.	Guest Lect/ Seminar / Workshop/ FDP	Topic	Name and address of Resource person	Total Count	Target Audience/ Attendees	Date	Faculty Coordinator
1	FDP	FDP on Revised Syllabus 2019 Course TE E&TC	1.Dr. Suvarna S. Chorage Professor, BVCoE,Pune 2.Dr. Mrs. P. Malathi Professor, DYPCoE, Pune 3.Dr. Madhavi Belsare Asst. Professor PVGCOET, Pune 4.Dr. Renuka Bhandari Associate Professor, AIT Pune 5.Prof. Rajeshri R. Itkarkar Assistant Professor, AISSMS CoE, Pune 6.Dr G R Patil Professor, AIT Pune , 99 ,	99	Faculty and staff	22 <sup>nd</sup> –24 <sup>th</sup> July 2021	Dr G R Patil Dr. Renuka Bhandari
2	AAC Meeting	Industry-Institute Interaction Initiatives · Placement & Higher Studies · Discussion on Revised TE Curriculum with reference to Introduction of Internship and Honours Degree · Online Teaching Learning · Dissemination of Vision, Mission and PEOs · Any other point with Permission of Chair	a) Prof. Dr. Y. Ravinder, Professor & Head, PICT, Pune.  b) Mr. Abhijit Deogirakar – Founder & CEO, Copper Cloud IOT Technologies, Pune  c) Baikunthanath Dwibedi - Sr. Engg. Eaton Technologies Pvt. Ltd	19	Faculty & Students	14 <sup>th</sup> August 2021	Mrs. Snehal Marathe,  Dr. Rajashree Suryawanshi,  Mrs. Dhanshree Patil
3	Guest Lecture	Introduction Of IOT	Mr. Abhijeet Deogirkar Founder and CEO , Copper Cloud IOT Tech Pvt. Ltd, Pune	46	TE E&Tc Students	3 <sup>rd</sup> Sept. 2021	Prof. Dr. G R Patil Prof Shilpa Pawar
4	Guest Lecture	Saptarshi 7 Emerging Technologies Shaping the World	Mr. Abhijeet Deogirkar Founder and CEO , Copper Cloud IOT Tech Pvt. Ltd, Pune	60	TE E&Tc Students	21 <sup>st</sup> Sept. 2021	Dr. Shradha Oza Dr. Harjeet Kaur

<b>Sr. No.</b>	<b>Guest Lect/ Seminar / Workshop/ FDP</b>	<b>Topic</b>	<b>Name and address of Resource person</b>	<b>Total Count</b>	<b>Target Audience/ Attendees</b>	<b>Date</b>	<b>Faculty Coordinator</b>
5	Workshop under IETE student Forum	Online workshop on Matlab and Simulink	Mr. Suraj gawande, Sr. Engineer  Mr. Milind Khanderao Application Engineer  Design Tech Systems Pvt. Ltd. Pune	110	E&Tc students and Faculty, staff	27 <sup>th</sup> to 29 <sup>th</sup> Sept. 2021	Prof. Dr. G R Patil Dr Mrs Renuka Bhandari  Mrs Pragati rana  Dr Mrs Rajashree Suryawanshi  Mrs Shilpa Pawar  Mrs Rajashree C
6	Session under IETE student Forum	Placement Success Stories by Final Year Students	E&Tc Final Year students	110	SE & TE Students	9 <sup>th</sup> Oct 2021	Dr. Shradha Oza Mrs Pragati Rana
7	Guest Lecture	Career Opportunities in Networking	Mr. Vijender Yadav CEO, CO founder Accops Systems	12	TE E&TC CN elective students	16 <sup>th</sup> Nov. 2021	Dr. Shradha Oza Dr. Harjeet Kaur
8	Training	Demo and Training of IOT kits under MODROB	Sensenuts	7 faculty + 3 student	ETC dept	29 <sup>th</sup> Oct 2021 and 1 <sup>st</sup> Dec 2021	Prof. Dr. G R Patil  Dr Mrs Renuka Bhandari  Mrs Snehal Marathe  Ms Shilpa Pawar  Mrs Preeti Warriar  Mr Ashok Katole  Ms. Vidya Jadav
9	Guest Lecture	"Springboard for the ways of Industry"	Mr Prashant Joshi, Founder, Director, Leap & Scale, Pune	61	TE E&Tc students	21 <sup>st</sup> Jan 2022	Dr Shraddha Oza

<b>Sr. No.</b>	<b>Guest Lect/ Seminar / Workshop/ FDP</b>	<b>Topic</b>	<b>Name and address of Resource person</b>	<b>Total Count</b>	<b>Target Audience/ Attendees</b>	<b>Date</b>	<b>Faculty Coordinator</b>
10	AAC Meeting	<ul style="list-style-type: none"> <li>· Academic Performance</li> <li>· Industry-Institute Interaction Initiatives</li> <li>· Placement &amp; Higher Studies</li> <li>· Discussion on NBA and NAAC</li> <li>· Revised BE Curriculum</li> <li>· Online Teaching Learning</li> <li>· Any other point with Permission of Chair</li> </ul>	<p>a) Prof. Dr. Y. Ravinder, Professor &amp; Head, PICT, Pune.</p> <p>b) Mr. Abhijit Deogirikar – Founder &amp; CEO, Copper Cloud IOT Technologies, Pune</p> <p>c) Baikunthanath Dwibedi - Sr. Engg. Eaton Technologies Pvt. Ltd</p>	17	Faculty and students	22 <sup>nd</sup> Jan 2022	<p>Dr. Rajashree Suryawanshi</p> <p>Ms. Snehal Marathe</p> <p>Ms. Dhanashri Patil</p>
11	MATLAB Re-onboarding session	MATLAB Re-onboarding session	Math works	94	AIT College	8 <sup>th</sup> Feb. 2022	<p>Dr Mrs Renuka Bhandari</p> <p>Dr Mrs Rajashree Suryawanshi</p> <p>Ms Vidya Jadhav</p>
12	Expert Session	"What is inside an IC"	Dr Anuraag Mohan, Vice President - Engineering, Crocus Technology, US	100	SE TE & BE students + ETC Faculty	8 <sup>th</sup> April. 2022	<p>Prof. Dr. G R Patil</p> <p>Dr. P B Karandikar</p> <p>Dr. Shradha Oza</p> <p>Dr. Harjeet Kaur</p>
13	Guest Lecture	Carrier counselling	Mr.Gunjan Chowdhary, Senior Faculty, Made Easy academy	116	SE & TE	13 <sup>th</sup> April 2022	Prof. Dhanshree Patil

**AY 2021-22**

**Innovative Teaching Techniques**

- Dr Shraddha Oza, Associate professor, E&Tc Dept

**Subjects Taught:**

- Java Programming
- Computer Networks

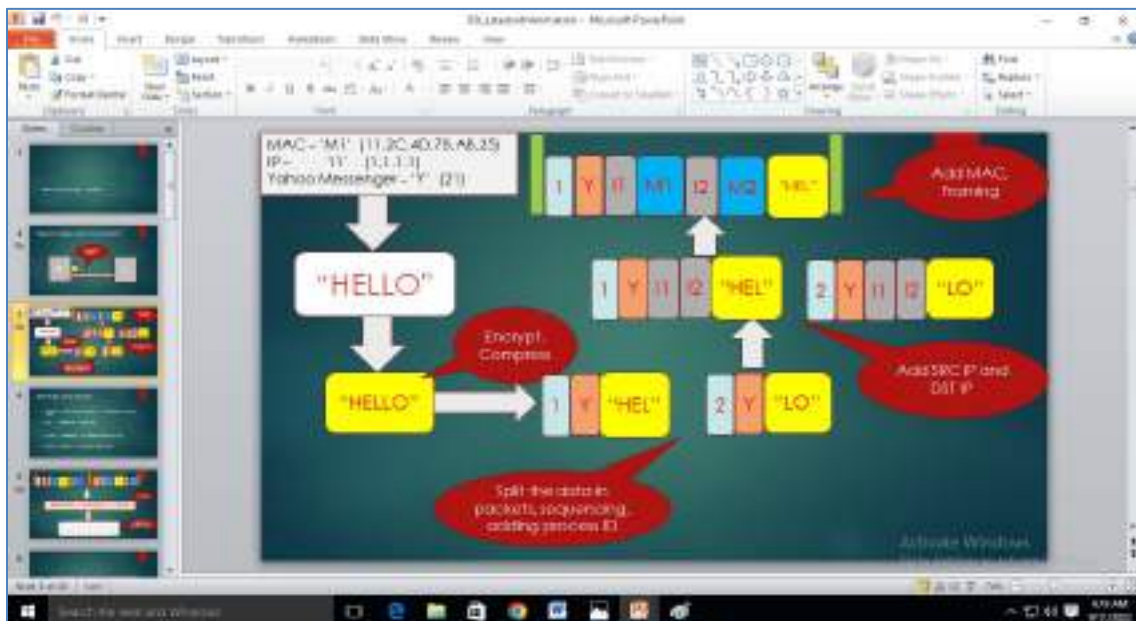
**Participative Techniques Used:**

- a. Animation to bring more visualization and clarity for concepts
- b. Role Play
- c. Gaming
- d. Collaborative Learning – Group Activity, Whatsup
- e. Learning with peers, seniors
- f. Flip Class
- g. Assignments in multimedia format

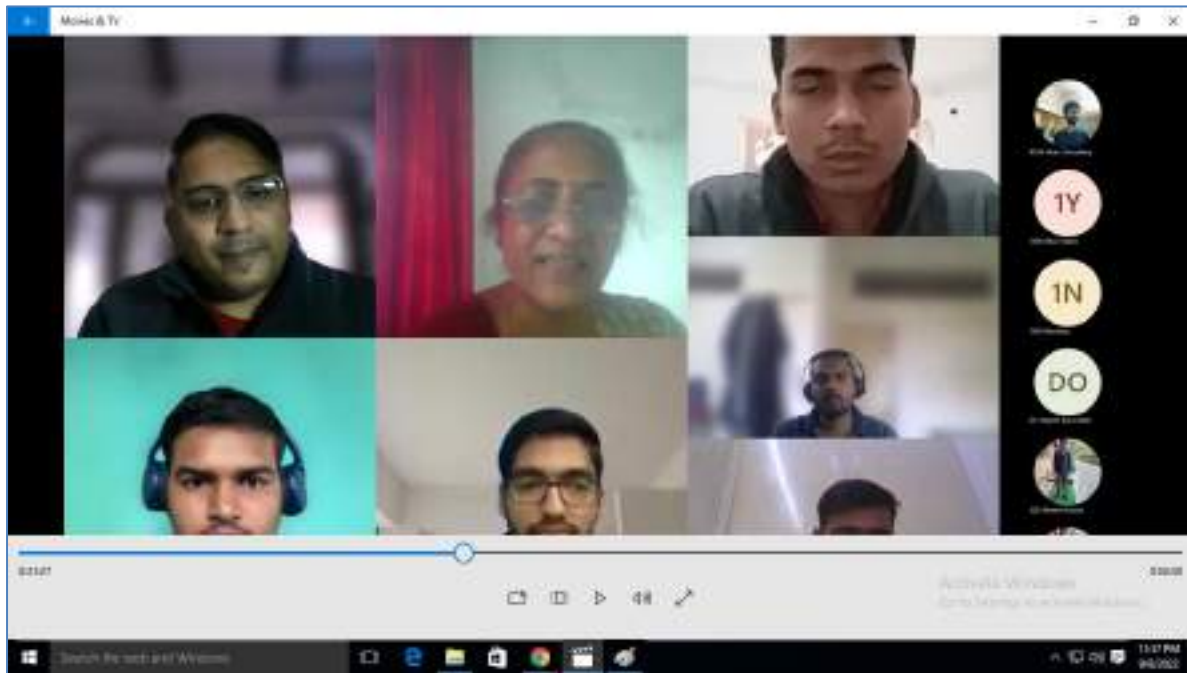
**2021-22**

**I. Computer networks**

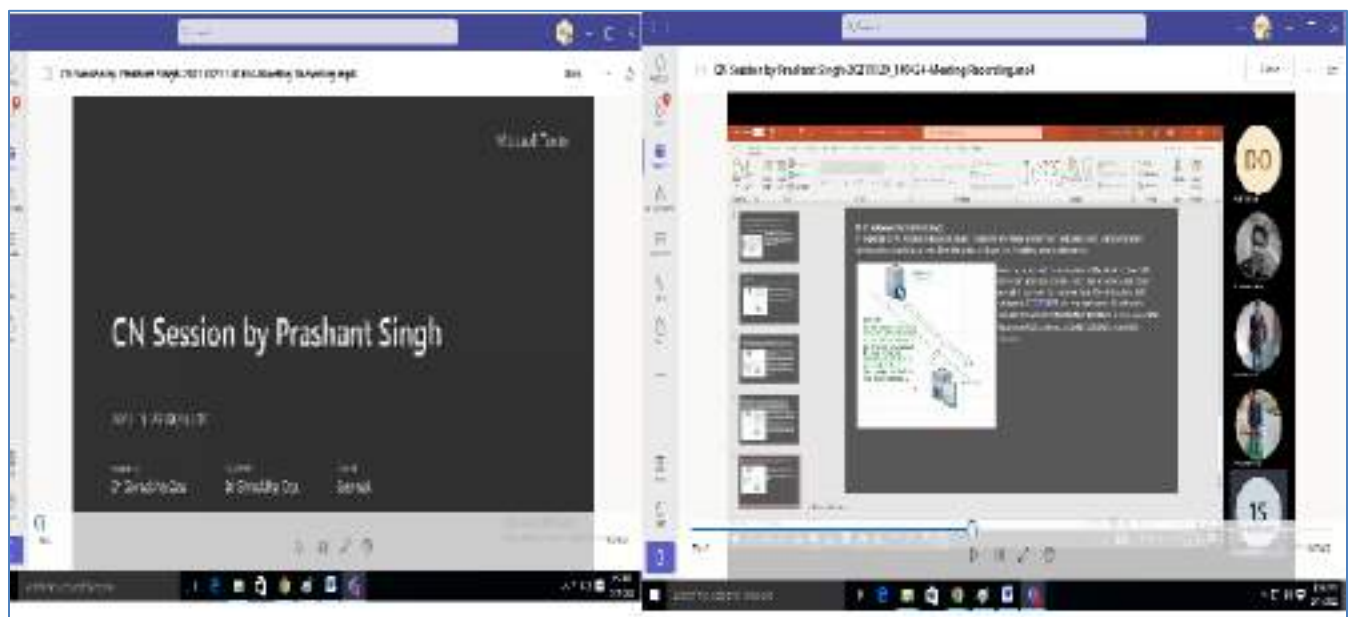
- a. Animation for TCP/IP stack – done by S D Oza (Self)



- b. Expert Session(Content beyond Syllabus) – “Career Options in networking by Vijender yadav, Founder & CEO, Accops (16<sup>th</sup> Nov 2021)

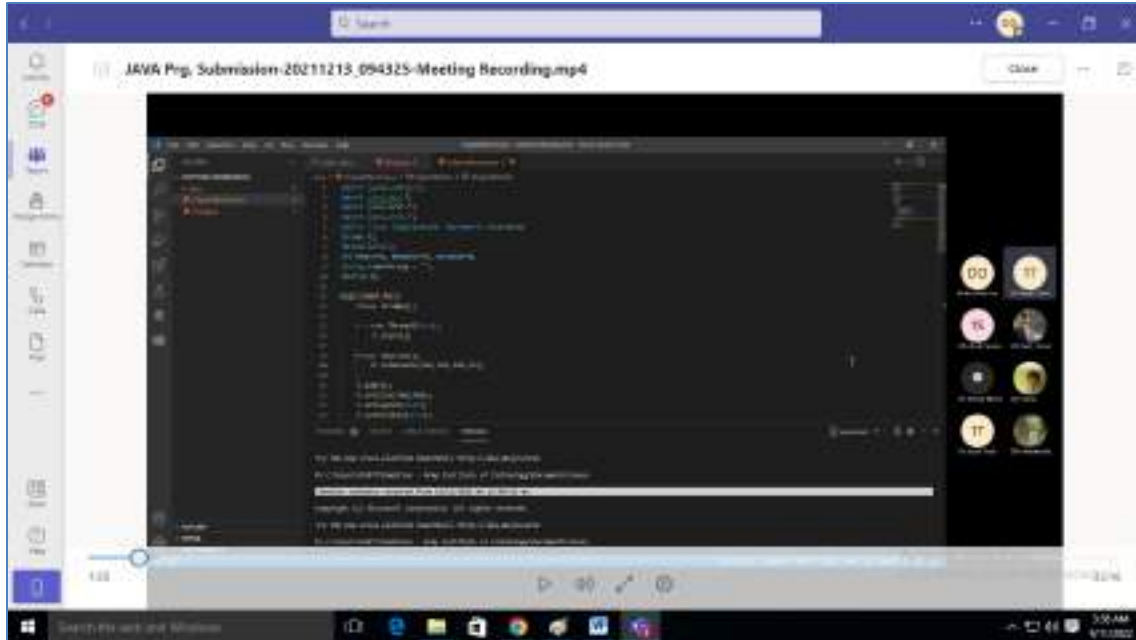


- c. Hands On, Industry Exposure, Project – 15 days Workshop – Imedita for TE E&Tc Students (14 Feb 2022 to 5<sup>th</sup> March 2022)
- d. Flip Class – Content beyond Syllabus -Conducted by Prasant Singh TE E&tc (29<sup>th</sup> Nov 2021)



## II. Fundamentals of Java programming

- a. Project Based collaborative learning – Group Activity  
“Digital Watch” – Application Developed and presented by TEE&Tc student group led by Banti kumar. Five such projects were executed in groups.



**An Internship Report on  
IoT/Industry 4.0 Solutions for manufacturing sector**

**Submitted By  
Bharath S 1314**

An Internship report submitted as a partial fulfillment towards term  
II of

***T.E. (Electronics & Telecommunication)***

Savitribai Phule Pune University, Pune.



Department of E&TC Engineering  
Army Institute of Technology, Dighi, Pune-411 015  
**2021-22**



# **C E R T I F I C A T E**

*This is to certify that*

***Bharath S 1314***

*of Army Institute of Technology, Dighi, Pune*

*has submitted Internship report on*

***“IoT/Industry 4.0 Solutions for manufacturing sector”***

*as a partial fulfillment of Term –II for award of Third year of  
Bachelor of E&TC, from Savitribai Phule Pune University,  
Pune, during the Academic Year 2021-22.*

Dr S. D. Oza  
**Faculty Coordinator**

Dr. G. R. Patil  
**H.O.D.**

## Table of Content

Sr. No.	Content	Page No
1	Internship Profile	4
2	Company Profile	5
3	Problem Statement / Work Given	6
4	Methodology Used	6
5	Technology Used	7
6	Solution provided with algorithm	7
7	Results	7
8	Skills Learnt	8
9	Acknowledgement	9
10	References	10

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**##If Internship was a workshop or training undergone then**

1. Internship Profile
2. Company Profile
3. Title of workshop
4. Syllabus
5. Project
6. Solution
7. Results
8. Skills Learnt
9. Acknowledgement
10. References used

## **1. Internship Profile**

- a) Name of the company providing Internship – COPPER CLOUD IoTECH PVT LTD**
- b) Name of job Title – IOT/Industry automation and Training**
- c) Domain of work – Computer Vision Intern**
- d) Name of Supervisor – Abhijeet Deogirikar**
- e) Designation of Supervisor – Director**
- f) Duration – 2 months**
- g) Start date – 01/01/2022**
- h) End date – 01/03/2022**

## **2. Company Profile**

- a) Year of establishment** – **2018**
- b) Domain** – **Industry 4.0**
- c) About their product services** – **Automation and consultation**
- d) Vision / mission** – **objective of assisting MSMEs transition to Industry 4.0, through customized Industrial IoT solutions.**
- e) Management team** – **Abhijeet Deogirikar (Director)**
- f) Clients** – **MSME and Automation industry**
- g) Any Other Highlight** – **Providing students training programs**

### 3. Problem Statement / Work Given

- \* Implement face recognition based attendance system at company office
- \* CV-based dimension measurement for quality purposes
- \* CV-based productivity measurement for spring-grinding disc

### 4. Methodology Used

- Implement face recognition-based attendance system at company office
  - Found the list of features needed which are:
    - Need one photo in process of registration
    - “Walk-past” technology
    - Automatic marking of attendance
  - Created two devices one for face registration device and face recognition device using raspberry pi.
  - Found the face encoding using face\_recognition library of OpenCV.

- CV- based dimension measurement for quality purposes

Research on technology used today.

- Identify the features of the final product
    - The measurement to be independent of the distance between camera and object.
    - Camera should have angle tolerance of +/- 15 deg
  - Listing down the challenges on field.
  - Used Opencv and aruco markers.
- CV- based productivity measurement for spring-grinding disc
    - Identified the problem and technology that can be used to solve it.
    - Aim was to find: RPM of the disc and holes.

- A yellow color strip was attached to the wooden disc to find RPM and holes count.
- RPM was found using no of rotations/time
- Holes detection using blob detection algorithm.

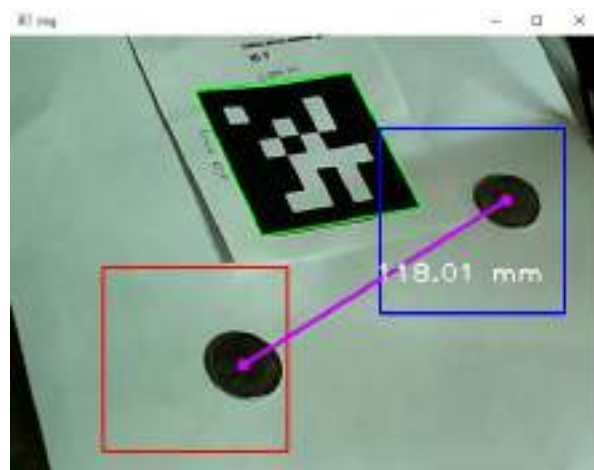
## 5. Technology Used

- ✓ Computer Vision
- ✓ Internet of Things
- ✓ Database management system
- ✓ MySQL
- ✓ Grafana
- ✓ MQTT communication protocol

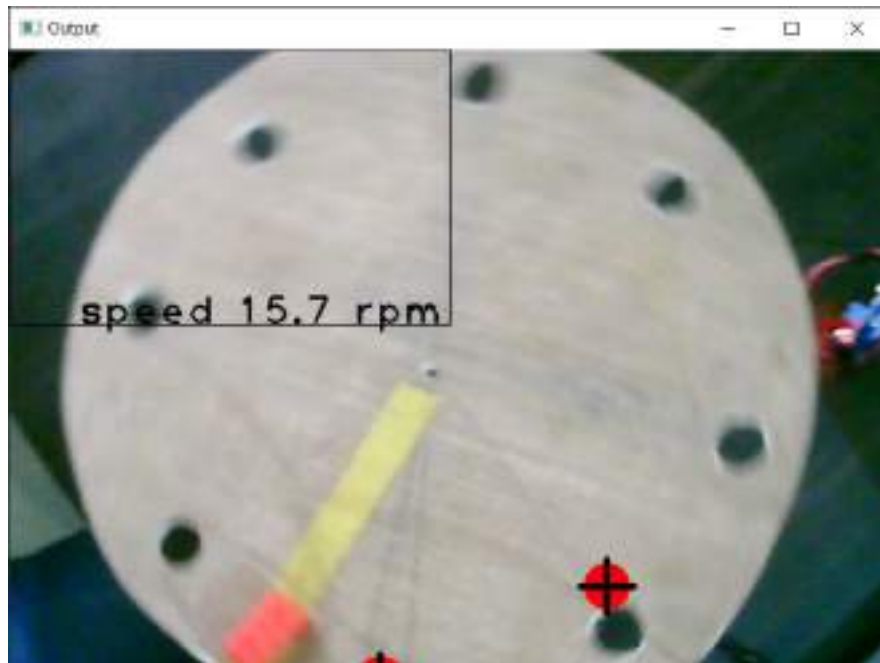
## 6. Solution provided with algorithm

## 7. Results

1. Successfully recognizes people walking by the door with accuracy of 97 % and attendance is updated. The registration process has been made simple and registers new faces successfully.
2. Distance finding between two objects in the ROIs (Region of Interest) with an accuracy of +/- 2mm.



3. Found the RPM (rotation per minute) of the disc and the number of holes



## 8. Skills Learnt

- Technical:
  - Concepts & architecture of IoT solutions
  - Designing and building IoT Systems using Embedded and Cloud platforms
  - Using Industry tools such as MQTT (Communication), Node Red (Orchestration), Grafana (Visualization), AWS Cloud Services and others to integrate IoT Solutions with the Cloud
- Soft Skills: – problem solving skills, time management, project management, communication skills

## 9. Acknowledgement

I would sincerely like to express my special thanks to gratitude to **Coppercloud IoTECH Pvt. Ltd., Mr. Abhijeet Deogirikar** for facilitating me with such wonderful exposure and giving me an authentic industry experience during my internship period in completing my project.

I would also like to extend my gratitude to the **Electronics and Telecommunication** department, HOD **Dr. Gajanan R Patil** and my internal guide and faculty in-charge **Dr. Shraddha Oza**.

Thank you

Bharath S,

TE E&TC

1314



## 10. References

- [1] [www.coppercloud.in](http://www.coppercloud.in)
- [2] <https://www.linkedin.com/in/abhijeet-deogirikar-ab5732a/>
- [3] <https://www.linkedin.com/company/coppercloud-iot/>

*Date: 1 April 2022*

**TO WHOMSOEVER IT MAY CONCERN**

**C E R T I F I C A T E**

This is to certify that **Bharath S, TE (E&TC)** at the **Army Institute of Technology Pune** has undergone Internship at CopperCloud IOTech Pvt Ltd, Pune for the duration **01 Jan 2022 to 01 Mar 2022**.

CopperCloud is a company specializing in Internet of Things (IoT) space, with primary focus in customized Industry4.0 solutions for the Industrial sector, catering to MSMEs.

During this internship, Bharath was assigned the role of **Computer Vision Intern**, working on **IoT/Industry4.0 Solutions for manufacturing sector**. His work involved R&D, Proofs of Concept, and applying Computer Vision algorithms and solutions for a variety of automation use cases.

**The following have been the major projects that Bharath has worked on:**

- a. Designing and piloting a face-recognition based attendance system at CopperCloud office
- b. Computer-vision based coordinate measurement system, to measure dimensions of a product (for quality checks)
- c. Computer-vision based productivity monitoring tool for Spring-grinding disc system

**As part of this internship, Bharath has received training on the following skills:**

- a. Concepts & architecture of IoT solutions
- b. Designing and building IoT Systems using Embedded and Cloud platforms
- c. Using Industry tools such as MQTT (Communication), Node Red (Orchestration), Grafana (Visualization), AWS Cloud Services and others to integrate IoT Solutions with the Cloud

Bharath has taken a keen interest in all aspects of the Company's functioning. He is sincere, hardworking and quick to learn, and has rapidly developed skills in Computer Vision, IoT & enabling technologies. He has demonstrated high professional ethics during his association with CopperCloud.

CopperCloud wishes Bharath the best for a successful career ahead.

Best wishes,



**Abhijeet Deogirikar**

*Founder & CEO, CopperCloud IOTech Pvt Ltd*



**Memorandum of Understanding**

**Between**

**Army Institute of Technology (AIT), Pune**

**And**

**CopperCloud IOtech Pvt Ltd**

This is a Memorandum of Understanding between **Army Institute of Technology (AIT)** represented by **Brig. Abhay A Bhat (Retd.)**, Director AIT Pune hereinafter referred to as **AIT - the 'Party No 1'**

and

**CopperCloud IOtech Pvt Ltd**, incorporated under the Company's Act 2013 (CIN U74999PN2018PTC178960) represented by **Brig. Vilas Deogirikar**, Director hereinafter referred to as **CopperCloud - the 'Party No 2'**.

*This is an "In-Principle, Broad - Based MOU" between the two parties in the nature of "Expression of Intent". This document, by itself, has no financial implications. Separate MOUs for specific services shall be drawn up on need basis, with mutual consent.*

Whereas the Party No 1 runs an Engineering Institute at Pune, has a range of activities in the Internet of Things (IoT) space in its academic curriculum and the Party No 2, has a business in Internet of Things (IoT) space, and the Company also has a Training Vertical involved in imparting IoT training to faculty and students in academic domain.

Whereas both the parties after discussion have decided to enter into a Memorandum of Understanding as per details in succeeding paragraphs.

Whereas the Institute (Party No 1) wishes to engage the services of CopperCloud IOtech Pvt Ltd (Party No 2) as the professional consultants on all matters concerning **Internet of Things (IoT)** dealt with by the Institute in the course of their academic curriculum.

Whereas CopperCloud (Party No 2) has shown interest in associating with the Institute and is willing to collaborate with the Institute (Party No 1) as their Industry Partner (IP) in the specialized field of **Internet of Things (IoT)**.



# Army Institute Of Technology (AIT) Ujala Camp, Pune - 411015

Director : 7249250115, Joint Director : 7249250117, Principal : 7249250186

Exch : 7249250183, 7249250184, 7249250185

Website : aitpune.com Email : aitpune.edu.in

Recognised by AICTE and DTE Maharashtra and affiliated to Savitribai Phule Pune University

Whereas the two parties have identified some of the areas for collaboration in the IoT space which are listed as under:

1. Conduct Seminars / Webinars on IoT and other related emerging technologies
2. Conduct regular IoT workshops for students of Electronics and non-Electronic streams
3. Conduct Faculty Development Program (FDP) in IoT and Enabling Technologies
4. Conduct Guest Lectures in IoT and related subjects as Industry Expert.
5. Assist in setting up an IoT Lab & Center of Excellence in IoT.
6. Provide internships to students to be selected based on their performance in IoT Workshops conducted by CopperCloud IoTech.
7. Mentor students in their projects in IoT subjects, both during CopperCloud teams' visits to the Institute as well as online (remote guidance)
8. Undertake joint consultancy and R&D Projects in IoT and allied areas.

This is an "In-Principle, Broad - Based MOU" between the two parties *in the nature of 'Expression of Intent'* Separate MOUs for specific services shall be drawn up on need basis for collaboration for any or all the above services (under the scope stated vide paras 8 to 11)

This MOU will initially be in force for a period of 3 years from the date of signatures, from 1 April 2021 to 31 March 2024 It can be renewed thereafter on a yearly basis by mutual consent.

Signed this .....23. day of Apr 2021.

For PARTY No 1

Signed .....

Name Brig. Abhay A. Bhat (Retd)

Designation /Title Director, AIT Pune

Date 23 Apr 2021.....

For PARTY No 2

Signed .....

Name Brig. Vilas Desai (Retd)

Designation /Title Director, AIT Pune

Date 23 Apr 2021.....



**Army Institute of Technology**  
**Department of Computer Engineering**  
**Record of Student Internships (2021-2022)**

Sr. No.	Name of Student	Class	Name of Industry/Organization	Date	Duration
<b>Sem I</b>					
1.	Roshan Pious	SE Comp	RS Deep Info Lab Pvt. Ltd, Delhi	25/08/21-31/10/21	2 months
2.	K. Pradeep	TE Comp	Solytics Partners Pvt. Ltd., Chennai	05/06/21-04/11/21	6 months
3.	Anupam Kumar	TE Comp	Microsoft India (R&D) Pvt. Ltd, Bengaluru	02//05/21-24/06/21	2 months
4.	Subham Rana	TE Comp	Microsoft India (R&D) Pvt. Ltd, Bengaluru	02//05/21-24/06/21	2 months
5.	Anuranjan Kumar Pandey	TE Comp	AI-Cogito Corporation	17/11/21-17/04/22	6 months
6.	Aman Thakur	TE Comp	RS Deep Info Lab Pvt. Ltd, Delhi	25/08/21-31/10/21	3 months
7.	Anurag Chaudhary	TE Comp	Bizotics Tech Consultancy & Services Pvt. Ltd., Mumbai	13/07/21-13/12/21	6 months
8.	Kapil	TE Comp	Bizotics Tech Consultancy & Services Pvt. Ltd., Mumbai	14/07/21-14/12/21	6 months
9.	Rahul Ramesh Mahant	TE Comp	Microsoft India (R&D) Pvt. Ltd, Hyderabad	02/04/22-24/06/22	2 months
10.	Pranvi Gupta	BE Comp	BNY Mellon Technology Pvt. Ltd., Chennai	18/05/21-23/07/21	2 months
11.	Akshit Mamgain	BE Comp	Persistent Systems Ltd	14/06/21-13/08/21	2 months
12.	Meghaj Singh	BE Comp	Microsoft India (R&D) Pvt. Ltd, Bengaluru	21/06/21-13/08/21	3 months

  
**Dr. Sunil Dhore**  
 HoD Computer Engineering





13.	Diwaker Singh	BE Comp	Microsoft India (R&D) Pvt. Ltd, Bengaluru	21/06/21- 13/08/21	3 months
14.	Diwakar Singh	BE Comp	Goldman Sachs Services Pvt. Ltd., Bengaluru	07/06/21	6 weeks
15.	Nikhil Kotwal	BE Comp	Deutsche India Pvt. Ltd., Pune	14/06/21- 06/08/21	2 months
16.	Reena	BE Comp	BNY Mellon Technology Pvt. Ltd., Chennai	1/06/21- 6/08/21	3 months
17.	Aishwarya Verma	BE Comp	Schlumberger India Technology Centre Pvt. Ltd, Pune	02/06/21- 02/08/21	2 months
18.	Krishnanunni	BE Comp	Persistent Systems Ltd., Pune	09/06/21- 06/08/21	2 months
19.	Krunal Patil	BE Comp	Trell Experiences Pvt. Ltd, Bangalore	13/09/21- 13/03/22	6 months
20.	Diwakar Singh	BE Comp	Amazon Development Centre(India)	17/01/22- 24/06/22	6 months
21.	Saurabh Dome	BE Comp	Payference Inc.	01/06/21- 01/07/22	1 Year
22.	Rak Kale	BE Comp	Payference Inc.	01/08/21- 01/06/22	10 months
23.	Vimaleshwar K.K.	BE Comp	Solytics Partners Pvt. Ltd.	11/11/20- 30/03/21	5 months
24.	Vishwajit Singh	BE Comp	Axilly Labs Pvt. Ltd., Bangalore	05/07/21- 05/01/22	7 months
25.	Anil Kumar	BE Comp	GeeksforGeeks	14/06/21- 13/12/21	7 months
26.	Anjali Sharma	BE Comp	Deutsche India Pvt. Ltd., Pune	14/06/21- 06/08/21	2 months
27.	Akshay Sharma	BE Comp	Deutsche Bank, Pune	14/06/21- 14/08/21	2 months
28.	Sohardh Bhandari	BE Comp	Mobikwik Systems Pvt. Ltd., Pune	02/09/21- 02/02/22	6 months

  
**Dr. Sunil Dhore**  
 HoD Computer Engineering



Sem II					
29.	Surya Narayan Tripathi	SE Comp	Orkst Consultation INC, Canada	03/01/22-03/02/22	1 month
30.	Robin Choudhary	SE Comp	Nilesh IT Solutions, Vadodara, Gujrat	01/02/22-01/05/22	3 months
31.	Surya Narayan Tripathi	SE Comp	BooksApp, Bengaluru	07/02/22-07/03/22	1 month
32.	Anchal Chambyal	TE Comp	Credit Suisse Services AG, Pune	10/03/22-06/08/22	6 months
33.	Aayush Kumar Kuhite	TE Comp	IDFC Asset Management Company Limited, Mumbai	03/01/22-02/04/22	3 months
34.	Arjun Dashrath	TE Comp	Step Security Inc.	03/01/22	
35.	Ankur Powar	TE Comp	Microsoft India (R&D) Pvt. Ltd, Bengaluru	02/05/22-24/06/22	1 month
36.	Sayan Ghanti	TE Comp	BNY Mellon Technology Pvt. Ltd., Chennai	04/05/22-15/07/22	1.5 month
37.	N Purushotam Kumar	TE Comp	Google India Pvt Ltd	02/05/22-22/07/22	1.5 month
38.	Lavanya Jureddi	TE Comp	Google India Pvt Ltd	02/05/22-22/07/22	1.5 month
39.	Rahul Ghosh	TE Comp	Prodigal SoftTech India Pvt. Ltd, Mumbai	04/04/22-04/07/22	3 months
40.	Shreya Dubey	BE Comp	Browser Stack Software Pvt. Ltd., Pune	3/01/22-1/07/22	6 months
41.	Suryanarayanan	BE Comp	Browser Stack Software Pvt. Ltd., Pune	3/01/22-1/07/22	6 months
42.	Reena	BE Comp	Advanced Business & Healthcare Solutions India Pvt. Ltd., Bangalore	03/02/22-03/07/22	6 months
43.	Vishwajit Singh	BE Comp	Groupon Shared Services Pvt. Ltd., Bangalore	24/01/22-23/06/22	5 months
44.	Jasbir Singh	BE Comp	Payference Inc.	1/10/21-31/05/22	8 months
45.	Satya Prakash	BE Comp	GoProducts Engineering India LLP	07/01/22-30/04/22	4 months

  
 Dr. Sunil Dhore  
 HoD Computer Engineering



46.	Akshay Sharma	BE Comp	Bharat Pay	06/09/2021 - 30/05/2022	9 months
47.	Akhil Nair	BE Comp	Voltron Data Inc.	01/12/21- 28/02/22	3 months
48.	Ankit Kumar	TE Comp	Blue Bricks Group of Companies	14/6/21-	3 months
49.	Sahil Aktar Shaikh	SE Comp	myAlmate,E-Cell, AIT, Pune	24/02/21	2 months
50.	Shreya Dybey	BE Comp	Microsoft India (R&D) Pvt. Ltd, Hyderabad	17/11/21	2 months
51.	Shreya Dybey	BE Comp	Google IT Services India Pvt. Ltd.	04/07/22	2 months
52.	Pradeep Konda	BE Comp	Synergina Pvt. Ltd.	22/01/21- 31/05/21	5 months
53.	Rakesh Tholia	TE Comp	NSCS AIT FT42 Research Project	01/04/22- 30/01/23	10 months
54.	Vikas Choudhury	TE Comp	NSCS AIT FT42 Research Project	01/04/22- 30/01/23	10 months
55.	Yashasvi	TE Comp	NSCS AIT FT42 Research Project	01/04/22- 30/01/23	10 months
56.	Pradeep Konda	TE Comp	NSCS AIT FT42 Research Project	01/04/22- 30/01/23	10 months
57.	Puja	TE Comp	NSCS AIT FT42 Research Project	01/04/22- 30/01/23	10 months

  
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 HoD Computer Engineering





**Army Institute of Technology  
Department of Computer Engineering**

Record of Guest Lectures/ Workshop/STTP Organized during 2021-22

Sr. No.	Date	Name and Organization of the Resource Person	Topic	Audience	Venue
1.	30/08/21-03/09/21	Dr. Parth Pritam Das IIT Kharagpur Dr. Sudeep Thepade Dean QA, PCCOE, Pune Jay Bhatt Data Scientist, Tyson Foods, Mexico	STTP on Computer Vision	TE(Comp)	Online
2.	25/09/21-27/09/21	Abhijeet Deogirikar CEO & Founder, COPPERCLOUD IOTech, Pune	Workshop on Project Lifecycle Management	TE(Comp)	Online
3.	27/08/21-29/08/21	Abhijeet Deogirikar CEO & Founder, COPPERCLOUD IOTech, Pune	Workshop on IOT and Enabling Technologies	TE(Comp)	Online
4.	18/09/21-19/09/21	Napendra Solanki Research Scholar IIT, Ropar	Probability and Statistics	TE(Honor Course)	Online
5.	August- November 2021	Mr. Ravi Thadani, Rahul Computers, Pune	Project Based Learning	SE(Comp)	Online
6.	August- November 2021	Mr. Ravi Thadani, Rahul Computers, Pune	AI and Machine Learning	TE(Comp)	Online



  
**Prof S. R. Dhore**  
 Head of Computer Department  
 Army Institute of Technology  
 Dighi Hills, Pune-15.

**Army Institute of Technology**  
**Department of Computer Engineering**  
**SE Comp-B**  
**210259: Code of Conduct Tutorial, SEM II, 2021-22**  
**Case study and Activities**

**Course Outcomes**

On completion of the course, student will be able to-

- CO1: Understand the basic perception of profession, professional ethics, various moral and social issues, industrial standards, code of ethics and role of professional ethics in engineering field.
- CO2: Aware of professional rights and responsibilities of an engineer, responsibilities of an engineer for safety and risk benefit analysis.
- CO3: Understand the impact of the professional Engineering solutions in societal and Environmental contexts.
- CO4: Demonstrate the knowledge of, and need of the professional Engineering solutions for sustainable development.
- CO5: Acquire knowledge about various roles of engineers in variety of global issues
- CO6: Apply ethical principles to resolve situations that arise in their professional lives.

Sr. No.	Name of the Assignment	Bloom's Taxonomy	CO mapping
1	<b>Exemplar/Case Studies :</b> <ul style="list-style-type: none"> <li>• General Motors ignition switch recalls (2014),</li> <li>• Space Shuttle Columbia disaster (2003),</li> <li>• Space Shuttle Challenger disaster (1986),</li> <li>• Therac-25 accidents (1985 to 1987),</li> <li>• Chernobyl disaster (1986),</li> <li>• Bhopal disaster (1984),</li> <li>• Kansas City Hyatt Regency walkway collapse (1981)</li> </ul>	L4	CO1-CO6
2	<b>Activity1:</b> Using Group Discussion as a platform, ask students to share one practice in their family / home that everyone has to follow. For ex. not wearing footwear in the house, taking a bath first thing in the morning, seeking blessings from elders, etc. Connect this Code of Conduct in their family to one that exists in the professional world	L3	CO1
3	<b>Activity2:</b> A short video that clearly shows unethical behavior can be played and ask viewers their opinion about the situation. Note to teachers – read about Kohlber's theory and Gilligan's theory to understand levels of moral behavior	L4	CO3
4	<b>Activity3:</b> Each student will have to write a 200 word essay on any of above mentioned virtues of being a good professional.	L3	CO2
5	<b>Activity4:</b> Movies like The Social Network can be played and students can be asked to discuss their opinion about collegiality, intellectual property, friendship and professional relationships	L4	CO6
6	<b>Activity5:</b> Students can be asked to write down 5 most important codes of conduct that they feel that every computer engineer should follow.	L3	CO1-CO6

*Nikita*  
 Mrs Nikita Singhal  
 (Subject In charge)

*S.R.D.*  
 Dr. S. R. Dhore  
 Prof S. R. Dhore  
 Head of Computer Department  
 Army Institute of Technology  
 Digni Hills, Pune-15.

- Conflict Management
- Ambition
- Ethical Manner
- Accountability



# ARMY INSTITUTE OF TECHNOLOGY

DIGHI HILLS, PUNE - 411 015



SUBJECT Code of conduct

List of Laboratory Experiments / Reports / Computer Programming / Workshop Practice

## INDEX

Sr. No.	Date of Performance	Title of the Experiment	Page No.	Signature	Remarks
1.	02/02/2022	Activity I	1	<i>White</i>	10/10
2.	08/4/2022	Case Study	-	<i>White</i>	24/25
3.	22/04/2022	Activity II	2-3	<i>White</i>	10/10
4.	22/04/2022	Activity III	5-6	<i>White</i>	10/10
5.	28/04/2022	Activity IV	7	<i>White</i>	10/10
6.	28/04/2022	Activity V	8	<i>White</i>	10/10

### Certificate

This is to certify that ~~Shri~~ / Kum Pujan has carried  
 Out the above mentioned 05 Experiments/  
 Projects / Computer Programmes in the Code of conduct Laboratory of this  
 Institute

Date :

Staff Member in Charge

*White*  
13/5/22  
Prof. Nikita Singhal

*White*  
Prof. S. R. Dhore  
Head of the Department  
Head of Computer Department  
Army Institute of Technology  
Dighi Hills, Pune-15.

Principal

Department of Computer Engineering  
SE Computer-B (2021-22 Sem II)  
Code of Conduct  
Activity1 [CO1] [Max Marks: 10]

**Purpose**-Introduce the concept of Professional Code of Conduct

**Method** – Using Group Discussion as a platform, ask students to share one practice in their family / home that everyone must follow. For ex. not wearing footwear in the house, taking a bath first thing in the morning, seeking blessings from elders, etc. Connect this Code of Conduct in their family to one that exists in the professional world

**Outcome** – Awareness of profession-specific code of conduct and importance of adherence of that code specified. Ability to express opinions verbally and be empathetic to diverse backgrounds and values

**Practice you follow (Telling the truth ~ Honesty)**

*"Honesty is the fastest way to prevent a mistake from turning into a failure."*  
- James Altucher

We cannot ever lie/cheat ourselves and since we are all united, there is no point in hiding or being untruthful to others at home as well as at work. We at home follow the code of conduct of being honest with each other and talk openly about the problems we have created or the problem one is facing. This way we are most of the time able to think constructively about a solution and provide some moral support to the person who is suffering. This is true because a person lies only in stressful situation and telling the truth is the best way to free oneself.

At workplace being honest/frank, increases the level of understanding as well as helps people for-see the challenges the team might face in near future and how to withstand or resolve these problems. At times when people overlook their mistakes or errors, while working in groups. These small errors pave the way for furthermore problems, making it impossible at the last stage.

As said, it is easy to handle the truth, but it is the lies which often becomes the deadly killer. Lying is something which hurts the individual lying and the people linked with it.

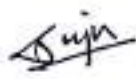
**Conclusion:** ethics or simply honesty is the building blocks upon which our whole society is based, and business is a part of our society, and it is integral to the practice of being able to conduct business, that you have set of honest standards.

Submitted by:

Name: PUJA

Roll No. 7243

Date: 2nd February 2022





Department of Computer Engineering  
SE Computer-B (2021-22 Sem II)  
Code of Conduct  
Activity2 [CO3] [Max Marks: 10]

**Purpose**-Impress upon the students, the significance of morality

**Method** – A short video that clearly shows unethical behavior can be played and ask viewers their opinion about the situation.

**Outcome** – Incite students to contemplate their own immoral behavior in public space or academic environment (like copying homework or assignment). Will coax students to introspect their own values and encourage them to choose the right path

Video1:

URL: <https://youtu.be/TEI3V7K2f8Q>

Submitted by: Ritika Pandey (7246), Megha (7263), Akhilesh Rawat (7264)

Opinion: This video portrays an image of an employee who is not at all serious with his/her job. Tries to find escape wholes to get rid off work, uses the company's resources for personal use and, also delays the work by prioritising recreational activities, that could have been done on weekends. The video also shows how an employee, disobeys her employer, and asks the employee to lie on her behalf, which highly against a companies ethics and moral regulations. This also demonstrates an unhealthy relation between the employees, where the culture promotes other stuff over the personal and an organisation's development.

Video2: <https://youtu.be/xJ11NRO3kQ>

Submitted by: Saurabh Joshi (7249), VS Narendra(7257), Virendra (7259)

Opinion: This video illustrates some unethical behaviours at workplace, like not following the break room procedures, attending personal calls at work, stealing coworker's property and pulling pranks over the coworkers. These kind of behaviours morally degrade the working environment of a community, thus some checks and bonding should be created among the employees to build the work spirit.

## Video3:

URL: [https://www.youtube.com/watch?v=gUpT8RqyxXE&ab\\_channel=CasualWidloz](https://www.youtube.com/watch?v=gUpT8RqyxXE&ab_channel=CasualWidloz)

Submitted by: Rahul (7244), Rajvardhan (7245), Avnish (7265)

Opinion: This video shows a gory picture of a hostel, where the senior students bully and rag their juniors to do their assignments. Not only this is unethical but also part of a crime. This also negatively impacts the society and parents and students often feel deterred by the name of hostels. The relationship between the senior and the junior should be an healthy one which allows both the party to gain some values from each other and help and grow in their respective fields. Also proper guiding mechanism should be their which will allow the victim to raise voice against the ill practices.

## Video4:

URL: <https://youtu.be/oxq60i55l0g>

Submitted by: Satyam (7248), Shivam (7251), Shivanshu Tiwari (7252)

Opinion: This video shows a doctor being a victim off immense brutality and harassment. Often sentimental relatives put the blames on the doctor incase of some unfortunate newsws. However their should be a proper channel for one to address such issues and this kind of brutality should not be tolerated. Complaints and even courts should be brought in between to resolve the issues rather than creating an unpleasant scene, which lowers the moral of others in society.

## Video5:

URL: <https://fb.watch/cuCpR5sQ14/>

Submitted by: Puja (7243), Tushar (7255)

Opinion: In this video an unpatriotic student is being scolded by the teacher for his/her behaviour. However wrong the student may be, the words used by the teacher are highly inappropriate and set wrong examples in the society. Often such cases should be resolved via communications and counselling if required, but one should also have control over their temper and use words wisely.

## Video6:

URL: <https://youtu.be/5e1m1NKtCEo>

Submitted by: Shivanshu Singh (7253), Vidushi (7258), Yash (7261)

Opinion: This video shows how an employ gets bullied by her coworker, who try to demotivate her by making fun of her. It also shows unhealthy competition between them where some people are trying to pull the third person down, since they cannot beat the bar. However the latter part of the video suggests and displays an optimistic employer, who assures and even helps the employe to handle toxic work environments. Which is exactly what is needed in the society.

Video7:

URL: <https://youtu.be/-uAk3Jlg4OI>

Submitted by: Sachin (7247), Sunil (7254)

Opinion: This video explains how a particular company uses malpractices to gain monopoly over the market. They company violates the laws set by the country to promote healthy growth for overall companies growth in the market however apple violates these laws to outrun other companies and even steal their markets. This is unhealthy and unethical to limit other companies softwares to promote their growth. Also it makes switching from one brand to the other more difficult thus trapping a consumer in their market.(anti trust laws.)

Video8:

URL: <https://youtu.be/ZwFvASop8nc>

Submitted by: Umang (7256), Vishal (7260), Yogesh (7262)

Opinion: This video demonstrates the lack of proper communication set between the employer and the employee and the problems caused due to it. It also shows how simple mistake caused due to lack of communication can cause troubles to different people at different levels. Therefore proper care and attention should be given while delivering things. So that there's clarity of thoughts between both the parties and chances of mishaps are reduced.

Submitted By:

Name: Puja 

Roll No. 7243

Date: 22<sup>th</sup> April 2022



Department of Computer Engineering  
SE Computer-B (2021-22 Sem II)  
Code of Conduct  
Activity3 [CO2] [Max Marks: 10]

**Purpose**-Highlight the importance of professional ideals like conflict management, ambition, ethical manners and accountability

**Method** – Each student will have to write a 200 word essay on any of above mentioned virtues of being a good professional.

**Outcome** – Learn to express one’s ideas and identify and relate to good virtues. Build writing skills, improve language and gain knowledge about how to write an impactful essay

**Essay : Accountability**

"Action springs not from thought, but from a readiness for responsibility."  
-- Dietrich Bonhoeffer

The crucial component of any achievement is accountability, but it appears to be the one that individuals struggle with the most. When we accept responsibility, we empower ourselves to make the necessary changes to be successful, whereas when we hunt for blame, we disable ourselves.

Because accountability promotes response-ability, being accountable will help us create a culture of accountability, which will lead to improved results.

Accountability enhances work relationships, increases job satisfaction, and helps teams collaborate more efficiently. It gives ICs greater control over their work and encourages more effective teamwork because everyone knows they can trust on one another to get things done. Mastering team accountability can help teams have more productive performance conversations and hold each other accountable in a more supportive manner. It motivates people to achieve their objectives and enhance their performance, and it is inextricably tied to outcomes (and revenue). According to Gallup, employee engagement helps organizations outperform their competition and can lead to a 21 percent increase in profitability. Despite these realities, many teams continue to struggle to strengthen their accountability muscles.

Accountability isn't a concept that can be defined in a few words. Saying what you mean, meaning what you say, and doing what you say you are going to do are all examples of accountability. In a nutshell, accountability entails accepting responsibility for one's-own acts and words.



While the notion is straightforward, establishing the necessary discipline and abilities may be more difficult. We can quickly lose our vision and, as a result, our way if we lose touch with what is genuinely important and judge ourselves and our work based on what others think. We should follow a few easy criteria to maintain personal and professional accountability. And try not to deceive our own self. Examine the reality of our circumstance on a regular basis and utilize truth as a motivator. Not only is it difficult to remember a lie, but even minor inaccuracies might add up to become your destroyer.

We should keep our priorities in mind. If someone or anything tries to get in the way of our ambitions, learn to say gently and firmly "no." We are the mastermind behind our own destiny and thus we should do what we believe is correct. Also, one should be able to recognize one's limitations. Establish explicit terms of reference and create boundaries. Allowing oneself to stray even a bit from those boundaries, or allowing other obligations and distractions to come in, is a recipe for disaster. It is tough to put boundaries back once they start to sag outward.

Having a well-organized structure in place is must to meet our duties on time, we must be able to keep track of information. Being well-organized allows one to conserve the most asset: TIME. Being accountable helps master one of the most virtuous things in this world, that is delegation.

**Submitted by:**

**Name: Puja**

**Roll No. 7243**

**Date : 22/04/2022**

Department of Computer Engineering  
SE Computer-B (2021-22 Sem II)  
Code of Conduct  
Activity4 [CO6] [Max Marks: 10]

**Purpose** – Provide an insight into rights and ethical behaviour.

**Method** – Movies like The Social Network can be played and students can be asked to discuss their opinion about collegiality, intellectual property, friendship and professional relationships

**Outcome** – help them look at success stories from an ethical point of view. Develop critical thinking and evaluation of circumstances.

### **Opinion**

**Collegiality** - The camaraderie and collaboration among coworkers is what makes a workplace successful. There is a lot of cooperation happening between the different groups. The film portrays a collegial relationship between Mark and Eduardo in which they support and mentor one another. There are various ways to socialise, such as commemorating accomplishments, attending conferences, and sharing memorable events. Collaboration involves working together to solve a problem or build a project.

**Intellectual Property** - Patents, copyrights and other intangibles are examples. The brothers sue Mark for stealing their idea and building something called Facebook. Despite the fact that Mark is correct in claiming that the Facebook does not contain any code copied from the brothers, the brothers are correct because their idea is their own intellectual property. In today's world, this concept has been fine-tuned to the point where people are legally required to use copyrights and submit patents for their work in order to avoid legal wrangling.

**Friendship and Professional Relationships** - The movie warns against mixing professional and personal relationships. Mark singles out Eduardo for financial support at the beginning of the film, and later in the film, he opines that Eduardo, despite being a good friend, might be left behind if he doesn't move the company forward. Eduardo realises that he is losing money and decides to sue Mark. Friendship and professional relationships should be maintained independently, but the values associated with both relationships should not be overlooked and should be regarded instead.

**Submitted by:**

**Name:** Puja

**Roll No.** 7243

**Date:** 28/04/2022

Department of Computer Engineering  
SE Computer-B (2021-22 Sem II)  
Code of Conduct  
Activity5 [CO1-CO6] [Max Marks: 10]

**Purpose** – Make students contemplate about ideal and safe professional environment and decide on making right decisions based on codes of conduct

**Method** – Students can be asked to write down 5 most important codes of conduct that they feel that every computer engineer should follow.

**Outcome** – Introspection and think about how to shape the professional environment. Also, when they carry back with them their own codes of conduct, they could feel bound to adhere to these ethics.

### Code of Conduct

**1. Honest** : Honesty is the bedrock of trust and trustworthiness. Only truthful words and actions will foster trust, and these are the only things that will be accepted by others.

**2. Respect** : Respect (lite) is involved in being polite, considerate, and mindful of another person. One may ask for this sound from another as a sign of respect or deference to their rank, seniority, experience, or standing in the world. This also includes treating others with courtesy and decency, also acknowledging and honouring the right of those affected by decisions to autonomy, privacy and dignity.

**3. Integrity** : The purpose of Integrity Framework is to create a work environment that is free from intimidation, fraudulent behaviour, conflict of interest and misconduct.

**4. Fairness/Equity** : Fairness requires impartiality, intellectual honesty, and disclosing any material conflicts of interest. It involves subordination of one's own emotions, prejudices and desires to achieve the proper balance of conflicting interests. Fairness is treating others the same way you would like to be treated.

**5. Pursuit of Excellence** : It means striving and struggle to achieve goals. It helps us to become better human beings, by being diligent, reliable, careful, prepared and informed. It involves continually seeking to develop knowledge, skills and judgement necessary to the performance of their duties.

Submitted by

Name: Puja

Roll No. 7243

Date: 28/04/2022



**Army Institute of Technology**  
**Department of Computer Engineering**

**Students' Achievements during 2021-22**

**I. Students who have participated in Technical Competitions:**

Sr. No.	Technical Event	Organizer	Participated Students	Class	Position	Month -Year
1.	Capture the Flag	Symbiosis Center for Information Technology, Pune	Vipin Kumar Yadav	SE Comp	-	10/10/21
2.	Solutions	Army Institute of Technology, Pune	Vipin Kumar Yadav	SE Comp	-	24/05/21-26/05/21
3.	Vishwa CTF'21	VIIT, Pune	Vipin Kumar Yadav	SE Comp	-	13/03/21-15/03/21
4.	EQUINOX'21 (Incognito)	IIIT, Lucknow	Vipin Kumar Yadav		-	16/04/21-18/04/21

**II. Students who have participated in Workshop/STTP/Winter School/Summer School/Conference**

Sr. No.	Workshop/STTP/Winter School/Summer School	Organizer	Participated Students	Class	Month - Year
1.	STTP on Computer Vision	Computer Engg. Dept. Army Institute of Technology	Abhishek Kumar Bhavana N. Diwaker Singh Nikhil Puja Nayak Rakesh Tholia Sai Teja Surya Dev Singh Swapnil Sinha Uttam Sharma	TE Comp	30/08/21-03/09/21  (One Week)
2.	Five days online workshop on IoT	ICT Cell, IIT Bombay	Yogendra Singh	SE Comp	8/02/22
3.	Project Life Cycle Management	Computer Engg. Dept. Army Institute of Technology	Vipin Kumar Yadav	SE Comp	25/09/21-27/09/22

#### IV. Hackathons Participated by Students

Sr. No.	Competition	Organizer	Name of Students	Class	Date	Position
1.	Tech-O-Vanza Hackathon	LEAD	Rasika Rawat	TE Comp	28/08/21 29/08/21	First
2.	Startup-Sage Hackathon		Sahil Aktar Shaikh	SE Comp	10/10/21	-
3.	Sainya Ranakshetram	Indian Army	Vipin Kumar Yadav	SE Comp	23/11/21- 25/11/21	-

#### IV. Sports (2021-22):

Sr. No.	Sport	Sport Event	Participated Students	Class	Position	Month - Year
1.	Sports Aakriti'21 Army Institute of Technology, Pune	Football	Amit Singh Rathore	SE Comp	Second	October 2021
2.	Sports Aakriti'21 Army Institute of Technology, Pune	Cricket	Adarsh	SE Comp	Third	October 2021
3.	Zest 2022 College of Engineering, Pune	Kabaddi	Amit Singh Rathore	SE Comp	-	March 2022
4.	MIT-WPU Summit 2021 MIT World Peace University, Pune	Kabaddi	Amit Singh Rathore	SE Comp	-	18-22 March 2022

  
Dr. Sunil Dhore  
HoD Computer Engineering





### **Summary of the Experimental Learning 2021-22**

1. Value Added Course for students
2. Online Course done by the Students
3. Students Internship
4. Guest Lectures
5. BE Projects
6. TE Mini Project
7. SE Project Based Learning

### **Summary of the Participative Learning 2021-22**

<b>Sr No</b>	<b>Name</b>	<b>Module Developed for the Subject</b>
1.	Dr P M Purohit	Engineering Graphics
2.	Dr R B Gurav	Engineering Graphics
3.	Prof S M Gaikwad	CFD for Engineers

### **Problem solving activities 2021-22**

1. Students Internship Report




**ARMY INSTITUTE OF TECHNOLOGY**  
Dighi Hills, Alandi Road, Pune 411015  
Department of Mechanical Engineering

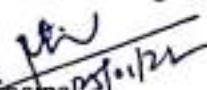


January 24, 2022

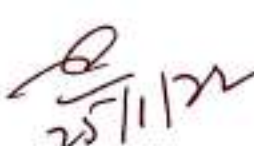
**Value Added Course (VAC) on C.A.E (Computer Aided Engineering)**


1. Department of Mechanical Engineering, AIT will be conducting a course on C.A.E (Computer Aided Engineering) for TE Mechanical and ME-II Students in association with ELEATION, Pune as part of Value Added Course (VAC) strategy for our students.
2. The course is scheduled to start from February 03, 2022 and will be completed by April - May 2022. The duration of the courses will be of 45 sessions.
3. The course will be conducted on Thursday, Friday and Saturdays.
4. Teaching sessions will be conducted through Online Mode.
5. The charges of the course are Rs 4000/- per student, as quoted by Elation Academy Pune
6. All students from TE Mechanical and ME Mechanical Students will be undergoing this course.
7. Payment will be released immediately after successful completion of the course and certification.
8. Put up for your approval and perusal please for the conduction of the course
9. Following documents are enclosed for your review
  - a. About ELEATION (Element Simulation Academy) Pune
  - b. Proposal, Syllabus and structure of the course

  
Asst Prof Anand A Ramgude  
Course Coordinator  
Mechanical Engineering


  
Principal 25/01/22

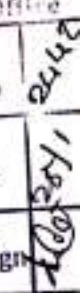
Joint Director   
25/01/22

Director   
25/1/22

  
25-01-2022

F-Prof (Dr) Sanjiv M Sansgiri  
Professor and Head  
Mechanical Engineering

MAIN OFFICE	
S.R. No.	1854
Dt	25/1
Sign	

Principal Office	
S No	2476
Dt	1/25/22
Sign	





**ARMY INSTITUTE OF TECHNOLOGY**  
Dighi Hills, Alandi Road, Pune 411015  
Department of Mechanical Engineering



July 29, 2022

Value Added Course (VAC) on CAD (CATIA)

1. Department of Mechanical Engineering, AIT will be conducting a course on CATIA for the SE Mechanical Students in association with M/S CADCAMGURU Academy, Pune as part of Value Added Course (VAC) strategy for our students.
2. The Course had started from February 03, 2022 and was supposed to be completed by May 2022.
3. Due to the offline SSPU Theory Examination we could not complete the whole course by May 2022. As per students request they wanted time to prepare for Endsem Theory Exam.
4. The CATIA course is almost 50 % complete
5. With discussion with the students and HOD, we are starting the course from August 04, 2022
6. The course will be conducted offline in BE Mechanical Classroom on Thursday, Friday and Saturday after the college timings.   
*Timing read from 05:30pm to 06:50pm*
7. My self and Mr Sunil Shikhare will coordinate the course.
8. Placed opposite the minute sheet of the approval of the course from Director dated 25/01/22
9. Put up for your approval and perusal please

*Anand*  
29/7/22

Asst Prof Anand A Ramgude  
Course Coordinator  
Mechanical Engineering

*R*  
*U. Prasad*  
29/07/22  
Hod Mech

*P. S.*  
Principal

Joint Director.

Director

*How many sessions are complete & how many are balance?*  
*Timing for conduct, Place for conduct to be mentioned.*

HOD (Mech) : About 40 sessions are balance.  
Timing : Thursday & Friday : ~~05:30~~ <sup>05:30</sup> PM to 06:30 PM  
Place : BE (mech) classroom:  
Timing : Saturday : 09:30 AM to 11 AM

Principal	
Office	3248
	29/7
	<i>[Signature]</i>
	31/0
Dt	29/7
Sign	<i>[Signature]</i>

*[Signature]*  
01/08/2022





Elite

# NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to  
**PRAVIN MANIK YADAV**  
for successfully completing the course

**Electric Vehicles and Renewable energy**

with a consolidated score of **91** %

Online Assignments	24.63/25	Proctored Exam	66.1/75
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Total number of candidates certified in this course: **1154**

**Prof. Devendra Jalihal**  
Chairman  
Centre for Continuing Education, IITM

Jul-Oct 2021  
(12 week course)

**Prof. Andrew Thangaraj**  
NPTEL, Coordinator  
IIT Madras



Indian Institute of Technology Madras





**INTERNSHIP (Industrial Training)**  
**AY 2021-22**

**TE (Mech)**

No	Name	Company	Period
1	Ankit Kr Ranjan	Defence Innovation Organisation	June 01 to July 15, 2021
2	Nishant Rana	International Model UN, Noida	Jan 19 to Feb 19, 2022
3	Preet Rathi	National Instruments Innovation Centre, Noida	June 27 to Aug 07, 2021
4	Abhishek Kr (2202)	NTPC, Singrauli, MP	July 19 to Aug 31, 2021
5	Subham Singh	Solytics Partner Pvt. Ltd., Pune	Jan 1 to Feb 28, 2022
6	Priya Kumari	Spring Money, Pune	April 11 to June 11, 2022
7	Arpit Singh	Defence Innovation Organisation	June 01 to July 15, 2021
8	Arpit Singh	Ai Bharata	March 1 to April 30, 2022
9	Ankit Kumar	Thermistance Technologies, Aurangabad	January 3 to February 13, 2022
10	Subham Singh	Diesel Training Centre, Lucknow	June 21 to July 20, 2021

**BE (Mech)**

No	Name	Company	Period
1	Sahil Ghaywat	Sivananda Electronics, Nashik	July 06 to Aug 06, 2021
2	Manish Kumar	Aeronautical Development Establishment, Bengaluru	Sept 06 to Oct 20, 2021
3	Devansh Rai	Sciffer Analytics, Thane	June 02 to Aug 23, 2021
4	Harshwardhan Shekhawat	Saint Gobain India Pvt Ltd.	Sept 1 to Oct 27, 2021
5	Devansh Rai	Aeronautical Development Establishment (ARDE), Bengaluru	Sept 8 to Oct 19, 2021

**Internship Summary**

**Mechanical Engineering**

TE (Mech):            10 students  
BE (Mech):            05 student  
**Total = 10 + 05 = 15 students**

Prof Y V Patel  
Asst Prof and Coordinator

Dr Sanjiv M Sansgiri  
Professor and Head



**GUEST LECTURES (2021-22)**

<b>Sr</b>	<b>Date</b>	<b>Topic [Webinar]</b>	<b>Details of Expert</b>	<b>Class</b>
1.	Sept 1, 2021	Winning steps	Ms Rashmi Bapat & Mr. Dhwanit Shah, Capgemini	TE (Mech) BE (Mech)
2.	Sept 17, 2021	Roadmap to Top Job offers of Mega Salary Packages	ZS & Microsoft	TE (Mech)
3.	Nov 26, 2021	Preparation for Interviews	Alok Joshi, Director, Novartis	TE (Mech)

Dr Sanjiv M Sansgiri  
Professor and Head



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Department of Mechanical Engineering



**BE Project List: Academic Year 2021-22**

Group No	Roll No	Project Group	Guide	Topic
1	2425	Hemant Singh	Dr Sanjiv M Sangsiri	Apparatus for floating waste removal and backend disposal
	2430	M Deepak Kumar		
	2431	Mangesh Shivaji Jadhav		
2	2405	Alok deep	Dr Sanjiv M Sangsiri	Design and development of hyperloop inspired firearm apparatus
	2410	Anjali Sharma		
	2424	Harshvardhan Shekhawat		
3	2441	Pranav Menon	Prof RB Patil	Design and development of projectile irrigation system
	2446	Rajvir Singh		
	2462	Vishal		
4	2419	Deepak Kumar	Prof RB Patil	Design and development of automatic door opening and closing system
	2428	Kashi Nath Singh		
	2434	Manjeet Singh Saini		
5	2461	Vartika Poonia	Dr UV Awasarmol	Automatic motorbike stand slider
	2402	Abhishek Pal		
	2437	Naveen Singh		
6	2454	Shivam Singh	Dr UV Awasarmol	Design and development of wrong way road barricade.
	2455	Shravan Kumar		
	2458	Sushant Gaikwad		
7	2404	Akash Dahiya	Prof RS Verma	Thermal performance of horizontal cylindrical heat sink with longitudinal perforated plate fins in natural convection
	2406	Aman Singh		
	2422	Gagan Yadav		
8	2407	Amit Kumar	Prof RS Verma	Effect of riblets on tube axial fan performance
	2408	Amit Kumar Jha		
	2413	Bhagat Singh Bisht		
9	2409	Aniket	Prof VR Kulkarni	Heat transfer enhancement with cfd simulation of twisted ribs used for fluid mixing in pipe and tubes
	2403	Ajay Choudhary		
	2445	Rahul		
10	2416	Chetan Bhal	Prof VR Kulkarni	Material selection for road vehicles chassis using finite element analysis
	2417	Chetan Sirsikar		
	2453	Shiva Charak		
11	2433	Manish Kumar	Dr JD Patil	Design and fabrication of cycle for training support and recovery from physical injuries.
	2442	Pranjal Singh		



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Group No	Roll No	Project Group	Guide	Topic
	2421	Devansh Rai		
12	2432	Manish Kumar	Dr JD Patil	Design and fabrication of mini channel for cooling of concentrating photovoltaic solar.
	2463	Vishal		
13	2460	Tajinderpal Singh	Prof PV Dorlikar	Development of Vertical Axis Wind Turbine
	2429	Kiran Wawre		
14	2420	Deepti Kale	Prof RB Gurav	Experimental, Numerical and Analytical study on forced convection heat transfer in pin fin heat sink (PFHS) with wings.
	2440	Pooja Singh		
15	2439	Noel Sovy	Prof RB Gurav	Numerical and Analytical study on CPU Heat Sink Cooling by Micro Pin Fins.
	2464	Vivek Krishnan		
	2449	Sahil Ghaywat		
16	2401	Abhishek shukla	Prof YV Patel	Testing & Analysis of Optimized lower Control Suspension Arm
	2418	Cindher K P		
	2459	Sushant thakur		
17	2436	Naveen Gaur	Dr PM Purohit	Design and Analysis of Alloy Wheels
	2444	Pravendra Rana		
	2456	Suraj Kekan		
18	2411	Arvind Singh Bohra	Prof SM Gaikwad	CFD simulation of liquid-to-air membrane energy exchangers (LAMEE): Flat plate exchanger effectiveness
	2426	Kanchu Tarun		
	2438	Nikhil Tiwari		
19	2414	Bhasker Singh Bisht	Prof SM Gaikwad	CFD simulation of microchannel Heat Exchanger Using Parametric Optimization.
	2447	Rishabh Singh		
	2448	Sachin Singh		
20	2457	Surya Prakash Gurjar	Prof AA Ramgude	Manufacturing of Power Generation through Rail Track
	2451	Sandeep Gurjar		
	2435	Mukesh Kumar Hudda		
21	2423	Harshit Pandey	Prof MB Phatangare	Design of Drainage cleaning system
	2412	Asit Kumar Ray		
	2427	Kapil Dev Sharma		
22	2450	Sakshi Patil	Prof RS Godase	6dof Robotic Arm using Arduino
	2415	Bhriгу Sharma		
	2452	Shinde Suyash Deepak		



**TE (Mech): Mini Project AY 2021-22: List of Guides with Students**

No	Guide	Email	Roll No of Students
1.	Dr S M Sansgiri	hodmech@aitpune.edu.in	2301-2304
2.	Prof R B Patil	rbpatil@aitpune.edu.in	2305-2308
3.	Dr U V Awasarmol	uvawasarmoll@aitpune.edu.in	2309-2312
4.	Prof R S Verma	rsverma@aitpune.edu.in	2313-2316
5.	Prof V R Kulkarni	vrkulkarni@aitpune.edu.in	2317-2320
6.	Dr J D Patil	jdpatil@aitpune.edu.in	2321-2324
7.	Prof P V Dorlikar	pvdorlikar@aitpune.edu.in	2325-2328
8.	Prof R B Gurav	rbgurav@aitpune.edu.in	2329-2332
9.	Prof Y V Patel	yvpatel@aitpune.edu.in	2333-2336
10.	Dr P M Purohit	pmpurohit@aitpune.edu.in	2337-2340
11.	Prof S M Gaikwad	sngaikwad@aitpune.edu.in	2341-2344
12.	Prof A A Ramgude	aaramgude@aitpune.edu.in	2345-2348
13.	Prof M B Phatangare	mphatangare@aitpune.edu.in	2349-2353
14.	Prof R S Godse	rgodse@aitpune.edu.in	2354-2358

Dr U V Awasarmol  
Professor and Coordinator

Dr Sanjiv M Sansgiri  
Professor and Head



## Topics Mini Project TE (Mechanical) AY 2021-22

Roll No	Student Name	Title	Guide
2301.	Aanchal Gupta	Analytically Driven Design Optimisation of Submerged Pipelines that will meet the Limit States Regulations	Dr S M Sansgiri
2302.	Abhishek Kumar	Effect of Angle of Attack on Lift and Drag Characteristics of An Airfoil Shape	
2303.	Abhishek Kumar Meel	Adjustable Table	
2304.	Alok Singh	Model and Static Analysis of Muffler Guard	
2305.	Aman Singh	Smart Blind Stick	Prof R B patil
2306.	Anil Yadav	Universal Coupling	
2307.	Ankit Kathait	Regenerative Braking System	
2308.	Ankit Kumar Ranjan	Design & Development of Electric/Solar Operated Self-balancing Vehicle	
2309.	Anurag Singh	CFD Analysis	Dr U V Awasarmol
2310.	Arindam Dey	Enhancement of Heat Transfer using Vortex generators	
2311.	Arpit Singh	Analysis of Simulating flow and combustion in IC engine	
2312.	Atul Kumar	Torque Generator Mechanism	
2313.	Azaj Shaikh	Design study of the various side door of Effigy-Cycle for safety enhancement	Prof R S Verma
2314.	C Phanendra Kumar	Enhancement of Heat Transfer Characteristics of fins Coated with	



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		Graphene	
2315.	Daki Sravani	Heat Transfer Analysis of Porous Engine Fins	
2316.	Gourav Singh	thermal performance change of PFHS due to configuration change of pin fins	
2317.	Harsh Kumar	Multi cylinder Hydraulic Pump	Prof V R Kulkarni
2318.	Ishani Das	Adjustable Cooking Tongs	
2319.	Jatin Niganiya	Manually Operated Can / Plastic Bottle Crusher ( by slider Crank mechanism	
2320.	Kanapaka Prema Kumar	Triple safety pole climber	
2321.	Kartik Sharma	study the automotive steering knuckle through static stress analysis	Dr J D Patil
2322.	Keshev Saini (J & K)	Thermal analysis of solid brake disc and brake disc with circular holes	
2323.	Ketan Kumar	Weight Reduction & Stress Analysis of Air Conditioning Compressor Crankshaft	
2324.	Mandeep	Thermal Analysis Of Engine Cylinder	
2325.	Manish Kumar	Machine learning of suspension system of Motorcycles	Prof P V Dorlikar
2326.	Manish Singh Sikarwar	Machine learning of structural analysis of Motorcycle Chassis	
2327.	Mayank Yadav	Machine learning of Suspension System Analysis of All Terrain Bicycle	
2328.	Mayank Singh Dhanik	Machine Learning of Structural Analysis Of Bicycle Frame	
2329.	Monu Yadav	Analysis of Solar panel supporting structures	Prof R B Gurav
2330.	N Pawan Kumar	Digital Steam Tables	
2331.	Nishant Singh Rana	Thermal analysis of different types of fins configuration by using FEA	





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2332.	Nitin Ramesh Mate	Power Generations by Gym Equipment's	
2333.	Prakash	Side stand gear lock system	Prof Y V Patel
2334.	Pravin Manik Yadav	Wheelchair Power assist Smart-Mobility Solution for waist down paralyzed people	
2335.	Preet Rathi	Structural Analysis of connecting rod	
2336.	Priya Kumari	Lane detection in autonomous driving cars	
2337.	Puneet Yadav	Water Trash Collector	Dr P M Purohit
2338.	Rahul Choubey	Harvesting energy from rain-drops using piezoelectricity	
2339.	Rahul Sharma	sand filter and separator	
2340.	Raj Yog Tiwari	Chainless Cycle	
2341.	Rajveer singh	Design Analysis of H type wishbone for ATV Baja	Prof S M Gaikwad
2342.	Rinku Dhanraj Gabhane	CFD simulation of leaf shape micro channel for heat transfer enhancement	
2343.	Rohit Kumar	Study of Pit Detection on Roads	
2344.	Rohit Kumar Bohra	Smart Safety Helmet	
2345.	Saheel Kumar	Heat Transfer Analysis on Laptop Cooling systems	Prof A A Ramgude
2346.	Setan Singh	Design and Performance Analysis of Centrifugal Pump	
2347.	Subham Singh	Swing Arm in Bike	
2349.	Suryapratap Singh Shekhawat	Solar Panel (Efficiency)	
2350.	Tejas	Implementation of 5S methodology	Prof M B Phatangare
2351.	Tentu Venkata Sai Kumar	Thermal analysis of Gas Turbine blades	



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2352.	Uday Kiran	Thermal Analysis of Cylindrical Fins	Prof R S Godse
2353.	Vaibhav Chaudhary	CFD analysis of liquid to AIR Membrane Energy Exchanger	
2354.	Varun Kumar	Conversion to Dual Fuel Engine complying to BS-VI Norms	
2355.	Vedangi Pathak	Case study and Analysis on Using Wind Turbine to Generate Electricity as well as Purify Water	
2356.	Vipin Kumar	CAE Analysis of Disk Break	
2357.	Vishal Kinge	Reuse of Generated Heat in Crypto Mining	
2358.	Prateek Shukla	Sterling Engine	

Dr U V Awasarmol  
Professor and Coordinator

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Professor and Head



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**SE MECH: Project Based Learning AY (2021-22): Topics**

Roll No	Student Name	Title	Guide	
2201	Abhay Kumar Shukla	The smart Bin	Prof V R Kulkarni	
2202	Abhishek Singh			
2203	Aditya Patel			
2205	Akash Singh Gandhar	Power Generation By Gym Equipment		
2206	Aman Kumar			
2208	Anjlish	Automatic Floor Cleaner		
2209	Anuj Kumar			
2210	Anuj Kothari	Automated Plant Watering System		
2211	Anurag Singh			
2212	Arin Singh			
2213	Arshad Abbas			
2215	Arunima P	Air Cooling System in Vehicles		
2220	C Shankar Ganesh			
2216	Aryan Dogra	Water Purification and Disinfection by using Solar Energy Towards Green Energy Challenge		
2217	Ashish Shihag			
2218	Ashwani Kumar			
2221	Deeksha Singh	Fire Extinguishing Drone		Dr J D Patil
2222	Deepak Singh			
2231	Ishan Bhardwaj			
2232	Karri Aakash			
2239	Piyush Shukla			
2225	Gajender Yadav	Metal Detecting Spy Robot		
2226	Gautam Kumar			
2230	Hrishikesh Sarkar			
2237	P Raju			
2240	Prashant Kumar Tiwari			
2223	Dhiraj Ashok Patil	Two Wheeler Smart Safety System		
2228	Harsh Poonia			
2229	Himanshu Rana			
2227	Harsh Katiyar			
2233	Kumar Som	ML Based Object Detection and Avoiding Drone		
2234	Monika			
2235	Mukesh			
2236	Omkar			



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Roll No	Student Name	Title	Guide
2242	Prince Yadav	Solar Desalination of Water	Prof P V Dorlikar
2245	Rishabh Tiwari		
2243	Rajnesh Singh	De-Seeder Mechanism	
2247	Ruben George	Automated Coconut Kernel Shredding Machine	
2256	Uttkarsh Singh		
2244	Rhitvik Vijay Deodhar	Paddy Transplanting Machine	
2255	Theja P		
2241	Prateek Dwivedi	Designing Wheelchair	
2248	Sanjit Singh		
2252	Suraj Singh	Tree/Pole Climber Machine	
2260	Vivek Patel		
2249	Satyam Kumar Singh	Three Wheeled Hybrid Tricycle	
2250	Sidharth		
2257	Vikas Kumar	Partial Finger Prosthetics	
2258	Vimal Kumar		
2251	Sitanshu Kumar	Analysis Nutcracker	
2259	Vishvendra Tomar		
2262	Harshdeep	Portable Mini Washing Machine	
2264	Gadhekar Harikesh		
2253	Tanu Sharma	Bicycle Braking System	
2263	Atul Kaple		



Dr Pritee Purohit

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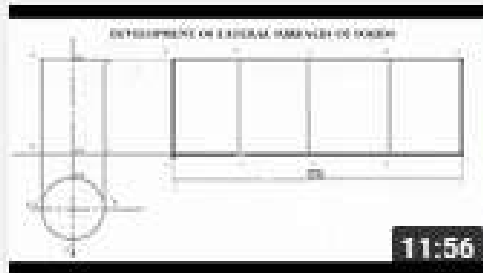
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Development of Cylinder

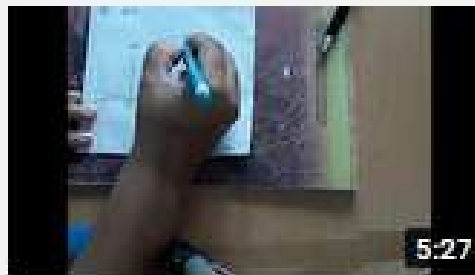
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Isometric Projection Basic Concept

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Isometric Projection 3

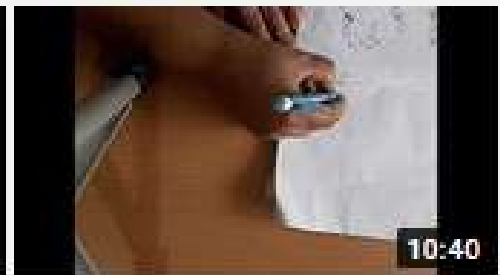
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Isometric Projection 2

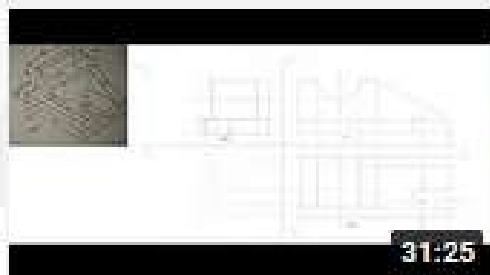
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Isometric Projection 1

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31:25

Understanding Orthographic Projection in a simpler way

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31:13

Simple 5 steps to draw Orthographic Projection

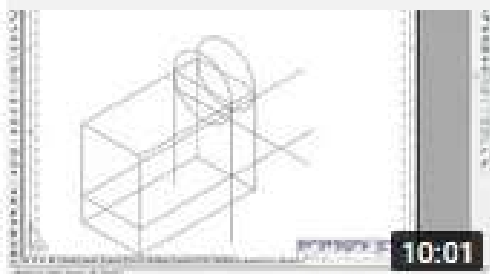
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Isometric Projection

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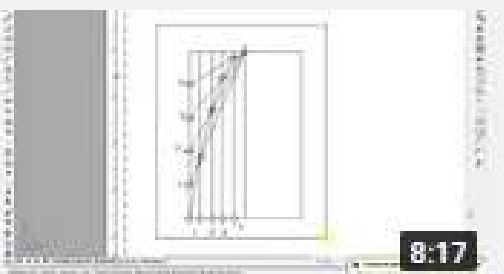
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24. Isometric Projection



7:27

23. Orthographic Projection



8:17

22. Parabola

Engineering Drawing Perfect Sol...


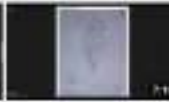














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 <p>Development of Hexagonal Prism with HP 12:05 • 1 year ago</p>	 <p>Development of cone with Auxiliary Inclined Plane (AIP) 11:55 • 1 year ago</p>	 <p>Development of Hexagonal Prism 11:45 • 1 year ago</p>	 <p>Basics of Orthographic Projection 11:35 • 1 year ago</p>		

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- Skill Development Lab : Door**  
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2021-22

T.E (Mech)

**INTERNSHIP REPORT**  
on  
**Solytics Partners Pvt. Ltd.**  
As a Product Manager Intern

Submitted to

Savitribai Phule Pune University

In partial fulfilment for the award of the Degree of

Bachelor of Engineering

in

Mechanical Engineering

by

**Subham Singh**

(Roll no - 2347)

**Mechanical Engineering**



(Certificate inside)



## INTERNSHIP CERTIFICATE

Ref No.: SP/PUN/HR/IC/202204281

Date: 28th Apr 2022

This is to certify that **Subham Singh**, a student of Army Institute of Technology, Pune, has done his internship in **Solytics Partners Pvt. Ltd. (Pune)** as a **Product Management Intern** from **1st Jan 2022 to 28th Feb 2022**.

He was found to be hardworking and very diligent in all the project tasks.

We wish him all the best for his future endeavors.

For Solytics Partners Pvt. Ltd.,



Authorized Signatory

**Mr. Ajay Asati**

Chief Operating Officer

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3. Analyst (Maker) .....	7
4. Team Lead (Checker) .....	<b>Error! Bookmark not defined.</b>
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## Introduction to SAMS™

**Knowing Your Customer (KYC)** is, “the Core of a strong BSA/AML compliance program.” The purpose of KYC is to identify customers, counterparties, beneficial owners and others doing business with a financial institution who pose greater money laundering, financial crime, or terrorist financing risk. As per KYC process all entities applying to a bank must go through a screening process. Screening is the process of dynamically comparing the data you hold on to customers, prospective customers, suppliers and counterparties against the data that is held within external data sources including sanctions lists, watch lists, PEP lists and adverse media, for risk management purposes. Overall KYC steps for this process can be explained at high level as follows:

1. **Sanctions List Screening:** A thorough screening of Sanctions List, throughout the world under which an entity is listed.
2. **Politically Exposed Person (PEP) List Screening:** List of entities under PEP list. These people aren't necessarily defaulters but are always kept under the High risk list by Govt. and institutions.
3. **Specially Designated Nationals (SDN) List Screening:** List of entities under SDN List.
4. **Adverse News Screening:** Gives a detailed report on Negative news related to an entity across platforms, geography and language.

Negative news, also known as “adverse media” is discovered by searching the public information domain, where news items, publications, and other print or electronic records exist. Negative news research is an indoctrinated core of KYC compliance. Adverse media screening is an important part of the due diligence process as it can reveal involvement of the entity (person/individual) in activities such as money-laundering, terrorist funding, organized crimes, etc.

It is usually done during onboarding, periodic review and remediation. It is crucial that the screening process, along with KYC and other regulatory checks, is completed on time with proper evidence and audit reports. The adverse media screening process, which is manual, becomes inefficient due to the large amount of news from different sources and in different languages and sentiments.

Similarly, Sanctions list, SDN list and PEP list screening across banks is inefficient since matching a name with different database has lot of issue like same name belonging to many people, irrelevant and incomplete information, and translation of name under different language under same unified language.

Solytics Partners' **Sanctions and Media Screening** henceforth known as **SAMS™** will focus on developing an end-to-end AI enabled platform which will focus on these aspects of KYC process in KYC/AML regulations.

**SAMS™** is an AI enabled software dedicated to financial institutions obligated to monitor, investigate a suspicious or unusual nature to financial investigation units. It helps the banks by easing out the KYC processes and complying with the AML regulations by reducing the false positive cases and catching any kind of suspicious person right at the first stage itself, using the cutting-edge technology. It optimizes the existing anti-money laundering processes by significantly enhancing the effectiveness of most used – and inefficient – rule-based approaches, characterized



by high false-positive rates, and unable to consider complex interdependencies between various activities carried out to launder money.

What you get is less false alarms/false positives and more insights, but there is more apart from adapting to nonlinear fraud schemes the system creates rankings that sort alerts according to their risk number wise you'll have around 60% less work all the while keeping money launderers at bay.

## Executive Summary

Current KYC process which involves searching in PEP, SDN, Sanctions list along with adverse news screening is a human workforce intensive exercise and involves lot of checks and sub-checks which can be easily automated using ML/AI and NLP. They are mentioned as follows:

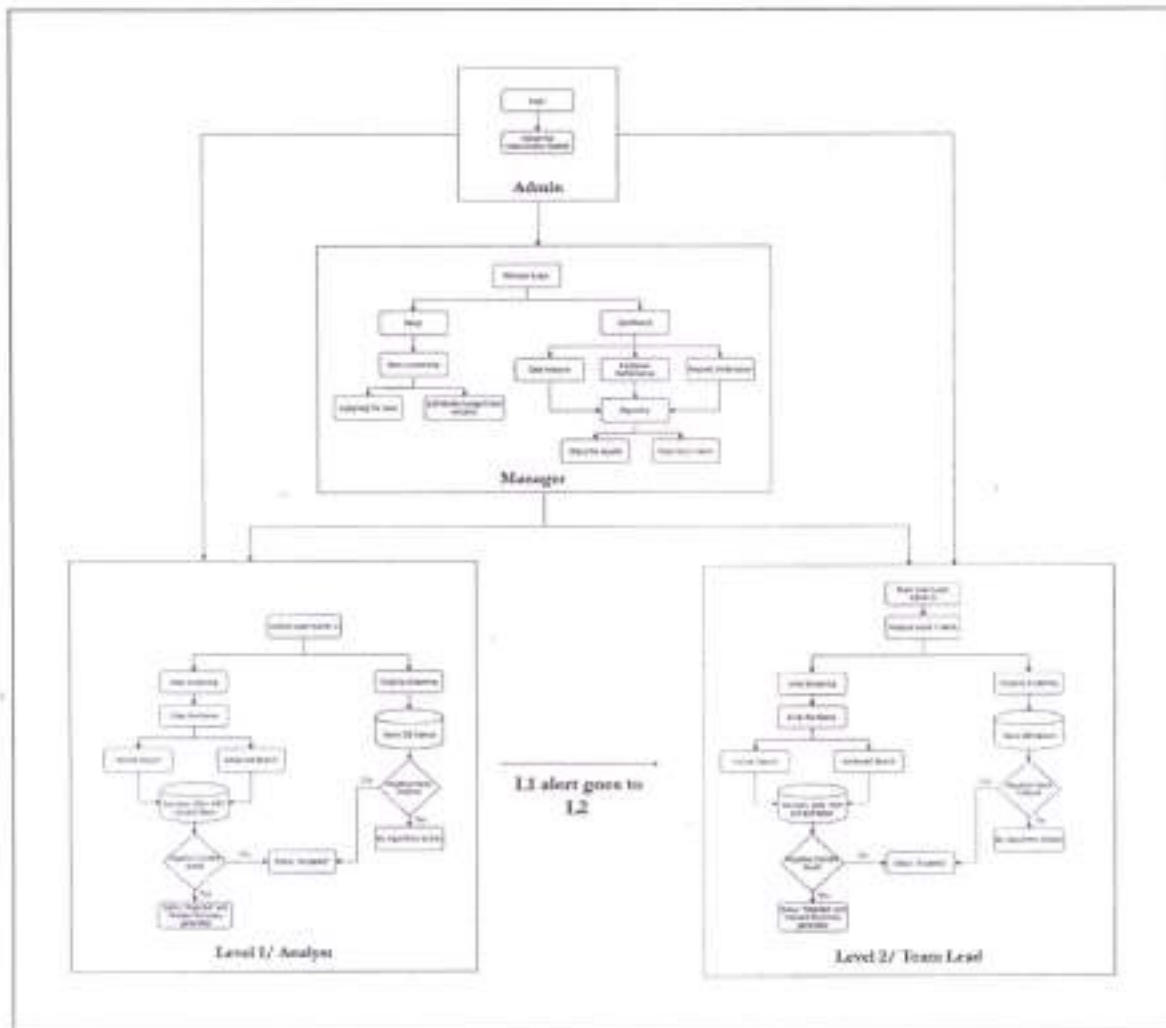
- **Name Matching:** For PEP, SDN and sanctions screening, banks mainly rely on costly vendors like Dow Jones, Wolfsberg, Acuity, and others for name matching during initial screening. Even these names matching exercise is manual process where each name is matched manually against each database. This becomes time consuming and cost intensive exercise which can be easily automated using ML/AI and NLP/NLG.
- **Negative News Screening:** Each AML analyst within bank has to screen through plausible number of news sources to understand any new negative news for any onboarding customer. This becomes tedious and time intensive exercise. Another issue is that these news articles are published in different languages and are difficult to analyze. Most of the times negative news of many customers are not published in national and international news but are published in local news through print, radio and other medium. These customers are most of the times are not being screened by AML/KYC analyst in practical scenario. Also, it sometimes become difficult to match the name of the person in news with customer due to language, incomplete name and other details not being provided in news. This leads to issue to many true negatives which can lead to lot of fines due to AML regulation restriction.
- **Customer Summary Report:** Based on PEP, Sanctions and negative news AML/KYC analyst has to create a summary based on level of suspicion which is done manually. This is again a time-consuming exercise. This can also be automated, and it'll improve the performance of the staff as they can now focus on other tasks of importance.

All the above-mentioned points possess a greater risk to the financial institutions that deal with a humongous number of transactions on a daily basis. So, these institutions need to be protected against any such entity that threatens the whole financial system by making a fraud.

SAMST<sup>TM</sup> exactly focuses on the above-mentioned pain points. The various business advantages of SAMST<sup>TM</sup> are as follows:

1. **Less false positives, More insights:** Because of the extensive checking system through Sanction, SDN list, PEP list and the adverse news screening. It leaves no stone unturned and no scope for missing out on any suspicious entity or transaction. It connects the dots faster than any human with unmatched accuracy and precision by drastically reducing the false positive cases.
2. **Cost Reduction:** Due to the better accuracy and precision, it brings down the operating costs and therefore helps in maximizing your profit.
3. **State of the art technology:** SAMST<sup>TM</sup> uses the best technology present in the market in these times like Artificial intelligence (AI), Machine learning (ML), Neuro Linguistic Programming (NLP) and Natural language generation (NLG).

# Workflow of SAMST™



## Explanation of the SAMS™ workflow:

Role and responsibilities of the Entities involved:

1. **Admin:** The admin is the one who has the application-level control. Admin takes care of every issue that arises within the application. Admin can be said as the final point of control as long as the issue is technical or related to the software specific mechanisms of the application. Admin can delegate the access control to the manager, which means that the manager can assign the role of every individual and can monitor/modify the overall request status in the application. Admin ensures that each person is able to access and control every function that falls under his/her ambit.
  
2. **Manager:** The manager is the one responsible for handling the overall functionality of the application, by viewing the dashboards available. Manager ensures the set up and onboarding of the team and is able to view the dashboards which monitor the present status of all the search requests. The Manager can use this data to prepare reports for analysis. As it can be seen through the workflow, the work of a manager can be divided in two main fields, namely:
  - **Setting Up:**
    - ✓ This means that the manager makes sure that each person working in the team can very well perform the actions that they are supposed to do. This means that each member of the team has got the access as per their designated role such as Functional roles like that of an Analyst at level 1 or a Team Lead at level 2/ Screen specific role i.e. Initial or Ongoing screening.
    - ✓ The manager can decide that team mix, so as to deliver the best possible results.
    - ✓ The assignment of a person on a particular job is as per the decision of the manager by analyzing different parameters like technical expertise and experience.
    - ✓ The manager can view the ongoing status of requests (searching a prospective customer in the relevant databases) in the application and can modify their status (Accept/Reject/On hold/On queue) as per the situation.
  
  - **Dashboard:**
    - ✓ The manager has the privilege to view the dashboard of the whole application all at once. He/she can jump to all the granular level details as well to see a detailed summary of what the present status of requests in the application is.
    - ✓ He/she can analyze the data by the slicers and dicers provided to him. He/she can generate different types of report from this.
    - ✓ He/she can view the performance of the employees which gives a better idea of resource utilization. Along with this, he/she can also view the status of requests at any particular instant in real time.
    - ✓ He/she has the liberty to make reports and present it to the different stakeholders or to the bank in case any suspicious transaction is found, and it needs to be brought under the bank's attention.
    - ✓ He/she can filter the data by duration of searches (Daily/weekly/monthly), according to the functional level i.e. Level 1(Analyst) or Level 2(Lead), on the basis of Initial/Ongoing screen and lastly, by the present status of a request (Accept/Reject/On hold/On queue).



3. **Analyst (Maker):** Analyst at level 1 is basically the front-line associate who deals with the request of verifying that whether a person is suspicious or not. Analyst can do so, by the two tools provided to check this information.

- **Initial Screening:** This module will check if a new customer belongs to any of the three lists i.e. Sanctions list, PEP (Politically exposed person) list and SDN (Specially designated national) list. There will be a name matching algorithm which will use cutting edge NLP and matching algorithm to match name from different list which include OFAC, Wolfsburg, World check and other sources. It will also generate a matching score which will be indication of match rate of name with different databases. Once name matching is completed, initial screening will also have feature of screening adverse news which might put him/her in highly suspicious list. It will use advance machine algorithm of Similarity modelling and NLP and NLG technique which will not only screen relevant news but will also provide relevant summary which is be used as final SAR and case management system. The various lists used at the Initial screening are as follows:

- ✓ **Sanctions list:** It includes the names of all the suspicious/defaulters persons who have been kept on "Not Safe" category with respect to financial transactions by different governments all over the world.
- ✓ **The Specially designated Nationals (SDN) List:** OFAC publishes a list of individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country specific. Collectively, such individuals and companies are called "Specially Designated Nationals".
- ✓ **The Politically exposed persons (PEP) List:** In financial regulation, a politically exposed person (PEP) is one who has been entrusted with a prominent public function. A PEP generally presents a higher risk for potential involvement in bribery and corruption by virtue of their position and the influence that they may hold.

Apart from the verification by these checks, it also searches and presents to the analyst all the negative news that has been associated with any of the person whose name is being searched by the analyst, irrespective of the language in which the article is published.

**Analyst's Dashboard:** The analyst is also provided with a dashboard of his/her own. The dashboard gives an idea of the number of search requests along with their status and therefore helps the analysts to monitor their own performance.

- **Ongoing Screen:** Most the banks maintain the list of highly suspicious customers which they monitor for any negative media news. This process is humongous exercise which include filtering of relevant news from innumerable news sources. In this type of screening, the onboarded customers are screened bi-annually or annually against negative news content. The negative news are the ones which report the involvement of an individual in any kind of criminal/offensive activity. These news articles are displayed in accordance with the ML scores assigned to that particular person's profile

## Detailed modules and their description (Business Use Cases)

This subsection primarily focuses on explaining the individual functionality of each module and their relevance in terms of the overall workflow of the application.

Initially, the segregation of the users depending on their expertise and function is elaborated as follows.

## Domain Knowledge/Expertise based Role:

Designation	Functions and responsibilities	Features
<b>Manager</b>	<ul style="list-style-type: none"> <li>Manages the whole application by ensuring the onboarding of the team and monitor the dashboard.</li> <li>Assigns the role to each user i.e. Analyst/Team lead and screen specific roles like Initial/ongoing screening.</li> <li>Manager can modify the status of search requests (Assign/Reject/On-hold/On queue).</li> <li>Manager can slice and dice the data as per the need and create dynamic reports and share them.</li> </ul>	<ul style="list-style-type: none"> <li>Sliders available for the manager               <ul style="list-style-type: none"> <li>Time = Daily/weekly/monthly</li> <li>Screen = Initial/Ongoing</li> <li>Request status = Accept/Reject/On hold/On Queue</li> <li>Level = L1 (Analyst)/L2 (Team Lead)</li> </ul> </li> <li>Dynamic dashboards (Application level) for monitoring employee and search requests performance.</li> </ul>
<b>Team Lead</b>	<ul style="list-style-type: none"> <li>Immediate supervisor of Analyst at level 1.</li> <li>Specifically handles the responsibilities of level 2 of the application (Initial and ongoing screening).</li> <li>Monitors the search requests handled at level 1 by checking their summary generated.</li> <li>Analyzes any search request of L1 except the ones which are in "On queue" status for deep dive analysis.</li> <li>Makes the manager aware of the situation in case any L2 alert is generated.</li> </ul>	<ul style="list-style-type: none"> <li>Searching for any suspicious customer by using Initial and ongoing screening.</li> <li>Access to Sanctions, PEP/SDN lists and the news database.</li> <li>Option to monitor and analyse the search requests of L1 having the requests having "On Queue" status.</li> <li>Dynamic dashboard access at TL and analyst level for monitoring search requests performance.</li> </ul>
<b>Analyst</b>	<ul style="list-style-type: none"> <li>Responsible for carrying out the preliminary search for every prospective customer to catch suspicious ones.</li> <li>Enters the particulars of those customers and searches the relevant databases for suspicion quotient.</li> <li>Carries out "Normal" and "Advanced" searches.</li> <li>Checks the Sanctions, SDN and PEP lists along with the news database.</li> <li>Analyzes the result of the searches and chooses the following statuses (Accept/Reject/On hold/On queue).</li> </ul>	<ul style="list-style-type: none"> <li>Option to carry out "Normal" (Only first-last name), "Advanced" (Name, DOB, SSN &amp; other details) search.</li> <li>Access to Sanctions, SDN and PEP lists along with the news database.</li> <li>Gets the summary and L1 alert generated, to be analysed by the Team lead if suspicious customer is found.</li> <li>Dynamic dashboard access at Analyst level for monitoring search requests performance.</li> </ul>
<b>Admin</b>	<ul style="list-style-type: none"> <li>Complete access on each and every technical aspect of the application.</li> <li>Handles the privilege and access management system.</li> <li>Ensures each user of the application is having the authorized controls and configurations.</li> </ul>	<ul style="list-style-type: none"> <li>Access on privilege management system.</li> <li>Access to application level controls.</li> </ul>

## Screening specific role:

As SAMST<sup>TM</sup> application is aimed to detect every suspicious prospective client as per the AML compliance regulations of the bank, it has two types of searches and accordingly, people are assigned to them.



## Initial Screening

This is the very first module of the SAMST<sup>TM</sup> application. It checks whether a new prospective customer, who has applied to avail the services of the bank, is suspicious or not. This is done by checking whether the person belongs to any of the three lists i.e. Sanctions list, PEP (Politically exposed person) list and SDN (Specially designated national) list. There will be a name matching algorithm which will use cutting edge NLP and matching algorithm to match name from different list which include OFAC, Wolfsburg, World check and other sources. The various lists used at the Initial screening are as follows:

- ✓ **Sanctions list:** It includes the names of all the suspicious/defaulters persons who have been kept on "Not Safe" category with respect to financial transactions by different governments all over the world.
- ✓ **The Specially designated Nationals (SDN) List:** OFAC publishes a list of individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific. Collectively, such individuals and companies are called "Specially Designated Nationals".
- ✓ **The Politically exposed persons (PEP) List:** In financial regulation, a politically exposed person (PEP) is one who has been entrusted with a prominent public function. A PEP generally presents a higher risk for potential involvement in bribery and corruption by virtue of their position and the influence that they may hold.

Apart from the verification by these checks, it also searches and presents to the analyst all the negative news that has been associated with any of the person whose name is being searched by the analyst, irrespective of the language in which the article is published.

There are basically two ways to determine whether the person is suspicious or not, namely "Normal search" and the "Advanced search". Both of these have different parameters which they use for searching. These two each methodology are described as follows:

- **Normal search:** In this type of search, the analyst enters the first and the last name of the prospective customer and initiates the search. This search uses only these two parameters.
- **Advanced search:** In this search method, the analyst can enter many more details apart from the first and the last name of the prospective client. The analyst here can add the below mentioned attributes:
  - Date, time of birth
  - Country of birth
  - Country of residence
  - Country of jurisdiction
  - Social Security Number
  - Passport number and other such details.

This type of search gives a very detailed result because the analyst has already entered so much details about the applicant. Therefore, making the search very refined and a narrowed down one.

## Ongoing Screening

Most the banks maintain the list of highly suspicious customers which they monitor for any negative media news. This process is humongous exercise which include filtering of relevant news from innumerable news sources. This includes finding the relevant negative news in which the searched person has been associated with. The different media content present over the internet along with the Bank's own data pertaining to

the risky customers and the worldwide news articles published shall provide a detailed Machine learning (ML) score summary of a risky customers.

Some points to be given special attention during the screening process are described as follows:

- The searching algorithm takes only the top n (e.g.: 2) scorer profiles. These profiles are sorted in decreasing order of their scores i.e. the profiles with the highest percentage of match would be displayed on top, followed by the second highest profile.
- Once any user of the application has made any changes in the rankings of the profiles or chosen/highlighted any of those profiles then when next time that same search is initiated again, the same indexes would be shown to them as changed by the user. And apart from this, these indexes get stored in the database along with the user id of the user so that it can be traced back that which user had improvised the results content. For ongoing screening, only the news articles are checked on an annual or bi-annual basis. Which means, whenever the sanctions list gets refreshed, it will be checked again along with the news articles.
- The news articles will be ranked upon the basis of combined average score of the below mentioned scores:
  - Name Matching score
  - Relevancy score
  - News credibility score
  - Sentiment analysis score
  - News Summarization

For a detailed insight of these Machine learning algorithms, please refer to the section with the heading "ML concepts and algorithms".

These are the ways in which a search request is carried out. The next section describes the contents that are displayed because of the search.

In the results tab, the user can view a generated matching score which will be indication of match rate (in percentage) of name with different databases. It displays the top n (e.g., 2) matching entities matching the searched criterion in all the three lists namely Sanctions list, PEP list and the SDN list.

Apart from these suspicious lists section, another section is also displayed which shows the relevant words found under the Bag of Words list and the adverse/negative content found in correspondence with these words gathered from various credible sources present over the internet.

**Bag of Words based search:** This list contains some words which are used to find out any negative content present over the internet. It contains words like fraud, money laundering, phishing, scam, heist, forgery and all such relevant words which have a negative connotation to safeguard the interests of a bank. These words make

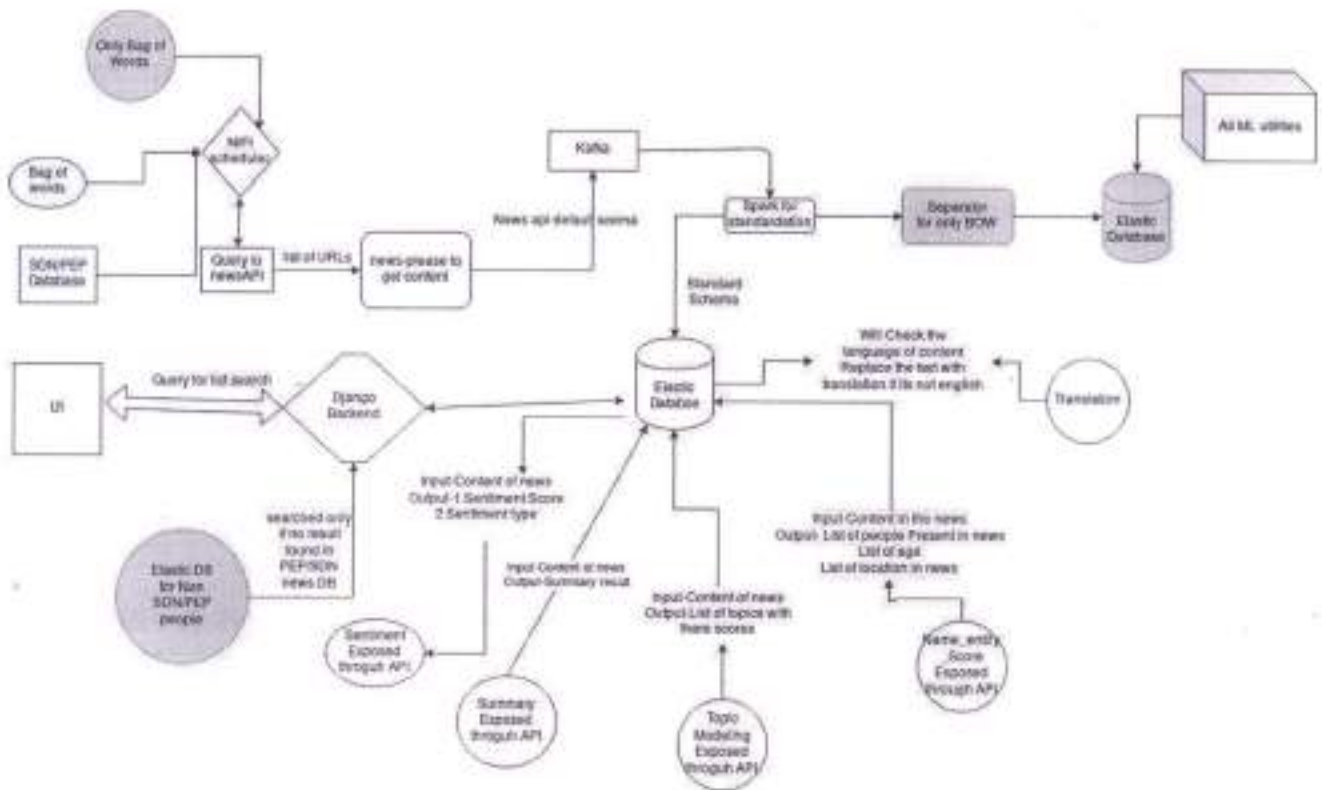
it easier to display the relevant news articles found over the internet which shows the involvement or association of the person in such activities.

The user can see a short summary of the news articles found over the internet. The application uses a language translator which translates that news in English, irrespective of the language of publication.

The results section also uses advanced Machine learning based algorithms which gives a score that helps in arriving at consolidated percentage that depicts the suspicion probability of a customer. The ML scores generated here at this stage are:

1. **Name Matching Score:** This score gives the matching of the searched name with the closest match with any entity present in any of the lists like the Sanctions list, SDN and PEP lists. The higher the percentage of match, the higher the probability of that person being suspicious.
2. **Relevancy Score:** This ML score represents percentage of the relevant details found over the internet associated to the person who has been searched in the screening.
3. **Sentiment Analysis:** This score is a result of the interpretation and classification of emotions withing the text using text analysis technique. It gives a score as per the prevalent mood in the article extracted from the internet.
4. **News credibility score:** This score depicts the authenticity of the source from where the article has been fetched over the internet. The higher the score, the higher its authenticity and therefore the higher the credibility of any content.
5. **News summarization:** This feature is useful because it gives a brief summary of the news article found over the net. It drastically reduces the human effort of reading the whole article and therefore saves time.

# Technical architecture of SAMST<sup>TM</sup>



## ASGE Student Internship 2021-22

<b>Sr No</b>	<b>Student Name</b>	<b>Internship Details</b>	<b>Duration</b>	<b>Class</b>
1	Chandra Shekhar	Speed Security & Manpower Services Pvt Ltd	29th May 2022 till 19th June 2022	E&TC
2	Akshat Shankhdhar	Speed Security & Manpower Services Pvt Ltd	29th May 2022 till 19th June 2022	E&TC
3	Ashish Rout	Speed Security & Manpower Services Pvt Ltd	29th May 2022 till 19th June 2022	E&TC
4	Akshat Shankhdhar	W Bemus Private Limited	07 Feb 2022 till 28 Feb 2022.	E&TC
5	Chandra Shekhar	W Bemus Private Limited	07 Feb 2022 till 28 Feb 2022.	E&TC
6	K Srikumar Ayyanar	QUIZZY	8 Weeks	Mech



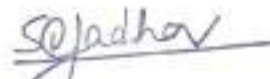
**BE IT (2021-22 SEM -I)**  
**Sub: Software Design and Modeling**  
Flipped Classes topics

Roll No	Topic	Content Reference Link
4401-4405	Object Modeling Technique(OMT)	<a href="https://moodle.aitpune.edu.in">https://moodle.aitpune.edu.in</a>
4406-4410	Introduction to UML	
4411-4415	4+1 Architecture	
4416-4420	Use Case Modeling	
4421-4425	UML Class diagram	
4426-4430	Use case Modeling: Relationships in use case diagram with example	
4431-4435	Class diagram : Aggregation, composition, association , qualified association with example	
4436-4440	UML Activity diagram	
4441-4445	UML Sequence diagram	
4446-4450	UML collaboration diagram	
4451-4455	UML Timing diagram	
4456 Onwards	UML State diagram	

**Note: flipped Classroom activity will be conducted online on 22,23 and 24 Nov 2021. Every Student should prepare min 20 minute presentation on the topic given . Students should explain the topic with examples.**

Prof G.M.Walunjkar  
 Subject I/C




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 Army Institute of Technology  
 Dighi Hills, Pune - 411015.

Record of Students delivered the Flipped Class (2021-22 Sem -I Sub- SDM ( BE IT) )

Roll No	Name	Date	Topic
4421	Ayush Adhikari	10/11/2021	GRASP
4423	Deepak Tiwari	22/11/2021	UML Class Diagram
4434	Kunal Khanra	22/11/2021	Class Diagram
4405	Ajay Bohra	24/11/2021	Object Modeling Techniques

  
Prof G.M. Walunjkar



  
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Pune 411 015

**DEPARTMENT OF INFORMATION TECHNOLOGY****Participation in Competitions/Hackathon****List of Student****Year :2021-22**

Sr. No	Name of Student	Event Name	Position	Class
1	Rohit	Restore IT , Radiance PICT ACM	1 <sup>st</sup> Position	SE IT
2	Abhilash Kumar Trivedi	Daffodil University, Coronathon-21	Participation	BE IT
3	Abhilash Kumar Trivedi	HACK4GOOD '21	Participation	BE IT
4	Abhilash Kumar Trivedi	Dare 2 Compete	Participation	BE IT
5	Abhishek Kulhari	AWS Cloud Technical Essentials	Participation	BE IT
6	Ajay Bohra	BUIDL IT hackathon	Participation	BE IT
7	Ajay Bohra	Credit Suisse GCC	Participation	BE IT
8	Anand Paandey	Dare 2 Compete	Participation	BE IT
9	Anand Paandey	HACK4GOOD '21	Participation	BE IT
10	Anand Paandey	Daffodil University, Coronathon-21	Participation	BE IT
11	Ankit Kumar	Dare 2 Compete D_CODER	Participation	BE IT
12	Ankit Kumar	Dare 2 Compete Uber HackTag	Participation	BE IT
13	Ankit Kumar	Dare 2 Compete Code Frenzy	Participation	BE IT
14	Arun	National Innovation Contest 2020	Participation	BE IT
15	Deepak Tiwari	GitHub	Participation	BE IT
16	Deepak Tiwari	Aadhaar Hackthon	Participation	BE IT
17	Deepak Tiwari	Juspay Hackthon	Participation	BE IT
18	Kunal Khanra	Juspay Hackthon	Participation	BE IT
19	Kunal Khanra	UIDAI Hackthon	Participation	BE IT
20	Mohan Singh	Coursera : AWS Cloud Technical Essentials	Participation	BE IT
21	Payal	Micrososft Engage 2021	Participation	BE IT
22	Roshan	UIDAI Hackthon	Participation	BE IT
23	Sanju Baloria	Dare 2 Compete Flipkart GRiD 3.0	Participation	BE IT
24	Abhishek Shedage	Ninja Hire	Participation	TE IT
25	Abhishek Shedage	code Kaze'21	Participation	TE IT
26	Deepak Barnwal	CodeChef 2021	Participation	TE IT
27	Abhishek Shedage	Capgemini Tech Challenge 2021	Participation	TE IT
28	Pranav Surendran	GUTSHOT	Participation	TE IT
29	Rohit Kumar	Subject Matter Expert in Physics	Participation	TE IT

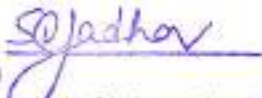


*S. Jadhav*  
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Dighi Hills, Pune - 411015.



30	Aarti Kumari	Google Cloud Platform Fundamentals: Core Infrastructure	Participation	TE IT
31	Aarti Kumari	Essential Google Cloud Infrastructure: Foundation	Participation	TE IT
32	Aarti Kumari	Essential Google Cloud Infrastructure: Core Services	Participation	TE IT
33	Aarti Kumari	Elastic Google Cloud Infrastructure: Scaling and Automation	Participation	TE IT
34	Aarti Kumari	Reliable Google Cloud Infrastructure: Design and Process	Participation	TE IT
35	Pranav Surendran	Bitcoin Completion Certificate	Participation	TE IT
36	Govind Prasad Sharma	Dare 2 Compete Level 1: E-Commerce & Tech Quiz	Participation	TE IT
37	Govind Prasad Sharma	30 Days of ML program!	Participation	TE IT
38	Isha Tyagi	UN VOLUNTEERS Recognition for the Spirit of Volunteerism	Participation	TE IT
39	Deepak Barnwal	Dare 2 Compete : Publicis Sapient	Participation	TE IT
40	Govind Prasad Sharma	Hacker Cup	Participation	TE IT
41	Abhishek Shedage	MiniOrange	Participation	TE IT
42	Gaurav Yadav	Firodia	Participation	TE IT
43	Gaurav Yadav	Digital hackthon	Participation	TE IT
44	Aarti Kumari	Architecting with Google Compute Engine	Participation	TE IT
45	Govind Prasad Sharma	Progressing to Round 1 of the 2021 Facebook Hacker Cup	Participation	TE IT
46	Govind Prasad Sharma	Dare 2 Compete : Publicis Sapient	Participation	TE IT
47	Manish Singh	Microsoft Engage 2021	Participation	TE IT
48	Deepak Barnwal	Runtime Terror 2k21	Participation	TE IT
49	Ujjwal Singh	Inter-College Event	Participation	SE IT
50	Veram Reddy Bhavana	Table Tennis Women	Participation	SE IT



  
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**DEPARTMENT OF INFORMATION TECHNOLOGY**

**INTERNSHIPS**

(AY:2021-22)

SR. NO	CLAS S	NAME OF THE STUDENT	DETAILS	PERIOD	DAYS
1.	BE	ABHILASH KUMAR TRIVEDI	SCHLUMBERGER	06-02-2021 TO 08-02-2021	61 DAYS
	BE		SHARECHAT	27/09/2021 TO 31/3/2022	180 DAYS
2.	BE	ADITYA SHINDE	PERSISTENT SYSTEMS	14-06-2021 TO 16-08-2021	60 DAYS
3.	BE	AJAY BOHRA	PERSISTENT SYSTEMS LIMITED, PUNE	06-09-2021 TO 08-06-2021	58 DAYS
4.	BE	AKASH BHATI	PERSISTENT SYSTEMS LIMITED	14/6/2021 TO 13/8/2021	85 DAYS
5.	BE	ALOK JHAJHRIA	PERSISTENT SYSTEMS LTD	09-06-2021 TO 08-06-2021	31 DAYS
6.	BE	AMAN GUPTA	CONTINUUM	06-01-2021 TO 08-01-2021	61 DAYS
7.	BE	AMAN SINGH	MICROSOFT	17/5/2021 TO 23/7/2021	65 DAYS
8.	BE	ANAND KUMAR PANDEY	CONTINUUM	01-06-2021 TO 01-08-2021	2 DAYS
	BE		MOBIKWIK	09-02-2021 TO 02-03-2022	154 DAYS
9.	BE	ANKIT KUMAR	DEUTSCHE BANK GROUP	14-06-2021 TO 06-08-2021	85 DAYS
10.	BE	ARUN	PERSISTENT	09-06-2021 TO 26-07-2021	30 DAYS
11.	BE	ASHISH MISHRA	CREDIT SUISSE	14-06-2021 TO 13-08-2021	90 DAYS
12.	BE	ATUL KUMAR TIWARI	PYNET LABS	05-01-2021 TO 31/7/2021	120 DAYS
13.	BE	DEEPAK TIWARI	MICROSOFT	21-06-2021 TO 13-08-2021	55 DAYS
14.	BE	MAYANK KUMAR	CREDIT SUISSE	14-06-2021 TO 14-08-2021	65 DAYS



  
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	BE		THALES GROUP	10-04-2021 TO03-03- 2022	150 DAYS
15.	BE	KARAN YADAV	PERSISTENT SYSTEMS	06-09-2021 TO26/7/202 1	65 DAYS
16.	BE	KUNAL KHANRA	MICROSOFT	21-06-2021 TO 13-08- 2021	35 DAYS
17.	BE	HARSH CHAUHAN	GOLDMAN SACHS	07-06-2021 TO 20-07- 2021	27 DAYS
18.	BE	NAINCY RATHORE	PERSISTENT SYSTEMS LTD	09-06-2021 TO06-08- 2021	-90 DAYS
19.	BE	NARENDRA KUMARYADAV	CREDIT SUISSE	14-06-2021 TO 13-08- 2021	75 DAYS
20.	BE	PAYAL	DEUTSCHE BANK	14-06-2021 TO 06-08- 2021	70 DAYS
21.	BE	R SANKALP SHUKLA	MICROSOFT IDC	21-06-2021 TO13-08- 2021	70 DAYS
22.	BE	ROHIT SANGWAN	DEUTSCHE BANK	14-06-2021 TO06-08- 2021	70 DAYS
23.	BE	ROSHAN RAI	MICROSOFT	21-06-2021 TO 13-08- 2021	70 DAYS
24.	BE	SANJU BALORIA	PYNET-LABS PRIVATE LIMITED	01-05-2021 TO31-07- 2021	90 DAYS
25.	BE	SAURABH RAI	AVLABIRD TECHNOLOGIES	25-06-2021 TO25-08- 2021	60 DAYS
26.	BE	SOURABH SINGH CHOUHAN	PERSISTENT SYSTEMS	06-09-2021 TO 6/8/2021	1 DAYS
27.	BE	SAURAV CHAUHAN	PERSISTENT SYSTEMS LIMITED	09-06-2021 TO 06-08- 2021	90 DAYS
28.	BE	SHIVAM KUMAR RAI	CONTINUUM	06-01-2021 TO08-01- 2021	61 DAYS
29.	BE	SODIP DAS	PERSISTENT SYSTEMS	09-06-2021 TO 06-08- 2021	90 DAYS
30.	BE	SUPRIYANEGI	CREDIT SUISSE	14-06-2021 TO 13-08- 2021	65 DAYS
31.	BE	VISHVAJEET SINGH CHANDRAWAT	PERSISTENT SYSTEMS	14/6/2021 TO13/8/202 1	65 DAYS
32.	BE	PUSHPA	CREDIT SUISSE	07-05-2021 TO 09-03- 2021	60 DAYS





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**INTERNSHIPS**

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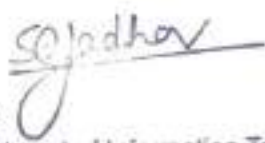
SR. NO	CLAS S	NAME OF THE STUDENT	DETAILS	PERIOD	DAYS
1.	BE	ABHILASH KUMAR TRIVEDI	SCHLUMBERGER	06-02-2021 TO 08-02-2021	61 DAYS
	BE		SHARECHAT	27/09/2021 TO 31/3/2022	180 DAYS
2.	BE	ADITYA SHINDE	PERSISTENT SYSTEMS	14-06-2021 TO 16-08-2021	60 DAYS
3.	BE	AJAY BOHRA	PERSISTENT SYSTEMS LIMITED, PUNE	06-09-2021 TO 08-06-2021	58 DAYS
4.	BE	AKASH BHATI	PERSISTENT SYSTEMS LIMITED	14/6/2021 TO 13/8/2021	85 DAYS
5.	BE	ALOK JHAJHRIA	PERSISTENT SYSTEMS LTD	09-06-2021 TO 08-06-2021	31 DAYS
6.	BE	AMAN GUPTA	CONTINUUM	06-01-2021 TO 08-01-2021	61 DAYS
7.	BE	AMAN SINGH	MICROSOFT	17/5/2021 TO 23/7/2021	65 DAYS
8.	BE	ANAND KUMAR PANDEY	CONTINUUM	01-06-2021 TO 01-08-2021	2 DAYS
	BE		MOBIKWIK	09-02-2021 TO 02-03-2022	154 DAYS
9.	BE	ANKIT KUMAR	DEUTSCHE BANK GROUP	14-06-2021 TO 06-08-2021	85 DAYS
10.	BE	ARUN	PERSISTENT	09-06-2021 TO 26-07-2021	30 DAYS
11.	BE	ASHISH MISHRA	CREDIT SUISSE	14-06-2021 TO 13-08-2021	90 DAYS
12.	BE	ATUL KUMAR TIWARI	PYNET LABS	05-01-2021 TO 31/7/2021	120 DAYS
13.	BE	DEEPAK TIWARI	MICROSOFT	21-06-2021 TO 13-08-2021	55 DAYS
14.	BE	MAYANK KUMAR	CREDIT SUISSE	14-06-2021 TO 14-08-2021	65 DAYS



  
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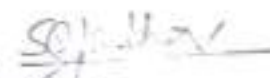
	BE		THALES GROUP	10-04-2021 TO03-03- 2022	150 DAYS
15.	BE	KARAN YADAV	PERSISTENT SYSTEMS	06-09-2021 TO26/7/202 1	65 DAYS
16.	BE	KUNAL KHANRA	MICROSOFT	21-06-2021 TO 13-08- 2021	35 DAYS
17.	BE	HARSH CHAUHAN	GOLDMAN SACHS	07-06-2021 TO 20-07- 2021	27 DAYS
18.	BE	NAINCY RATHORE	PERSISTENT SYSTEMS LTD	09-06-2021 TO06-08- 2021	-90 DAYS
19.	BE	NARENDRA KUMARYADAV	CREDIT SUISSE	14-06-2021 TO 13-08- 2021	75 DAYS
20.	BE	PAYAL	DEUTSCHE BANK	14-06-2021 TO 06-08- 2021	70 DAYS
21.	BE	R SANKALP SHUKLA	MICROSOFT IDC	21-06-2021 TO13-08- 2021	70 DAYS
22.	BE	ROHIT SANGWAN	DEUTSCHE BANK	14-06-2021 TO06-08- 2021	70 DAYS
23.	BE	ROSHAN RAI	MICROSOFT	21-06-2021 TO 13-08- 2021	70 DAYS
24.	BE	SANJU BALORIA	PYNET-LABS PRIVATE LIMITED	01-05-2021 TO31-07- 2021	90 DAYS
25.	BE	SAURABH RAI	AVIABIRD TECHNOLOGIES	25-06-2021 TO25-08- 2021	60 DAYS
26.	BE	SOURABH SINGH CHOUHAN	PERSISTENT SYSTEMS	06-09-2021 TO 6/8/2021	1 DAYS
27.	BE	SAURAV CHAUHAN	PERSISTENT SYSTEMS LIMITED	09-06-2021 TO 06-08- 2021	90 DAYS
28.	BE	SHIVAM KUMAR RAI	CONTINUUM	06-01-2021 TO08-01- 2021	61 DAYS
29.	BE	SODIP DAS	PERSISTENT SYSTEMS	09-06-2021 TO 06-08- 2021	90 DAYS
30.	BE	SUPRIYANEGI	CREDIT SUISSE	14-06-2021 TO 13-08- 2021	65 DAYS
31.	BE	VISHVAJEET SINGH CHANDRAWAT	PERSISTENT SYSTEMS	14/6/2021 TO13/8/202 1	65 DAYS
32.	BE	PUSHPA	CREDIT SUISSE	07-05-2021 TO 09-03- 2021	60 DAYS



  
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33.	BE	SHIKHA JHA	MICROSOFT INDIA	21/6/2021 TO13/8/2021	55 DAYS
34.	BE	SUMIT KUMAR	SOLYTICS PRIVATE LIMITED	01-07-2021 TO 09-01-2021	237 DAYS
35.	BE	YASHBIR SINGH	PAYFERENCE	07-01-2021 TO 30/9/2021	270 DAYS
36.	BE	ROBIN ACHARYA	PAYFERENCE	07-01-2021 TO30/9/2021	270 DAYS
	BE		FINZOOMERS SERVICES PRIVATE LIMITED	16/9/2021 TO 16/12/2021	105 DAYS
37.	BE	SPARSH GUPTA	PERSISTENT SYSTEM LTD.	06-09-2021 TO08-09-2021	61 DAYS
38.	BE	RIYA	PERSISTENT SYSTEM LTD.	15/6/2021 TO 08-10-2021	150 DAYS
39.	BE	GAURAV KUMAR SINGH	SOLYTICS PRIVATE LIMITED	07-01-2021 TO 30/12/2021	360 DAYS
40.	BE	ASHISH SINGH	ANTWAK PRODUCT AND ENGINEERING TEAM	07-01-2021 TO 31/8/2021	240 DAYS
	BE		PLANALYTIX	10-10-2021 TO28/11/2021	25 DAYS
41.	BE	ALAM KATHAT	BLUE BRICKS GROUP OF COMPANIES	07-07-2021 TO10-07-2021	92 DAYS
42.	BE	DEEPSHIKHA TRIPATHI	CONTINUUM	06-01-2021 TO08-06-2021	66 DAYS
43.	BE	P L V SAI PAWAN KUMAR	PERSISTENT SYSTEMS	14/06/2021 TO08-06-2021	10 DAYS
44.	BE	NIKHIL KUMAR	PERSISTENT SYSTEMS	14/06/2021 TO08-06-2021	10 DAYS
45.	BE	SHUBHAMANAND	BRB TECHNOLOGIES	20/6/2021 TO25/9/2021	90 DAYS
46.	BE	#SHUBHAM KUMAR	PERSISTENT SYSTEMS	06-09-2021 TO 08-06-2021	58 DAYS
47.	BE	ABHINANDAN SINGH	PERSISTENT SYSTEMS	14/6/2021 TO13/8/2021	75 DAYS
48.	BE	JATIN KUMAR	MOBIKWIK	09-02-2021 TO 11-02-2021	61 DAYS
49.	BE	GAURAV KUMAR MALIK	SPECTRANOMY SK PVT LTD	07-07-2021 TO09-07-	62 DAYS



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50.	BE			2021	
		ARVIND KUMAR	CHEGG INDIA	29/7/2021 TO 30/9/2021	60 DAYS
51.	BE	ABHISHEK KULHARI	BLUE BRICKS GROUP OF COMPANIES	15/9/2021 TO 15/11/2021	85 DAYS
52.	BE	DUSHYANT SINGH SHEKHAWAT	DARE2COMPETE	09-06-2021 TO 12-06-2021	91 DAYS
53.	BE	PRASHANT KUMAR SHARMA	CODING NINJA	04-01-2021 TO 10-01-2021	183 DAYS
54.	BE	GRANDHIABHISAR	ALGOUNIVERSITY	01-08-2021 TO 30-10-2021	85 DAYS
55.	BE	SACHIN DOGRA	PYNETLABS	05-01-2021 TO 31/7/2021	210 DAYS
56.	BE	NABHISHEK SINGH	PERSISTANT	21/6/2021 TO 9/11/2021	120 DAYS
57.	BE	ARMAN	SPECTRANOMY SK PVT LTD	07-01-2021 TO 30/9/2021	75 DAYS
58.	BE	BHUPENDER	ATLIQ TECHNOLOGIES	08-01-2021 TO 30/9/2021	55 DAYS
59.	BE	ANUJ KUMARBUGALIA	BOLT IOT	08-11-2021 TO 10-12-2021	62 DAYS
60.	BE	GAURAV KUMAR DHEK	SOLYTICS PRIVATE LIMITED	15/8/2021 TO 15/2/2022	180 DAYS
61.		ABHILASH KUMAR TRIVEDI	SHARCHAT	27/11/2021 TO 31/03/2022	120 DAYS
62.	BE	ABHINANDAN SINGH	BILLPAY	1/10/2022 TO 3/25/2022	74 DAYS
63.	BE	ABHISHEK KULHARI	BLUE BRICKS	2/1/2022 TO 4/30/2022	88 DAYS
64.	BE	AKASHBHATI	SOLYTICS PARTNERS	1/9/2021 TO 30/4/2022	240 DAYS
65.	BE	ALOKJHAJHRIA	BLUEBRICKS	6/1/2022 TO 6/4/2022	240 DAYS
66.	BE	AMAN SINGH	MICROSOFT	17/1/2022 TO 17/6/2022	8 DAYS
67.	BE	ANAND KUMAR PANDEY	MOBIKWIK	9/2/2021 TO 3/2/2022	181 DAYS
68.	BE	ANKIT KUMAR	PAYU	2/14/2022 TO 6/30/2022	136 DAYS



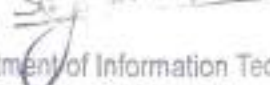
*S. Jadhav*

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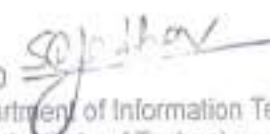
69.	BE	ARMAN	SPECTRANOMY	1/10/2022 TO3/25/2022	74 DAYS
70.	BE	ARUN	QUANTIPHI	2/2/2022 TO 2/5/2022	3 DAYS
71.	BE	ARVIND KUMAR	CHEGG INDIA	2/5/2022 TO5/5/2022	89 DAYS
72.	BE	ASHISH MISHRA	AMAZON	14/2/2022 TO24/6/2022	135 DAYS
73.	BE	ATUL KUMAR TIWARI	INSTAHYRE	1/1/2022 TO 3/31/2022	89 DAYS
74.	BE	BHUPENDER	ATLIQ TECHNOLOGIES	2/1/2022 TO1/4/2022	-28 DAYS
75.	BE	DUSHYANT SINGH SHEKHAWAT	DARE2COMPETE	12/1/2021 TO 30/3/2022	120 DAYS
	BE		WEAVING THOUGHTS	2/21/2022 TO4/21/2022	59 DAYS
76.	BE	GAURAV KUMAR MALIK	PHYSICS WALLAH	12/1/2021 TO 3/1/2022	90 DAYS
77.	BE	GAURAV KUMAR SINGH	SOLYTICS PARTNERS PRIVATE LIMITED	1/1/2022 TO 30/4/2022	120 DAYS
78.	BE	HARSH CHAUHAN	COMMVAULT	14/2/2022 TO30/6/2022	135 DAYS
79.	BE	JATIN KUMAR	SPECTRANOMY SKPVT. LTD.	1/7/2022 TO 4/8/2022	91 DAYS
80.	BE	KARAN YADAV	PERSISTENT SYSTEMS	17/2/2022 TO17/7/2022	180 DAYS
81.	BE	MAYANK KUMAR	THALES	4/10/2021 TO4/3/2022	358 DAYS
82.	BE	NARENDRA KUMARYADAV	TURTLEMINT	10/1/2022 TO 9/7/2022	-24 DAYS
83.	BE	NIKHIL KUMAR	BLUEBRICKS	8/1/2022 TO 3/5/2022	-149 DAYS
84.	BE	PAYAL	MYAIMATE	19/1/2022 TO 22/4/2022	120 DAYS
85.	BE	PRASHANT KUMAR SHARMA	BITART PRIVATE LIMITED	1/1/2022 TO31/1/2022	31 DAYS
86.	BE	R SANKALP SHUKLA	QUANTIPHI	1/2/2022 TO 20/4/2022	85 DAYS
87.	BE	RIYA	BLUEBRICKS	1/6/2022 TO 4/6/2022	90 DAYS
88.	BE	ROHITSANGWAN	SPECTRANOMY	1/10/2022 TO 3/11/2022	60 DAYS
89.	BE	ROSHAN RAI	BHARTPE	3/17/2022 TO6/17/2022	92 DAYS
90.	BE	SACHIN DOGRA	BLUE BRICKS	1/6/2022 TO4/10/2022	94 DAYS



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91.	BE	SANJUBALORIA	BLUEBRICKS	1/6/2022 TO 4/6/2022	90 DAYS
92.	BE	SAURABH RAI	QUANTIPHI	2/3/2022 TO3/5/2022	30 DAYS
93.	BE	SODIP DAS	GD ENTERPRISE	10/1/2022 TO 2/5/2022	238 DAYS
94.	BE	SPARSH GUPTA	CLOUDBIRD VENTURES	1/10/2022 TO3/10/2022	59 DAYS
95.	BE	SUMIT KUMAR	SOLYTICS PARTNERS	1/1/2022 TO30/4/2022	120 DAYS
96.	BE	SUPRIYANEGI	COMMVault	14/2/2022 TO 30/6/2022	135 DAYS
97.	BE	VISHVAJEET SINGH CHANDRAWAT	TATA IMG	1/12/2021 TO28/2/2022	85 DAYS
98.	BE	SAURABHHITENDRAM ARATHE	UNIQUE WEB SERVICE	3/1/2022 TO 3/3/2022	2 DAYS
99.	BE	ROBIN ACHARYA	UNIQUE WEB SERVICE	3/1/2022 TO3/3/2022	2 DAYS
100.	BE	ALAM KATHAT	BLUEBRICKS	4/1/2022 TO 4/5/2022	4 DAYS
101.	BE	KARAMVIR SINGH	SPECTRANOMY SK PVT. LTD.	7/1/2022 TO7/3/2022	2 DAYS
102.	BE	GRANDHI ABHISAR	DEEP INFO LAB	1/1/2022 TO 3/10/2022	68 DAYS
103.	BE	DEEPSHIKHA TRIPATHI	SOLYTICS PARTNERS	1/1/2022 TO 5/30/2022	149 DAYS
104.	BE	SAURAV CHAUHAN	BLUEBRICKS	6/1/2022 TO6/5/2022	4 DAYS
105.	BE	PRANTIK MAHAPATRA	BLUEBRICKS	25/1/2022 TO 25/5/2022	120 DAYS
106.	BE	PUSHPA	BLUE BRICKS	1/25/2022 TO5/6/2022	101 DAYS
107.	BE	SHUBHAM KUMAR	PERSISTENT	2/7/2022 TO7/1/2022	144 DAYS
108.	BE	P L V SAI PAWAN KUMAR	BLUEBRICKS	1/25/2022 TO4/30/2022	95 DAYS
109.	BE	ASHISH SINGH	DARE2COMPETE	12/1/2022 TO 12/5/2022	4 DAYS
110.	BE	ANUJ KUMAR BUGALIA	UNIQUE WEB SERVICE	3/1/2022 TO 3/3/2022	2 DAYS
111.	BE	SHIVAM KUMAR RAI	INSTAHYRE	11/1/2022 TO 3/31/2022	215 DAYS
112.	BE	AMAN GUPTA	INSTAHYRE	11/1/2022 TO 3/31/2022	215 DAYS
113.	BE	YASHBIR SINGH	PAYFERENCE	5/3/2022 TO 30/5/2022	3 DAYS



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114	TE	AARTIKUMARI	GEEKSPORGEEEKS	21/6/2021 TO 21/8/2021	65 DAYS
115	TE	AAYUSH KUMAR	ZAAPONE	4/12/2021 TO WORKING	0 DAYS
116	TE	ABHISHEK SATYAWAN SHEDGE	MINIORANGE	6/9/2021 TO 6/9/2021	1 DAYS
117	TE	AJAYSINGH	COMMUDLE	19/8/21 TO 19/10/2021	75 DAYS
118	TE	CHANDRESH SINGH	ATOMEI	26/8/2021 TO ONGOING	0 DAYS
119	TE	GAURAV YADAV	SHARP EDGE TECHNOLOGIESPVT.LTD.	1/7/2021 TO 25/8/2021	35 DAYS
120	TE	MOHD KASIB	CHEGG	21 JUN TO ONGOING	0 DAYS
121	TE	PRANAV SURENDRAN	BITCOINWORLD	20/06/21 TO 1/10/2021	105 DAYS
122	TE	RAHUL KUMAR YADAV	MICROSOFT ENGAGEMENT ORSHIP PROGRAM	14/6/2021 TO 12/7/2021	25 DAYS
123	TE	ROHIT KUMAR	CHEGGINDIA	26/08/2020T O 13/14/8/202 1	20 DAYS
124	TE	SANDESH KUMAR	PYNETLABS	22 AUG TO IN PROGRESS	0 DAYS
125	TE	SAURAV SINGH	ACROSSTHEGLOBE	7/9/2021 TO 7/3/2022	359 DAYS
126	TE	SHASHANK SINGH	EXAM CENTRE ACADEMY	21/7/2021 TO 21/8/2021	25 DAYS
127	TE	SHEKHAR KUMAR SINGH	GIT HUB EXTERNSHIP; INCUBATE IND	1/7/2021/ TO 1/10/2021	3 DAYS
128	TE	SUMIT DAHIYA	SHARP EDGE TECHNOLOGIESPVTLTD	10/7/2021 TO 25/8/2021	25 DAYS
129	TE	VIKAS CHOUDHARY	SOLYTICS PARTNERS	5/6/2021 TO NO LIMIT	0 DAYS
130	TE	VIKAS KUMAR RANA	SHARP EDGE TECHNOLOGIES PVT. LTD	10/7/2021 TO 30/8/2021	25 DAYS
131	TE	AARTI KUMARI	GEEKS FOR GEEKS	2/15/2022 TO 8/15/2022	181 DAYS
132	TE	AAYUSH KUMAR	PUNE, HYDERABAD	3/16/2022 TO 4/14/2022	29 DAYS
133	TE	AAYUSH KUMAR	HYDERABAD	1/1/2022 TO 2/28/2022	58 DAYS
134	TE	ABHISHEK SHEDGE	SOLYTICS PARTNERS	3/8/2022 TO 8/31/2022	176 DAYS

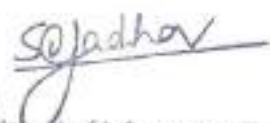


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135	TE	ABHISHEK SHEDGE	SOLYTICS PARTNERS PUNE	2/1/2022 TO 5/1/2022	89 DAYS
136	TE	AJAY SINGH	COMMUDLE	8/19/2021 TO 2/19/2022	184 DAYS
137	TE	AJAY KUMAR MOURYA	SOLYTICS	3/15/2022 TO 9/23/2022	192 DAYS
138	TE	CHANDRESH SINGH	ATOM EI (ADDRESS - REMOTE)	8/26/2021 TO 1/31/2022	207 DAYS
139	TE	DEEPAK BARNWAL	BAAZ ( ATIIAD TECHNOLOGIES PVT LTD) BENGALURU KARNATAKA	2/21/2022 TO 4/23/2022	61 DAYS
140	TE	GAURAV YADAV	SHARP EDGE TECHNOLOGIES	12/9/2021 TO 3/8/2022	89 DAYS
141	TE	HARISH KUMAR BAJIYA	COGITO - US	2/1/2022 TO 4/30/2022	88 DAYS
142	TE	JATIN KUMAR	STEP SECURITY	1/3/2022 TO 3/3/2022	59 DAYS
143	TE	KAMALUDDIN RAJU MULANI	EMBED SQUARE SOLUTIONS PVT. LTD., ADDRESS: 104-A, ASHOK SANKUL, ASHOK NAGAR, RANGE HILLS, SHIVAJINAGAR, PUNE 411007, MAHARASHTRA, INDIA.	2/25/2022 TO 4/25/2022	59 DAYS
144	TE	LAXMAN SINGH	SHARP EDGE TECHNOLOGY PVT.LTD. NEW DELHI	2/9/2022 TO 4/8/2022	58 DAYS
145	TE	MANISH ASWAL	GEEKSFORGEES	2/1/2022 TO 3/31/2022	58 DAYS
146	TE	MUKUL YADAV	FOUNDRMEET 32, VASUNDHARA RESIDENCY PHASE III, MUZAFFARNAGAR - 251001 UTTAR PRADESH, INDIA	1/1/2022 TO 2/15/2022	45 DAYS
147	TE	NALINMAHALA	TAAREZAMEEN FOUNDATION NON-PROFIT ORGANIZATION IN NEW DELHI	2/12/2022 TO 3/12/2022	28 DAYS
148	TE	NIGAM PRATAP SINGH RATHORE.	INTERNSHALA , NEW DELHI.	1/1/2022 TO 2/2/2022	32 DAYS
149	TE	OMKAR MORE	NEODOCTO	3/7/2022 TO 5/7/2022	61 DAYS
150	TE	PRANAV SURENDRAN	NAME: TURING, ADDRESS: TURING ENTERPRISES INC. 1900 EMBARCADERO RD #102 PALO ALTO CA 94303	1/17/2022 TO 4/17/2022	90 DAYS
151	TE	PREETI	AMERICAN EXPRESS	2/27/2022 TO 4/22/2022	54 DAYS
152	TE	RAJVEER SHINGOHI	ACCOPS SYSTEMS PVT. LTD	2/2/2022 TO 4/2/2022	59 DAYS
153	TE	RAHUL YADAV	MYAIMATE	3/5/2022 TO 5/5/2022	61 DAYS



  
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154	TE	ROHIT KUMAR	BAAZBANGALORE	1/18/2022 TO 5/5/2022	107 DAYS
155	TE	RUSHIKESH MOGALE	TARE ZAMEEN FOUNDATION	2/12/2022 TO 3/22/2022	38 DAYS
156	TE	SANDESH KUMAR	BAAZ ,BENGALURU	2/21/2022 TO 4/23/2022	61 DAYS
157	TE	SAVEEN KUMAR	CHEGG& USA	3/15/2022 TO 6/15/2022	92 DAYS
158	TE	SHAM CHOUDHARY	SMART INDIA HACKATHON	2/2/2022 TO 5/31/2022	118 DAYS
159	TE	SHASHANK SINGH	DATAPEACE AI PVT. LTD.	1/13/2022 TO 4/30/2022	107 DAYS
160	TE	SHEKHAR KUMAR SINGH	COMPANY - PUPILFIRST , ADDRESS - UNIT 3, GROUND FLOOR, VAISHNAVIBADRI, NO 48, 5TH MAIN RD, JAYAMAHAL EXTENSION, BENGALURU, 560046	1/11/2022 TO 4/30/2022	109 DAYS
161	TE	SHORABH SINGH	TAAREZAMEEN FOUNDATION	2/11/2022 TO 3/11/2022	28 DAYS
162	TE	VAIBHAV	STYLOBUG (NEW DELHI)	9/1/2021 TO 1/31/2022	152 DAYS
163	TE	VIKAS KUMAR RANA	DELLIOTE CYBERSHETRA HACKATHON	1/8/2022 TO 4/1/2022	83 DAYS
164	TE	YASANT KUMAR SHARMA	GEEKSFORGEEEKS	2/1/2022 TO 3/31/2022	58 DAYS
165	TE	YOGESH KUMAR	SOLYTICS PARTNERS	4/5/2022 TO 9/30/2022	178 DAYS
166	SE	ABHINAB PRATAP SINGH CHAUHAN	DOCONATION	05/08/21 TO 23/09/21	45 DAYS
167	SE	TARUN MISHRA	SUITE-IDEA INC LLC	04/10/21 TO 04/12/21	2 DAYS
168	SE	TARUN MISHRA	EDU91 LEARNING	01/09/21 TO 07/10/21	182 DAYS
169	SE	PIYUSH YADAV	ESPANGLE	01/08/21 TO 31/12/21	120 DAYS
170	SE	HARSHIT PANDEY	GRAM PANCHYATRANSHAHPUR	01/07/2021 TO 31/06/22	320 DAYS
171	SE	ARCHANA KUMARI	EDU91 LEARNING	16/07/2021 TO 16/08/2021	30 DAYS
172	SE	TARUN MISHRA	IAMBOB PVT LTD.	2/4/2022 TO 30/05/2022	55 DAYS
173	SE	PIYUSH YADAV		26/7/2021 TO 30/4/2022	280 DAYS
174	SE	SUMRENDER SINGH	CODINOVA TECHNOLOGIES PRIVATE LIMITED	1/3/2022 TO 25/3/2022	25 DAYS
175	SE	ABHINAB PRATAP SINGH CHAUHAN	CINCH DATA SOLUTION PVT. LTD.	1/2/2022 TO 30/4/2022	90 DAYS



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176	SE	BHAUMIK MAAN	INVERSION CONSULTANCY LLP	5/2/2022 TO 6/4/2022	33 DAYS
177	SE	ARCHANA KUMARI	FINTech BLUE SOLUTIONS PRIVATE LTD	13/1/2022 TO 15/4/2022	90 DAYS
178	SE	PRINCE KUMAR PATEL	FIVERR INTERNATIONAL LTD.	10/04/2022 TO 08/5/2022	60 DAYS
179	SE	PRAKASH YOGI	STARTUP CRAFTERS	26/2/2022 TO 26/4/2022	60 DAYS
180	SE	ADARSH DIWAKAR	ACCOPS SYSTEMS PVT.LTD	2/2/2022 TO 4/4/2022	61 DAYS
181	SE	ADITYA PARIHAR	VINTAGE BROWN	24/1/2022 TO 24/3/2022	60 DAYS
182	SE	YATIN VERMA	INTERNSHALA	3/2/2022 TO 5/3/22	62 DAYS



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**Army Institute of Technology**  
**Department of Information Technology**  
**Audit course**  
**SE IT (2021-22) SEM-I**

Sr.No	Roll.No	Student Name	Group No.	Title of Mini Project
1	4202	Abhishek Jakhar	A1	cybersecurity in social media
2	4204	Abhishek Kumar Rai		
3	4217	Atulay Latian		
4	4219	Deepak Yadav		
5	4206	Aditya Kumar Verma	A2	Twitter's Experts Recommendation System Based on User Content
6	4207	Aditya Vikram Parihar		
7	4205	Adarsh Diwakar		
8	4208	Ajay Singh		
9	4211	Amit Kumar Sharma	A3	Stock market prediction using AI and ML
10	4210	Akash Singh		
11	4218	Bhaumik Maan		
12	4220	Dipankar Singh		
13	4214	Ananya Katoch	A4	steganography
14	4209	Akash Rawat		
15	4215	Archana Kumari		
16	4201	Abhinab Pratap Singh		
17	4203	Abhishek Kumar	A5	Spam Call and message alerter
18	4212	Ankit Agnihotri		
19	4213	Ankit Kumar		
20	4216	Arun Kumar		
21	4221	Gaurav Kumar	B1	BlockChain and it's impact
22	4222	Sanjana		
23	4226	Harshit		
24	4233	Kunal		
25	4236	Muskan	B2	Movie Recommendation System
26	4229	J Girish		
27	4232	Khushbu		
28	4234	Mohit Singh		
29	4235	Monika	B3	Packet Sniffing
30	4237	Nooka Praveen		
31	4239	Pawan Kumar		
32	4238	Pankaj kumar		
33	4225	Hardeep singh	B4	Plagirism Detector
34	4231	Kanchan Dev Malik		
35	4224	Gulvinder singh Chauhan		
36	4223	Girvar Singh		
37	4240	Piyush Yadav	C1	Web Exploitation
38	4230	K C Varshit Goud		
39	4227	Himanshu		
40	4228	Himanshu Yadav		
41	4243	Prema Yadav	C1	Web Exploitation
42	4244	Prince Harshwardhan		
43	4245	Prince Kumar Patel		





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**SE IT (2021-22) SEM-I**

Sr.No	Roll.No	Student Name	Group No.	Title of Mini Project
44	4258	Tarun Mishra	C2	Face Mask detection
45	4252	Sayanya Mondal		
46	4253	Shivangi Kotnala		
47	4248	Rohit Kumar Sharma		
48	4257	Swaraj Nayak		
49	4261	Vinay		
50	4260	Veram Reddy Bhavana		
51	4242	Prakash Yogi	C4	SQL Injection
52	4251	Satyam Singh		
53	4254	Shubham Kumar		
54	4249	Sachin Poonia		
55	4259	Ujjwal Singh		
56	4262	Yatin Verma		
57	4241	Popinder Singh	C3	Threat due to AI
58	4246	Rahul Lamba		
59	4247	Rishabh Rawat		
60	4250	Sambhav Kumar		
61	4256	Sushmita Singh		
62	4255	Sumrender Singh		



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**Dr. Sangeeta Jadhav**  
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# SQL Injection

Batch C4 Audit Course Mini Project

Year: 2025-27

Created under guidance of  
Dr. Sangeeta Jadhav

Created by:

- Prakash Yogi (4244)
- Satyam Singh (4251)
- Shubham Kumar (4254)
- Sachin Poojari (4243)
- Yatin Verma (4252)

## What is a SQL Injection Attack?

- Many web applications take user input from a form
- Often this user input is used literally in the construction of a SQL query submitted to a database. For example:  
`SELECT productdata FROM table WHERE productname = 'user input product name'`
- A SQL injection attack involves placing SQL statements in the user input
- Attackers might easily manipulate these loosely handled inputs.

### Vulnerabilities by Type

SQL injection is second most exploited vulnerability in world

### SQL Injection attacks by industry

Industry	Percentage
Health	14.2%
Government and Govt	12.0%
Finance	10.8%
Education	9.5%
Retail	8.3%
Energy	7.1%
Telecom	6.9%
Manufacturing	5.7%
Transportation	4.5%
Media	3.3%
Other	2.1%



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URL	Page	Snippet
1	Search	Search results for 'Search' on the 'Search' page.
2	Search	Search results for 'Search' on the 'Search' page.
3	Search	Search results for 'Search' on the 'Search' page.
4	Search	Search results for 'Search' on the 'Search' page.
5	Search	Search results for 'Search' on the 'Search' page.
6	Search	Search results for 'Search' on the 'Search' page.
7	Search	Search results for 'Search' on the 'Search' page.
8	Search	Search results for 'Search' on the 'Search' page.
9	Search	Search results for 'Search' on the 'Search' page.
10	Search	Search results for 'Search' on the 'Search' page.



## Prevention of SQL Injection

**Prevention of SQL Injection**

Prevention of SQL Injection is a critical security measure for web applications. It involves identifying and mitigating vulnerabilities that allow attackers to inject malicious SQL code into the application's database. This can lead to data theft, data corruption, and even system compromise.

Key prevention techniques include:

- Input validation and sanitization
- Parameterized queries (Prepared Statements)
- Stored procedures
- Least privilege database access
- Regular security audits and updates




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Handwritten text: "PUNE UNIVERSITY of Information Technology, Pune - 411015." The text is written in blue ink and includes the university's name and address.



**Escaping Inputs**

If you are unable to use parameterized statements or a library that writes SQL for you, the next best approach is to ensure proper escaping of special string characters in input parameters.

Injection attacks often rely on the attacker being able to craft an input that will prematurely close the argument string in which they appear in the SQL statement. (This is why you will often see ' or " characters in attempted SQL injection attacks.)

Programming languages have standard ways to describe strings containing quotes within them - SQL is no different in this respect. Typically, doubling up the quote character - replacing ' with '' - means "treat this quote as part of the string, not the end of the string".



**Sanitizing Inputs**

Sanitizing inputs is a good practice for all applications. In our example hack, the user supplied a password as '1' - which was only acceptable as a password choice.

Developers should always make an effort to reject inputs that look suspicious, but if there's any logging, users will be able to eventually guess legitimate users. For instance, your application may reject passwords specified as SQL and OS commands in the following ways:

- Check that supplied fields for email addresses, match to regular expressions.
- Ensure that numeric or alphanumeric fields do not contain special characters.
- Reject (or gray out) whitespace and non-ASCII characters where they are not appropriate.

Client-side validation (i.e. in JavaScript) is useful for giving the user immediate feedback without filling out a form, but is no defense against a malicious hacker. Most such attempts are performed using scripts, rather than the browser itself.

**End Notes**

Applications should ensure that each process or subpage component can access and affect only the resources it needs. Apply "levels of clearance" as appropriate, in the same way that only certain bank employees have access to the vault. Applying restricted privileges can help mitigate a lot of the risk around injection attacks.

Our example hack relied on the fact that the password was stored in plain-text in the database. In fact, storing unencrypted passwords is a major security flaw in itself. Applications should store user passwords as strong, one-way hashes, if preferably salted. This mitigates the risk of malicious users deriving credentials, or impersonating other users.

As a final note, it is often worth considering auditing the authentication workflow of your application entirely. Facebook, Twitter, and Google all provide mature OAuth APIs, which can be used to let users log into your website using their existing accounts on those systems. This saves you as an application developer from adding your own authentication, and assures your users that their passwords are only stored in a single location.

**References**

- Research Gate
- Real Python
- StackOverflow
- Hackplaining



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Activity: social service





Activity :- Competition





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This is to certify that

*Rohit*

is the winner of Restore It in the Junior category during  
Radiance'21, conducted by PICT ACM Student Chapter - Women in  
Computing (PASC-W) from September 3<sup>rd</sup>, 2021 to September 5<sup>th</sup>, 2021.  
Your hard work, dedication, and achievement will be cherished.

Teacher  
Counsellor



Radiance '21  
Head



1Password




GEN

YA



Activity :- Hackathon



# DigitalHackathon

## Certificate of Participation

Congratulations and thank you for participating in our CCB Digital Hackathon

This certificate is presented to

**Gaurav Yadav**

for his contribution in  
identifying our risk and innovative ideas  
to help inspire and empower our Digital future.



Head of Hackathon  
Strategic Initiatives Office  
Commander & Community Manager



Joint Chief  
Strategic Initiatives Office  
Commander & Community Manager, Digital Learning



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**2021-22**

Sr No	Date	Topic	Speaker	Audience
1	21-06-2021 to 21-06-2021	Webinar on "Entrepreneurship A Way to Life"	Dr. Bhavana Ambudkar, Innovation Ambassador, Ministry of Education, Dr. D Y Patil College of Engineering, Pimpri, Pune	SE (IT),TE (IT), BE (IT) & Internal Faculty
2	28-06-2021 to 28-06-2021	Webinar on "Design Thinking"	Prof. Manoj S Khaladhkar	SE (IT),TE (IT), BE (IT) & Internal Faculty
3	12-07-2021 to 12-07-2021	Seminar on Introduction to IPR	Mr. Raghavendra Ponkshe	SE (IT),TE (IT), BE (IT) & Internal Faculty
4	07-10-2021 to 09-10-2021	Workshop-Web App Development using DjangoFramework & Python	Mr. Abhijeet Deogirikar (Founder &CEO,Copper CloudIOTech)	SE (IT)
5	12-01-2022 to 13-01-2022	National Conference on Communication, Computational Intelligence and Learning" (NCCCIL- 2021)	Dr Parag Kulkarni Dr. Shailaja Patil Dr. Dhanraj Dhotre Dr. Sujata Kulkarni Dr. Prashant Dhotre Dr U V Kulkarni	External ,Internal Faculty and students
6	04-05-2022	Training on Workstation and Embedded Deployment Kits- Ubiquitous and Computer vision Lab	Mr. Bhavin Edutech Learning Solution Pvt Ltd.	External ,Internal Faculty and students
7	05-05-2022 to 05-05-2022	Expert session on "PIC Interfacing"	Prof. Dipti Pandit	SE (IT)
8	05-05-2022 to 06-05-2022	Workshop on IoT	Mr. Bhavin Edutech Learning Solution Pvt Ltd.	Internal Faculty and students
9	10-05-2022 to 10-05-2022	Expert Session on PIC Interfacing	Prof. Shilpa Pawar, AIT, Pune	SE (IT)
10	11-05-2022 to 11-05-2022	Expert Session on Arm and RISC Processor Details	Dr. Sushma Patil, AIT, Pune	SE (IT)



  
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